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JOURNAL

NORTH AMERICAN SHORTWAVE ASSOCIATION

VOLUME XXXVIII NUMBER 7

JULY 1998

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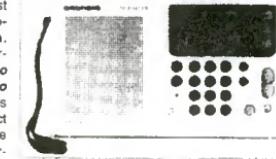
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The legend of the famous Yacht Boy 400 lives on in this latest model the YB-400 Professional Edition. Larry Magne, Editor-in-Chief of *Passport to Worldwide Radio* says the YB-400PE is "...the best compact shortwave portable we have tested." Coverage is complete including long wave (144-533 kHz), AM band to 1710 kHz and shortwave from 1711 to 30000 kHz. FM stereo is provided to the headphone jack. A thumb wheel knob on the side of the radio provides smooth single sideband (SSB) tuning. The illuminated digital display provides tuning resolution at 1 or 5 kHz on shortwave. Two bandwidths are featured. The narrow position affords maximum selectivity, or the wide position may be chosen for best audio fidelity. The keypad will quickly get you to any frequency or store up to 40 of your favorite stations in the presets. The presets may be accessed directly or you can scan through them by using the radio's second set of UP/DOWN buttons. The YB-400PE can also frequency search. The dual digital clock is visible while the radio is playing. Other refinements include: snooze and sleep buttons, lock, HI/Low tone switch, LOCAL/DX switch, and 9/10 kHz MW scan selection. External jacks are provided to earphone (3.5 mm), antenna (3.5 mm) and 9 VDC input. The YB-400PE comes with: Grundig brand AC adapter, stereo ear plugs, wind-up antenna, Owners Manual, *Grundig Shortwave Guide* and vinyl carry case. Requires six AA cells (not supplied). The cabinet has a stunning ti-tanum colored finish. 8" x 5" x 11.5". 1 lb. 5 oz. One year limited warranty. This new model is in stock now.



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NASWA Notes

Richard A. D'Angelo

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Wyomissing, PA 19610

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Internet: r.dangelo3@genie.com

We begin this month with some news from **Fred Kohlbrenner**: "NASWA log contributions can now be sent directly to the two column editors via e-mail. This will save quite a bit of time each month putting the columns together. Tropical Band Loggings to **Sheryl Paszkiewicz** at <spaszkie@msn.com> and International Band Loggings to **Wallace C. Treibel** at <nwhikers@gte.net>. Sheryl and Wallace will send your names to me each month for the Contributor's Page. You can still send your QSL items and Scoreboard totals to me and I'll forward them to their respective editors." As Fred mentioned, members that are not hooked up to the Internet are encouraged to continue utilizing his services as distribution editor.

In Australia, **DX'ers Calling** members have heard from club management that the June issue of their excellent monthly bulletin will be the last. This was decided at a management committee meeting on May 2nd. Discussions with the South Pacific Union of DX'ers about a merger fell apart recently. The sharply falling membership numbers within the Australian DX fraternity lead to the demise of this fine club. It closes its doors after sixteen years of successful operation. In a musing, **Harry Weatherley** mentions "One thing is certain—DX'ers Calling will continue in a different form!" He promises more information in the last edition of the club's bulletin in June. We will keep you posted on these events.

Summer is here and that usually means the **Danish Shortwave Club International** ("DSWCI") has the latest editions of their

ANARC SWL Ham Net

Tune in Sunday mornings at 10 A. M. Eastern Time on 7240 LSB for the latest in shortwave, medium wave and longwave listening, DX tips, and up to the minute hobby news. Contributors share their DX tips via their own amateur radio stations or by telephoning a "gateway" station who then broadcasts the relayed tips. Contributions are also accepted via the Internet Relay Chat (IRC) channel #swl while the net is in progress. Net Controls Dave Kirby N1DK, Hause WB4JSP, and Bob Curtis W1EXZ host an always lively gang of DX monitors. (Best heard in the eastern half of NAm) Net info is also available at <http://www.trsc.com/swl_net.htm>. If you miss the net, you can hear it in RealAudio on the Internet, on Dave Kirby's home page, <<http://www.ncweb.com/users/dkirby/>>. Dave also posts text versions of loggings.

excellent publications—Tropical Bands Survey ("TBS") and Clandestine Stations List ("CSL")—available. This year is no exception as the 26th edition of the TBS, which is edited by **Anker Petersen**, and the 14th edition of the CSL, which is edited by **Finn Krone**, are available from DSWCI c/o Bent Nielsen, Egekrogen 14, DK 3500 Vaerloese, Denmark for US\$8.00 or 10 International Reply Coupons. Both publications are highly recommended for listeners with interest in these areas. We hope to have a review of these publications in the Journal shortly after the review copies arrive from Denmark.

Don't forget our friend **Bill Plum** (12 Glenn Road, Flemington, NJ 08822-3322) for all

Our Motto is - "Unity and Friendship"

Calendar Of Events

- Jul 17 Meeting.** The Miami Valley DX Club (all band orientation) meets at 1:00 PM. For more information plus this months meeting location contact Dave Hammer at 614-471-9973 or write to MVDXC, Box 292132, Columbus, OH 43229-8132.
- Jul 17 Meeting.** Philadelphia Area NASWA Chapter. Kulpsville Holiday Inn, Kulpsville, PA at 7:30 PM. For more information contact Dan Cashin at 215-446-7831.
- Jul 17 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/>>.
- Jul'98 Convention.** The 4th National Meeting of Mexican DXers will be held in Tehuacan, Mexico on 31 July-2 August. All shortwave listeners and broadcasters throughout Mexico and around the world are invited. A basic knowledge of Spanish will be helpful, as most convention activities will be conducted in Spanish. For more information contact Jeff White, coordinator of international attendees, c/o Radio Miami International, P.O. Box 526852, Miami, Florida 33152 USA, Telephone: +1-305-267-1728, Fax: +1-305-267-9253, E-mail: wrmi@compuserve.com.
- Jul'98 Convention.** The 1998 World Television FM DX Association Convention will be held at Rock City in Southwestern New York State on July 31, August 1 & 2. Dave Nieman and Greg Coniglio will be host the gathering. Further details can be obtained via e-mail at dxfmntv@buffnet.net or write Dave Nieman at 12284 Nice Road, Akron, NY 14001-9408. Although the primary area of interest is TV and FM DXing, most of our members are also AM dxers and AM-related conversations are always part of the makeup of our conventions.
- Aug 14 Meeting.** The Tidewater SWL's meet at 6:30 PM. For more information plus meeting location contact Joe Buch at joseph.buch@dol.net
- Aug 14 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 513-777-5296 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>>
- Aug'98 Convention.** The 1998 IRCA Convention will be held in Missoula, Montana the weekend of August 14-15-16. Every BCB DXer, whether an IRCA member or not, is cordially invited to attend. Further information can be obtained from Larry Godwin, 2390 Clydes Dale Lane, Missoula, MT 59804, USA or e-mail at lbw@selway.unmt.edu.
- Aug'98 Convention.** The 36th annual European DX Council conference will be held in Gothenburg, Sweden on 28-31 August 1998. It will be organized by the Swedish DX Federation. The conference agenda includes: a visit to longwave station Radio Station Grimeton; the usual talks and group sessions; a reception hosted by Teracom, and of course the traditional EDXC banquet. The conference fee is 850 SEK (950 SEK after 15th of June) and it covers your registration, lunches, excursions, receptions and banquet. You have to arrange your accommodation by yourself. The following URL contains more information about the meeting, hotels, traveling etc: <http://hem1.passagen.se/sm6kri/edxc/edxc_98.html>. You can also write to EDXC'98, The Radio Museum, A Carlssons gata 2, SE-41755 Gothenburg, Sweden.

(continued on next page)

your DX stamp needs. Bill has an extensive offering of goodies that DX'ers find useful such as personalized note sheets, eyeball cards, QSL cards, QSL card albums, etc. Send him a couple of stamps and he will send

you information about his latest offerings of airmail postage and DX supplies.

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



FRENDX: Twenty Five Years Ago....

Larry Yamron submits his first QSL Report column after only a year and a half as a DX'er! In Listeners Notebook, editor Dan Jamison is running a survey "to determine which five SWBC stations in the world NASWA members most desire to receive." In the Clandestine Bulletin column, Larry Magne writes about Abie S. Nathan's Voice of Peace station which operated from International Waters. In a Headquarters Note, Dan Ferguson tells the membership that the dues increase discussed in Charlie Loudenboomer's column was for CL's "own little club." Despite the recent expansion in the size of Frendx, NASWA does not need a dues increase. Frendx Fotos featured Frank Orcutt, Stewart MacKenzie and Chuck Rippel.

Calendar of Events (continued)

Aug 28 Forum. BADX, The Boston chapter of NASWA, will host an **SWL session at the ARRL New England Division Convention** in Boxboro, MA on August 29, 1998. We are proud to announce that BADXer Gary Thorburn, KDITE, will chair a panel of experts who will focus on "Expanding your HF Horizons: The World Between the Ham Bands".

Sep'98 Convention. The annual **National Radio Club Convention** will be held 4-7 September 1998 at the Best Western-Oak Hills; 7401 Wurzbach Road, San Antonio, TX 78229. 1-800-468-3507 (\$52 Singles; \$47 each for Double Rooms (two beds) and breakfast is included). Registration is \$40 and includes Saturday banquet and all the soda/beer and snacks during the weekend. Registration should include your name and the name of any guest. Send that along with \$40 each to: Mr. Dale Hamm, 11313 January Drive, Austin, TX 78753-2915.

Oct'98 Convention. **Radio Fest 98** will be hosted by the Ontario DX Association (ODXA, P. O. Box 161, Station A, Willowdale, Ontario M2N 5S8, Canada or e-mail at 70400.2660@compuserve.com) at the Mohawk College in Hamilton, Ontario on 2-4 October 1998. The registration fee is \$15.00 for the entire convention and \$5.00 for one-day.

Mar'99 Contest. **1999 North American DX Championships.** Further information will be published in the Journal or you can send a self-addressed stamped envelope to 1999 NADXC, c/o Dr. Harold Cones, 2 Whits Court, Newport News, VA 23606.

Mar'99 Convention. The **12th Annual Winter SWL Festival** will be held at the Kulpsville Holiday Inn (Exit 31 on the Northeast Extension of the Pennsylvania Turnpike) on 12-14 March 1999. Organized by the infamous "gang of three" (Messrs. Brown, Cones, and Field) this all wave gathering attracts about 200 hobbyists each year.

Members are invited to submit items to be included in this calendar to Rich D'Angelo (Internet: r.dangelo3@genie.com) or Ralph Brandi (Internet: ralph@mcs.com).

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 solely those of the submitters. Please submit all Musings to Richard A. D'Angelo, 2216 Burkey Dr., Wyomissing, PA 19610 or via email - r.dangelo3@genie.com

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

As always, one never knows when or how one will bump into shortwave radio. I was reading the fairly recent, academic flavored biography of Chinua Achebe, Nigeria—and Africa's—most famous novelist, recipient of countless honorary college degrees, and grand old man of literature. [Chinua Achebe, A Biography by Ezenwa-Ohaeto, Indiana University Press, 1997, 326 pages] Even people who haven't heard of Achebe may have heard of his first novel, Things Fall Apart, which has been translated into many languages and sold in the millions. His writing reminds me of Aaron Copeland's music; accessible yet with more depth under the surface for those willing to look. Achebe was involved in setting up Nigeria's external shortwave voice back in the 60s. The following are excerpts from pp. 86-87 of the book.

"...Chinua Achebe was made Director of External Broadcasting and mandated to establish the Voice of Nigeria. Achebe recalls, "We were independent and we wanted to set up our own international external broadcasting service, and...I was made Director of External Broadcasting."

"A report in the journal West Africa on the commencement of that service early in 1962 indicates that, "The program is still experimental—one hour a day of news, music, and a talk. Apart from Achebe there are two French speaking broadcasters—a Negro American who learnt his French-speaking at school and a man from Senegal. English and French are the only languages as of yet. There are two transmitters of 10kw each, carrying Achebe's programme throughout tropical Africa, even as far as Southern Morocco and Algeria, but excluding the North African Coast."

"At that stage, it was still a matter of test transmission, as Achebe reported early in 1962: "We are at the stage of testing reception—the engineers send out letters to Nigerians living in every country and ask for reactions." Some of these reports were favourable and they enabled Achebe to cross another frontier—this time in broadcasting—by establishing a firm Voice of Nigeria which would represent the country to the outside world. His aim was to make the service objective for, as he stressed at that time: "Telling the truth is the only way, in the long run, that you get listened to." The report quoted above adds that, "From next August [1962] Achebe plans to have three 100kw transmitters with which he will be able to reach Europe and the United Kingdom."

"In a broadcast in the series Nigeria Today, later published in the Voice of Nigeria magazine, Achebe records that the "new service took the air on New Year's Day 1962" and that "some people have doubted the wisdom of spending large sums of money to put one more voice on the already overcrowded air when Nigeria is so short of money for her six-year development plan." He assures his listeners that "Nigeria occupies a very important position in contemporary Africa, and what she says and does is of enormous significance, and ought to be known and understood."

"...Achebe stresses [that]..."Our news broadcasts will strive to be accurate and our commentaries to be objective. We shall attempt to portray our country as truly as we can so that anybody who wishes to know about her may have a true guide. In all we do we shall try to avoid hysteria and all types of posturing."

One wonders if any broadcaster of any country ever reached those lofty and admirable goals.

Actually, when my wife and I were in West Africa, after the inauguration of Radio Nigeria but before the Biafran War, reception of RN wasn't that good with our toy Telefunken portable radio, and a wire strung around the living room. At that time, our news lifeline was BBC on the late, lamented frequency of 15070 kHz. Now that BBC is in a marketing mode, watering down it's content presumably in an effort to market to news-challenged PBS FM stations in the U.S., I doubt that would be true today. Then our favorite local program was a late afternoon jazz show over station ELBC. Recently I played John Coltrane's jazz tune Equinox for my wife on our 38th wedding anniversary. An oft-played favorite tune of the program's presenter decades ago, we hadn't heard for several years until I dug it out. Although my wife isn't a fan of shortwave radio, she smiled at me and remembered, and we remembered together when we used to get our daily news from London.

Dexter Ball <BallSAFL@aol.com>, 2896 Freedom Blvd., Watsonville, CA 95076

Some people like short wave for the romance, especially the music. Static, interference and fading mixed with music from other countries or times is the sole reason for listening. Lots of publications list music programs and times. But if you listen informally in the evenings as I do, you want music readily available. I've developed a list of stations which tend to play more music. I scan the list and usually get something, no matter the hour. The list is: Argentina (11709.6, 15345.7), Austria (7325, 9870), Bulgaria (9700, 11720), Colombia (4955.8, 5076.8), Costa Rica (6105), Egypt (9475, 9755, 12050), Spain (6055), Greece (7450, 9420, 9935, 11645), Honduras (4931), Kuwait (9855, 11675, 11990), Peru (4835, 4914.4), Romania (6105, 9570, 9625), Russia (9530, 9665, 12010, 12050, 13665, 15180), Turkey (9460, 9445), USA (7490), Venezuela (4830, 4980).

If any of your readers has any additions, I'd appreciate getting them. I'll share updates since the list changes.

Sincerely, Dexter

Welcome to the following new NASWA members

Doug Barnes, Brea, CA

Harold A. Dewhurst, St. Simons Island, GA

Richard Dippold, Columbia Cross Rds., PA

Robert J. Flynn, Darien, CT

Ronald Haverfield, Tulsa, OK

Mel McGowan Sr., Sacramento, CA

Donald Mickelsen, Reston, VA

David O'Hare, Carroll, OH

David V. Rippy, Wichita Falls, TX

Arnaldo Slaen, Buenos Aires, ARGENTINA

Bill Snider, Marion, OH

Bryant I. Stiles, Rabun Gap, GA

Patrick G. Van Loo, Washington, DC

Easy Listening

John Figliozi

45 Algonguin Road
Clifton Park, NY 12065-7703
Internet: jfiglio1@nycap.rr.com

This month we inaugurate a new and hopefully interactive feature in this column in which **YOU**—the member/reader (emphasis on “member”!)—are invited to share brief descriptions or critiques of some programs you’ve found on the shortwave bands that you think might be of interest to others. Ideally, this cooperative effort will identify some heretofore under-publicized features that will serve to enhance the listening experience. For now, let’s limit each individual’s submission to anywhere from one to three such programs in any one month. The deadline will be the 15th. I’ll go first to give you an idea of what we’re looking for. The working title of this feature is...

The Program Exchange

Here are three programs which I can highly recommend.

Late Night Live (**Radio Australia**, Mon.-Thu. 1205 on 6020/6080/9580/9770) is a refreshing departure from the current penchant—especially on the shortwave bands—for talk radio driven by people and ideas that border on the paranoiac. The program is a feature of **Radio National**, the Australian Broadcasting Corporation’s primary national network, that now serves as a significant source of programming for the resource depleted international service. Its low-key nature may in part be due to the fact that it is a late evening program on that network, but it probably has more to do with the level-headed and rational approach taken by its host, the much traveled and experienced Phillip Adams. Topics range widely from national and international affairs, to the arts and literature, even to broad philosophical matters. But regardless of the guest or subject, all matters are consistently handled intelligently, civilly and in quiet, respectful and conversational tones.

A Good Life (**Radio Netherlands**, Tue. 2353; repeated Fri. 0053 on 6020/6165/9845, 0453 on 6165/9590) is a unique program that examines the methods and consequences of global economic development efforts. The program takes a very personal approach and helps the listener see through the bland statistical data to the real, and often contradictory and complex, effects of development policies and programs on individual human beings and societies. It also regularly demonstrates the contrasting effects of the same economic factor (such as new information technologies) on developed and developing nations. Ginger da Silva hosts this most commendable endeavor to chronicle the personal and social quest around the globe for “A Good Life”.

Capital Cafe (**YLE Radio Finland**, Sun. 0205 on 9780/11900; repeated 1235 on 11900/15400) is a very pleasant 25 minutes of quiet, engrossing conversation with a prominent Finnish or Scandinavian personality from the fields of politics, literature, the arts or other aspect of Northern European life. The program never fails to reveal to me new ideas or interests about Finland and its surrounding regions; and I’m always surprised at the end that the half-hour went by so quickly.

BBC World Service Highlights

For the past couple of months, we changed the natural order of things here and placed BBC highlights near the end of the column in order to present news and programming of other stations in a more prominent light. But the BBC remains the unsurpassed source for interesting, timely and well-produced programming on the international radio bands—both in terms of quality and quantity. Here, as evidence of this fact, are July’s offerings.

[Listings are for the Americas/Europe stream. Frequencies for North America at 1000-1800 and 2100-0700 include from time to time 5965, 5975, 6175, 6195, 9515, 9590, 9895, 11865, 15220 and 17840.]

The Proms

July every year in Britain means another season of *The BBC Promenade Concerts*. This festive series of classical music orchestral performances stretches through August and is a major part of the *World Service* summer schedule. Here's the schedule of July broadcasts:

- *Opening Night*-20th 1830 ("live" and only on frequencies to Europe...try 9410, 12095, 15485 and 15575); repeated 21st 0315.
- 22nd 0305; repeated 1715
- 24th 0310; repeated 1830 only on frequencies to Europe (see above)
- 29th 0305; repeated 1830 only on frequencies to Europe (see above)

Unfortunately at deadline, there was no further information available from the BBC as to the specific programs, music or performers.

Bookmarks

This is a program not being broadcast on the Americas/Europe stream because it is part of the *Learning Zone* series, but it might be worth seeking it out on the Africa or Asia/Pacific streams all the same. The ten-week series, beginning July 7, is designed to introduce teenagers to international quality reads. Celebrated writers like Nadine Gordimer, Anita Desai, Toni Morrison, James Berry and Meera Syal read from their books and talk about their work. (*Africa stream*: Tue. 1530...try 17830, 21470 and 21660; *Asia/Pacific stream*: Tue., repeated Sun. 0915...try 6065, 6195, 9580, 9740, 11765, 11945, 11955, 15280, 15360, 17760 and 21660). [See also "Off the Shelf" below.]

New for July

Border Run is a new five-part series which debuts on July 7, 9 and 10. Written and presented by Michael Goldfarb, the pro-

grams travel the 1,900 mile U.S.-Mexico boundary between Yuma and El Paso examining the unique culture of those living there. (Tue. 0145; repeated Thu. 0530, Fri. 1230)

Opening July 19, Musical of the Week is an eight-week run presenting the stories and musical highlights of eight different musicals that span over nearly eight decades. Gershwin's *Lady Be Good* (1924) and Cole Porter's *Anything Goes* (1928) start the series this month. (Sun. 1515)

Beginning July 19 and 21, in About Face, Sarah Dickinson and Philip Bacon jointly interview four figures of international renown. The first week it's Gayatri Devi, the Raj Mata of Jaipur, who provides a unique perspective on India both pre and post 1947. Sprinter and long-jumper Carl Lewis is the interviewee the second week. Prebendary Dr. Chad Varah CBE, the founder of the Samaritans and Befrienders International, the worldwide suicide prevention organization is the third guest. Her Majesty Queen Noor of Jordan is interviewed the final week. (Sun. 1701; repeated Tue. 0630, 1130)

A new six-part series starting July 20 and 24, *Letters from Britain*, draws on the observations of journalists from all over the world who spend much of their time explaining the idiosyncrasies of Britain to their own audiences in their own languages on the BBC. (Mon. 0130; repeated Fri. 0630)

Also commencing on July 20 and 24, *The Money Makers* is a six-part series that offers a glimpse into the world of the entrepreneur—what motivates and sustains them, how they got started, where they get their support, what made them persevere when all went wrong. (Mon. 0145; repeated Fri. 0645)

Beginning July 24, A Green History of the Planet is an eight-part series of programs about evolution and ecology presented by Nick Rankin. (Fri. 0530; repeated 1030)

Five half-hour programs premiering July 25 and 27 examine the artistic impulse to create likenesses of ourselves. *The Likeness of Being* groups these portrayals into five

categories—warriors, lovers, dancers, mothers and gods—and explores the ideas that lay behind artists' attempts to create life-like images. (*Sat. 1030; repeated Mon. 0430, 2130*)

Beginning *July 25, 27 and 31*, *Stories from the Afterlife* is an eight-part series that blends narration, atmosphere and music to share some of the most powerful of the world's stories about the afterlife and explores what these stories mean both to the people who told them and to us today. (*Sat. 0130; repeated Mon. 0615, repeated Fri. 1515*)

Premiering *July 31 and August 1* is a major, new six-part series looking at *Crime and Punishment* around the world at different times in history. The series examines international crime, the dramatic drop in the murder rate in New York City and the sharp rise in violent crime being experienced in emerging democracies, among other topics. (*Fri. 2130; repeated Sat. 0230, 1130*)

A Returning Series...

Starting *July 6* and running over eight weeks, Johnnie Walker presents a new series of *The Multitrack Sessions*, featuring fresh performances by some of the music world's greatest names, along with some up and coming artists. Among the performers in this series are Radiohead, The Verve, CornerShop, Steve Hackett and Asian Dub Foundations. (*Mon. 1530*)

In Some Regular Series...

The *Composer of the Month* (*Fri. 0130*) for July is Mussorgsky....*Performance* (*Sun. 2310; repeated Wed. 1515*) profiles conductor Otto Klemperer....The *Play(s) of the Week* (*Sat. 2230; repeated Sun. 0530*) for July are the following: *4th/5th—The Grey Man* by Gill Adams, one of radio drama's most distinguished new writers; *11th/12th—A Very Rare Bird Indeed* with Dame Judi Dench starring as Avril, a woman desperate to find love; *18th/19th and 25th/26th—What Makes Sammy Run?*, a two-part dramatization of Budd Schulberg's classic 1930s novel about an ambitious young man's rise from cub re-

porter on a New York paper to the youngest production head of a major Hollywood studio....Among the readings in this month's *Off the Shelf* (*Tue.-Sat. 0345*) are an eight-part presentation of *Candide* by Voltaire (*beginning the 7th*), a five-part rendering of *Peacock Garden* (*starting the 21st*) by Anita Desai, and five stories by Nadine Gordimer, the renowned South African writer (*from the 28th*)....Among the subjects examined in *Omnibus* (*Mon. 0630; repeated 1030, Thu. 0130*) this month are the *Street Fighters of '68*—those who were part of the unprecedented wave of student protests that threw the world into tumult some 30 years ago.

Series Continuing or Concluding from June...

For details about *The World Lectures*, *Heritage*, *Just A Minute*, *A Delicate Line*, *Daring to Differ*, *In Opposition* (Africa stream: *Wed. 1530*; Asia-Pacific stream: *Wed. 0915*). For frequencies, see "Bookmarks" above), *Science on a Plate*, *World Cup* and *Wimbledon coverage*, and *Welcome to My World*, see June's EZL column.

Finally...

