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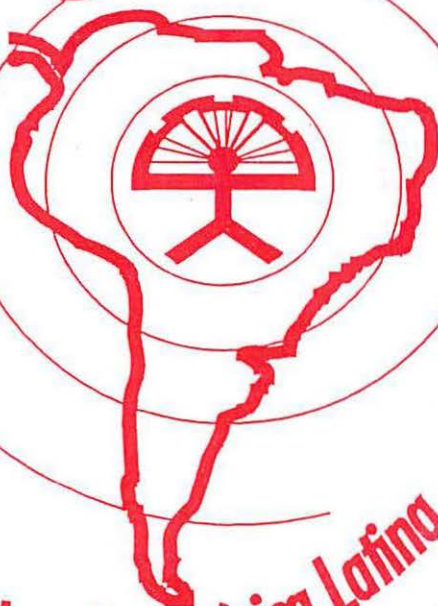
**NORTH AMERICAN SHORTWAVE ASSOCIATION**

VOLUME XXXIX NUMBER 9

SEPTEMBER 1999

*Radio  
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It's time to get outdoors and complete any antenna work you have been meaning to do during the summer months. Hopefully, the long hot days of summer are behind us and we can begin to enjoy the commencement of another DX season.

From European DX Council ("EDXC") Secretary General Risto Vahakainu we learn that there will be an EDXC Conference 1999: "We have the pleasure of announcing that the annual Conference of the European DX Council will this year be held in Copenhagen, Denmark at the weekend 05-07 November. The venue will be Hotel Eremitage, a very nice conference hotel situated 11 kilometers north of the city and well reachable with commuter trains and buses. The conference will be organized together by the Danish Short Wave Club International and the EDXC headquarters." See the Calendar of Events for further information.

### ANARC SWL Ham Net

Dave Kirby and Al Quaglieri, net controls for The ANARC SWL Ham Net, have announced that the net has gone on summer hiatus. Check-ins have been down for some time, and Dave and Al felt that they weren't likely to pick up during the summer. In the mean time, you can find many of the regulars from the net on IRC chat channel #swl. Dave and Al hope to bring the net back in September or October. Watch <<http://www.n1dk.com/>> for more information.

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



### FRENDX: Twenty Five Years Ago....

Charlie Loudenboomer reported about the 1974 IWWCDXA Convention at Christopher, Ohio. Ed Shaw's Shortwave Center had a comprehensive report about the first annual NASWA Convention, which was held in Columbus, Ohio on July 19-21. Fifty-eight people gathered to see receiver displays, meet new and old friends and take part in interesting seminars. Bill Matthews and Randy Minnehan hosted the event. Frendx carried 15 photographs of the weekend's activities. Harry Helms wrote about How Skirts and Shapes Affect Your DXing. The ANARC Report noted thirty-six enthusiasts attended the Bronxville, NY convention. Due to a planned relocation, Larry Yamron announced he had to resign as QSL Report editor. Nine DX'ers reported 200 or more countries heard in the Scoreboard column but only two, Don Jensen and Gerry Dexter, reported over 200 countries verified. Danny Jamison's Listener's Notebook carried a report about a Russian DX'er who was in trouble with the authorities in the Soviet Union after his name was mentioned on Sweden Calling DXers.



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

Our Motto is - "Unity and Friendship"

## 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](mailto:fkohl@ix.netcom.com).

## Musings

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

**John T. Arthur [cc732@freenet.buffalo.edu](mailto:cc732@freenet.buffalo.edu)**

Just got the latest issue of Friendx... errr, the Journal today and read your article on the history of ANARC. Good job - and I've only spotted one mistake so far!

Toward the bottom of page 12 you mention that the WMRC "became the Worldwide TV-FM DX Association..." Nope! The WTFDA has been around a lot longer than that. In fact, I was writing a MWDX column for WMRC toward the end; the club just couldn't continue (money probs or time probs or something) and, courtesy of Bill Eddings, it was merged into NASA. The President of the club at that time was Joe Johnston, in Philly. I lost contact with him years ago but understand that he's still around.

Obviously this was just prior to NASA's change to all-SWBC and the addition of the "W" to the initials. When the merger happened, I was still primarily a MWDXer, so I went on to the NRC for a while.

In all honesty, I had no idea how much Don Jensen had to do with the formation of ANARC. One day I'll have to thank him!

Keep up the great work!! NASWA still sets the standards for the hobby.

**Gigi Lytle, 2109-C 51st, Lubbock, TX 79412**

Responding to Kehoe - NASWA Aug 1999 Journal "Musings" - You just have to pester them with your questions until they buckle under. Pester, pester, and pester until you become a pest. They will have to begin to "rapidly" answer your questions.

## Membership Questions?

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

## Calendar Of Events

**Sep'99 Convention.** **NRC Annual Convention** will be held September 3-6, 1999 at the Holiday Inn in Bridgeport, WV (100 Lodgeville Road, Bridgeport, WV); call 304-842-4635 for reservations (\$70.85 per room if made before August 13<sup>th</sup>). Registration fee is \$35.00 prior to August 1<sup>st</sup> and \$40.00 thereafter. Send registration fee to William Swiger, One Casey Lane, Bridgeport, WV 26330 (304-842-4635).