The one-of-a-kind poetry request program, *Poems by Post*, returns for another run from October through December. So now is the time to get your request in to Poems by Post, BBC Bush House, Strand, London WC2B 4PH or by e-mail to <poems.post@bbc.co.uk>.

Radio Netherlands Highlights

Radio Netherlands clearly trails the BBC in quantity of programs produced; but it closely matches and, on occasion surpasses, the World Service in terms of quality. Whether tackling serious topics like development (see Program Exchange above) or lighter subjects like the intriguing Mother Goose angle below, Radio Netherlands combines a knack for capturing the listener's interest with consistently high production values. It's a thoroughly winning combination. [2330 to 0120 on 6020/6165/9845; 0430 to 0520 on 6165/9590]

Documentaries (Thu. 0053 and 0453; Fri. 2353)

2nd/3rd-The Hunt and the Hunted - A look at the history of whale hunting and the continuing controversy surrounding it.

9th/10th-Burundi-A report by Eric Beauchemin on the central African nation's civil war.

16th/17th-The Real Mother Goose-Maggie Ayre explores whether she (Mother Goose, not Maggie) really is as benign as her commonly held image would suggest.

23rd/24th-The Last Kaiser-After World War I, Kaiser Wilhelm II of Germany lived out his days in exile in The Netherlands. Marijke van der Meer visits his country estate near Doorn and speaks with historians about his role in the Great War.

Media Network (Fri. 0053 and 0453)

3rd-A look at the success of private shortwave; interviews with Merlin Communications CEO Fiona Lowry and The Media Zoo's Eric Wiltshire; Brian Clark reports DX news from Auckland; receiver news; listener correspondence.

10th-Focus on crisis radio with material recorded at a Geneva conference organized by the Hirondelle Foundation, an organization that takes an active role in putting stations on the air in times and places of desperate need. Can international broadcasting do more to contribute in times of need?

17th-Andy Sennitt and Victor Goonetilleke scan what's new on the airwaves; receiver developments from a recent ham radio fair in southern Germany.

24th-A talk with Herman van Wijk who argues that the broadcasting industry's rush to digital is confusing the consumer and sticking "early adopters" of new technologies with pieces of digital trash. What can be done to protect the customer and is there danger of an "analog backlash"? Who says we need this technology so soon? An investigation.

In Brief...

The CBC has adopted its annual summer schedule changes which has affected some of the programs carried by RCI. The most notable of these involves the last hour of the *Sunday edition of This Morning* (1505) which has been given over to a series of thirteen interviews by Peter Gzowski of *Some of the Best Minds of Our Times*. Regular comedy programs (Sun. 0200-0300) are replaced by *The Vestibules* and the *Summer Comedy Comedy Summary*. Finally, the last half hour (0030) of some (Tue. to Fri.) editions of *As It Happens* will carry various summer features including an international

Topics on Late Night Live

*range widely
from national and international
affairs, to the arts and literature,
even to broad philosophical matters.*

documentary festival....Deutsche Welle now has a biannual printed program guide for its English Service. The four page pamphlet is a greatly scaled down version of the discontinued *Tune In* magazine that started as a monthly years ago and died as a quarterly last year. The new *DW English Programme* includes some general descriptions of a few programs and a comprehensive listing of frequencies and programs across pages two and three. In a front page welcome, English Service Head, Michael Behrens explains that the revival of a printed schedule is in response to audience letters disappointed with the demise of *Tune In*. You can get on the mailing list by writing DW via e-mail at <english@dwelle.de> or its postal address at 50588 Cologne, Germany or P.O.B. 50641, Washington, DC 20091-0641.

As you can see, there's no "off season" when it comes to quality shortwave programming. So be sure to pack that shortwave portable wherever you go this summer. Until August, good listening!



Listener's Library

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This month's column amounts to a gimme for this editor. A whole ton of stuff has come in via the Internet addressed to this column. In order to keep things at least slightly timely, I'll give it to you all in one bunch and pick things up again with traditional reviews in the next issue.

First and somewhat sadly, this comes from a British mailing list from Andy Sennitt:

"As many of you know, I resigned as editor of the World Radio TV Handbook at the end of last year. The new editor is David Bobbett, and the contact information is now as follows:

WRTH
PO Box 7373
Milton Keynes
MK12 5ZL
United Kingdom
Fax: +44 1908 321030>
E-mail: editor@wrth.demon.co.uk

"Please feel free to publish and pass on this news to all interested parties. I trust you will all give David the same help and support you gave me over the years."

Andy Sennitt

How can the hobby possibly begin to tank Andy Sennitt for all he has done to support us in our efforts over the years? And also, we must extend thanks to David Bobbett for picking up the mission and taking WRTH into the next millennium. Andy best wishes and David best of luck from NASWA.

Ludo Maes has let loose with another press release. The great interest in his project amongst our membership demands that we take a look at what he has to say.

Welcome to this update about the *Transmitter Documentation Project*. When you are interested in shortwave transmitters in one way or another, be sure to read on.

TDP SW-98 Book

If you want to know everything about all the shortwave broadcast transmitters installed all over the world, be sure to order a copy of the 5th edition of the TDP SW-98, the "Transmitter Documentation Project". Ordering information, references, reviews and press releases about the TDP SW-98 are available on our website.

Shortwave Radio Stations

All the websites of the radio stations that broadcast on shortwave are listed in country order and divided in 5 sections: governmental, religious, commercial, free/pirate and clandestine broadcasters.

Shortwave Transmitters, Antennas, Tubes

If you need to look up a manufacturer of shortwave transmitters, antennas or tubes, check our pages that lead you directly to the manufacturers websites.

Shortwave Airtime, Marketplace, Museum

Offer and demand for airtime on shortwave transmitters can be found at our airtime page. Offer and demand for second hand shortwave transmitters on our marketplace page. Technical info with photos about all the shortwave broadcast transmitters ever manufactured can be found in our museum if they are no longer built today or in our marketplace if it concerns new shortwave transmitters.

Digital Shortwave Radio

We follow the latest developments regarding the upcoming digital age in shortwave radio.

For more info on all of the above mentioned items, surf to <http://www.ping.be/tdp>.

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BELGIUM Web : <http://www.ping.be/tdp>

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Finally, fellow NASWAite Dave Clark has taken the time to beat me to the punch with a review of Fred Osterman's Latest work: I'll get my own two cents in a future issue, but for now, hear what somebody else has to say about a book I can't stop reading.

Shortwave Receivers Past And Present—Communications Receivers 1942–1997

On Friday, April 17th, the mailman brought me a very welcome package, a complimentary (contributor's) copy of Fred Osterman's fabulous reference: Shortwave Receivers Past and Present—Communications Receivers 1942–1997, published by Universal Radio Research. This new 3rd edition, with first printing of March/1998, features the same colour combo and illustration scheme on the cover as the 2nd edition which was published January/1997. The same high quality printing on heavy glossy paper stock is used and the format of the main body of the reference remains the same.

But appearances can be deceiving. As good as the 2nd edition was, this 3rd edition is even better—considerably expanded in coverage, particularly in respect of tabletop receiver manufacturers from outside the U.S.A., and with several new features added. The coverage period is expanded (1945–1996 in 2nd edition) to 1942–1997, taking into account several lesser-known receivers from the WW-II era and extending right to the present. Fred even sneaks in coverage of the brand new (1998) DSP-based Japan Radio NRD-545, albeit this exciting DX receiver, dubbed "awesome" by Fred, it is still awaiting FCC approval and the North American selling price has not yet been publicized.

[Word has come from PWBR editor Larry Magne that JRC has established a target \$US suggested retail price of \$1895 and hopefully the street price will be a little less than that.]

In his Introduction, Fred outlines the scope of expansion of coverage in this edition, thanks significantly to some 90 contributors, a number of them from overseas. Manufacturers represented for the first time include General Electric Co. of England, Hagenuk (Germany), S.A.I.T. Electronics (Belgium), Amalgamated Wireless Australia, and E.H. Scott (U.S.A.). There is also significantly improved models representation from Eddystone and Marconi (both UK), as well as RCA domestically. The big names in communications receivers we are all familiar with—Collins, Drake, Hallicrafters, Hammarlund, Japan Radio, National, and so on—were covered comprehensively in the 2nd edition so there was little to be done to augment those sections. Even the illustrated listings of Briefly Mentioned receivers (5-up on a page) are expanded from 10 to 18 pages.

The vintage market continues to be active, particularly for certain high-end receivers, and pricing guides for used models in good condition have been updated where appropriate. For example, the indicated price range for the Hallicrafters SX-88 is \$1000–2500, up from \$700–1300. Another example: the Collins 51J-4 is now \$490–850, as compared with \$375–700 in the previous edition. Some of the more cost effective receivers which were and remain highly useful for DXing purposes (eg. Drake R-4B & R-7/A and Hammarlund HQ-180/A) are seen to be sneaking up in price, while the ever-popular Japan Radio NRD-515 holds steady at \$650–680. Another JRC receiver, the NRD-505, which I personally believe is a "sleeper" (reportedly less than 1000 made in the period 1977–1979), especially if equipped with the optional 4-channel memory unit, also holds steady in this 3rd edition at \$800–880.

One valuable improvement in the main reference section of the book that Fred doesn't

mention (and he should have!) is the expanded footnotes identifying review sources for certain of the important hollow state and solid state receivers. While this 3rd edition was still in preparation, I personally volunteered to compile supplemental references to reviews which had appeared in Electric Radio and/or Proceedings. It turns out I didn't need to bother—Fred had already beaten me to it!

There are two new sections at the back of the book. Additional Information provides valuable reference material that did not fit within the format of the main listings section. For example, there is a 4-page compilation of the many variations of the Hammarlund SP-600J series, provided by Les Locklear. On another page, there is illustrated expanded coverage of the wired memory and keypad (NCM-515 Frequency Controller) options for the NRD-515. As the commentary points out, "The NCM-515, introduced in 1982, is now a scarce and collectable option". Fred doesn't make reference to the total quantity produced but in my files somewhere I have a note of that number that he learned on good authority and once told me—about 350 rings a bell. Finally, the other new section is a useful 7-page cross reference listing of model numbers to corresponding page numbers within the book.

When all is said and done, the total page count of this 3rd edition has risen from 351 to 473 pages of material, and that's not counting the index alone which grew from XIV to XX pages, thus almost 500 pages in total. The total number of models covered has increased from 500+ to 770+. I am amazed that the selling price from Universal Radio has been held to a modest \$5. increase. The 2nd edition was a bargain at \$US 19.95 and was completely sold out. This 3rd edition is, in my opinion, an even better bargain for \$US 24.95. No serious shortwave radio hobbyist should be without it!

In closing, it should be reiterated that the emphasis of this book is tabletop shortwave receivers. Fred reveals that work is in progress on a similar book covering portable shortwave receivers issued in the 50 year period from 1948 to 1998. Publication is planned for 1999.

Thanks Dave. Don't forget folks, you can take over the space in my column any time you want. Just drop me a letter or an e-mail with your feelings on a book, magazine, catalog or piece of radio related software and you'll be able to begin your journey into the gonzo realm of radio hobby journalism. 

NOTICE PLEASE

The e-mail address for NASWA-related matters is now

<boliver@blackboard.com>

The old AOL address is no longer in use.

WANT TO CONTACT NASWA members living in the Dallas metroplex, north central or northeast TX, northwest LA, southwest AR and southeast OK regarding a possible fall get together or DXpedition at my northeast TX lake "DX Den" cabin. Excellent, electrical noise quiet location, antennas and big bass for the fisherman. Campsites and trailer hookups within an easy 1.5 mile walk. Write Bill Smith, (W5USM); 23742 Holiday Pine Drive; Mineola, TX 75773

Shortwave Center

Hans Johnson

206-A South Loop 336 West #231

Conroe, TX 77304

CompuServe: 73042,3644

Internet: 73042,3644@compuserve.com

Digital Transmission— A Technology Revolution!!

By Bob Padula, OAM, MIEAust, CPEng

Abstract

This article offers a general overview of the current status of the development and introduction of digital terrestrial radio broadcasting, and in particular discusses proposals for the progressive implementation of the medium for world-wide high frequency commercial transmissions. The paper also reviews issues relevant to the introduction of digital radio and television broadcasting in Australia, and highlights a range of global technical, economic, strategic, regulatory and standards' requirements.

Background

Over recent years, many international radio broadcasters celebrated their 50th or 60th anniversaries. The early transmitters of the 1920's were of relatively low power, with 50 kW being regarded as very large, and shortwave broadcasts were initiated mainly to allow expatriates to keep in touch with their home countries, or to provide news, information and entertainment to overseas listeners.

Early Transmitting Stations

One of the first commercial SW stations was PCJJ, Holland, which operated on 31 metres in 1928. In 1931, the Vatican Radio inaugurated regular SW broadcasting from a transmitter in the Vatican Gardens, and the BBC's Empire Service was inaugurated in December 1932. Here in Australia, "Shortwave 3LO" went on the air in September 1927, with the callsign VK3ME, from an AWA transmitter located at Braybrook, a Melbourne suburb,

where the medium-wave 3LO was also co-sited at the time. It used 15 kW, which was believed to be the most powerful SW transmitter in the southern hemisphere. Also in September 1927 mVK2ME commenced from the AWA facility pennant Hills, a Sydney suburb, with 10 kW output power.

In 1932, the PMG's Department had set up a new SW station at Lyndhurst, near Melbourne, with the callsign VK3LR, used for experimental broadcasting to the inland and outback areas.

This early Australian venture was in parallel with similar developments in other countries, with the introduction of transmitters to serve domestic audiences, which could not be achieved easily by medium-wave or longwave facilities.

Some present day European-based SW transmitters still use operating frequencies assigned in their first decade of operations, and it is believed that some of the original transmitters may still be in use!

Technical advances now provide for shortwave transmitters of 500 kW, and occasionally 1000 kW (by coupling). There has also been substantial progress in the fields of transmitter and antenna design and in modulation techniques, with modern transmitters having the capability of delivering very high field strength signals under favourable conditions.

However, despite technological changes, shortwave broadcasting still relies on the analog, high cost, and unwieldy analog (ana-

logue) modulation processing, as does medium-wave and long-wave domestic broadcasting.

Reduction In Demand For Radio Broadcasting

There is a trend towards a reduction in the use of radio broadcasting, mainly due to:

- demand for services with improved reception quality, such as satellite, TV, radio, Terrestrial Digital Audio broadcasting (T-DAB), local FM, cable networks and the Internet
- large investment costs for high power new stations and replacement of older facilities
- increased usage of satellites for direct world radio broadcasts, associated with inexpensive personal domestic and portable receivers
- diversion of limited budgets from radio broadcasting to national and international TV
- financial reductions in many administrations
- poor audio quality
- high ongoing maintenance costs
- for international broadcasting, there is no revenue platform offset, with exceptions being the renting of facilities to OTHER administrations

Despite the above constraints, it is generally held that radio broadcasting (LW, MW and SW), rather than let it slowly disappear, could be improved by:

- enhancement of overall reliability and audio quality of signal delivery
- significant reduction in power requirements
- reduction of band congestion via limitations in the numbers of simultaneous trans-

missions required to provide an acceptable overall broadcasting capability

- provision of additional services and data transmission

Digital Radio Mondiale

The use of digital processing for AM broadcasting was the subject of a meeting held in Paris in November 1996, hosted by Radio France International and Telediffusion de France. Delegates from many broadcasting organisations attended, including the BBC, Deutsche Welle, Deutsche Telekom, Radio Televisione Italiana, Radio France International, Telediffusion de France, Radio Canada International, Radio Netherlands, Nozema and the Voice of America. Transmitter manufacturers were represented by Continental Electronics, Telefunken, Thomcast, Kokusai Electric. Receiver manufacturers participating were Sangean and Sony. Other attendees were from Motorola (chip manufacturer) and the University of Kentucky.

The meeting established the organisation of a new international consortium, known as Digital Radio Mondiale. The purpose of this new group is to provide a basis for the formulation of non-proprietary design for a single world standard for digital AM, using the longwave, mediumwave, and shortwave bands.

At the Digital Radio Mondiale formation meeting, it was agreed that:

- cooperation with international broadcasting unions and the ITU would be sought
- information on the scope of the conference should be made available as widely as possible worldwide
- broadcasters need to be convinced to switch to "digital" when a world standard becomes available.
- Work groups set up in late 1996 reported their findings to a special meeting of the main Consortium group in April 1997, in

Nevada, USA, with outcomes being further reviewed by succeeding meetings.

- A further worldwide conference of Radio Mondiale Digital was held in March 1998, in China, which set up a working committee of experts, to:
 - oversee the testing of digital AM technologies under development in Europe, the USA and elsewhere,
 - formulate functional requirements for digital AM broadcasting and services,
 - formulate a joint specification for a tested non-proprietary design for digital AM broadcasting, taking into account performance receiver costs and broadcasters' needs.

Digital Systems Under Development

There are three main systems under advanced development which are compatible with establishment of a standard for world AM broadcasting. They are:

- Skywave 2000 by Thiomcast
- The Voice of America/Jet Propulsion Laboratory system
- The Deutsche Telekom Zentrum für Rundfunk and Audiovision system.

Skywave 2000

The outcomes of required data rates, bandwidth, channel coding, complexity, quality and flexibility. It offers compatibility of digital and analog signals which can be received by today's conventional consumer sets and future low cost digital receivers.

During the transition phase, compatibility with existing transmitters and AM receivers is achievable by the simultaneous transmission of

- a half-bit rate version of the digital audio system

➤ compatible SSB transmission of the analog signal, with residual carrier and possibly a vestigial sideband to improve quality in the presence of fading and to increase adjacent channel protection

➤ tests have been carried out over the past year on SW, which included:

- a simulcast mode where an analog program, was only accessible by a SW receiver equipped with SSB mode, which may now be received by any existing consumer receiver without noticeable disturbance due to presence within the same HF channel of a digital program and/or analog programs broadcast within adjacent channels.
- a digital audio program of 2.7 kHz bandwidth voice at a 4800 b/s useable bit rate now has a 10 kHz bandwidth stereo audio program at a 32 kb/s useable bit rate.

- additional data services limited to 44 b/s have been increased to a much higher useable bit rate of 1250 b/s.

These tests proved system and design capabilities for SW operations, and are believed to be appropriate for the less rigorous LW and MW transmissions.

Assessment is now being made of

- evaluation of PDM/PSM transmitters
- required modifications for modulators and RF amplifiers
- modulation intensity investigations
- creation of a receiver standard and suitable chip-set

The Skywave 2000 system is offered as a maximum flexibility strategy for introducing digital modulation in all AM bands (LW, MW, SW), with a compatible format (simulcast of digital and analog programs useable by old and new receivers).

Voice Of America/Jet Propulsion Laboratory System

The VOA/JPL system was originally designed for transmission and reception of satellite and complementary terrestrial delivery in the L and B bands (1400–2400 MHz). Audio quality up to CD quality equivalence was available.

The design was based on a contiguous narrow band spectrum for a given broadcast program, of about 200 kHz for a CD quality signal. Phase shift keying modulation was used with pulse shaping.

The system has been tested successfully via a NASA satellite (TDRS). Since 1995, the system design has been developed to allow for digital sound broadcasting terrestrially via SW. Skywave propagation tests have been conducted to assess how skywave propagation affects 10 kHz bandwidth PSK signals.

The design permits the use of existing SW transmitters with little or no modification.

Initial tests used a VOA 250 kW transmitter at Delano, California. These used a horizontally slewed antenna that covered Texas, the eastern US and over the Atlantic Ocean to the west coast of Africa. Reception in Texas was "one hop", in Washington DC "two hop" and in Spain "three or four hops". Carrier frequencies used were 15,200 kHz and 5,900 kHz, consistent with time of day.

The tests consisted of a repeated 20 minutes sequence, and each sequence included both analog and digital modulation.

The tests showed that an information transfer rate of 32 kbps or higher can be achieved in a 10 kHz channel. Power levels will be less than that for AM for the same geographic coverage.

Error mitigation techniques consisting of time interleaving and low levels of error correction coding will achieve strong reliable audio quality, much better than existing AM in the HF bands.

Adaptive equalisation is a necessary and effective method for reducing the severe multipath conditions that exist with skywave HF propagation

Further development has been carried out to determine the best level of PSK modulation, the amount of time interleaving and error reduction/correction needed. Hardware/software prototypes are being developed and are under test.

*Receivers are
expected to cost
about US\$30 more
than conventional
SW receivers,
and could be
marketed by 2003.*

The DTAG ZRA Digital AM System

Modern AM transmitters are generally compatible with digital modulation units, and the only modification concerns the master oscillator. Digital transmissions cannot be received with ordinary AM receivers. Conventional AM band channel spacing is generally compatible with digital transmission needs., thus allowing smooth transition from analog to digital services on the AM bands on a channel-by-channel basis. There is little interference from and to co-channels and adjacent channels for either the analog or digital signals. A digital transmission is heard as a "white noise-like" audio signal when received in a normal AM receiver.

Deutsche Telekom has been operating a low power (400 Watt) solid state transmitter in south east Berlin, on 810 kHz mediumwave, adapted for PDM modulation from its original analog configuration. Tests have shown that the night-time coverage of the digital transmissions are much greater than the analog mode, despite the significant difference in transmitter powers (the AM operation used 2.5 kW)

Transmitter And Receiver Design

In ordinary analog AM transmissions, information is carried only in the sidebands, and most power is wasted. Some present-day SW transmitters operate in a "compatible" single-sideband mode, delivering signals on one sideband only, and with varying degrees of carrier suppression. Reception is possible on conventional receivers. Claimed advantages are lower operating costs, reduction in spectrum occupancy, and increased signal level. The technique has been introduced on a small scale internationally. A very small number of SW stations are operating some services in single-sideband mode with very high carrier suppression; these transmissions are not easily received on ordinary sets.

Digital transmissions do not require a carrier and considerable power can be saved. AM transmitters can be simply converted to provide digital modulation.

A choice must be made from various kinds of digital modulation—single carrier or multi carrier modulation. Present studies support the use of single carrier transmission, for a variety of technical reasons. Single carrier digital modulation is also preferred for receiver design. Such equipment is conventional from the RF stages to the IF, at which point additional circuitry is needed, such as a quadrature (I/Q) based band demodulator, digital signal and audio processor.

System Testing

The system uses a receiver composed of a ferrite antenna, a commercial receiver (EKD500), a quadrature downmixer, signal processor boards and a Fraunhofer audio decoder (MPEG 2, layer 3).

Tests have been in two modes, including mono transmission with an audio bandwidth of over 6 kHz, and transmission in "joint" stereo with an audio bandwidth of about 4 kHz per channel.

Further Development

Development is continuing on the design of a single processor demodulator, using an available chip such as ADR, and this will be extended to SW operations. Work has been undertaken on data transmission on long-wave below 150 kHz, which will require no international standardisation as it is applicable exclusively to national broadcasting. The existing LW and MW receiving system is being redesigned for SW, and tests have been carried out from the Juelich (Germany) SW facility. These tests have been heard occasionally by listeners around the world, even though they have been unintelligible.

Current Status

At the time of preparation of this article (March 1998), the BBC World Service was reported to be ready to sign a formal agreement agreeing to develop global standards for new digital radio technology proposing interference-free-free shortwave listening. This is an outcome of Digital Radio Mondiale, and it is expected that standards could be ready for ratification by the International telecommunications Union in about two years. Receivers are expected to cost about US\$30 more than conventional SW receivers, and could be marketed by 2003. They would be multi-band AM models, covering mediumwave, shortwave and possible longwave.

Digital AM is expected to open up a significant market in the larger countries such as China and the US, where FM has some limitations of coverage. It is envisaged that reception will be equivalent high quality mono FM broadcasts, but not quite up to CD standard. The BBC indicated that upgrade costs for modern transmitters used for the World Service could be less than 0.25 million pounds for each of the seven main sites. The facilities are now operated by the

privatised World Service transmission company - Merlin Communications International.

In late 1997, the French company, Thomcast, demonstrated live SW reception at the IBC exhibition in Amsterdam, using a modified 500 kW transmitter on 6175 kHz located in Issoudin, France. The results were encouraging, with significantly reduced fading, even though the propagation distance was relatively small.

Radio Netherlands has announced plans to conduct digital modulation tests over long distances during 1998 from its Netherlands Antilles relay station at Bonaire, from a converted transmitter, following limited distance tests carried out in 1997.

Digital Broadcasting In Australia

General

The Australian Government has put planning processes in place which will allow the start up of digital radio services in 2001. Commercial, community, and national (ABC and SBS) broadcasters will be able to convert to digital, but will be required to simulcast for a period to ensure that listeners are not disadvantaged.

Radio

There will be also be opportunities for new digital commercial radio services, with the number and timing of new entrants to be determined as part of the planning process.

The Minister for Communications will be inviting the Australian Broadcasting Authority and industry representatives to participate in a Planning and Steering Committee to develop a comprehensive planning framework which will enable digital radio services to commence in 2001. Planning will proceed on the basis that the Eureka 147 system will be used, operating generally in "L-band" spectrum, but with consideration of VHF spectrum in regional areas, existing broadcasters would share a multiplex facility which can provide five CD quality radio services.

Television

Australian commercial and national free-to-air broadcasters will be required to commence digital terrestrial television broadcasting (DTTB) in metropolitan areas by 1 January 2001, and in regional areas from that date onwards so that all areas are covered by 1 January 2004.

DTTB will enable access to a wide array of new and enhanced programming and datacasting services such as viewer-initiated multiple views of sporting events, advanced information services which are linked to TV programs and direct terrestrial TV access to material provided via the Internet.

Free-to-air broadcasters will be loaned 7 MHz of spectrum free of charge. After the eight-year simulcasting period they will be required to return the equivalent of their loaned spectrum to the Commonwealth.

Broadcasting in high definition TV (HDTV) will start from a specific date. The free-to-air broadcasters will be consulted on the start up date and the required amount of programming.

Loaned spectrum will return to the Commonwealth if the free-to-air broadcasters do not start DTTB by the designated start-up date or if they do not comply with the HDTV requirements. Unused portions of the loaned digital spectrum may be used to provide datacasting services. Fees will be charged for providing these services.

Available broadcasting spectrum not required by the free-to-air broadcasters for digital conversion will be allocated on a competitive basis for datacasting services. Existing free-to-air broadcasters will be precluded from bidding for this additional spectrum.

Commercial free-to-air broadcasters will not be able to use their digital spectrum to provide multichannelling and subscription TV services. The community TV sector will be guaranteed free access to the spectrum needed to broadcast one standard definition digital channel.

The Government is extending opportunities to new commercial free-to-air entrants until December 2008.

Local content requirements will apply on the digital environment. All free-to-air broadcasters will be required to provide a closed captioning service for all prime time programming as well as for news and current affairs broadcast outside prime time.

DTTB Planning and Steering Committee

A DTTB Planning and Steering Committee is being convened, with the ABA, ACA and all relevant industry sectors represented, which will:

- advise on transmission standards and compatibility requirements
- commence detailed technical planning
- identify broadcasting spectrum not required for the digital conversion of free to air broadcasters

Digital TV Review

In 2005, a Government initiated review will be conducted of digital TV and will report on whether

- all spectrum available for allocation has been identified and efficiently structured
- new commercial free-to-air entrants should be allowed after 31 December 2008
- free-to-air broadcasts should be allowed to provide multichannel and/or pay TV services
- a simulcasting period other than eight years should be prescribed

At this time, it is not known how the proposed initiatives will affect existing mediumwave broadcasters.

Global Issues

Substantial effort is being made globally on various issues affecting the introduction of

digital technology, for radio and TV. These include technical requirements, spectrum use, transition strategies, economic, public service broadcasting, regulatory, licensing, standards, and competition.

Many countries are planning to convert their existing terrestrial broadcasting services to digital in the year 2000, to operate in parallel with current or planned additional satellite digital channels. For example, in Japan alone, there are two public satellite channels with about 12 million subscribers, and a third satellite film channel. Four more digital channels are planned to launch in 2000. This highlights the issue of competition in general; the impact of digital terrestrial transmission will require specific global policies to be established on what constitutes "broadcasting" and how it may be managed in the future.

System Choices

For TV, the American ATSC and the European DVB are logical. For radio, it has been proposed that the Eureka-147 system be used for terrestrial delivery.

Choice Of Frequencies

For TV, the UHF band is preferred. For radio, it is uncertain as to whether this should be in favour of the L-band, VHF, or both

Service objectives

TV—whether high definition would be offered from commencement, as in the USA, or apply the European option of standard definition

Spectrum Use

Available frequencies must be used efficiently

Transition Strategy

Existing broadcasters should be permitted to convert to digital services by at the same time to ensure that their audiences will not be deprived of services currently offered. The simulcast approach as adopted in the USA and Europe is regarded as a preferred option.

Other Issues Identified

These include competition policy, content

strategies, impacts for media users, software gateways, signal piracy, convergence policy, licensing, public service broadcasting, policy development, and the role of governments.

Broadcast-Asia-98: Welcome to the Digital World - Opportunities and Challenges. This is the theme for a major international conference to be held in Singapore in June 1998. The Conference brings together delegates and speakers from around the world, examining problems and possible solutions in the field of digital transmission. The Conference will look at MPEG-2 as the accepted "interim" international standard, despite the debate which exists between the US and Europe as to the best coding for terrestrial delivery. Issues of concern to be discussed at the Conference are "cascaded compression" and acceptable picture quality.

TV Standards

Reference has been made to the term "MPEG" in this article. This is an acronym for "Moving Picture Experts Group" (MPEG working group) and was set up a decade ago to develop standards by which everyone could process digital signals to a common standard. The group is part of JTC1, the Joint ISO/IEC Technical Committee on Information Technology. The name MPEG is now widely used to refer to the internationally agreed standards for coding this audio-visual information in a digital compressed format. The particular area that applies specifically to quality broadcasting applications is MPEG2, (also known as ISO/IEC-13818).

Conclusion

Digital signal processing has been in existence for a long time, and is already an accepted technology for the delivery of satellite transmissions and a variety of non-commercial broadcasting services. The use of this technology is to be accelerated as a medium for terrestrial broadcasting, whether radio, video, or data. It is interesting to speculate as to the level of worldwide development resources which may continue to be injected into enhancement of TV and associated video and data forms of broadcasting, compared

with national and/or international radio delivery, based on economic imperatives and shareholder return. The Radio Mondiale Digital Consortium has already acknowledged that severe limitations exist in the extension of existing analog radio transmission systems, and its existence is due to the need to sustain radio broadcasting into the next millennium.

For the particular cases of international and national SW broadcasting, only time will tell whether existing initiatives will be successful. The claimed advantages of long-distance reception free of fading and interference have yet to be demonstrated.

Ultimately, economic factors and consumer demand (whether perceived or real) will determine whatever approach is adopted, taking into account that there are several hundreds of millions of SW receivers in daily use around the world.

Underpinning all of this is the assumption that a mass audience does in fact exist, requiring mediumwave and shortwave delivery. It could be argued that such a community may need to be identified, and whether it should continue to be serviced by an archaic and costly medium, taking into account the extraordinary penetration of satellite delivered programming, and observed phasing-out of mediumwave facilities. One only has to look at the reducing distribution of mediumwave broadcasters in Europe to gain an appreciation of the general "unpopularity" of such services, in comparison with the FM and satellite media. The Web has proliferated enormously with a strong and increasing presence of multitudes of local broadcasters offering RealAudio programming simulcasting with radio.

Considerable funds are being diverted from away from large-scale development of terrestrial SW transmission facilities, and are being consumed by Internet and non-terrestrial forms of long-distance broadcasting. A key Swedish broadcasting personality reporting recently on the Voice of America's "Communications World" program remarked

that interest in satellite radio broadcasting was small in the Scandinavian countries, compared with satellite TV. It was further suggested that the "real" market for satellite radio broadcasting may be the "specialist hobbyist" community, with the suggestion that consumers do not really need to use their TV sets to listen to radio!

An international decision of some years ago supporting the phasing out of double sideband modulation systems in favour of single sideband mode for SW broadcasting has not been successful, and considering the general downturn in international broadcasting, one must seriously question whether the medium

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Possibly shortwave radio will become a "dodo".... In the end, it will be the consumer who decides...

.....

will survive in the longer term. This is further reinforced by the Australian situation, where the Darwin SW complex remains in a state of uncertainty, with the Government not being in a position to lease those unused facilities to other users.

Possibly SW radio will become a "dodo", in much the same way as stored program control became the telephony switching standard many years ago.

In the end, it will be the consumer who decides, dictated and driven by industry and business initiatives.

Let us see how the world faces up to digital radio broadcasting and whether manufacturers and others with vested interests will continue to inject funds into sustenance of what is regarded by many as an antiquated, outmoded, and inefficient technology.

References For Further Reading

Available literature is proliferating, as the technology expands, mainly generated from the engineering community, manufacturers, programmers, broadcasters, Government/regulatory agencies and learned institutions. Documentation is also being published on the Worldwide Web, under the broad category of "Digital Transmission".

The following key references are recommended for further reading:

- *Progress Towards the Development of Digital Modulation in the Longwave, Mediumwave, and Shortwave Bands: Technical Review*, Asia-Pacific Broadcasting Union, No. 173, November–December 1997
- *The March of Digital Technology—Policies for the New Broadcasting Era*. By Om. P. Khushu, Director, Technical Department, Asia-Pacific Broadcasting Union Secretariat, presented at the BES Expo 98, New Delhi, January 1998, and republished in ABU News, Vol 17, No, 1.
- *Terrestrial Digital Video Broadcasting in Europe*. By Jurgen Lauterjung, Rohde and Schwarz. *International Broadcast Engineer*, March 1998.
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- BBC World Service Press Office. *Radio Mondiale Digital—Media Release*, March 1998.
- *ITU News*. International Telecommunications Union, Geneva, Switzerland, No.2, 1998.
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Technical Topics

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The Sun And Short-Wave Reception (Part 2)

Last time we began a tutorial on how the sun affects shortwave reception. In preparing the next chapter I realized that it would help if we all had a reference to refer to for all the new vocabulary words associated with the science of how the sun interacts with shortwave propagation. So this month I will begin a glossary of terms in alphabetical order that you can keep handy to define terms used in later chapters of this series. Here goes.

a INDEX A 3-hourly "equivalent amplitude" index of local geomagnetic activity; the "a" Index is related to the 3-hourly K Index according to the scale in Figure 1:

K 0	1	2	3	4	5	6	7	8	9
a 0	3	7	15	27	48	80	140	240	>400

Figure 1—The K index is a closed end scale of geomagnetic activity which is logarithmically related to the open ended "a" Index".

A INDEX A daily index of geomagnetic activity derived as the average of the eight 3-hourly "a" indices. For an "a" index less than 8, the geomagnetic field is "quiet". An index between 8 and 15 is said to be "unsettled". From 16 to 24 the A index indicates "active" conditions. A "minor storm" equates to an A index of 25 up to 35. Above 36 the A index is indicating a "major storm". The A index is averaged over a day and may have different values at different locations.

ABSORPTION The loss of energy from a radio wave. Absorption mostly occurs in the D region of the ionosphere.

ABSORPTION LIMITED FREQUENCY (ALF) This is the lowest frequency for reli-

able radio communications by the ionosphere. The ALF is significant only on daylight sectors of circuits.

ACTIVE Geomagnetic levels where Ap is between 15 and 29.

ACTIVE Solar activity levels with at least one geophysical event or several larger radio events (10cm) per day (Class M Flares)

ACTIVE DARK FILAMENT (ADF) An active prominence seen on the disk.

ACTIVE LONGITUDE The approximate center of a range of heliographic longitudes in which active regions are more numerous and more flare-active than the average.

ACTIVE PROMINENCE a prominence displaying material motion and changes in appearance over a few minutes of time.

ACTIVE PROMINENCE REGION (APR) A portion of the solar limb displaying active prominences.

ACTIVE REGION (AR) A localized, transient volume of the solar atmosphere in which plages, sunspots, faculae, flares, etc. may be observed. Active regions contain strong magnetic fields. Flares occur within active regions.

ACTIVE SURGE REGION (ASR) An active region that exhibits a group or series of spike-like surges that rise above the limb.

AFRED Abbreviation for the A index for Fredericksburg.

ANGSTROM A unit of length = 10^{-10} meters or 10^{-8} centimeters. Used as a wavelength

reference for different colors of infra-red, visible light, and ultra violet radiation.

ACTIVE When referring to the sun, the term means "changing". Solar activity is the changing appearance of the sun.

ALF See Absorption Limited Frequency.

Ap INDEX An averaged planetary A Index based on A Index data from a set of specific standard stations located around the world. The number represents a smoothed value of the A Index integrated over the entire surface of the planet.

ARCH FILAMENT SYSTEM (AFS) A bright, compact PLAGE crossed by a system of small, arched filaments, which is often a sign of rapid or continued growth in an active region.

ASTRONOMICAL UNIT (AU) The mean earth-sun distance = 1.496×10^{11} meters, or roughly 150 million km or 93 million miles.

ATOM See Molecule.

ATTACHMENT The collision of an electron with a neutral molecule or an atom which causes the formation of a negative ion. Later the negative charges disappear due to recombination between positive and negative ions. Attachment depends on the density of the oxygen atoms, the greater this density, the faster the ionisation will disappear.

AURORA A faint visual phenomenon associated with geomagnetic activity, which occurs mainly in the high-latitude night sky; typical auroras are 100 to 250 kilometers above the ground.

AURORAL EXCITATION The result of particles from the sun spiralling in the geomagnetic field near the poles resulting in the release of energy in different forms, including light.

AURORAL OVAL An oval band around each geomagnetic pole. At the magnetic poles, Earth's magnetic field lines are nearly vertical. Plasmas and electrons traveling along the field lines can spiral in and hit the atmosphere, generating light. The auroral oval is

the footprint in the atmosphere of the boundary of the auroral zone. Radio signals passing through the auroral zone suffer attenuation. Figure 2 shows how the auroral oval appears from space.



(NASA Photo)

Figure 2—The auroral oval surrounding a geomagnetic pole. The bright area to the left is the sunlit part of earth.

AUTUMNAL EQUINOX The equinox that occurs on approximately September 21 as the sun passes from over the northern hemisphere to over the southern hemisphere.

BARTEL'S ROTATION NUMBER The serial number assigned to 27-day rotation periods of the sun and geophysical parameters related to this rotation. Rotation I in this sequence was assigned arbitrarily by Bartel to begin in January 1833.

BRIGHT SURGE ON THE DISK (BSD) A bright gaseous stream emanating from the chromosphere.

BRIGHT SURGE ON THE LIMB (BSL) A large gaseous stream that moves outward more than 0.15 solar radius above the limb.

BURST A transient enhancement of the solar radio emission, usually associated with an active region or flare.

The glossary continues next time. Until then stay tuned.



Equipment Reviews

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The Lowe HF-150E Communications Receiver

Since its introduction in 1992, the Lowe HF-150 has won kudos for its small size, easy operation and excellent sound. It offers good performance for program listening and reasonable DX'ing capability. Although it has only two IF bandwidths, the selectable sideband synchronous detector can be quite effective in rejecting interference. When equipped with internal batteries and an accessory whip antenna it is at least transportable, if not the equivalent of a true portable. In the past, it has been fairly priced and offered good value.

The Fly in the Ointment

The only really significant flaw in the design of the '150 was the lack of bandpass filters in the antenna input circuitry of the receiver. The first mixer circuitry is exposed to all signals in the receiving range of the receiver—5 kHz to 30 MHz—which can result in overloading problems when the receiver is used in the presence of strong local MW stations or with large outdoor antennas. This front-end overloading can manifest itself as increased noise, local signals mixing with shortwave signals and "ghost" signals.

The problem was significant enough that Lowe introduced the PR-150 preselector to provide front-end selectivity. The PR-150 was a good unit, but was costly (over \$300) and, being the same size as the HF-150, greatly reduced its portability. Lowe has addressed this problem with the release of the HF-150E, or "Europa" version.

The Europa has bandpass filters added to the front-end. There are five filters covering the

ranges of: < 1 MHz, 1 to 5 MHz, 5 to 10 MHz, 10 to 20 MHz and 20 to 30 MHz. These filters are automatically selected as the receiver is tuned to the respective ranges.

Do They Help?

Incorporating these RF bandpass filters should theoretically reduce spurious responses and noise. I compared the '150E to my early model '150. When the original '150 was connected to my 90/60 meter parallel

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dipole, there were several frequencies below 3 MHz which had images of local broadcasters. With the '150E, there were no audible images present, but there was increased noise on the same frequencies. The image problem was cured when the -20 dB attenuator was switched in with either receiver. Images were not a problem with either receiver when a twenty foot outdoor wire antenna was used. So, the input filtering is a help on the HF-150E, but listeners (with just about any receiver) with large outdoor antennas should consider adding a broadcast band rejection

filter (high pass filter) to their listening setup and/or a variable-step attenuator, such as the MFJ-762. In comparing the manufacturer's specifications for the two versions, the third order intercept point is specified as +18 dBm for the HF-150E and +7 dBm for the '150 (narrow filter at 50 kHz spacing).

Any passive filter will introduce some degree of insertion loss, so I was interested in seeing if there was any difference in sensitivity between the two receivers. The manufacturer specifies a sensitivity figure of less than one microvolt in AM mode over the range of 500 kHz to 30 MHz for the original HF-150 and less than 2 microvolts for the "E" version over the same range. I checked these figures by using the standard methodology of a 10 db signal + noise/noise ratio with a signal 60% modulated with a 1 kHz tone, with the receivers in AM mode and with the wide filter. I found that the original HF-150 was about 0.5 microvolts more sensitive across the HF spectrum, however, the HF-150E was within specification of less than two microvolts throughout the HF spectrum, and was typically in the range of one microvolt. I think that the higher sensitivity of the original may not be a virtue, given the radio's susceptibility for overloading. I don't think that this difference is significant, and switching in the pre-amp on the HF-150E improved the sensitivity to the level of the '150 without pre-amp. I didn't measure any difference in the '150E's sensitivity at the filter crossover points, i.e. at 5, 10 and 20 MHz, as compared to the midpoints of the RF filters' passband.

Where Am I?

One other complaint that users had about the original HF-150 was the lack of dial lighting, which meant that the frequency display was invisible in the dark. Lowe offered a do-it-yourself backlight accessory, but it appeared from the instructions that installing the kit involved a high risk of cracking the radio's LCD display. The HF-150E includes a very nice orange dial backlight. Now, the complaint is that there is no way to disable the

backlight to cut back on battery drain, although this should be minimal.

Other Changes

The only other discernable difference in the 150E is that the case and front panel are black. There is a Gothic scripted "Europa" label in the lower left corner of the front panel. The accessory lineup has been changed for the 'E—the AK-150 accessory kit, which included a carry strap, shoulder strap and whip antenna has been discontinued. A whip antenna, MPW, is available. The outboard audio processor/speaker/S-meter is to be replaced with an outboard S-meter, the SM-1. The standard keypad is still available (and highly recommended), but there are plans to introduce the enhanced KPAD-2, which will allow mode entry and memory manipulation from the keypad.

In Use

There are no differences between the radios in terms of use and operation. The dial backlight is a welcome addition for low-level lighting situations. The Lowe HF-150E continues the line's capable performance and outstanding fidelity. I like the new front panel color, but could do without the "Europa" label. The only complaint I had about the '150E was that the tension or drag on the main tuning control is a bit loose. Occasionally the frequency would shift by one kilohertz after tuning as the knob would rotate on its own, based on what position the knob's setscrew ended up in.

The other major complaint I have about the Lowe HF-150E is its price. At Universal Radio, the current price is \$749, which makes the '150E less of a good value, relative to the original. There is hope that this price will come down somewhat, which will make the '150E more attractive to the consumer. The US distributor for Lowe is EDCO, 325 Mill St., Vienna, VA 22180; (703) 938-8105. Thanks to John Wagner for the gracious loan of the review receiver.



Country List Committee Report

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NASWA's Country List, used by many DXers worldwide in addition to our club members, had its beginning more than 35 years ago with a small group of experienced SW listeners known as DXplorers. After several years, this experimental project was taken over and adopted by NASWA, which has administered the list ever since.

Gerry Dexter was one of the original DXplorers group who developed the concept and this unique country list standard, and he continued all these years as a member of NASWA's Country List Committee. Gerry recently retired from the CLC. His fellow committee members, the NASWA membership and other users of the list thank him for his untiring efforts, dedication and decades of service. Longtime Canadian DXer John Fisher of Calgary, Alberta, has been appointed to fill the vacancy on the seven-member CLC. The other committee members, Jerry Berg, John Bryant, David Clark, Harold Cones, John Herkimer, and chairman Don Jensen, look forward to working with John F.—the committee's third "John"—in the months and years ahead.

In recent weeks, the CLC restudied an issue it tabled early this year. The question was whether to add tiny San Marino, an independent enclave within Italian territory, to the NASWA list, based on several unlicensed pirate broadcasts in December 1997. Although the station claimed to have operated from within San Marino, and verified some reports from there, the San Marino Postmaster General later denied, quite vehemently, that those broadcasts originated within the principality, claiming, instead, that they came from Central Europe, "probably from Germany."

Normally we would accept at face value a station's broadcasting claims since a pirate broadcaster's location is not usually challenged. Yes, clandestine transmitter locations have been questioned in the past,

but not so pirate broadcasters. But this dispute has caused us to take a second look. Which is the truth: Did RSMI transmit last Dec. 20-21 from within San Marino as the station claims? Or were the broadcasts aired elsewhere, "perhaps in Germany," as the San Marino PTT claims? Despite investigations, the CLC has not been able to establish to its satisfaction where the truth lies. And until it can, the question has been tabled. For now at least, San Marino has not been added to the NASWA Country List, although that might happen in the future if—perhaps with additional broadcasts—CLC is satisfied that RSMI actually broadcasts from within San Marino.

Turning to another matter, the NASWA list traditionally included as separate countries those various union republics which made up the former USSR. With the breakup of the Soviet Union, the situation became more complex. The CLC has monitored developments, and subsequently added several new countries within this region to the list. However, there are several more potential new countries on our "watch list." One of the CLC's problems is determining the degree of autonomy from Moscow's control exercised by some of these proclaimed independent entities. In other words, how independent does a so-called independent country have to be? With answers not always clearcut, the CLC is proceeding slowly, with the hope that eventually more of these smaller Russian regions can be added to the list.

Finally, the CLC's major project in the last several years has been the revision in the format of the country list, a effort reflected in the current, more user-friendly edition of the list, released early this year. The committee has received a number of positive responses to the new format. We always welcome comments and suggestions to further improve the list and its usefulness. They may be directed to the CLC chairman, Don Jensen, 5204 70th Street, Kenosha, WI 53142, or email: <dnjkenosha@acronet.net>. 

Listener's Notebook

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ALBANIA *Radio Tirana* current sked:

0000-0400	Albanian	7270 6090
0045-0100	English	7160 6115
0130-0200	English	7160v 6220
0300-2200	Albanian	6100
0700-1000	Albanian	7270 1395
0900-1400	Albanian	7150
1400-1430	Italian	9550 7155
1400-1700	Albanian	7270 5985
1545-1600	English	12085v 11735
1600-1630	French	12085v 11735
1700-1715	Turkish	7155 6210
1715-1730	Greek	7155 5960
1730-1800	German	7215 6080
1900-2200	Albanian	7270 6170
2115-2130	Serbian	7110 6085
2130-2200	English	7165 6025
2200-0000	Albanian	7270 6090

(BBCM)

Radio Tirana noted on new 6220.6 in English with news on the following days June 1 and June 2 with poor modulation from 0130 to 0145. (1-2-Jun/Eramo/EDXP/Padula-AUS)

Trans World Radio via Albania:

0500-0515	Kurdish	11635
0515-0530	Polish	9670 7385 Fr-We
0830-0845	Hungarian	9490 7385 Tu-Sa
1340-1355	Russian	11635 9485 Su
1340-1440	Russian	11635 9485 Sa
1340-1455	Russian	11635 9485 Tu-Fr
1355-1455	Russian	11635 9485 Mo
1444-1500	Kurdish	11625
1500-1530	Polish	9485 7385
1502-1517	Armenian	12080 9660 Sa/Su
1502-1532	Armenian	12085 9660 Mo-Fr
1630-1730	Persian	12080 9475
1800-1815	Russian	9925 6240 Sa
1830-1900	Finnish	9905(alt) 9480 Mo-Fr
1900-1930	Norwegian	9905(alt) 9480 Mo-Fr
1930-2000	Swedish	9905(alt) 9480 Mo-Fr
	(BBCM)	

ANGOLA *Radio Nacional de Angola*, Mulevos, 11954.78, 1818 M speaker Portuguese, followed by typical Angolan song. Also playing jazzy sounding music, presumably from Brazil. (16-Jun/Schaay-HOL)

AUSTRALIA A new sked is in effect for *Radio Australia*, including two freqs in the 21 MHz band: 21740 2100-0200 and 21820 0200-0900, both via Shepparton, 100 kW, carrying the English service. (18-Jun/Holmes/EDXP/Padula-AUS)

AZERBAIJAN (Nagorno-Karabakh) v9677.66, *Voice of Justice*, heard early, at 0502 M&W with talks in Azeri at tune-in, many ments of Karabakh, some talks on Azerbaijan. Heavily overmodulated carrier, s/off 0536*. The transmitter was on for at least 10 mins after 0700 without audio. Or Wed it apparently was on at 0500-0530*; 1 hr it at 0529 without audio. New country? They sent a diplomatic delegation to

France this week and were received by Pres. Chirac. (23-May/Henderson-TUR/NU/WWDXC Top News/Bueschel-GER)

BELARUS *Belarus Radio* super signal on new 11670 at 0500-0600, politics in Bjelorussian, but no //7210 check, due of BBC Balkan block via tremendous Rampisham 500 kW signal on latter frequency. (13-Jun/Bueschel/WWDXC Top News/Bueschel-GER)

Here is a current observed schedule of R. Mayak USB relays (June 9-10):

0300-1800	4982 5134
1200-1400	4855
1800-2200#	2738 2829

#= sometimes also between 2200-2300 and 0200-0300 (9-10-Jun/Timofeyev-RUS/DSWCI DX Window/van den Boogert-HOL)

CAMBODIA 11940.40 *National Radio of Cambodia*, 0005-0014*, English program, CBG mx, ID "National Voice of Cambodia." IS at 0015, then French program onwards. 25432 (31-May/Schulze-PHIL/WWDXC Top News/Bueschel-GER)

CANADA By time this hits print, *Canadian Forces Network* via RCI will be history. From what I've heard, there was a debate in the Department of National Defence as to how best to do broadcasting to the Forces overseas, a debate which seems to have been both intense and long-lasting. Eventually, it was decided to put the whole thing out to tender ... and by the terms of the tender as issued, DND apparently wanted about twice as much programming as at present, and were willing to pay about half the amount of money as at present. Under those terms, RCI didn't even bother to tender. (No, unfortunately I haven't heard who's going to be doing this broadcasting beginning in July...though I wouldn't be surprised if they just cobble together some bits from various commercial stations.) (16-Jun/Westenhaver, RCI/World of Radio/Hauser-OK)

Radio Asia Canada - see GERMANY

CHINA CRI noted on new 5965, *1100 in Korean, bad QRM to co-channel BBC-Sackville and RTVM-Kuala Lumpur (30-May/Padula/EDXP/Padula-AUS)

Central People's Broadcasting Station (CPBS) is officially referred to in English as China National Radio (CNR), although it continues to identify itself in Chinese as Central People Broadcasting Station ("Zhongyuan Renmin Guangbo Diantai"). This schedule is based entirely on monitoring observations.