**Sep'99 Contest.** **AWR Contest.** Largest QSL collections, long delays in receiving a QSL, and QSL cards from the old AWR unit in Africa. Details available for a SASE from AWR International Relations, Box 29235, Indianapolis, IN 46229.

**Sep 17 Meeting.** **Philadelphia Area NASWA Chapter.** Kulpsville Holiday Inn, Kulpsville, PA at 7:30 PM. For more information contact Dan Cashin at 610-446-7831.

**Sep 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/>>.

**Sep'99 Convention.** Ontario DX Association will hold **Radio Fest 99** from September 24-26, 1999 at the Ramada Inn & Convention Center in Oakville, Ontario. Radio Fest 99 will look at "Where we have come from in radio's past", "Where we are today", and "Where are we going in the future". There will be exhibits from equipment suppliers; clubs; technology from yesterday, today and tomorrow; plus tables of used equipment for sale. Hotel reservation can be made direct with the Ramada Inn by telephone (905)849-5950, toll free 1-800-357-0880, Web [www.ramada-oakville.com](http://www.ramada-oakville.com). A special rate of Cdn\$82 per night for Radio Fest 99 is available. Further information on Radio Fest can be found at: <<http://www.durhamradio.com/odxa/>>; or E-mail: [odxa@compuserve.com](mailto:odxa@compuserve.com), or by mail: Ontario DX Association, P.O. Box 161, Station A, Willowdale, Ontario M2N 5S8, Canada.

**Oct 8 Meeting.** The **Tidewater SWL's** meet at 6:30 PM. For more information plus meeting location contact Joe Buch at [joseph.buch@dol.net](mailto:joseph.buch@dol.net)

**Oct 8 Meeting.** The **Cincinnati/Dayton Monitoring Exchange (MONIX)** meet at the Lebanon Citizens National Bank on U.S. Route 42 in Mason at 7:00 PM. For more information contact Mark Meece at 513-743-8089 or e-mail at <[mmeece@siscom.net](mailto:mmeece@siscom.net)>. For additional information about MONIX, check out their web site at <<http://www.siscom.net/~mmeece/monix.html>>

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

**Mar 10-12, 2000 Convention.** The **13th Annual Winter SWL Festival** will be held at the Kulpsville Holiday Inn (Exit 31 on the Northeast Extension of the Pennsylvania Turnpike) on 10-12 March 2000.

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

# Easy Listening

Richard D. Cuff

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

## Are Shortwave Broadcasts Too Dry?

We have had an interesting discussion over in the *swprograms* E-mail discussion group regarding how "dry" some broadcasters' content is. Two broadcasters specifically mentioned were **Radio Austria International** and **Radio Japan**. It was countered that, perhaps the presentation style was dry, but both broadcasters provided more detailed, focused information on their respective countries than any other source.

In times past, I've brought up the argument that we generally can't hold international broadcasters, particularly in countries where English is not natively spoken, to the same production values we expect from local commercial radio. The nuances of cultural and language differences can't readily be converted from one language to another. The only time one can expect an "American" sounding shortwave broadcaster is when the presenting staff are American expatriates. This doesn't mean that content should be boring and dull, though. Even if interviews must utilize voiceovers to translate, broadcasters would do well to keep content interesting and relevant. Thankfully, the special reports on Albanian copper wire production aren't aired as often as in the past.

**Radio Netherlands** is a notable exception to this lament on dry content. Most English language shortwave listeners would rank Radio Netherlands near the top for consistent quality in both program content and production, especially when compared with other non-English broadcasters. From my own international travels, I would definitely consider The Netherlands to be the most "British" country in continental Europe. In addition to the physical proximity, the British and American background of several key

**Radio Netherlands** personnel (for example, Jonathan Marks and Jonathan Groubert, to name two) contributes to a tightly produced broadcast supported by informative and entertaining content.

If you have suggestions as to how a particular broadcaster could improve their content and presentation, send them to the station. Most broadcasters truly welcome constructive criticism, as it shows listeners care about what they're tuning in.

## Deutsche Welle Cutbacks

John Figliozzi first mentioned this in the *swprograms* discussion group. Casualties include English language news produced specifically for radio; in the future, news would be produced by **Deutsche Welle** ("DW") Television and designed to be aired on both TV and radio. Other cuts include:

1. Elimination of six foreign language services.
2. Reduced broadcast time for up to ten other language services.
3. Elimination of DW's monthly international radio/TV program guide.
4. No participation for DW in Hanover's Expo 2000, as had been planned.
5. Elimination of DW's monitoring service.
6. Elimination of 160 full time jobs and 300 freelance journalists with 200 jobs coming open due to attrition not to be filled. (DW currently employs 1700.)