CPBS Main Program

0000-0030	Chinese	17580 17550 15550 15480 15390 15195 15150 12120 12030 11960 11925 11830 11630 10260 9510 9340 9290 9080 7935 7504 7220 7190 6750 6125 6030 5955 5915 5880
0030-0100	Chinese	17605 17580 17550 15550 15480 15390 15195 15150 12120 12030 11960 11925 11830 9510 9340 9290

		7935 7504 7220 7190 6750 6125 6030 5955 5915 5880	11785 11630 10260 9845 9340 9290 9080 7935 7504 7220 6750 6125 6110 6030 5955 5915 5880
0100-0130	Chinese	17605 17580 17550 15550 15480 15390 15195 15150 12120 12030 11960 11925 11900 11830 9340 9290 7935 7504 7220 7190 6030	CPBS Second Program 0000-0030 Chinese 15500 11800 11610 11505 11040 9775 9064 7770
0130-0200	Chinese	17605 17580 17550 15550 15480 15390 15195 15150 12120 12030 11960 11925 11900 11830 9340 9290 7504 7220 7190 6030	0030-0100 Chinese 15500 12080 11800 11610 11505 11040 9775 9064 7770 0100-0400 Chinese 17700 15500 12080 11800 11610 11505 11040 9064 7770
0200-0600	Chinese	17605 17580 17550 15550 15480 15390 12120 12030 11960 9340 9290 7504 6030	0400-1100 Chinese 17700 15500 11800 11610 11505 11040 9064 7770 1100-1130 Chinese 15500 11800 11610 11505 11040 9775 9064 7770
0855-1000	Chinese	17605 17580 17550 15550 15480 15390 12120 12030 11960 11825 9340 9290 7504 6030	1130-1200 Chinese 15500 11800 11505 11040 9775 9064 7770 7140
1000-1100	Chinese	17605 17580 17550 15550 15480 15390 12120 12030 11960 11825 9340 9290 7935 7504 6030	1200-1300 Chinese 11505 9064 7770 6890 5057 1300-2058 Chinese 9064 7770 6890 5057 4850 2058-2230 Chinese 11800 9775 9064 7770 7140 6890
1100-1130	Chinese	17580 17550 15550 15480 15390 12120 12030 11960 11825 9800 9340 9290 9080 7935 7504 6750 6125 6030	2230-2300 Chinese 5057 4850 11800 11505 9775 9064 7770 7140 6890 5057 2300-2330 Chinese 11800 11610 11505 9775 9064 7770 6890 5057 2330-0000 Chinese 15500 11800 11610 11505 9775 9064 7770 6890
1130-1200	Chinese	17580 15480 15390 12120 12030 11960 11825 9845 9800 9340 9290 9080 7935 7504 6750 6125 6030	CPBS Minorities Programs 0000-0026 Tibetan 15670 12080 11375 10260 9500 0030-0056 Uighur 15670 11630 11375 10260 0100-0126 Kazakh 15670 11630 11375 10260 8566 0430-0456 Korean 9920 8566 0500-0526 Mongolian 9920 8566 0530-0556 Tibetan 15670 11375 9500 0600-0626 Uighur 15670 11630 11375 10260 0630-0656 Kazakh 15670 11630 11375 10260 1000-1026 Korean 9920 8566 1030-1056 Tibetan 15670 11375 9500 1100-1126 Uighur 15670 11375 10260 1130-1156 Kazakh 15670 11630 11375 10260 1200-1226 Korean 5420 4190 1230-1256 Mongolian 5420 4785-Hohhot 4525-Hohhot 4190
1330-1400	Chinese	12030 11925 11825 9845 9830 9800 9080 7935 7504 7345 7290 6750 6125 6110 6030 5320 5030 4460	1300-1326 Tibetan 15670 11375 9500 6200-Lhasa 5995-Lhasa
1400-1735	Chinese	12030 11925 9845 9830 9800 9080 7935 7504 7345 7290 6750 6125 6110 6030 5030 4460	1330-1356 Uighur 15670 11630 11375 10260 7195-Urumqi 1400-1426 Kazakh 15670 11630 11375 10260 4970-Urumqi 1430-1456 Mongolian 15670 11630 11375 10260 5060-Urumqi 4980-Urumqi
1958-2100	Chinese	12030 11925 11630 10260 9845 9830 9800 7935 7504 7345 7290 6750 6295 6180 6125 6110 6030 5955 5915 5880 5320 5030 4460	2130-2156 Korean 5420 4190 2200-2226 Mongolian 5420 4785-Hohhot 4525-Hohhot 4190 (BBCM)
2100-2145	Chinese	15515 12030 11925 11630 10260 9845 9830 9800 7935 7504 7345 7290 6750 6295 6180 6125 6110 6030 5955 5915 5880 5320 5030 4460	11952, tonal language which I believe to be Tibetan and Chinese-style time signals, surely Lhasa in Tibetan. Best here 0000-0300 when BBC QRM on 11955 is weaker, also evenings 1300-1542v sign-off. Appears to be on before 2335-1545 with break of a couple of hours around 0700-1000 (will try to confirm). Late evenings is // with barely readable 6200. (12-Jun/Davies-UK, touring in SoEaAS/WWDXC Top News/Bueschel-GER)
2145-2200	Chinese	15515 12030 11925 11630 10260 9845 9830 9510 9080 7935 7504 7345 7290 7220 6750 6295 6180 6125 6110 6030 5955 5915 5880 5320 5030 4460	CPBS Taiwan Service identifies "Zhongyang Renmin Guangbo Diantai Xianzai Kaishi Dui Taiwan Guangbo" ("This is the Central People's Broadcasting Station. We now begin our broadcast to Taiwan"). First program: "Di Yi Tao Jiemu" ("This is the First program"). Second program: "Di Er Tao Jiemu" ("This is the Second program").
2200-2300	Chinese	15515 12120 12030 11925 11630 10260 9845 9830 9510 9080 7935 7504 7345 7290 7220 7190 6750 6295 6180 6125 6110 6030 5955 5915 5880 5030 4460	
2300-2330	Chinese	15515 15480 13800 12120 12030 11925 11785 11630 10260 9845 9830 9290 9080 7935 7504 7345 7290 7220 6750 6180 6125 6110 6030 5955 5915 5880 5030	
2330-2345	Chinese	15550 15515 15480 15390 15195 12120 12030 11925 11785 11630 10260 9845 9340 9290 9080 7935 7504 7220 6750 6125 6110 6030 5955 5915 5880	
2345-0000	Chinese	15550 15515 15480 15390 15195 15150 13800 12120 12030 11925	

First Program
 0055-0615 Chinese 15710 11935 11100
 0955-1200 Chinese 15710 11935 11000
 1200-0005 Chinese 11935 11000 9380

Second Program
 0000-0105 Chinese 11000 9170
 0355-1300 Chinese 15880 11000
 1300-1600 Chinese 11000
 1600-1805 Chinese 9170
 2055-0000 Chinese 11000 9170 9170
 (BBCM)

Voice of Pujiang, targeting listeners in Taiwan, identifies: "Pu-Jiang Zhi Sheng Guang-Bo Dian-Tai" ("Voice of Pujiang Broadcasting Station").
 0955-1400 Chinese 9705 4950 3280
 (BBCM)

CHINA - TAIWAN 9610.05 BCC Taiwan, May 27, 0958
 Chinese, ends breezy tlk pgm, mx up, 1000 1 beep, theme mx,
 M ID ending w/ "Kinjyo?" kuangpo hsinwen wang," into nx.
 Fair-good, some flutter. (Quagliari) [Al, the BCC is not on
 shortwave anymore. This logging should read: "CBS,
 Zhongyang Guangbo Xinwen Wang" or "Chungyang Kuangpo
 Hsinwen Wang" if you prefer the Wade-Giles romanization
 (DSWCI DX Window/van den Boogert-HOL) [Thanks for the
 correction! - AQ]

CLANDESTINE - AFRICA *Voice of Liberty and Renewal*
 ID's as "the radio of the Voice of Liberty and Renewal, Voice of the Sudan Alliance Forces, Voice of the Popular Armed Uprising" (Arabic: idha'at sawt al-huriyah wa al-tajid, sawt quwwat al-tahaluf al-sudaniyyah, sawt al-intifadah al-shab'iyyah al-musallah). It was first observed by BBC Monitoring on 7th May 1998. The Sudan Alliance Forces (SAF) are an opposition guerrilla army of ex-government northern soldiers, affiliated to the Asmara, Eritrea-based National Democratic Alliance (NDA), the main opposition umbrella group. URL (Sudan Alliance Forces):
www.safsdan.com
 1600-1700 Arabic 7000v
 (BBCM)

Radio Democracy for Africa, first announced by U.S. President Bill Clinton on March 28 while in Botswana, is preparing to begin production soon. A U.S. Information Agency (USIA) spokeswoman says that the agency is still waiting for U.S. Congress to approve the legislation that will begin the service and that, of course, depends upon the congressional agenda. Nevertheless, the USIA and Voice of America are ready to start and already have people in place to produce programming in French, Amharic, and Arabic. Staff for other services will be pooled from personnel, which maintains a rolling resume index.

"As soon as we get the green light," she says "we will go."
 (Clandestine Radio Watch/Schoech-GER)

CLANDESTINE - ASIA *Echo of Hope*, which claims to be operated by Koreans living overseas, operates to North Korea from transmitters in South Korea. Identification: "shimang-e meiari pangsong innida"
 0300-0600 Korean 6348
 0900-2100 Korean 3985
 (BBCM)

Radio Free Asia noted on new 9570 with Khmer *2230, parallel 17510 KWHR, 11560 Kamo, 11570 Almaty. Inaudible on listed 9355 Dushanbe due to severe jamming. (11-Jun/Padula/EDXP/Padula-AUS)

Before President Clinton had a chance to board Air Force One to head for Beijing, Chinese consular officials in Washington revoked press visas given to three Radio Free Asia (RFA) journalists on Monday.

The revocation of visas previously given to journalist Arin Basu, producer and technician Patricia Hindman and Mandarin broadcaster Feng Xiao Ming sparked a bitter battle within Washington circles this week as policymakers struggled to comprehend Clinton's agenda and strategy for his visit - the first visit of a standing U.S. president in nine years.

"This is censorship -- pure and simple -- and the U.S. government must not stand for it," House Speaker Newt Gingrich released in a prepared statement. "If the Chinese government does not immediately return the visas... you should bring them with you in person on Air Force One."

RFA's work has been an uphill struggle since its beginnings as a 30-minute Mandarin broadcast in September 1996. Within a month of its first transmission, the Washington Times reports, Chinese diplomats stormed into RFA's modest Connecticut Avenue office / studio to demand information on its relay stations. The U.S. Department of State has lobbied governments in Central Asia and the Pacific to permit the retransmission of RFA programs via foreign transmitters. The Chinese government, in response, has pressured those governments to cease such relays and has methodically jammed RFA. Yet the station continues to receive mountains of letters a week praising RFA from listeners in its target countries, including China.

The White House called the revocation of the visas "highly objectionable" and said that the Clinton administration is committed to protesting the action. However, many within the U.S. government look upon RFA with distaste. U.S. Ambassador to China, James Sasser, is reportedly uncomfortable with Beijing's vocal opposition to RFA and its programs. Although he delivered a "strong demarche" to the Chinese Vice Foreign Minister regarding the diplomatic debacle on Wednesday, White House Spokesman Joe Lockhart issued a confusing statement that RFA is funded through taxes and cannot, therefore, be an "independent news organization."

Clinton's own commitment is also questioned since the three reporters did not board Air Force One to accompany him as diplomatic guests. Instead they were allowed a symbolic interview hours before departure where he stated that he refuses to do "anything that I think will actually undermine my ability to get real results." He did, however, promise to raise the issue of jamming in his meeting with Chinese officials.

Articles from The Washington Times and Washington Post were used to compile this article. (Clandestine Radio Watch/Schoech-GER)

Voice of National Salvation, believed to emanate from North Korea: 0030-0100 English
 4557 4450 3480
 0300-0700 Korean 4557 4450 3480
 1000-1400 Korean 6010 4557 4120 3480
 1400-1700 Korean 4557 4120 3480
 2000-0030 Korean 4557 4450 3480
 (BBCM)

Voice of the People, believed to broadcast from South Korea, despite claiming to broadcast from Pyongyang. Station identification: "This is the Voice of the People coming to you from Pyongyang" (Korean: "Yoginun Pyonyang-eso ponaedurinun imminuisoribang-imnida").

0300-0700 Korean 6600 6518
 1100-2100 Korean 3912
 2300-0100 Korean 6600
 (BBCM)

CLANDESTINE - MIDEAST Republic of Iraq Radio, Voice of the Iraqi People (Arabic: idha'at al-jumhuriyah al-iraqiyah min baghdad, sawt al-sha'b al-iraqi) supports western policies towards Iraq. It is believed to broadcast from Saudi Arabia.
 1445-2310 Arabic 9568 9563
 (BBCM)

QSL Letter received by Ted Alleyne, 5Z4NU, Coordinator of the Monitoring System of the Radio Society of Kenya. After having sent a complaint to *Voice of Southern Azerbaijan* in Vienna, Austria, Ted received the following QSL letter from the Clandestine Station:

VOSA LTD, Postfach 108, A-1193 Vienna, Austria
 26/4/98 Dear Mr. Alleyne (5Z4NU),
 We confirm receiving your letter of 24/3/98. We apologize for transmitting in a frequency which caused interference to the amateur service in your region. For your information we have stopped our transmission on that frequency (7095 kHz).

Thank you for reporting, VOICE OF SOUTH AZERBAIJAN (28-May/DARC Band Watch/Bihlmayer, DJ9KR/WWDXC Top News/Bueschel-GER)

DENMARK Radio Denmark, all via Norway, all in Danish:

0030-0055	9935 11735 13805
0130-0155	9935 11990 13805
0230-0255	11600 11990
0330-0355	9975 11635
0430-0455	7485 11635 9945
0530-0555	7485 13800 15220
0630-0655	7180 9590 11665 13800
0730-0755	7180 9590 13800 15640
0830-0855	18950 15640
0930-0955	18950 15675
1030-1055	11605 18950
1130-1155	11605 15625
1230-1255	15640 17785 15650 17535
1330-1355	9590 15640 15650 17535
1430-1455	15695
1530-1555	13800 13805 15230
1630-1655	9590 13800 15340 18950
1730-1755	7485 13830 15705 15220
1830-1855	7485 15735 15705 18950
1930-1955	7485 15220 15705
2030-2055	7485 15220
2130-2155	9940 13800
2230-2255	11635
2330-2355	9935 11640 11735 13805

(Koie-Radio Denmark)

DOMINICAN REPUBLIC Radio Cima 100 is back in the air after several years of absence. 4960.1, Radio Cima 100, Santo Domingo, 0045-0105, SS, salsa and merengue music with short announcements between the music pieces ("Radio Cima"), full ID at 0102: "Desde la Republica Dominicana transmite Radio Cima Cien." (11-Jun/Schnitzer-GER/WWDXC Top News/Bueschel-GER)

ERITREA Voice of the Broad Masses of Eritrea was noted with two new freqs in use: 6190 //7085, 1545-1830* on Jun 3, *0329- on Jun 4 (Program 1, mostly in Vernaculars) 7175 //7390, 1617-1800* on Jun 3, *0329- on Jun 4 (Program 2, mostly in Ar with ID's as "Hune Asmara...") (Timofeyev-RUS/DSWCI DXW/WWDXC Top News/Bueschel-GER)

ETHIOPIA 11800 Voice of Peace, Gedja, *1059-1120, Interval signal (piano), ID in English, ann. in Semitic lang. followed by nasal sounding religious chant. Nothing heard on 9560. Reasonable signal for noon-reception. (7-Jun/Pijpers/DSWCI DXW/WWDXC Top News/Bueschel-GER)

FINLAND YLE Radio Finland

0200-0230	English	11900 9780
0230-0300	Finnish	11900 9780
0300-0400	Finnish	6120
0400-0500	Finnish	15440 11755 9655 6120
0500-0515	Finnish	15440 11755 9655 6120
0500-0515	Swedish	9560
0515-0530	French	9560
0515-0530	Russian	9655
0515-0600	Finnish	11755 6120
0530-0600	German	9560
0600-0630	Finnish	17830 11945 11755 9560 6120
0630-0700	English	17830 11945
0630-0700	Finnish	11755 6120
0630-0800	Swedish	9560
0700-0800	Finnish	17820 15235 11755 6120
0800-0830	Finnish	17820 15235 11755 6120
0830-0900	Finnish	11755 6120
0830-0900	Russian	15325
0900-1000	Finnish	11755 6120
0900-1000	Swedish	9560
1000-1030	German	9560
1000-1100	Finnish	11755 6120
1000-1100	Swedish	13645
1100-1130	Finnish	11900 11755 6120
1130-1200	Finnish	15400 11900 11755 6120
1200-1300	Finnish	15400 11900 11755 6120
1300-1330	Finnish	11755 6180 6120
1300-2000	Swedish	9730
1330-1400	Finnish	11755 6120
1330-1400	Russian	6180
1400-1500	Finnish	15400 11755 6120
1500-1530	Finnish	11755 6120
1500-1530	Swedish	15145
1530-1600	Finnish	15145 11755 6120
1600-1630	Russian	6180
1600-1700	Finnish	11755 6120
1700-1800	Finnish	11755 6120
1800-1900	Finnish	11755 6120
1900-1950	Finnish	11755 6120 5970
1945-2000	French	6135
1950-2000	Swedish	11755 6120 5970
2000-2030	English	6135
2000-2100	Finnish	11755 6120
2030-2100	German	6135
2100-2130	Finnish	11755 6120
2130-2200	Finnish	6120
2245-2300	Swedish	11895 9655
2300-2330	Finnish	11895 9655

(BBCM)

GERMANY Deutsche Welle changes to Z98 sked: German 1000-1400 13810 (ex 11870) Novosibirsk 200 kW German 2200-0000 11795 (ex 7340) Novosibirsk 1000 kW Hausa 1800-1900 15135 (ex 15245) Kigali 250 kW Indonesian 1400-1425 11765 (ex 11925) Trincomalee 250 kW (DW/BCDX/EDXP/Padula-AUS)

Trans World Radio via Germany:
 1600-1630 Romanian 5840
 (BBCM)

Radio Asia Canada noted on new 9405 (Julich) 0350 music, echo announcements in language, news, strong signal, Jun 5). (5-Jun/Paszkiewicz/EDXP/Padula-AUS)

Radio Asia Canada Julich current official registrations for remainder of 298 until Oct 25:

9560	0000-0200
9700	0200-0400
9855	0100-0130 Mon
17530	1800-2000 Sat/Sun
15560	2000-2200
11975	2200-0000

(25-May/BCDX/EDXP/Padula-AUS)

Radio Asia Canada - by Harold Sellers

On Jun 18 I had the pleasure to meet and speak with Phillip P. Koneswaran, Vice President & Operations Manager for Radio Asia Canada. Mr. Koneswaran kindly gave me an extensive look at the background and plans of RAC.

Radio Asia Canada had its origin as a local program aired for half an hour on CHOW-1470 back in 1990. Airtime increased to 12 hours per week, but ended in 1995. At that time RAC began to plan an application for their own AM station in Toronto. This resulted in their application for 1670 kHz, which the CRTC denied earlier this year.

Also in 1995 they began making plans for an international service. A direct-to-home service for Europe was inaugurated in August 1997 and continues today.

The first shortwave broadcasts took place in January of this year, with three hours of programming per week directed towards Asia from Voice of Russia transmitters. A switch to programs directed towards North America was made on May 10th when transmitters operated by Marlin Communications in the U.K. were used for one week. Coverage was not satisfactory but then a contact with Deutsche Telekom resulted in the move to Julich, Germany. These transmitters are putting a very good signal into North America, particularly the East, but also allowing listeners in the western half of the continent to tune in.

Initially programs were only in Tamil, but since the switch to DTK two hours of English are broadcast per day. Total airtime is now 8 hours per day, 10 on weekends. In October this should increase to 12 hours per day. The current shortwave schedule is:

Tamil	0000-0200	9560
Tamil	0200-0400	9405
Tamil	1800-2000	17530
English	2000-2200	15560
Tamil	2200-0000	11975

Radio Asia Canada also has plans to add a number of other languages in October, including Russian, German, French, Spanish and an African language. RAC's goal is to represent Canada to the world and if this sounds like a goal that Radio Canada International would also have, it should come as no surprise that RAC has been talking to RCI. They are hoping to cooperate with RCI in the area of programming, but nothing is conclusive yet. Mr. Koneswaran was enthusiastic for RAC to be a Canadian voice to the world. An exchange with the Voice of America is also being explored, so we may eventually hear VoA news via RAC.

Besides these languages, Tamil will also be broadcast to the various target areas, just as it is to North America. Mr. Koneswaran explained that there are large Tamil communities in many countries and have been for many years. As a result second generation Tamils in those communities want to hear programming in the language of their adopted country, as well as their native Tamil. In France, for example, there are 30,000 Tamils. An hour of English is planned for each of South America and East Africa, beginning Oct 25.

Besides their DTH and SW services, Radio Asia also has had FM outlets in Australia since Apr 28 1998. Transmitters in

Sydney and Melbourne serve approximately 20,000 listeners with the same programs as are heard on shortwave.

The Toronto AM station on 1670 will again be applied for, says Mr. Koneswaran.

The North American audience is growing, judging from listeners contacting the station and the popularity of talk shows that are aired. In North America there are 250,000 to 300,000 people with Tamil roots, according to Mr. Koneswaran. Five or six Tamil newspapers exist in Toronto alone and several of these have circulation outside of the Toronto area. These papers, plus the internet, afford RAC the opportunity to promote themselves.

At present programming is 86% Canadian-produced, while 14% is obtained from other countries. They want to increase the Canadian production. Some programming is now obtained from the Singapore Broadcasting Corporation, Radio One. Due to a ban imposed by the Sri Lankan government, it is not possible for news to be obtained from the SLBC.

Announcers come from Toronto, but RAC has offices in a number of countries. Studios in France, Germany and Switzerland presently contribute a small amount of local programming.

Advertising comes from both local and international businesses. International sponsorship will increase and at the same time, RAC hopes to reduce the number of spots per hour.

Radio Asia Canada receives three or four reception reports per day. Although they have not yet begun to QSL, they do hope to in the future, once time and staff are available.

Radio Asia Canada is located at 680 Progress Avenue, Unit #1, Toronto, Ontario M1H 3A5. They may also be contacted at telephone 416-289-1522, fax 416-289-1840, and their webpage <<http://www.radioasiacanada.ca>>

I wish to thank Phillip Koneswaran for his kind cooperation in giving this interview. (21-Jun/Sellers/ODXA/EDXP/Padula-AUS)

GREECE One of the two HF transmitters at the IBB Rhodes Relay station has been removed from service. The remaining schedule of HF transmissions from Rhodes is: 0400-0600, VOA in Arabic on 9865 toward the ME; 1700-2100, VOA in Arabic on 6040 toward the ME; and 2100-2200, VOA in English on 6040 toward the ME. This remaining transmitter will also be removed from service as soon as its mission can be accommodated elsewhere, probably in the near future. (4-Jun/Ferguson-VOA)

INDIA I queried Alok about entries in the AIR sked that showed 10330 being used by Guwahati (50 kw), Mumbai (100) and Delhi (50) at 0025-0430, and Chennai (100) at 0100-0430; by the same four sites (with same powers) at 0630-1200; and by the same sites (with same powers) at 1245-1730, all with the Vividh Bharati prgm. Alok's informative response: AIR is using these four transmitters from four different locations as a synchronised operation. All transmitters use dipole antennas. In some pockets, some pre-echoes is noticed, but overall 10330 is well hr'd in every corner of the Indian subcontinent. This 10330 channel has been used now for almost 4-5 years, if he remembers correctly. The history of these channels: The Delhi transmitter was not used at all for this service before 10330 was used. Mumbai was on 7260, 11830 and 9615 in the morning, midday and evening, with the same service. Chennai used 9535, 9750 and 6085 in the morning, midday and evening, also with same service. The Guwahati transmitter was used for the

Guwahati "B" service for N.E. India. The entire Guwahati "B" service (in all sorts of N.E. tribal dialects) has now been transferred to Shillong (which is using a brand new 50 kW transmitter) and designated as the "North-Eastern Service of All India Radio." Previously, all the transmitter sites (or stations) reverb a tape 15 days in advance for rebroadcast. Now the program is radiated from Mumbai and fed to each transmitter site via satellite, and appropriate delay in other places takes place, so that synchronization is done properly. (Dasgupta-IND/DSWCI DX Window/van den Boogert-HOL)

INDONESIA

- 3264.70 *RRI Gorontalo*, 1120-1130 fair, Indonesian lagu. (30-May/TIN-JPN/Relampago DX)
- 3344.88 *RRI Ternate*, 1307-1310 fair, after the relay of Jakarta news program, the station identified itself as "Inilah Radio Republik Indonesia programma dua dengan gelombang-gelombang 89.68 meter dan siaran FM 102MHz ..." (20-Jun/TIN-JPN/Relampago DX)
- 3355.31 *RRI Jambi*, 1258-1306 poor, local ID, then playing Rayuan Pulau Kelapa. At 1300 Jakarta news "Warta Berita Ekonomi dan Industri" (20-Jun/TIN-JPN/Relampago DX)
- 3385.0 *RRI Kupang* noted from Sarawak during the day and evening, such as from 2200-0100 and 0900-1000+. This is obviously causing confusion with the inactive Miri (Sarawak) outlet, also listed for 3385! (18-Jun/Padula-SARAWAK/EDXP/Padula-AUS)
- 3395.14 *RRI Tanjung Karang*, 1510-1523 fair, M talk in Indonesian. (13-Jun/TIN-JPN/Relampago DX)
- 3976.1 *RRI Pointianak*, 1121-1138, adv for "Garuda Indonesia," 1129 IS, 1130-1137 "Warta Berita dari Pointianak." (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 3999.96v *RRI Padang*, 1140-1308, ID, despite wandering to 4000.20 by 1300!! Very weak. (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 4000.17 *RRI Kendari*, 1523-1528 poor signal, Wayang Kulit. (13-Jun/TIN-JPN/Relampago DX)
- 4777.12 *RRI Jakarta*, 1528-1540 fair, M talk in Indonesian. (13-Jun/TIN-JPN/Relampago DX)
- 4845.2 *RRI Ambon*, 0955-, popular mx, ID, 0959 SCI, relay RRI Jakarta "Warta Berita." (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 6069.8 *RRI Jayapura*, 0935-0942, local mx, ID. (29-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 7098.5 *RRI Yogyakarta*, 2205-2215, relay RRI Jakarta "Berita Sekilas," til 2208 "Bagimu Negri," ID, Gong interval, Gamelan mx. (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 7173.2 *RRI Serui*, 0720-0745, popular mx, 0730 ID, IS & gong interval, local nx, Islamic influenced mx. (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 7234.4 *RRI Palu*, 0746-0835, native mx, singer, ID, 0758 SCI, relay RRI Jakarta "Berita Oranlaga," //15150, 11760, 9565, 9553, 7173.2, all noted here. (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 9552.40 *RRI Ujung Pandang*, 0018-0030, ID, international mx, Dangdut mx. (31-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)
- 9680.0 *RRI Jakarta*, Cimanggis. "Kan Guru Radio English Show" at 1015. Recently this English program was not heard at this time. (31-May/Jembatan DX/Yamada-JPN)

9741.7

RRI Sorong, 2240-2259, presumably ID, SCI, then relay RRI Jakarta, "Warta Berita." //3976.1, 9565, 9630, 11750, 11760, 15150, all heard. (30-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)

RRI Tanjung Pinang on 3224.8kHz reactivated in the beginning of June. Sign off time is now 1215. (Yamada-JPN/Jembatan DX)

RRI Tanjungkarang on 3395.1kHz broadcasts all night wayang kulit program on 2nd Saturday. (Yamada-JPN/Jembatan DX)

IRAQ Radio Iraq International, 11785, 0300-0340+, tune-in to English nx by W until 0303, then ME mx, English commentary, ID. Progr at 0315 with listeners' letters/RRs. Surprisingly good, clear audio. Still had hum but was perfectly readable with no distortion. But weak co-channel QRM from unID station with Koran & talk in language. (6-Jun/Alexander-PA/World Of Radio/Hauser)

ITALY Seems that *RAI* has made some rearrangements to Domestic service relays. Caltanissetta noted on 6060 and 7175 carrying Network-2 in period 2000-2200*. At 2200, the 100 kW Roma transmitter opens on 6060 with the Night Progr, running through to 0400*. 6060 from Caltanissetta had long been used for relay of Network-1. The remaining (3rd) Caltanissetta transmitter listed for 9515 unheard here, which has historically carried the Network-1. I have never worked out what happened to the three Caltanissetta txs in the period 2200-0400 - do they go to bed?!? (5-Jun/Padula-AUS/WWDXC Top News/Bueschel-GER)

6060 0400-2200 25 ND
7175 0400-2200 5 ND

9515 0400-2200 5 ND

Above given the actual HFCC listing [and the true situation] (Padula-AUS)

KAZAKHISTAN Kazakh Radio also identifies as "the international radio service Eurasia." This schedule is based entirely on monitoring observations. Some frequencies used by this service are relayed from transmitters in Ukraine (K).

1100-1120	English	11720K 9620K 9505 Fr/Sa
1100-1120	German	11720K 9620K 9505 Su/Mo/We/Th
1100-1120	Turkish	11720K 9620K 9505 Tu
1120-1140	English	11720K 9620K 9505 We
1120-1140	Russian	11720K 9620K 9505 Su
1120-1140	Tatar	11720K 9620K 9505 Fr
1120-1140	Uighur	11720K 9620K 9505 Mo/Tu/Th/Sa
1140-1200	Azri	11720K 9620K 9505 Th
1140-1200	English	11720K 9620K 9505 Tu
1140-1200	Korean	11720K 9620K 9505 Su/Mo/We/Fr
1140-1200	Russian	11720K 9620K 9505 Sa

(BBCM)

KENYA 4885 Kenya B. C., Kora Rock, *0200-0205 clearly //4935 across 0300 with drum IS, brief announcement by W and short anthem. Fair thru co-channel Brazilian. Using 20 kW but more audio than supposedly 100 kW 4935 which soon became very low level. Couldn't ascertain if // with EE service after opening sequence, although it seemed so. (14-Jun/Clark-ONT)

KIRIBATI 9810.01 R. Kiribati, *0500-0520 & 0557-0635 lively opening music fanfare and ID by W, then presumed local news by M in lang. Weak at opening but improving to fair level by 0520 w/indigenous island vocals hosted by W announcer. Returned to island vocal at 0557 and cut over to R. Australia news at 0600:45 following announcement by local announcer, //11880. W w/local and regional Pacific news in EE at 0605. Best in USB, although audio was readable (w/slop from 9805) in LSB mode. Freq. on at least this date, shifted up slightly

from more usual 9809.96. (13-Jun/Clark-ONT)

LAOS Very weak carrier noted on 4682.5 at *1050-1220* 11 June, maybe *Houa Phan* but no intelligible audio heard under local noise.

No trace of Luang Prabang on 6973. There is a strong carrier on the freq regularly in the evenings from *1020-1359 and early mornings *2345-0030* but with no discernible modulation except for sporadic CW and SSB utility traffic on and around the channel. (12-Jun/Davies-UK, touring in SoEaAS/WWDXC Top News/Bueschel-GER)

LATVIA Radio Latvia, Riga:

1900-1930	English	5935 Sa
1930-2000	Russian	5935 Sa
1950-2000	Russian	5935 Mo-Fr
2000-2030	Latvian	5935 Mo-Fr
2030-2035	English	5935 Mo-Fr

(BBCM)

LIBERIA 6100.04 *Radio Liberia* noted weakly around 0630 to past 0700; this is the Liberian that is ordinarily on 5100 and that goes by the name R. Liberia International. (31-May/Berg-MA/NU/EDXP/Padula-AUS)

MALAYSIA - PENINSULAR SW operations from *RTVM Kuala Lumpur* no longer carry the Chinese network, which previously used 6025. That frequency is now used for relay of a non-RTVM FM service from 0300-1300 in Malay. The slogan appears to be "Radio Lapan" (or similar) and it relays the RTVM National Network news in Malay at 0500-0510, joining the RTVM 5965 Malay service at that time. From 1400-1600, 6025 is also used for the External Service, in Malay, "Voice of Islam" in parallel with 6175 and 9750. This is an additional outlet for the V. of Islam service.

RTVM Domestic Service outlets are now:

4845	Radio-6	Indian languages 24-hrs
5965	Radio-1	Malay 24-hrs
7295	Radio-4	English 24-hrs

MALAYSIA - SABAH RTVM Kotakinabalu is no longer heard on 4970. However, it is operating on 5980, such as *0400-0700* and *0800-1600*, as monitored throughout Sarawak. English news is at 0500-0510, announcing the next news to be heard at 1330. The weekend schedule is subject to variation.

MALAYSIA - SARAWAK Here is the observed schedule for Mondays to Saturdays (local Malaysia days) for *RTVM-Sarawak*, made "on location" in the region in the period Jun 15-22. Note that there are many differences to this sked as compared with "official" data given in some references.
K=Kuching, M=Miri, S=Sibu

4895-K	2200-0100	Iban
	0100-0300	Schools (Iban)
	0800-1000	Kayan & Kenyah
	1000-1500	Iban
5005-M	2200-0100	Iban
	0100-0300	Schools (Iban)
	0300-0400	Iban (local program from Miri studio)
	0400-0500	Iban
	1000-1300	Iban
5030-K	2200-0100	Bidayuh (Sundays)
	2200-0200	
	1000-1500	Bidayuh
6050-M	2200-0100	Iban
	0100-0300	Schools (Iban)

0300-0400	Iban (local program from Miri studio)
0400-0500	Iban
1000-1300	Iban
2200-0100	Iban
0100-0300	Schools (Iban)
0400-0600	Iban
1000-1300	Iban
0100-0300	Schools (Iban)
0400-0600	Bidayuh (same transmitter as used on 5030 at other times)
2200-0100	Iban
0100-0300	Bidayuh
0300-0400	Iban (produced in Miri studio)
0400-0500	Iban
0500-1000	Kayan and Kenyah
1000-1500	Iban

Notes:

a/ There is no current operation on 3385, listed for "Sibu"
b/ There are no current operations on 4835, 7145, or 7160, from Kuching. There are only three SW transmitters available at Kuching. c/ Two transmitters are used in parallel at Sibu, on the single frequency of 6060.

d/ Medium-wave outlets are: Kuching: 549 Malay, 729 Bidayah, 846 Iban, 954 CC/EE Miri: 576 Malay, 819 CC/EE, 1206 Iban Sibu: 621 CC/EE, 909 Malay, 1062 Iban Sri Aman: 1044 Malay, 1161 CC/EE/Iban Limbang: 648 Malay, 873 CC/EE/Iban

e/ There are no longer any regular Chinese, English, or Malay services on shortwave.

f/ The Network One (Peninsular Malaysia) news in Malay from Kuala Lumpur is broadcast daily over all RTVM Sarawak transmitters for all networks (MW, SW, and FM) from 1100-1110; this is known as Berita Radio Satu.

g/ The Iban service includes the following news broadcasts for local communities:

0430-0435	Berita Tengah Hari
1030-1040	Berita Menua
1130-1140	Berita Dunya
1200-1210	Berita Menua
1210-1220	Berita Kuala Lumpur
1230-1300	Berita Rama

1300-1315 Relay National News in Malay from Kuala Lumpur 1400-1415 Berita Menua h/ The Iban service includes extensive telephone call-in programming; this is known as "Tit-bits/Phone-in/Lagu-lagu."

2300-2305 Berita Pagi (morning news)

i/ Miri and Sibu studios originate local programs at various times, on an interconnect basis. At other times, programming is relayed from Kuching.

j/ The schools' broadcasts are a vital feature of the curriculum, aired Mondays to Saturdays over transmitters used at other times for the English, Chinese, and Iban services. Schools in Sarawak are open from 7:30am-1:30pm Mondays to Saturdays.

k/ The Malay network operates 24-hrs on MW and FM.

l/ The English/Chinese network runs from 2330-0300, 0500-0900, and 1000-1600 on MW and FM.

m/ The Bidayuh network is on the air 2200-0000, 0400-0600, and 1000-1500. It includes news summaries for various communities: 2315-2330 Berita Pagi (Bukar Sadong) (=morning news)

2345-2350 Berita Pagi (Bau Jagoi) (=morning news)

0400-0405 Berita Tengahari (Bau Jagoi) (=midday news)

0430-0435 Berita Tengahari (Bukar Sadong) (=midday news)

0500-0505 Berita Tenggarahi (Biatah) (=midday news)

1030-1045 Berita Petang (Bau Jagoi) (=afternoon news)

1130-1145 Berita Petang (Biatah) (=afternoon news)

1200-1215 Berita Petang (Bukar Sadong) (=afternoon news)

1300-1330 Berita Radio Satu (news from National Network, Kuala Lumpur, Malaysia)

1400-1415 Berita Malam (evening news)
In "Kuching" means "cat" in Malay and there is an FM network there known as "Cats Radio," offering programming in Malay, English, Mandarin, and Iban. It has programs such as Berita Catis, Cats News, and Cat Talk!

So, there you are, and that's about the best I can do. It is my understanding that the SW facilities in Kuching, Miri, and Sibu will not be replaced on failure, as FM is now widely available throughout the country, with an extensive network of microwave and satellite feeds. (Padula-SARAWAK/EDXP/Padula-AUS) [Fabulous report, Bob! - AQ]

MONGOLIA We received the following message concerning the new shortwave radio station in Mongolia:

"One year ago You successfully helped me with the supply of a short wave transmitter to a project in Mongolia In December I visited the transmitter site, situated in a very small village in the Gobi desert. To be more accurate 150 km. south of Saynsand. The capital of Dornogov province. Or 109,5 E.- 43,7 N.

The transportation trough the desert has been quite difficult since there is no real road to the city, but they successfully got the transmitter there, and installed it. A small production studio has been established, so the Hovsgol district has now a local radio of its own transmitting on 4790kHz. The timing of the transmissions was uncertain at the time of my visit, due to lack of fuel to the generator, but they had plans for two hours of program every evening." (Letter to Ludo Maes-BEL/DSWCI DX Window/van den Boogert-HOL)

MOZAMBIQUE 3281.5v *R. Mocambique*, Beira, 0302 & 0340 presume this w/good carrier level but very low level talk by M; still audible with Afre vocal at 0340. Started on 3281.52 but slowly drifted down to 3281.4. (7-Jun/Clark-ONT) 3280 *R. Mozambique* Maputo has moved to 3283 (Vaghjee) 3370 *R. Mozambique - Emissao provincial de Sofala*, Beira, 1500, reactivated. African songs presented by M 1530 Advertisements then continued with music. ID at 1552 by M then by W. Good reception until 1600. (15-Jun/Vaghjee-MAU/DSWCI DX Window/Krone-DEN)

MYANMAR *Radio Myanmar* sched as monitored here, all HF freqs are fair to excellent:

0030-0245v 7185
0330-0830 9730
0930-1600 5986
English at 0200-0250, 0700-0830, 1430-1600 is mostly inoffensive US pop mix from the 1960s-1980s, but nx noted at 0235, 0735 and 1515. Minority service 0930-1330 on 4725. (12-Jun/Davies-UK, touring in SoEaAS/WWDXC Top News/Bueschel-GER)

NICARAGUA *R. Miskut*, 5770, is now putting 500 watts of RF into the antenna; new equipment has been installed. Government troops occupied the station briefly in an effort to prevent broadcast of news of a rebellion in Miskim. But operations have been restored and there is no longer any interference with broadcasting (21-Jun/Freeman/World of Radio/Hauser)

PAKISTAN *Radio Pakistan*

0100-0215	Urdu	15485	11760
0230-0245	English-dsn	13610	7485
0330-0400	Gujarati	17555	15325
0430-0630	Urdu	17555	15170
0800-1104	Urdu/EE	17835	15530
0900-0930	Indonesian	17540	15405
1000-1030	Tamil	17540	15405

1100-1230	Hindi	11995	9520	7255
1105-1120	English-dsn	17835	15530	
1200-1230	Chinese	11835	9710	
1200-1245	Bengali	15625	11975	
1300-1345	Persian	15625	11935	
1330-1530	Urdu/EE	15170v	11570	9650
1430-1500	Uzbek	6070	5055	
1500-1530	Russian	6070	5055	
1600-1630	English	17720	15170	11570
1700-1900	Urdu	15335v	11570	
1730-1800	Turkish	13580	9400	
1800-1845	Arabic	9330	7460	
1800-1900	Urdu	7255		
1930-2000	French	15335	11570	

dsn=dictation speed news (BBCM)

RUSSIA 9489.7v *Rep. of Abkhazia Radio*, Sukhumi, *0329:14-0350 carrier w/tone to opening anthem, unreadable opening and possible news by deep-voiced M announcer from 0330:30; dialogue by M & W at 0350 tune-out. Started on 9489.70 but slow drift up to 9489.75+. Mostly weak w/deep fades. (6-Jun/Clark-ONT)

Kabardino-Balkar Radio (Nalchik) operates Sunday, Wednesday and Thursday from 1730-1800 on 7325 kHz. (BBCM)

Adygey Radio (Maykop) broadcasts in the Bzadog (or Bzadugh) dialect of Adygey, one of the Circassian languages. Sked is 1700-1800 on 7325, Mondays and Fridays only. (BBCM)

Islamskaya Vlna ("Islamic Wave"), programs in Russian, with occasional Arabic and Tatar

1500-1530	11655	9730	Tu-Fr
1530-1600	11655	9730	7325 6120-alt Tu-Fr

(BBCM)

Voice of Assyria (Kala Aturaya) in Assyrian, Russian, Arabic, Persian and English:

1500-1530	11655	9730	Sa
1530-1600	11655	9730	7325 6120-alt Sa

(BBCM)

Shortages and changes in the time schedule on Voice of Russia as from June. Reduction of parallel frequencies.

English WS	1300-1400	deleted
Nepali	1300-1400	deleted
Bengali	1530-1600	(x)1400-1445)
Hindi	1500-1530	(x)1500-1600)
Hungarian	1700-1745	(x)1600-1700)
Czech	1745-1830	(x)1800-1900)
Slovak	1830-1900	(x)1700-1800)
Russian	1800-1900	deleted
Arabic	1900-2000	deleted
Spanish	2000-2100	deleted
Portuguese	2100-2200	deleted
German	1500-1600	9765 & 12070 deleted
German	1530-1600	12020 deleted
German	1600-1700	12020 & 12070 deleted

(8-Jun/Lieberwirth-GER/WWDXC Top News/Bueschel-GER)

4795 new *R. Rossi*, ssb feeder in usb, Russian, 1220-1320, ID. On May 27th & 29th also //5940 & 7210. Nothing heard on 4860! (25-May/Schulze-PHL/WWDXC Top News/Bueschel-GER)

Arkhangelsk 20 kW ssb + carrier

0200-0600	5950
0630-1400	9610
1430-2200	5920
0200-0500	7330

1530-2200 15215

Krasnoyarsk 20 kW
1130-1600 5900
2200-1100 9500

World University Network observed 0700-1100 17590 via Samara.

Radio 1 (Odin) SW transmissions have been discontinued since mid April. **BBC** Ukrainian service relays via Yekaterinburg have been discontinued. (Rudnev-RUS)

SAUDI ARABIA *Broadcasting Service of the Kingdom of Saudi Arabia* (BSKSA) sked in other-than-Arabic languages, including new French service:

0400-0500	Somali	15335
0400-0600	Turkish	15275
0500-0600	Swahili	17755
0800-1000	French	15235
1000-1200	Indonesian	21670
1200-1400	Urdu	15345
1400-1500	Bengali	15345
1400-1600	French	15290 15170
1400-1600	Persian	11745
1500-1600	Turkmen	9730
1600-1700	Bambara	17760

(BBCM)

BSKSA Home service latest observed schedule with some latest freq changes or drifts:

0300-0600	HQ	7150 9553.6 9619.4 9715 9718.3 11870 17895
0300-1700	SAP	9578.6
0600-0900	HQ	7150 9530 9715
0600-0900	MAP	9718.3 11708.2 11818.5
0900-1200	HQ	7150 9715 17880 21495
0900-1200	MAP	11818.5 15060
1200-1500	MAP	15230 15275 15377
1200-1600	HQ	7150 9715 15161.8 15170.1
1500-1700	COI	11780 11948.3 11965
1600-1700	HQ	7150 9715 9730 11708.2 11833.6
1700-1800	HQ	9730 11708.2 11833.6
1700-1800	MAP	11780 11948.3 11965
1700-2100	SAP	12038.6
1800-2300	HQ	9703.4 11935
1800-2300	MAP	9555 9870

First two programs can be also heard via "daytime" or "nightime" feeders on 10990 or 3868 (2nd program in LSB and Main Arabic program in USB). For all services: high power transmitters usually on nominal freq, low power on unnominal ones.

MAP=Main Arabic Program, SAP=Second Arabic Program, HQ=Holy Qur'an, COI=Call Of Islam (17-19-Jun/Timofeyev-RUS/DSWCI DX Window/Krone-DEN)

SINGAPORE Latest sked for *Singapore Broadcasting Corp.* integrating Domestic and External (Radio Singapore International) services, based on monitoring in early June and advice from the station: 0000-1100

0000-1100	Chinese-DS	6000
0000-1100	English-DS	6150
0000-1100	Malay-DS	7245
0000-1800	Indian Ians DS	7170
1100-1400	Chinese-RSI	6120
1100-1400	Chinese-RSI	6000
1100-1400	English-RSI	6150
1100-1400	English-RSI	6015
1100-1400	Malay-RSI	6070 7245
1400-1600	Chinese-DS	6000
1400-1600	English-DS	6150
1400-1600	Malay-DS	7245

2300-0000 Chinese-DS 6000

2300-0000 English-DS 6150

2300-0000 Indian Ians DS 7170

2300-0000 Malay-DS 7260

All seven transmitters are in use simultaneously between 1100-1400 (six transmitters for RSI, one transmitter for Indian langs DS). (Padula/EDXP/Padula-AUS)

SOMALIA 6840 R. *Hargelsa* has moved here. The reception is good but with occasional QRM. (Vaghjee-MAU/DSWCI DX Window/Krone-DEN)

6865 **Radio Mogadishu - Voice of the People**, returned here on June 12 after a few days on 7000. Good reception at the moment. (Vaghjee-MAU/DSWCI DX Window/Krone-DEN)

TANZANIA 5985 R. *Tanzania*, Dar-es-Salaam, 0310-0332 & 0350 talk by M in Swahili at tune-in, switching to W to 0315. Trumpet fanfare at 0330 and further talk by M, readily detected as //5050.05, although mixing with co-channel WYFR in Spanish. Fair and presumably recently reactivated 50 kW transmitter. Both channels still detectable in // at 0350 recheck. 5050.05 was surprisingly strong on this good Afro nite, although said to be using only 10 kW here. (7-Jun/Clark-ONT)

TATARSTAN *Radio Tatarstan*, Kazan, with good signal on 11665. S/on 0400. Clear ID after the news 0410. Addr: Tatar Radio, Ul. M. Gorkogo 15, 420015 Kazan, Russia.
(Rinkinen/HCDX/WWDXC Top News/Bueschel-GER)

TUNISIA appeared on the following freqs, as of June 14 around 0630-0712: 11730.059 15534.3 17735.227 around 1542: 11730.05 15534.3 17735.2 around 1820: 7279.980 11730.060 12005.567 around 1950: 7225.041 7279.981 12005.568 (17-Jun/Titarev-UKR/WWDXC Top News/Bueschel-GER)

TURKEY V. of Turkey noted on new 117705 at 0300 with English news (13-Jun/Paszkevicz/EDXP/Padula-AUS)

USA KWHR Angel 4 now sked 0700-1600 11565. (17-Jun/Brashier, KWHR/WWDXC Top News/Bueschel-GER)

WEWN - Eternal Word Network, Birmingham, Alabama:

0000-0500	Spanish	7425
0000-1000	English/SS	5825
0500-1000	Spanish	7405
1000-1400	English/SS	15745 7425
1000-1400	Spanish	9465
1400-0000	Spanish	15375
1400-1600	English/SS	15745 11875 9455
1600-2200	English/SS	15745 13615 11875
2200-0000	English/SS	13615 9975 5825

(BBCM)

WGTC is advertising time for sale at \$50 an hour; and Dave Franz is also interested in signing up "liberal" programs such as those carried on RFPI. Another surprise FCC inspection of WGTC has taken place, the fourth in a year, and once again they found nothing wrong. Dave believes these are politically motivated, but in fact increase the station's standing as technically approved by the FCC. It may be another two months before the second transmitter is on the air, and three and four are in the planning stages. The new transmitter is equipped to use any of several digital systems once a standard be decided upon (22-Jun/Hauser-OK)

WINB - World International Broadcasters Inc. sked:

0000-0600	English	11950
2000-0000	English	13790

(BBCM)

UZBEKISTAN Radio Taskent sked, based entirely on monitoring:

0000-0030	Uighur	5060
0100-0130	English	9715 9530 9375 7190
0130-0200	Dari	9715 7190
0200-0230	Pashto	9715 7190
0230-0330	Uzbek	9715 9530 9375 7190
0400-0430	Turkish	15165
1200-1230	English	17775 15295 9715 7285
1230-1300	Urdu	17775 15295 9715 7285
1300-1330	Hindi	17775 15295 9715 7285
1330-1400	English	17775 15295 9715 7285
1400-1430	Urdu	17775 15295 9715 7285
1430-1500	Hindi	17775 15295 9715 7285
1520-1550	Dari	9715 7285
1550-1630	Uzbek	9715 7285
1630-1700	Persian	9715 7285
1700-1730	Arabic	9715 7285
1700-1730	Turkish	9545
1730-1830	Uzbek	9715 9545 9540 7285
1830-1900	Persian	9715 9545 9540 7285
1900-1930	Arabic	9715 9545 9540 7285
1935-2030	German	11905 9545 9540 5060 5035 5025
2030-2100	English	9545 9540
2130-2200	English	9545 9540
2330-0000	Chinese	5060

(BBCM)

VATICAN CITY Vatican Radio noted on new 9585 for morning service in Jpn to Japan, *2130, (x9600), QRMing the Brazilian there. (11-Jun/Padula/EDXP/Padula-AUS)

VENEZUELA 9540 Antena Internacional de *R. Nacional de Venezuela*, 1800-1900. Canned announcements say station is back on the air after "un proceso de repotenciamiento y mantenimiento" (a process of pwr upgrading and maintenance). However, signal is still undermodulated, and usually unreadable due to QRM. Reports are requested to Apartado Postal 3979, but the zip code in one anncnt is given as 1010, whereas in two others, 1050... (The 1010 zip code is the one they used a few years ago, and this number goes to the main PO, on Av. Urdaneta. The 1050 P O Box was reported as "not in use" per info published in Play DX last year. If they are interested in reports, one cannot help wondering why they would give conflicting info). (15-Jun/Klemetz-COL/DSWCI DX Window/Krone-DEN)

VIETNAM Observations on some Vietnamese locals, which generally relay the Nat service //5925 and 10060 except where noted with own programming. As heard between 0900 11 June and 0500 12 June except where otherwise stated, will try to confirm some of the s-on and s-off times:

4740 Son La, confirmed 6 June. Carrier on approx 1155, presumed NA at 1159 then short piece of instrumental mix, ID at 1201 by M announcer repeated by W with mention of Son La. Regular here usually with good reception, sign-off at 1400. Appears to be own programming throughout.

6386 Badly distorted audio noted from 1120, s-on probably 1115 although a very weak signal also noted here at 1000-1030. Own programming from 1140, off some time between 1250 and 1415.

6696.8 Lao Cai (presumed) On by 1000, strengthening rapidly towards sunset and good from around 1100. Own programming 1130-1230 sign-off.

7154 Bac Thai (presumed) is a good signal here around 0020-0100 and 1100-1200, but operates much longer hours with rather poor propagation and some QRM in the late morning,

afternoon and late evening. On by 0920 and past 1400, own programming noted from 1300. Also heard local mornings from before 0020 to past fade-out around 0110, though there are traces of a very weak carrier here as late as 0350. (12-Jun/Davies-UK, touring in SoEaAS/WWDXC Top News/Bueschel-GER)

QUASI-CLANDESTINE BROADCASTING TO NIGERIA HEATS UP

SNBS, the "Save Nigeria Broadcasting Service," is hiring time on WGTG for a program to Nigeria. Sked appears to be Saturdays 1930-2000 on 9400 kHz. ID's as *Radio Save Nigeria*. Contact: NIGERIAN ADVOCACY GROUP for DEMOCRACY and HUMAN RIGHTS (NAG-DHR) P.O.Box 202. Boston, Massachusetts 02131 Tel: (617) 364-6301 Fax: (617) 364-7362 e-mail: nagdhr@aol.com website: <http://www.nagdhr.com> (18-Jun/Review of International Broadcasting/Hauser)

Radio Yoruba/Voice of Oduduwa via WHRA is sked Mo/We/Fr 2100-2200 in English and Yoruba on 15460 kHz. (18-Jun/Hauser/World of Radio) Also check 17655 at 2000, some confusion as to this sked. (11-Jun/RNMN/NU/WWDXC Top News/Bueschel-GER)

R. Nadeco, via WWCR, has changed to a weekly broadcast, Wed 1930 on 15685, Sun 0800 on 5070. (8-Jun/Ask WWCR/Hauser/WWDXC Top News/Bueschel-GER)

BROTHER STAIR, CONTINUED

FCC ASKS GERMANY TO SILENCE BROADCASTER ON 3945 KHZ

Sometimes it helps to complain. The FCC's High Frequency Direction Finding Group has asked German authorities for their help in eliminating a broadcast station in Germany that's operating on 3945 kHz. Members of the ARRL Monitoring System (MONSYS) and other US hams had complained to the FCC and to the ARRL about the station's presence. Those complaints were forwarded to the FCC. The frequency is not allocated for broadcasting in Europe, which is in ITU Region 1. In Region 1, the 3900 to 3950 kHz band is authorized for aeronautical mobile operation. In the US, in Region 2, the band is allocated to amateur, fixed and mobile.

"Since this station is a source of daily harmful interference to the Amateur Service, we would appreciate any assistance you could provide in eliminating the interference," said Chief Watch Officer/HFDF Group David Larrabee, K1BZ, in a fax June 11 to the Bundesamt fuer Post und Telekommunikation (BAPT), Germany's equivalent of our FCC.

The station on 3945 kHz, identified as The Overcomer Ministry, has been monitored at several East Coast locations as well as by the FCC in Columbia, Maryland. It broadcasts on AM from Juelich, Germany. (19-Jun/The ARRL Letter Online, V. 17 #25)

Brother Stair has moved from 3945 to 3955 and 3975. I don't have the exact schedule. I heard second-hand that he cited complaints from North American amateurs as the reason. However, I also heard military-type communication on 3943.5 last night (see my previous report). In propaganda, as you know, the important thing is not what you say, but what you don't say. What wasn't said is that, probably, the French were among the protesters! It seems that the 3945 frequency usage was at the recommendation of Brother Stair's US consultant, who has now learned a lesson in the realities of European frequency selection. (20-Jun/Zanotti-SUI/World of

"Brother Stair" via Juelich noted 1800-2000 on 3955 (June 22) and from tune-in at 0455 until sudden carrier cut at 0459 on 3985 (June 24). I think, the discontinued usage of 3945 is actually bad news for European broadcasting. Presumably Juelich will push TOM in the coming winter evenings into the already overcrowded 3955...3995 range. Or will Juelich try to operate above 4000, as Radio Budapest used to do a couple of years ago (and was forced by government to stop this, if I remember correct)? Possibly "Brother Stair" no longer wants to broadcast through the whole night, at June 12 3945 signed off at midnight UTC, leaving Wertzachtal (by the way, Wertzachtal is said to be a very impressive facility with a much larger antenna field than Juelich or Nauen) on 3995 alone on 75 metres. Possibly this is now also the case with 3960, reported yesterday (June 23) after 2000 by Wolfgang Bueschel. (24-Jun/Ludwig-GER)

Deleted 3945 usage, and is hopping in 75 mb now - Mon-Fri 1800-2000 on 3955, //12055 & 15625. Noted on 3985 from 0400 [Bibilis scheduled here 0300-0400] //11910, and on 3975 from 0530-0659 s-oft, //13810 & 15735. R. Budapest scheduled 0300-0530 on 3975. And on Jun 23 also on 3960 from 2000, still announcing 3955. (Bueschel-GER/WWDXC TopNews)

Success! - AQ

From: Glenn Hauser <wghauser@hotmail.com>
To: ghauser@hotmail.com
Subject: WORLD OF RADIO new time
Date: Tuesday, June 09, 1998 11:37 AM

Additional time for WORLD OF RADIO on WWCR:

Sunday 0930 UT on 5070

Remaining times are

Thursday 2030 on 15685
Saturday 0600 on 3210, 5070
Sunday 0630 on 5070
Tuesday 1230 on 15685

For full schedule on all stations see

<http://www.angelfire.com/ok/worldofradio>

FOR SALE: Shack stuff sale goes on! Shortwave station booklets, memorabilia, bulletins and magazines, and dozens of books on radio and related topics. Ten-page list for large SASE with 55 cents postage, or \$1.00 to Gerry Dexter, 213 Forest Street, Lake Geneva, WI 53147. You can also send an e-mail request to <gdex@genevaonline.com>.

FOR SALE: Customized Beam Headings (from/to) and Distances (MI/KM) to more than 480 WRTH transmitter sites including Russian republics. ITU Country Codes included. Send your location or coordinates, \$8.00. Also for sale: 1996 and 1997 NASWA Journals complete, \$16.00 each. "Passport to World Band Radio" 1996 edition, \$10.00. WRTH 1991, \$5.00; 1996, \$10.00; 1997, \$14.00. All items include shipping (overseas shipping extra). Cashiers check or money order only, please. Al Drehmann, Route 2, Box 3-B, Tryon, NC 28782. E-mail <ADrehman@juno.com>. Phone (828) 894-3398. No collect calls, please.

WANTED: KIWA Map working and in good condition. Call Chuck Rippel at (757) 485-9660 or e-mail to <crippel@xes.net>.

FOR SALE: Universal Radio's Computer Decoder Card M-1000. Decodes RTTY, FAX, Morse, SITOR, and ARQ to your computer screen. Requires one full slot on your PC. Includes manual and 3.5 diskette with software. Price \$210.00. Al Drehmann, Route 2, Box 3-B, Tron, NC 28782. E-mail <ADrehman@juno.com>. Phone (828) 894-3398. No collect calls, please.

Pirate Radio Report

Chris Lobdell

P.O. Box 146

Stoneham, MA 02180-0146

Internet: clobdell@mediaone.net

Hello and welcome to another edition of the **PIRATE RADIO REPORT**. Summer is now in full swing so in order to hear any pirate signals we must battle the static filled airwaves. Pass the Tylenol please!

Pirate Profile: Radio Erotica

In this issue we have a pirate profile from *Radio Erotica*, so without further ado, here it is!

"**RADIO EROTICA** made its first broadcast on Valentine's Day 1998. We are a seasonal station, so don't look for us again until next Valentine's Day in 1999. We did allow our tapes to be relayed for a late adults only broadcast at the Winterfest!"

Our station uses the slogan "The station with your sexuality in mind" and our purpose is both to entertain and enlighten. This past broadcast contained a rather graphic description of an oral sex act. Future programming will include instruction on sexual techniques along with erotic talk and music. This is stuff the FCC won't allow on the radio, even on the Howard Stern Show! We believe that our programming will enhance one's sexual side.

We have at our disposal one 100 watt SSB transmitter and a 50 watt AM only rig. The SSB rig is currently out of service but we hope to get it going by next February.

We are always happy to hear from any of our listeners and respond to correct reception reports by issuing X-rated QSL cards. Our maildrop address is Box 28413, Providence, RI 02908. Love and Kisses, Luke and Lucy".

[Many thanks to Luke and Lucy for the interesting profile!]

Loggings...

Many thanks to the following folks for submitting logs this month. Bill Wilkins of MO, Jay Novello of North Carolina and Dave Krause of Ohio.

FREE HOPE EXPERIENCE, was noted with their Memorial Day Tribute from 0243 until 0300 UTC on May 29th. Reception was good, but the station was having technical difficulties. [Wilkins-MO]

ONE VOICE RADIO, featuring Joe, the calm voiced announcer was noted on June 6th at 2253 UTC with his usual health tips. It seemed that someone was trying to jam his signal. [Krause-OH]

RADIO AZTECA, a station which made its debut in September of 1992 was noted on May 31st at 0555 on 6955 kHz USB with comedy, station IDs and a mailbag segment. [Krause-OH]

RADIO ECLIPSE was heard on May 28th with their Monica Lewinsky program from 0210-0246 sign off. [Wilkins-MO]

SCREAM OF THE BUTTERFLY, was heard on June 7th at 0230 with an announced relay by WREC. They were playing old rock music from the '60s from groups such as The Doors. The maildrop is Box 28413, Providence, RI 02908 [Krause-OH]

The **SHORTWAVE RELAY SERVICE**, a European based pirate was heard on June 20th at 2300 UTC on 13960 kHz USB, just peaking above the noise level with a "SWRS" ID at 2304. Later they were heard at 2325 UTC on 11470 kHz USB with a good signal.

Don't forget to vote for your three favorite pirate stations in our upcoming poll! Until next month, **Happy Pirate DX!**



QSL Report

Sam Barto
47 Prospect Place
Bristol, CT 06010

中国国际广播电台
CHINA RADIO INTERNATIONAL



35 ds. for \$1.00. Also rcvd. sticker, postcards, stamps and a personal ltr. (Martin-CA).

BOSNIA: Radio Yugoslavia 7115 f/d "Listeners Club" cd. in 6 wks. for \$1.00. (Tilbury). same in 3 mo. for \$1.00. (Fleck).

BOTSWANA: Voice of America 7415 f/d "Waikiki Beach" cd. in 5 wks. (Tilbury). Radio Botswana 4820 f/d "Hippo" cd. in 6 wks. for an EG/FR rpt. and \$1.00. (Fleck-TX).

No. 2/1/02-7 III /82
DIRECTORATE GENERAL
ALL INDIA RADIO
AKASHVANI BHAWAN
PARLIAMENT STREET,
NEW DELHI-110001 INDIA

Dated 11/10/02.

Dear Sir/Madam,

We greatly acknowledge your Reception Report and confirm your listening to our transmission on -4760.0.....kHz on -20:12:02--at-1238±1330 UTC

The transmission originated from our Station at.....Port Blair.....

(W.M.Your faithfully,

(A.P.DUBJIN)
Bihar Frequency Assignments

Archaeological Survey of India

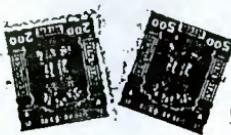
To,

Mr. John L. Sgrullotta,-----

337 Bullet Hole Road,

Mahopac, New York 10541,

United States of America-----



an E-mail reply from Tom at the station who says "could be right" in 11 ds. (Fleck)

CAMEROON: CRTV 4850 via Yaounde f/d prepared cd. w/ ltr., signed and stamped by James Achanyi-Fontem, Director of Publications, Cameroon Link in 78 ds. I sent

ABU DHABI: UAE Radio 7125 f/d ltr. in 43 ds. after a f/up FAX rpt. Sked. was rcvd. (Neal-TX).
ARGENTINA (Pirate): Radio Cochiquaz 6950 f/d beautiful colored "Andean" cd. in 88 ds. for 2 IRCS. v/s Cachito Mamani, Operador. (Eramo-ARG).
ARMENIA: Voice of Russia 9965 via Erevan f/d E-mail in 19 ds. for E-mail rpt. (Neal-TX). Voice of Armenia 9965 f/d "1700th Anniversary of the Proclamation of Christianity as State Religion in Armenia". SASE sent but not used. In fact the mint stamps were cut off the envelope and sent back to me! This in 139 ds. after several f/up rpts. v/s Mr. Levon Ananikian, Editor in Chief. This time I tried a trick I learned from Bill Plum, I didn't seal the envelope. (Martin-CA). Makes sense to me...Sam.

AUSTRALIA: VL8T 2325 via Tenant Creek f/d "ABC" map cd. in 259 ds. for \$1.00. Arrived very battered w/o a ZIP or State...just the Town and USA. Very lucky to get it! (Flynn-OR).
Australian Defense Forces Radio 15635 f/d ltr. in 29 ds. for SASE and 1 IRC (returned). Stickers rcvd. (Neal-TX).

Radio Australia 13605 via Shepparton "Sunset at Shepparton" cd. in 5 wks. Schedule & sticker were rcvd. (Bueneman-MO).

BELARUS: Radio Minsk 7210 f/d "Nemiga Street" cd. in 1 mo. v/s Irina Polozhentseva. (Tilbury). 7105 f/d "Minsk Hero City Monument" cd. w/ same v/s in

35 ds. for \$1.00. Also rcvd. sticker, postcards, stamps and a personal ltr. (Martin-CA).

BOSNIA: Radio Yugoslavia 7115 f/d "Listeners Club" cd. in 6 wks. for \$1.00. (Tilbury). same in 3 mo. for \$1.00. (Fleck).

BOTSWANA: Voice of America 7415 f/d "Waikiki Beach" cd. in 5 wks. (Tilbury). Radio Botswana 4820 f/d "Hippo" cd. in 6 wks. for an EG/FR rpt. and \$1.00. (Fleck-TX).

BRASIL: Radio Nova Visao 11705 I rcvd.

an E-mail reply from Tom at the station who says "could be right" in 11 ds. (Fleck)

CAMEROON: CRTV 4850 via Yaounde f/d prepared cd. w/ ltr., signed and stamped by James Achanyi-Fontem, Director of Publications, Cameroon Link in 78 ds. I sent

via registered mail w/ 2 dollars. Addr: BP
1450 Douala. (Martin-CA).

CELEBES: RRI Kendari 4000 f/d prepared cd. in
39 ds. for an IN rpt. after several f/up
rpts. went unanswered. v/s Muniruddin
Amin, Programmer. (Martin-CA).

CLANDESTINE: Radio Rainbow 5910 Radio Arc-
* En-Ciel presumably from Deutsche Tele-
com. Addr: P.O. Box 140104, 53056 Bonn,
Germany. Thank you to Martin Schoech in
Germany for finding the address. v/s
T. Assefa. Logo on the ltr. was for an
organization called "Research and Action
Group for Peace in Ethopia". FAX # 49-228
/61-23-81. (Berg-MA).

COSTA RICA: Faro del Caribe TIFC 5055 ltr. in
5 wks. for a SP rpt. v/s Carlos Rozotto Pied-
rasanta, Director Administrativo. (Bueneman-MO).

ENGLAND: Merlin Network One 9705 p/d cd. for their first broadcast in 6
* wks. (Maroti-NY). 11685 p/d cd. in 45 ds. for \$1.00 for same broad-
cast. (Flynn-OR). 9525 very nice cd. rcvd. for the "March 28 MNO Ann-
iversary Marathon". Addr: Merlin Communications International Ltd.,
724 NE Wing, P.O. Box 76, Stand, London, WC2B 4PH, UK. (Berg-MA).

EQUATORIAL GUINEA: Radio Africa 15186 f/d cd. in 6 wks. for an EG/FR
rpt. and \$1.00. (Fleck).

ETHIOPIA: Radio Pana 6210 f/d small cd. in 64 ds. via registered mail w/

SPECIAL OFFER: Our customers have spoken. The
enclosure of used postage stamps as a form
of gift with your reception reports seems
to be working. For 1998 we are now offering
the following:
\$10.00 will bring you
1300 foreign stamps;
\$15.00 will net you a
total of 2300 stamps.
With either order you
will receive an addi-
tional 600 stamps (US). That's 1900 total for only
\$10.00 or 2900 for only \$15.00. You will not be
disappointed. Please try to in-
clude an extra \$3.00 for over-
night USPO delivery. Mail your
order to your NASHA QSL Editor.

station
seal. v/s
Hameimai
Tekle Haim-
anot, Gen-
eral Mana-
ger. Addr.
on cd. as
"Near Black
Lion Hospi-
tal, in
front of
Swedish
Embassy".
(Martin-CA).

GEORGIA: Voice of Hope 12125 via Dusheti f/d "Christian Mosaic" cd. in
27 ds. from the UK addr. This for \$1.00. (Flynn-OR).

GERMANY: Radio Liberty 9505 via Holzkirchen f/d ltr. in 88 ds. v/s
David Walcott. (Flynn-OR).

GHANA: GBQ 4915 f/d cd. in 11 wks. after a f/up rpt. for \$1.00. (Maroti).

GUAM: Adventist World Radio 7400 f/d 3D "Flower" cd. in 53 ds. for \$1.

INDIA: All India Radio 3315 via Bhopal f/d "Subrahamaoya" (Readore).
Temple" cd. in 207 ds. after a f/up rpt. for ms. v/s A.K. Bhatnagar,
Director of Frequency Assignments. (Sgrulletta-NY).



SALVATION IS FOUND IN JESUS CHRIST, FOR THERE IS NO OTHER NAME
UNDER HEAVEN GIVEN TO MANKIND BY WHICH WE MUST BE SAVED Acts 4:12



JAPAN: Radio Japan
9505 f/d cd. in 21
ds. (Blair-CA).

9535 f/d cd. in 25
ds. (Blair). 9665
f/d cd. in 22 ds.
v/s Y. Fushima.
(Blair). 13630
f/d cd. in 22 ds.
(Blair-CA).

JORDAN: Radio Jordan
11690 f/d cd. in
33 ds. for \$1.00.
v/s Jawad Zada,
Director. (Readore)

MALAWI: MBC Radio
One 3380 p/d ltr.
in 3 wks. v/s J.
C.J. Chikagwa,



Adventist World Radio

To Isaac Hosoya

We are pleased to verify your reception of our station.

Date 7-6-1998 Time: 1300-1330

Power (WAT) 100 freq (MHz) 56.92

Transmitter location AVRA-ASHA

Comments _____



Director of Engineering. (Maroti-NY).

MEXICO: Radio Huayacocotla 2390

f/d prepared cd. signed and stamped w/ a great looking seal by Martha Silvia Ortiz Lopez, Coordinador. 500 watts. This in 1 mo. after i sent a f/up rpt. in SP. SASE was enclosed and used. (Martin-CA).

NEWFOUNDLAND: CRZN 6160 folder

and a form ltr. in 18 mo. v/s Shawn Williams, Manager, Transmission and Distribution. (Bueneman-MO).

NEW GUINEA: Radio Simbu 3355 p/d

personal ltr. in 5 wks. after a f/up rpt. for \$1.00. v/s Jack Wera.

NIGERIA: Voice of Nigeria 7255 f/d "Administration Building" (Tilbury). cd. in 81 ds. for \$1.00. (Readore).



Swiss Radio International
Radio Suisse Internationale
Rádio Suíça Internacional
Schweizer Radio International
Radio Svizzera Internazionale
الإذاعة السويسرية الدولية

via Clement

QSL
★★★

November 29, 1997

04:37 to 04:54 UT

9.905 MHz via Guyana
relay
Thank you for your
reception report!

Memorial" cd. in 15 ds. for \$1.00.
(Readore). FEBC 11995 f/d "Eagle"

cd. in 60 ds. for \$1.00. (Readore).

PORTUGAL: Radio Portugal

International 9570 f/d

"Torre de Belem" cd. in

1 mo. for 2 IRCS. v/s Winnie

Aimeida. Also rcvd. schedule,

stickers and a form ltr.

(Wilkins-MO).

RHODES: VOA 7115 f/d

"Waikiki Beach" cd.

in 36 ds. (Wilkins).

9865 same cd. in 25

ds. (Martin-CA).

PAKISTAN: Radio Pakistan 5055 beautiful
p/d cd. of "Mount Rakaposhi" in 1 mo.
after a f/up rpt. and SASE(not used).
v/s Anwer Inayet Khan, Engineering
Manager. (Martin-CA).

PALAU: Voice of Hope 9985 f/d "Map" cd.
w/ schedule in 2 wks. (Fleck).

PAPUA NEW GUINEA: Radio Gulf 3245 p/d
form ltr. in 2 mo. after a f/up rpt.
for \$1.00 v/s Timothy Akia. (Tilbury).

PHILIPPINES: VOA 15425 f/d "Jefferson

NOTES: Paul Brouillette reports that he
has 17 reports out in the past 8 months.
Glad you enjoy the QSL Column.....Sam.
Gene Borowski is a new member and re-
porter from the Staten Island area of
NY. Keep the reports coming in...Sam.
Dick Clapper checks in from Au Sable
Forks in NY. He is new to the hobby and
a new contributor to the Column.

Gracias por su informe de recepción

re). Tenemos el gusto de verificar su control de nuestra emisión
en 9705 kHz. de fecha 11/IV/96 a las 1300 hrs.

con SINPO 45444.

via Larry Shaw

49MTS. 5985 kHz / 31MTS. 9705 kHz
TM: 07 a 11 hrs. y 13 a 24 hrs.
UTC: 13 a 17 hrs. y 19 a 06 hrs.



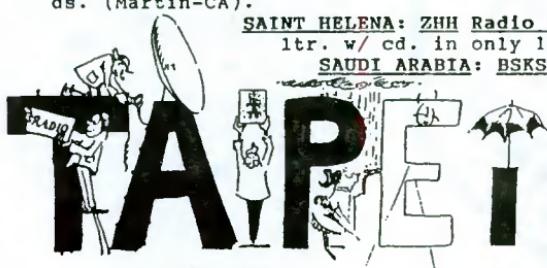
INSTITUTO MEXICANO DE LA RADIO

SAINT HELENA: ZHH Radio Saint Helena 11092.5 form
ltr. w/ cd. in only 13 ds. v/s Derek Richards.

SAUDI ARABIA: BSKSA 11708 and 11710 (Berg).

2 f/d cds. w/ schedule and
a form ltr. in 65 ds.
for SASE(not used).
(Martin-CA).

SLOVAKIA: Radio Slovakia
International 9440 f/d
"World Headquarters"
cd. in 1 mo. for \$1.00
(Fleck-TX).



via Hosoya-JPN



РАДИО МОСКВА

Dear Mr. D'Angelo,

This verifies your report on the reception
of Radio Moscow's broadcast in English
Date January 16, 1995
Time 12:05-12:30 UTC
Frequency 12015 kHz via Chita; 11980 kHz via
Serpukhov

Best wishes from Radio Moscow

THAILAND: BBC Asian Relay

Station 11955 nice ltr. on their ltr. head from Jaruwan, Executive Secretary, who is a 26 yr. old Thai secretary working at the station. She said "My boss told me to practice English by replying to the letters." Addr: BBC Asia Relay Station, Jaruwan Meesaurtong, P.O. Box 20,

Muang, Nakhon Savan 60000, Thailand. This is in 4 mo. after a f/up rpt.

UGANDA: Radio Uganda 5026 f/d prepared cd. in 57 ds. (Berg-MA). after 2 f/up rpts. v/s Rachel Nakibuuka. SASE was sent and used. This was for 2.00. (Martin-CA).

AWR Adventist World Radio

To: Mariae Hesoya

We are pleased to verify your Date Jan. 11 & 12, 1995
reception of our station. Time 13:30 - 14:00 UTC

Power (kW) 100 Freq. (kHz) 9650

Transmitter Location AWR-ARIA

Comments: Thanks for the 8 QRCs!

USA: WMCN 3215 f/d "World and Antenna" cd. in 6 ds. for \$1.00. (Readore). WFYR 17555 f/d "Staff" cd. in 1 wk. for \$1.00. (Readore).

USA (Pirates): K2000 6955 f/d cd. in 26 ds. for 3 ms. (Wilkins-MO). Radio Erotica 6955 f/d cd. in 49 ds. for 3 ms. Hrd. during the SWL Fest. (Neal-TX). Mystery Radio 6955 f/d "Guitar Player" cd. in 13 ds. for 3 ms. (Readore). The Voice of

Hell 6955 n/d sheet in 54 ds. for a rpt. in ACE. (Neal). Rock-It-Radio 6955 f/d "Microphone and Rocket" cd. in 27 ds. for 3 ms. (Readore). Free Hope Experience 6955 f/d "Alien/UFO" cd. in 25 ds. for 3 ms. v/s Major Spook. (Wilkins-MO). Anteater Radio 6955 f/d "Truck and Ant" cd. in 38 ds. for 3 ms. Also rcvd. personal ltr., rubber ant and a safe driving pamphlet. (Wilkins-MO).

VANUATU: Radio Vanuatu 4960 f/d prepared cd. in 27 ds. for SASE which was used. Signed and stamped by Marianne Ber-

NOTES: John Sgrulletta says he should of become a dentist because getting QSLs is like pulling teeth! The only QSL in the past 2 months came from AIR Bhopal in which they verified my phone call to the station not the reception data. Now thats a first!

ukiikilu, Technical Manager.
Martin-CA).

EDITOR REQUEST: Could anyone of our members please lend me a copy of either an AM and/or FM address book for a few days. I will return it and pay for postage both ways. In fact you will receive a few little gifts from ye editor....Sam.

Everyone must be summer vacation. The season to enjoy life is upon us. Its also a good time to write all of those follow up reports.

Best of QSLing.....



Net Notes

Tom Sundstrom

PO Box 2275

Vincentown, NJ 08088-2275

Fax: 609-859-3226

Internet: trs@trsc.com

<http://www.trsc.com>

First and foremost, thanks to Ed Mauger we have the Winterfest '98 pictures up on our Web site.¹ Actually, we managed to get them posted before last month's bulletin hit the mails. Sorry for the delay.

Nils Jacobsson's "Eldorado for LA DXers" focus on items for those interested in Latin American DXing. It includes 596 verification signers and 130 e-mail addresses. It's a huge Web site that is worthy of your attention.²

Jorma Mantyla of Finland has been actively verifying stations for the past 31 years. On his Web site you will find his "virtual QSL collection" ... and there are some very interesting ones therein. Take a look.³

"The DX-ers Archive" is another topical Web site devoted to shortwave listening in general and "free" radio in particular. It includes some history and some audio clips of Irish radio, "pirate"

radio and "offshore" radio dating back to the 1960's. You'll need version 5 of the Real Audio player.⁴

When you are done, hop across the channel to the Netherlands and tune to Transatlantic Radio, on the air since 1993.⁵

In the never-ending search to turn up interesting Web pages, Andy Sennitt found "The Web Receiver" located in Sweden. This site looks quite sophisticated. We haven't been able to tune the shortwave receiver yet, as a registration is required... and we're waiting for the application to be processed.⁶

A "World Radio TV Handbook" press release was released on June 17, and we have it posted in our "news" section. If it were a stock report, I'd classify it as "forward-looking".⁷

In the listings below, "<http://>" is implied. Have a safe 4th!

¹ www.trsc.com/swl_fest.html

² www.nordicdx.com/laqsl/

³ www.kaapeli.fi/~jmantyla/eng.htm

⁴ dxarchive.blackpool.ac.uk/

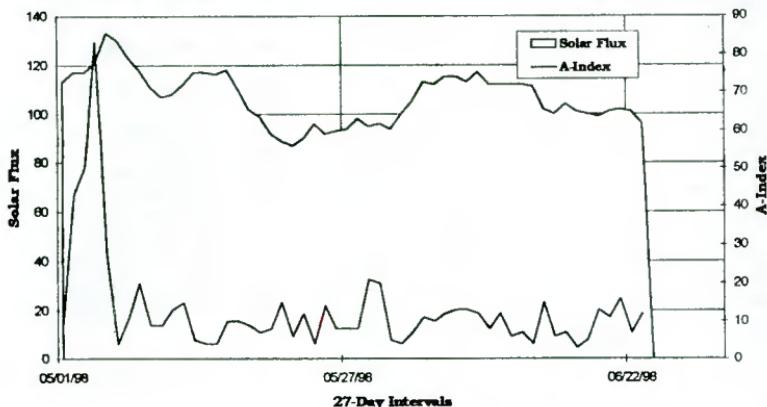
⁵ home.pi.net/~trans/

⁶ hightech.lindman.com/

⁷ www.trs.com/wrth.html

Solar Flux & A-Index: May-June '98

TRS Consultants
<http://www.trsc.co>



Scoreboard

Jerry Lineback

506 S. Lawrence Ave.
Scranton, KS 66537

Welcome to NASWA SCOREBOARD. Thanks to all participants. Please note that I have moved. My new address is: 506 S. Lawrence Ave., Scranton, KS 66537. Updates may be sent to my new e-mail address: jalinebk@satelephone.com email sent in the past three months to the old server was lost. Next deadline is 15 August for the Sept. Journal. The SPOTLIGHT then will be on Europe.

Name, State	Total C/H	Asia C/V	Asia C/H	Best Asian QSL C/V
Dan Henderson, MD	242	234	70	65 RKPDK Jember
Marlin Field, MI	240	239	67	66 RRI Serui
Jerry Berg, MA	240	238	67	66 Port. Timor
William Flynn, OR	240	225	69	62 BCS Kure, Japan
John Sgrulletta, NY	234	234	63	63 VoPeace
Gerry Bishop, FL	233	215	68	63 R. Bhutan
Steven Lare, MI	230	209	67	59 Bhutan 5023.1
Don Hosmer, MI	227	195		
Nobuaki Takahashi, Japan	226	201		
Terry Palmersheim, WA	224	213	67	61 Bhutan
Richard Davis, NM	219	211	64	60 RRI Dili
Sheryl Paszkiewicz, WI	218	212	60	53 Sri Lanka BC
Paul Buer, FL	217	205	56	53 VoPeace
Rick Krzemien, CA	216	212		
Christos Rigas, IL	214	194	59	44 Bahrain
Fred Kohlbrenner, PA	214	190	59	54 RRI Dili
Stephen E. Pitts, MN	207	196	65	63 RRI Sibolga
Jerry Lineback, KS	206	108	55	15 Ujung Pandang
Charlie Washburn, ME	204	163	43	32 Ulan Bator
Stephen Price, PA	191	167	59	53 Burma direct
Daniel McCarthy, GA	189	164	44	38 VoMet. Turkey
Jim Renfrew, PA	183	147	44	37 Cambodia
Allan Loudell, DE	182	153	48	41 Bangladesh
John C. Eckert, PA	179	162	45	43
Ross Comeau, MA	178	145	44	35 Andaman Is.
Gary Froemming, AZ	178	44	46	7 BSF Taiwan
Andy Rugg, Que.	176	157	42	39 BBC Singapore
Bill Bergadano, NJ	175	120		
Mark Hymenyk, ONT	169	135		
George Maroti, NY	168	123		
Richard Hankison, KS	164	141	36	28 Pyongyang
Robert E. Gearing II, FL	155	122		
Darren White, MS	154	110	34	24 Wings of Hope
Carl Radtke, WA	153	153	40	40 Qatar
Dan Ziolkowski, NY	152	70	40	18 Vietnam
Philip Atchley, CA	151	104	47	30 Burma
Bob Raymond, NH	149	114	33	25 VoMalaysia
Joseph P. Zobro, MI	130	94	33	23 R. Baghdad
Jill Dybka, TN	123	88	28	16 VoA Colombo
Gary R. Neal, TX	114	99	14	10 RM Sarawak
Norm Constanti, MO	107	79	21	10 Okinawa, Japan
Don Dacus, AR	65	31	15	5 Kol Iaewl
Gene Borowski, NY	64	53	15	12 R Pyongyang
Sean Warner, MN	59	34	17	9
Kelvin Buechert, MB	50	20	13	6
Signee Hoffman, CA	39	28	10	6

Contributors' Page

Fred S. Kohlbrenner

2641 S. Shields St.
Philadelphia, PA 19142
Internet: fkohl@ix.netcom.com

DEADLINE FOR CONTRIBUTIONS IS THE 10th OF THE MONTH

The following members contributed loggings:

Brian ALEXANDER, Mechanicsburg, PA

Ray BAUERNHUBER, Rosedale, NY

Jerry BERG, Lexington, MA

Eric BUENEMAN, Hazelwood, MO

David CLARK, Thornhill, ONTARIO

Peter COSTELLO, Matawan, NJ

Nicolas ERAMO, Buenos Aires, ARGENTINA

J. FINDLATER, Los Angeles, CA

Mark FINE, Remington, VA

Bob FLECK, TX

Bill FLYNN, Cave Junction, OR

Bob FRASER, Cohasset, MA

Garie HALSTEAD, St. Albans, WV

Bob HILL, Littleton, MA

David KRAUSE, Eastlake, OH

Harold LEVISON, Philadelphia, PA

Jerry LINEBACK, Scranton, KS

Les LOCKLEAR, Gulfport, MS

George MAROTI, Mt. Kisco, NY

Bob MONTGOMERY, Levittown, PA

Gary NEAL, Sugarland, TX

David NORRIE, New Zealand

Jay NOVELLO, Wake Forrest, NC

Takayuki Inoue NOZAKI, Tokyo, JAPAN

Denis PASQUALE, New Brighton, PA

Sheryl PASZKIEWICZ, Manitowoc, WI

Gerald READORE, Houston, TX

Chuck RIPPEL, Cornland, VA

Giovanni SERRA, Rome, ITALY

John SGRULETTA, Mahopac, NY

Randy STEWART, Springfield, MO

Dan ZIOLKOWSKI, Hanburg, NY

R8B AOR AR-7030 100' LW

Sony 2010 telescopic antenna

R8 165' LW

ATS-803A MFJ-1778 G5RV antenna

R8A NRD-515/SE-3 ANC-4 Carolina Beam

AR3030 DX-390 YB400 70' LW Tun-4A

Sony 2010 ICF-7600 7600G LW's

FRG-7700 LW

R8 R7A DX-Ultra inverted V

Sony ICF-2003 ICF-SW100S 2m LW

Yaesu FT-900 vertical antenna

Sony 2010 120' dipole at 35'

Kenwood R600

R8 R70 YB400

R7A beverage antennas

R390A

Sony 2010 10/45m dipoles MFJ-956 tuner

R388 DX Pro active antenna

Grundig YB-400

AOR 7030 30m LW through balun

R8A LW's

Sony 2010 beverage antennas

R8 NRD-525 60' LW Eavesdropper

DX-390 90' LW

WJ-HF1000A R8B R390A/SE-3 51S-1 LW's

NRD-525 AD Sloper

NRD-515 AD Sloper Moseley trap dipole

FRG-100 w/Collins filters

R8 Sloper SPS NRF-7 SEM QRM Eliminator

Now that both of our log column editors are online we are requesting that all e-mail logging contributions be sent directly to the editors at their addresses below. This will save the editors quite a bit of time preparing the columns each month, and enable the latest items to be included in the following months Journal. They will forward your names and equipment info to me for the Contributor's page. Their addresses are:

Tropical Band logs to Sheryl Paszkiewicz at: spaszkiewicz@msn.com

International Band logs to Wallace Treibel at: nwhikers@gte.net

You can continue to send your QSL contributions and Scoreboard totals to me and I'll forward them to column editors Sam Barto and Jerry Lineback. And of course, paper submissions to me are still welcome as well.



Tropical Band Loggings

Sheryl Paszkiewicz

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- 2310 AUSTRALIA ABC Alice Spr. 5/9 1109 EG fair (Line-KS)
 2325 AUSTRALIA ABC Tennant Cr. 5/9 1110 EG fair (Line-KS)
 2410 NEW GUINEA R Enga 5/9 1111 in Pidgin, poor (Line-KS)
 2485 AUSTRALIA R Rum Jungle 5/9 1113 EG mx (Line-KS)
 3215 MADAGASCAR AWR 5/10 0300 organ IS, Ids, mx (Sgru-NY) 5/10 0300 IS, EG & other IDs gospel mx (Ziol-NY) 5/10 0300 ID & into Malagasy, weak (MontPA) 5/10 0309 chorus, tlk, much static (Stew-MO) 5/10 0329* rel chorus, tlk, IS (Alex-PA)
 3215 SULAWESI RRI Manado 5/17 1115 IN mx (Line-KS)
 3220 JAPAN R Tampa 6/5 0950 US pops, fading (Ripp-VA)
 3220 NEW GUINEA R Morobe 6/5 1010 island mx (Ripp-VA) 5/27 1104 tlks (Line-KS)
 3235 NEW BRITAIN RWNB 5/17 1117 tlks in Pidgin (Line-KS)
 3250 N KOREA R Pyongyang 5/9 1101 KR tlks (Line-KS)
 3260 NEW GUINEA R Madang 5/9 1051 lang mx (Line-KS)
 3270 NAMIBIA NBC 5/18 0030 all nite svc, mx //3290 (Line-KS)
 3275 PAPUA R South High 5/17 1121 tlks (Line-KS)
 3280 CHINA Vo Pujiang 5/17 1123 CH tlk (Line-KS)
 3281.2v MOZAMBIQUE Beira 5/18 *0249 weak vocals (Clar-ON)
 3289.8 GUYANA GBC 5/17 0530 Now Music USA (Clar-ON) 5/13 0939 clear ID broadcast to Muslims, f-g (Norr-NZ) 5/10 0005 EG C&W mx, Obits, personal msgs (Alex-PA)
 3305 NEW GUINEA R Western 6/1 1150 mx, poor (Line-KS)
 3315 ADM ISL R Manus 5/17 1057 rel tlk (Line-KS)
 3320 SOUTH AFRICA R Sondergrense 5/23 1752 pop & disco (Serr-IT) 5/18 0025 AK pgm (Line-KS)
 3335 NEW GUINEA R E Sepik 5/17 1128 tlk (Line-KS)
 3344.8 MOLUCCAS RRI Ternate 5/27 1046 IN tlk & mx (Line-KS)
 3345 NEW GUINEA R Northern 6/1 1100 nx (Line-KS)
 3355 NEW GUINEA R Simbu 5/13 0952 Captain & Tennille, nx (Norr-NZ)
 3355 TAIWAN CBS 5/27 1049 CH tlk (Line-KS)
 3365 NEW GUINEA R Milne Bay 5/17 1132 vocals (Line-KS)
 3380 MALAWI MBC 5/18 0331 lang tlk, pops, Tcs, ID (Clar-ON)
 3385 NEW BRITAIN RENB 5/17 1133 tlk, QRM (Line-KS)
 3810L ECUADOR HD2IOA 5/18 0930 Tcs, at first thought it was spur from YVTO (Ziol-NY)
 3976 KALIMANTAN RRI Pontianak 5/27 1033 IN tlk (Line-KS)
 3985 S KOREA Echo of Hope 5/27 1039 KR tlk (Line-KS)
 4000 SULAWESI RRI Kendari 5/9 1116 IN mx (Line-KS)
 4471.9 BOLIVIA R Movima 5/19 0053 Andean mx, flutes, animts, ads (Ziol-NY)
 4606.4 IRIAN JAYA RRI Serui 5/15 1323 IN pop mx, tlk, poor (Flyn-OR)
 4696.9 JAVA RKIP Surabaya 5/23 1540 gamelan mx & Wayang Kulit (TIN-JP)
 4702.2 BOLIVIA R Eco 5/31 0115 romantic mx, IDs (Nove-NC)
 4753.3 SULAWESI RRI U-P 5/28 1038 IN tlk (Line-KS)
 4755 BRAZIL R Educ Rural 5/30 0359 animts, mx, ID (Eram-ARG)
 4756.7 PERU R Huanta 2000 5/28 1041 tlk, mx (Line-KS)
 4760 ANDAMAN ISLANDS 5/23 2335 HD tlks (Clar-ON)
 4775 PERU R Tarma 5/28 1042 SP tlk, mx (Line-KS)
 4777 GABON RTG 5/10 2230 jazz pgm (Sgru-NY)

- 4779.8 ECUADOR *R Oriental* 5/28 1044 tlks (Line-KS) ID?
 4789 IRIAN JAYA *RRI Fak-Fak* 5/13 1308 IN nx, tlks (Flyn-OR)
 4790 PERU *R Atlantida* 6/2 1026 mx (Line-KS)
 4800.7 MEXICO *XERTA* 5/17 0535 ballad, anmmts (Clar-ON)
 4810 ARMENIA *Vo Armenia* 5/23 0314 Ids, anmmts, lcl song (Serr-IT)
 4820 BOTSWANA *RB* 5/23 0321 pop songs, M DJ (Serr-IT)
 4824.4 PERU *LV de la Selva* 6/2 1037 vcls (Line-KS)
 4830 VENEZUELA *R Tachira* 6/2 1040 SP pgm (Line-KS)
 4845 MAURITANIA *ORTM* 5/17 2335 AR chants (Clar-ON)
 4845 MOLUCCAS *RRI Ambon* 5/25 0945 mx, SCI (Line-KS)
 4845.2 UNID 5/28 1048 SP, church bells, ads? (Line-KS)
 4875 BOLIVIA *La Cruz del Sur* 5/25 0951 mx, tlk (Line-KS)
 4890 PAPUA *NBC* 5/28 1054 PD tlk (Line-KS)
 4895 SARAWAK *RTM Kuching* 5/28 1056 lang tlk (Line-KS)
 4900 CHINA *Vo Strait* 5/28 1057 CH tlk, mx (Line-KS)
 4910 AUSTRALIA *ABC Tennant Creek* 5/17 0827* mx, fair (Clar-ON)
 4914.6 PERU *R Cora* 5/30 0416 mx, Ids, fair (Eram-ARG)
 4915 GHANA *GBC* 5/18 0040 lang tlk (Line-KS)
 4919 ECUADOR *R Quito* 5/26 1035 mx, ID, ads (Line-KS)
 4920 INDIA *AIR Chennai* 5/23 1220 SC mx, HD tlk, EG nx (Line-KS)
 4926.1v BOLIVIA *R San Miguel* 5/10 0250 tlk, folk mx (Alex-PA)
 4935 KENYA *KBC* 5/26 *0158 drum/flute IS, ID, chorus (Clar-ON)
 4935 PERU *R Tropical* 5/15 1032 Ids, fair to weak (Norr-NZ)
 4939.5 VENEZUELA *R Amazonas* 5/25 1006 SP mx, anmmts (Line-KS)
 4940 CHINA *Vo Strait* 5/28 1104 CH tlk (Line-KS)
 4950.3 PERU *R Madre de Dios* 5/26 1012 tlks, folk mx (Line-KS)
 4960 VANUATU *RV* 5/28 1107 anmmts, island mx, NA (Line-KS)
 4965 BOLIVIA *R Juan 23* 5/4 1008 Buenos Dias Bolivia pgm (TIN-JP)
 4976 UGANDA *R Uganda* 5/7 1903 nx, ID, songs, fair (Serr-IT)
 4990.9 PERU *R Ancash* 5/14 0350 huaynos, ID (Lock)
 5004p RIO MUNI *RN Bata* 5/10 0510 drum mx, fair (Sgru-NY) 5/17 0520 Afr rhythms, vcls
 (Clar-ON)
 5009.6 MADAGASCAR *RTM* 5/18 1902* lcl songs, anmt, NA, IS (Serr-IT) 5/17 0310
 domestic vcl (Clar-ON)
 5010 INDIA *AIR Thiru* 5/24 0036 EG nx, SC mx, fair (Alex-PA)
 5010.3 ECUADOR *Escuelas R* 5/30 0224* tlk, ID, folk mx (Alex-PA)
 5018.7 PERU *R Horizonte* 5/4 *1102 folk mx, echo ID (TIN-JP)
 5020 NIGER *LV du Sahel* 5/17 0525 FR tlk, hilife mx (Clar-ON)
 5020 SOL ISL *SIBC* 4/19 1109 EG nx w/remote rpts (Sgru-NY) 6/5 1000 EG nx, jingle
 (Ripp-VA) 5/10 1105 BBC nx (Nove-NC)
 5025 CUBA 5/30 0432 *Rebelde DX* pgm, cmtry, fair (Eram-ARG)
 5030.1 COSTA RICA *AWR* 5/16 0952 NA, ID, addr, rel mx (TIN-JP)
 5039.2t PERU *R Libertad* 5/9 0114 romantic song, anmmts, Bryan Adams, poor (Serr-IT)
 5050.1 TANZANIA *RT* 5/18 0317 anmmts, Afr rhythms, nice lvl (Clar-ON)
 5100 LIBERIA *R Liberia* 5/23 1955 pops, anmmts, chant (Serr-IT)
 5522.2 PERU *R Sudamerica* 5/5 1132 OA folklore (TIN-JP)

Thank you all who contributed. Hello to second time contributor DAVID NORRIE. This month
 loggings from 7 states, 1 Canadian province and 2 foreign countries. Next deadline July 17. ~~SM~~

International Band Loggings

Wallace C. Treibel
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- 59272 **BOLIVIA Radiodifusoras Minería** in Quechua/Aymara 1002-1105, mx pgm, full ID (Nozaki JP 5/5)
- 59523 **BOLIVIA Emisoras Pio Doce** in Quechua *1100, relay natl nx, musical feature, f (Nozaki JP 5/4)
- 5980 **BRAZIL R Guaruja** in PT 0937, usual fast moving mix of mx and DJ talk, full ID (Norrie 5/15)
- 59814 **PERU R Chasqui** Cusco in SP 1114, relig mx, tlk, ID 1125, QRM R Malaysia on 59798 (5/10) also hrld in Qucchua on 5/23 in same time slot (Nozaki JP) ED: Presumed repl for former 60879.
- 6000 **CUBA RHC** Havana in EG 0434, fqys, tlk on economy, folk mx, ID, QRM, p (Serra ITALY 5/3)
- 60404 **BRAZIL R Clube Paranaense** in PT 0925, mx, quick ID, into tlk, p w/QSB (Ziolkowski NY 5/20)
- 6055 **IRAN VOIRI** Teheran in EG 0030, nx, cmntry, lcl mx, weak, //9022, 9685 (Alexander PA 5/16)
- 60852 **BOLIVIA R San Gabriel** La Paz in Aymara/SP 0013, ads, ID, lcl mx, relig pgm (Eramo ARG 6/1)
- 6105 **BRAZIL R Cultura** in PT 0317, OM announcer, musical pgm, clear ID (Eramo ARG 5/31)
- 6115 **PERU R Union** Lima in SP 0231, Latin American mx, OM DJ, full ID, f-p (Eramo ARG 6/1)
- 6130 **CANADA CHNX** Halifax in EG 1045, "Good time oldies" rx, CHNS ID, f (Ziolkowski NY 5/16)
- 6155 **BOLIVIA R Fides** La Paz in Aymara 1052, cultural pgm for Aymarans, ads, nx (Nozaki JP 5/4)
- 62123 **ALBANIA R Tirana** in EG 0130, sked for EG pgms, nx, cmntry, g, //71599 (Alexander PA 5/30) also hrld in Argentina on 62206 with nx in EG 0130 and poor modulation (Eramo ARG 6/1&2)
- 6725 **PERU R Satellite** in SP 0157, huanos, upbeat tlks, g despite UTE QRM (Locklear 5/19)
- 68117 **PERU R Ondas del Rio Mayo** in SP 1110, "Salludos Musicales", full ID, f (Nozaki JAPAN 5/10)
- 7085 **ERITREA V of the Broad Masses of Eritrea** in Vern 2047, running way beyond normal 1800 s/off time, Horn of Africa vcls, drum intervals, abrupt s/off, fair level by 2200, off 2232 (Hill MA 5/23)
- 7190 **TURKEY VOT** in EG 2205, international nx, ID, cmntry (Sgrulletta NY 5/10, Fraser MA 5/22)
- 7210 **THAILAND R Thailand** in EG 1912, nx, "Daily Environment", ID, feature (Serra ITALY 5/18)
- 7225 **TUNISIA ERTT** Sfax in AR 2246, repl for long time 7475, Qur'an, //7280, 120056 (Hill MA 5/23)
- 7250 **RUSSIA V of Vietnam** relay Armavir in VT/EG 0222, ID, exc signal (Costello NJ 5/20)
- 7260 **THAILAND R Thailand** in Cambodian/EG 1127, chimes, sked in EG in lcl time, more chimes to 0030
- 7270 **GABON R Dif Gabonaise** Moyabi in FR 0525, pop and guitar mx, voice overs (Clark MA 5/26)
- 7295 **UNITED KINGDOM R Canada Int** relay in EG 0508, nx, mx feature, IS, exc (Krause OH 5/15)
- 77459 **PERU R Cristal** in SP 1139, greeting to lcl mothers, huaynos, cumbias, ID, ad (Nozaki JP 5/10)
- 7935 **CHINA CPBS-I** Beijing in CH 1632, tlk over flute mx, ancmt, 15 kw xmtr, f (Serra ITALY 5/19)
- 9325 **NO KOREA R Pyongyang** in RS 1722, lcl song, ID "Govorit Pyongyang", tlk (Serra ITALY 5/16)
- 9445 **TURKEY VOT** in TK 0030, continuous AR-type mx, chants, mentioned Ankara (Findlater CA 6/5)
- 9475 **EGYPT R Cairo** in EG 0301, AR mx, TC, usual march theme, Mideast nx, lite mx jazz, ID in EG (Flynn OR 6/7, Krause OH 5/14, Findlater CA 6/5)
- 94898 **ABKHAZIA Rep of Abkhazia R**, Sukhumi in lang?/RS *0329, IS, anthem, nx?, piano bridges, vcls, dialogue by YL & OM (Clark ONT 6/6, Rippel VA 5/19, Sgrulletta NY 6/6, Maroti NY 6/6)
- 9495 **SWEDEN R Sweden** in EG 0230, ID, cmntry on SW recalling diplomats etc (Findlater CA 6/5)
- 9500 **AUSTRALIA RA** in EG 1650, "Culture and Cuisine" feature, ID, weak sig (Flynn OR 6/2)
- 95051 **BRAZIL R Record**, Sao Paulo in PT 1000, ID including MW outlet, relig pgm (Nozaki JP 5/23)
- 95149 **BRAZIL R Novas de Paz**, Curitiba in PT 1032, nonstop relig vcls, ID including MW (Nozaki 5/16)
- 9540 **VENEZUELA R Nacional**, Caracas in SP 1100, usual LA pgming, low modul'n (Novello NC 5/10)
- 9580 **HUNGARY R Budapest** in EG 0115, econ nx, cheating in schools (Pasquale PA, Bauerhuber NY)
- 9580 **BOSNIA R Yugoslavia** relay in EG 0000, Yugo to play Iran in World Cup soccer, g (Pasquale PA)
- 9595 **INDIA AIR Delhi** in Urdu? *0013, IS, ID, subcont vcls, f-g, best at 0030 (Clark ONT 5/26)
- 9600 **ITALY V of the Mediterranean** via RAI in EG *0630, NA, ID's, "The Collector" feature pgm, poor signal with co-channel QRM from BBC outlet (Alexander PA 5/16)
- 9605 **VATICAN STATE Vatican R** in EG 0200, Pope on atrocities in Bosnia, //7305 (Findlater CA 6/5)
- 9640 **GERMANY D Welle** Wertachtal in EG 0130, cmntry on World Cup, //6145 (Bauerhuber 5/28)
- 9675 **ITALY RAI** Rome in EG *0050-0110*, IT pop songs, //6010, 11800, f (Bauerhuber NY 5/28)
- 9705 **CHINA V of Pujiang** Shanghai in CH 1403*, CH opera, tlk, theme, g, //4950 (Flynn OR 5/7)
- 9735 **RWANDA D Welle** relay in EG 2134, interview with writer, tlk on jazz festival, ID (Krause OH)
- 9737 **PARAGUAY R Nacional** in SP 0100, ID, tlk re Argentina & Bolivia, nx?, g (Findlater CA 6/5)
- 97416 **INDONESIA RRI Sorong** in IN 0950-1211*, ID at 1000 "Inilah Radio Republik Indonesia Sorong, program satu", NA 1209, Jakarta nx, QRM Paraguay, //15125 (Hill MA, Clark ONT, Nozaki JP)
- 9780 **PHILIPPINES FEBC** in IN 2300-2330*, religious tlk, weak but audible (Findlater CA 6/4)
- 9825 **ASCENSION IS BBC** relay in EG 2350, tlk re sound systems effect on Jamaicans (Krause OH 6/6)
- 9855 **GERMANY R Vilnius** Lithuania relay in EG 0030, ID, nx re Bosnia situation (Findlater CA 6/4)
- 9925 **GERMANY Croatian R** relay Juelich in EG 0139, nx on hr and 1/2 hr, part of re-release xmns via Deutsche Telekom xmtr at Juelich, beamed to N America (Fine VA 5/12, Krause OH 6/1)

- 9945 NORWAY *RNI* in EG 0406, cmtry on Norway-Russia relations, IS, ID, exc (Krause OH 6/1)
 11530 LEBANON *V of Hope* in EG 1704, ID, relig pop songs, AR mx, tlk, fqys, g (Serra ITALY 5/16)
 11540 NIGERIA *R Kudirat* in EG 1950, repeating relig message, definite ID, f (Pasquale PA 5/9) ED: Peter Lee (UK) reports in Cumbre DX that this fqy also has a parallel on 6205.
 11620 INDIA *AIR Bangalore* in Urdu 0100, chanting, some AR vcls, weak but audible (Findlater CA 6/8)
 11635 PHILIPPINES *FEBC* in EG 1059*, tlk by YL, QTH, poor sig with flutter (Ziolkowski NY 5/16)
 11705 CANADA *R Japan* relay in EG 0030, cmtry on subway terrorism, //6155 (Bauerhuber NY 5/28)
 117149 ALGERIA *R Algiers* in EG/SP 1642, songs w/YL DJ, ID, fqy, into SP 1700, nx (Serra ITALY 5/19)
 11725 SWITZERLAND *SRI* in AR/EG 1900, ID, nx re Kosova refugees, to EG 2000 (Findlater CA 6/7)
 11730 SEYCHELLES *BBC* relay in EG 0334, "African Stream" pgm re birds, f//6005 (Stewart MO 5/10)
 11790 INDIA *AIR* in Sindhi? 0137, tlk re Pakistan, ID 0150, oration , hrd in USB mode (Hill MA 5/11)
 11804 BRAZIL *R Globo* Rio de Janeiro in PT 1000, "Noticias da Radio Globo", wx, p (Nozaki JP 5/4)
 11830 BRAZIL *R Anhanguera* in PT 2354, tlks, ID, clear sig after co-channel s/off 2357 (Ziolkowski 5/11)
 11835 UNITED KINGDOM *R Canada* relay in EG 0517, mx, tlk re Seinfeld's last show (Krause OH 5/15)
 11865 USA *BBC* relay Okeechobee FL in EG 1500, live soccer coverage on "Sports World" (Krause 5/16)
 11895 BRAZIL *Sistema LBV*, Porto Alegre in PT 0700, return fqy w/relig pgm, ID's, QRM (Nozaki 5/2)
 11900 SOUTH AFRICA *Channel Africa* in PT 0630-0655*, bird tweet IS, nx re India & Pakistan, g level (Findlater CA 6/6) in FR 1655*, African nx w/ correspondents, ID (Serra ITALY 5/16)
 11900 FINLAND *YLE R Finland* in EG 0200, ID, lcl nx, wx, stock mkt rept, cmtry, //9780 (Findlater 6/5)
 119151 BRAZIL *R Gaucha*, Porto Alegre in PT 0003, tlk, ads, jingles, ment Porto Alegre (Ziolkowski 5/12)
 119404 CAMBODIA *Nat V of Cambodia*, Phnom Penh in VT 1301-1313*, tlk by YL, operatic-sounding Asian vcl, all at threshold to very weak level at best (Clark ONT 5/23)
 11960 MALI *RTV Malienne* Bamako in Vern 1745-1757*, lengthy tlk by OM, clear channel and f-g after BBCs/s/off 1745, NA?, no ID (Clark ONT 5/18) in Vern/FR 1757*, electronic mx theme, ID in FR, sked read by OM & YL, "good but not great signal" (Novello NC 5/15)
 11985 UNITED KINGDOM *Merlin Net I* via Rampisham in EG 2208, rock mx, promo (Flynn OR 5/27)
 11990 NORWAY *RNI* in EG 0207, world nx, "Listener's Corner", exc level (Krause OH 5/25)
 12015 ECUADOR *HICJB* Quito in EG 0100, nx, ID, Studio 9 Tour, //9745 (Alexander PA, Stewart MO)
 12085 MONGOLIA *V of Mongolia* in EG 1210, IS, ID's, skeds on EG xmsns, lcl mx, f (Alexander 5/16)
 12125 GEORGIA *V of Hope* in EG 1638, relig sermon, promos, phone #'s, QTH, Internet web site, ID, relig song, req for financial support, "High Adventure World Radio" pgm (Serra ITALY 5/22)
 12135 SOUTH AFRICA *AWR* relay in Swahili? 1706, ID in EG and other langs, IS (Hill MA 5/10)
 13610 SYRIA *R Damascus* in EG 2115, skeds, nx re Arasat meeting in Beirut etc, f (Findlater CA 6/5)
 13630 UNITED ARAB EMIRATES *Dubai* in EG 1601, ID, AR mx, historical radio drama, //13675, 15395
 13705 VIETNAM *V of Vietnam* Hanoi (xmt site presumed) in VT 0453, tlk abt the war and the effect on people, fqys 0457*, moderate flutter (Halstead WV 6/11) ED: Based on this tip, I tuned in at *0400 on 6/17 to the 57 minute all-VT pgm, ID at s/on, nx, tlk, mx, songs, no EG, fqys* strong/clear signal.
 13755 UNITED ARAB EMIRATES *R of the UAE* in AR 1547, "bedtime" story, //13605 (Hill MA 5/12)
 13760 NORTH KOREA *R Pyongyang* in EG 2100, propaganda, military choral mx, g (Findlater CA 6/5)
 13780 INDIA *AIR Bangalore* in EG 1900, nx, continuous indigenous mx, ID, into FR 2030 (Findlater 6/4)
 13830 CROATIA *Croatian R* in EG 2000-2100*, nx, ID, weak but audible signal (Findlater CA 6/4)
 15120 NIGERIA *V of Nigeria* in EG 0625, "Listener's Letters", ID, lcl folk mx, TC, world nx, f, //7255 (Alexander PA 5/24, Krause OH 5/25) in EG 1955, rpt on Nigerian stock market (Pasquale PA 5/9)
 151251 INDONESIA *V of Indonesia* in EG 0805, YL ending Jakarta nx, NA, ID, czl mx (Clark ONT 5/17)
 15150 INDONESIA *V of Indonesia* in EG 2045, mailbag pgm, lcl mx, good but RCI QRM (Sgrulleta NY)
 15220 CANADA *BBCWS* relay Sackville in EG 1515, live soccer coverage, exc (Krause OH 5/16)
 15235 LIBYA *R Jamahiriya* in AR 2100, continuous chanting mixed with AR mx, //15415 (Findlater 6/8)
 15240 SOUTH AFRICA *Channel Africa* in EG 1800, IS, ID, "Newswatch" (Pasquale PA, Serra ITALY)
 15250 SRI LANKA *VOA* relay in EG 0140, "VOA Saturday", weak sig (Halstead WV, Ziolkowski NY)
 15295 MALAYSIA *VOM* Kajang in EG 0455+, pre-sign on orch mx to *0500, //9750 (Clark ONT 5/17)
 15310 OMAN *BBCWS* relay in EG 0314, world nx, sports roundup, weak but clear (Krause OH 5/14)
 15335 PAKISTAN *RP* in Urdu? 1755, tlk, film mx, fanfares, ads?, //115701, g (Novello NC 5/18)
 15395 THAILAND *RT* via VOA relay in EG 0043, world & lcl nx, feature on art shows, p (Flynn OR 6/8)
 15400 UNITED ARAB EMIRATES *UAE Radio* in EG 0329, nx, pgm re Jerusalem, hrd //s on 13675 and 12005
 15415 LIBYA *R Jamahiriya* in AR 0349*, strong sig but low audio level, NA, //15235 (Stewart MO 5/10)
 15430 ISRAEL *Kol Israel Reshet Daled* in AR 1802, unlisted channel hrd w/tlk, mx, actualities, ID at 1900 weak sig w/deep fades at first but improved to fair by 2102*, repl for unhrd 121407 (Hill MA 5/12)
 15485 PAKISTAN *R Pakistan* in Urdu 0207, continuing past scheduled 0215 s/off, ID, end xmsn 0225, several iterations of IS to 0230, then into EG? but sig deteriorated to unreadable by 0230 (Hill 5/23)
 15530 FRENCH GUIANA *R France* relay in EG 1230, Club 9516-David Page at Cannes (Fraser MA 5/17)
 15635 AUSTRALIA *Aust Def Forces R* in EG 0330, nx, sports, pop mx (Alexander PA, Costello NJ)
 15650 ISRAEL *Kol Israel* in EG 1915, feature - 50 years of Israel Radio, g (Fraser MA 5/14)
 17645 GUAM *KSDA Adven World R* in Burmese 0000, ID, relig tlk, hymns, f (Findlater CA 6/8)
 17675 NEW ZEALAND *RNZI* in EG 0400, ID, "Sounds of the South Pacific" in lang (Halstead WV 5/22)

- 17700 CHINA CPBS-2 in CH 0850, chats, mx, canned tlk, ancmt, f-p (Serra ITALY 5/10)
 17735 ECUADOR HCJB Quito in EG 2148, relig sermon & mx, exc, //21455 (Krause OH 5/18)
 17790 THAILAND BBC Asian relay in EG 2313, ID, "East Asia Today", f (Halstead WV 5/17)
 17795 AUSTRALIA RA in EG 0355, "Australia Talk-back" phone-in pgm, //17750 (Halstead WV 5/22)
 178352 PAKISTAN R Pakistan in Urdu 0825, tlk, ID during tlk, mx breaks, f-p (Serra ITALY 5/10)
 21460 COSTA RICA RFPI in EG 1730, ID, "Our Americas" (Halstead WV 5/25, Krause OH 5/15)
 21550 CHILE Voz Christiana Santiago in SP/EG 1730-2000+, ID's, QTH, contemporary SP Christian mx, f-g (Alexander PA 5/11) ancmt for experimental bcst in EG/SP 1830, ID, fqy (Nozaki JP 4/28) in EG/SP 2100-0020+ w/test xmsn, invited FAX or E-mail from listeners (Berg MA 4/15) still with test xmsn in EG/SP 1615, theme mx & repetitive messages each 15 min , vg (Clark ONT 5/18)
 21610 JAPAN R Japan in EG 0118, nx items from other Asian broadcasters, fqys (Halstead WV 5/16)
Clandestine, Tentatives, Presumed, or Unknown
 5950 GUYANA V of Guyana(p) in EG 0903, family greetings, India style mx, reggae (Ziolkowski 5/20)
 60699 INDONESIA RRI Jayapura(p) in IN 0945, buried in CFRX slop, tlks, chorals, mx (Rippel VA 6/20)
 60713 COSTA RICA Radio 88 Estereo 1020 w/bits of YL tlks trying to be hr under CFRX (Rippel 6/5)
 6150 KENYA KBCC Kama Rock (p) in lang? 0357, Afro vcl, fanfare of band mx, seemed KBC pips on the hour, unreadable nx? due to severe distortion, no definite ID, xmsn at 1/2 power rptd (Clark 5/23)
 6200 GERMANY D Welle(t) in GM 0300, feature on Frank Sinatra, weak sig, //3995, 6075, 6100-Could be new fqy or another Sackville spur? also hr 0015 until Prague s/on at 0058 (Alexander PA 5/16)
 6980 UNKNOWN SITER Cochiguaz in multiple langs 2300-2350, from somewhere in S Amer. Test xmsn from new site using new V-inverted 1/2 wave antenna with 100 watts of power, ID in SP/EG/Quechua, & Guarani, fqy de 6980 khz, Andean mx, vg (Eramo ARGENTINA 6/3)
 7260 IRAN VOIR Teheran(p) in AR 2332, chanting by OM in AR, then tlks in FR (Costello NJ 6/9)
 9380 CLANDESTINE V of Tibet(p) in lang 0000-0029*, tlk, short breaks lcl mx, f-g (Alexander 5/23)
 9565 BRAZIL R Universo Curitiba(t) in PT 0054, preaching, relig mx, heavy splatter (Flynn OR 6/8)
 11540 TAJIKISTAN(p) R Free Asia relay in Burmese *0030, ID in EG, tlk, p, site is presumed based on an entry in HFCC list showing Dushambe s/on at *0030 (Ziolkowski NY 5/31)
 11785 UNIDENTIFIED Strong sig & distorted audio in AA(p) 0204, Iraq? Egypt? Saudi? (Costello NJ 6/8)
 117851 BRAZIL R Guaiba(p) in PT 2220, nx?, many mnts Brazil, time tones 2230, pgm ends at 2235 with anthem, then into more nx? at greatly reduced audio level, many mnts "Federal" (Ziolkowski 6/10)
 13610 CHINA CPBS(p) in CH 1153, vcl mx by YL, tlk, time tones 1200, NAT?, more tlk (Ziolkowski 6/6)
 136449 CLANDESTINE (IRAN) V of Southern Azerbaijan(p) in lang? 1603-1630*, tlks, ME vocal, drum beats, choruses, vp signal much too weak to ID lang, maybe Turkic (Hill MA 5/12, Flynn OR 5/14)
 15125 INDONESIA RRI Jakarta(t) in lang? 0600, nx ment Indonesia, Suharto, Jakarta, ID? (Findlater 6/5)
 151851 UNIDENTIFIED Preacher in EG 2128, dead air for 4 mins, back on with OM giving address in Milwaukee, no ID on the hr, could be Equatorial Guinea?, poor sig but no QRM (Ziolkowski 5/21)
 15230 SAUDI ARABIA BSKSA(p) in AR 1315, tlk by OM's, mx, het QRM, no ID (Costello 5/31)
 15365 UNITED KINGDOM(p) The Media Zoo in EG 1340, "per Gary Otteson's unID in swtalk list tuned in to hear pop mx & live coverage of the Cable and Satellite Show 1998", ID'd as "The Media Zoo on Merlin Network One via CMR", moved fqy to 15360 at 1400 at Romania s/on (Novello NC 5/18)
 15560 UNITED KINGDOM(p) R Asia Canada relay in EG 2150, world nx, sports, financial headlines, ancnd fqy would switch to 11975 in one minute at 2158 and did, ID at end of nx included acronym RFE or RSE? "World Service English radio", into Tamil pgming 2200, hr the following night with "RAC" and "Radio Asia Canada World Service" ID's (Novello NC 5/18)
 15640 NORWAY RNI(p) in EG 1323, "Listener's Corner", exc sig, no ID rptd (Krause 5/24) ED: Most likely R Norway since May 24 was a Sunday and RNI xmts EG only on Sundays.

Editor's Corner

Hopefully, this column contains loggings of interest to the NASWA membership. Most of the loggings submitted fit into the definition of timely, uncommon, or difficult short-wave catches. However, some of those submitted are not included in the column for one or more of the following reasons:

1. They are received too late to be included. I start preparing the column usually about the 15th of the month. Thus, if you mail loggings directly to me, there must be sufficient lead time to arrive on the West coast by that time. If you have a computer, you can send your loggings to me via E-mail (nwhikers@gte.net) through the 15th of the month.
2. The logging has insufficient program details to be of interest to other DX'ers. There should be more than "nx & mx" for example. Info on ID's or parallel fqys are important.
3. Essential details are omitted, such as time of day logged or even the name of the logger.
4. The logging may be illegible, if in writing.
5. The logging may be too old to be useful (e.g. those over 2 months old)
6. The logging may have been reported in the previous month's issue. Generally, these loggings are omitted unless they are rare catches, new fqys, or have other unusual facts to be reported to the membership.

Thanks to the members noted above who contributed their time & effort to this month's column.



the CPRV page

COMMITTEE TO PRESERVE RADIO VERIFICATIONS

JERRY BERG, Chairperson • 38 Eastern Ave. • Lexington, MA 02173 • (617) 861-8481

AMERICAN EXPEDITIONARY STATION
NOUMEA, NEW CALEDONIA

April 20, 1944

Mr. Paul Kary
153 Suppes Ave.,
Johnstown, Pa.
U.S.A.

Dear Sir:

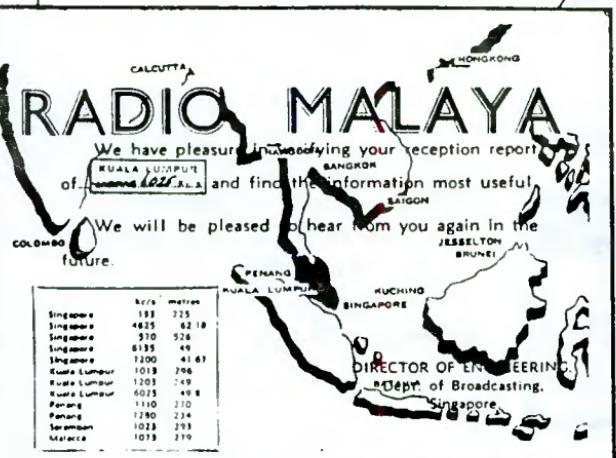
This letter is sent to acknowledge receipt of your most welcome report on reception on our station. We are sorry that we have no facilities to send you a regular verification form.

The staff would like to take this opportunity to thank you for your interest in our effort to entertain the Armed Forces of the United Nations.

Sgt Paul Masterson

for

The Staff
A.E.S. Noumea.



Here is one that is lost to history. The Yanks landed in New Caledonia in 1942, and apparently enjoyed entertainment from this station during the balance of the war. The frequency was 15460 kHz. Note the preformation reference to the "United Nations." • The Radio Malaya card is from 1949, and shows some still familiar xmtr sites. • Full details on CPRV may be obtained from yours truly for a SASE to the above address. Many thanks!

73 --

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Author John Zondlo writes in a conversational style that makes this book as easy to read as it is informative.



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