The budget is scheduled for finalization in October, though it appears there is little chance for significant changes from these plans, according to DW management. Demonstrations have been planned for Berlin in September, and various newspaper editorials have already come out opposing the cuts.

Reliance on the Internet will be increased for those services where appropriate (particularly English, I'd guess), while shortwave will serve as the principal means of reaching less developed regions (e.g. Africa, South Asia).

Senior level DW staff departures have already been announced following this news.

It appears these cuts came out of the blue, as DW management strongly objected to these recommendations. So, complaining to DW itself probably won't accomplish much.

## China Radio International

Some upcoming programs from CRI include the following; here in Eastern Pennsylvania, the 0300 UTC relay from Spain is the best choice, so program days will reflect the 0300 program time.

Sunday, September 12th: *Music From China* features a collection of songs dedicated to teachers, demonstrating the value placed on education in China.

Thursday, September 23rd: *Voices from Other Lands* will feature interviews with foreign guests regarding their lives in China.

Friday, October 1st: *Cultural Spectrum* will chronicle how recent cultural changes have touched the daily lives of Chinese people.

Thursday, October 7th: *Voices from Other Lands* looks at international cooperation with China in information technology. This has been a sensitive area in Sino-American dialogue.

Friday, October 8th: *Cultural Spectrum* marks the 2550th anniversary of Confucius, introducing his background and philosophy.

## Radio Netherlands

Upcoming **Radio Netherlands** documentaries are shown below. First airing to North America is Thursdays 0053 and 0453; the program is repeated Fridays, 2353.

September features a three-part series on the Dutch colony of New Netherland, which spanned much of the East Coast of North America. The series is titled *Wake of the Half Moon*.

September 9th and 10th: *A Propitious Misadventure* — In 1609 when Henry Hudson sailed up the river which would bear his name in the Dutch ship the Half Moon, he was several thousand miles off course. But he discovered a fertile land rich in furs and game which the Dutch would soon add to their growing empire.

September 16th and 17th: *Pioneers and Patroonships* — The newly chartered Dutch West India Company formulated a plan in which wealthy merchants, called patroons, could purchase vast tracts of land in New Netherland and set up farming settlements. The most successful was Kiliaen van Rensselaer, but his patroonship and the whole colony would be threatened when conflicts developed with the native Indians.

September 23rd and 24th: *The Duke of New Amsterdam* — In its darkest hour, a new governor was appointed to New Netherland and the charismatic, if tyrannical, Peter Stuyvesant would breathe new life into the colony. During his reign, the settlement of New Amsterdam on the island of Manhattan would evolve into the most multicultural city in the New World.

## BBC World Service Highlights

### General Features

Thursdays, 0430: *Everywoman* is a weekly 30-minute series dealing primarily with issues of particular interest to women, though apparently a fair number of men listen, as well. There is a special edition sometime in September dealing specifically with issues such as being a brother, father, husband, grandfather, and having women as friends.

Tuesdays–Saturdays, 0055: *My Century* topics for September include:

September 7–11, *The Inheritors* looks at indigenous peoples in the 20th century.

September 14–18, *Ingenious Inventions* looks at now ordinary objects invented this century, including the washing machine, refrigerator, and credit card.

September 21–25, *Still Lives* looks at the role of photography in documenting key events.

September 28–October 2, *My Hero* looks at people closely associated with heroes and heroines of the century.

Don't forget the weekly compilation Mondays 0030.

Sundays, 1405: *Matter For Debate* concludes its series of programs exploring various ethical dilemmas. This month's topics include arranged marriages, the right to suicide, and gay parenting.

Saturdays, beginning September 11th, 1045: *A Name to Remember* is a five-part 15-minute series profiling medical practitioners who have a disease named after them. James Parkinson, Thomas Addison, and Thomas Hodgkin are the first three doctors profiled. Also repeated Wednesdays 0330.

Tuesdays, beginning September 14th, 0430: *China's Long March* is a new six-part, 30-minute series presented by Philip Short on the development of the People's Republic of China, marking its 50th anniversary on October 1st. On October 18th, 1934, approximately 100,000 men and women started to march west from Jiangxi province in Southeast China under Mao Tse Tung's leadership, and Philip Short traces the route of the March and how the country along the way has developed in the past 50 years.

Wednesdays, beginning September 22nd: *A World For Children* takes a critical look at the UN Convention on the Rights of the Child, which marks its tenth anniversary in November. A six-part series of 30-minute programs looks at how the declarations of 10 years ago have been put into practice. Children in combat are discussed in the September 22nd program; children in the drug trade are discussed on September 29th.

Thursday, September 23rd, 1130: Here's something unusual nowadays—a single, 30-minute documentary. It's entitled *Sierra Leone Rose*. Tom Porteus meets Rose, a survivor of Sierra Leone's vicious civil war.

#### Science and Technology

Sundays, September 12th through September 26th, 0030: *Green Champions* concludes its six-part run as part of *Science Extra*, exploring the world of plants and how they contribute to human welfare.

Friday, September 17th, 0030: *The Works* features a look at the potential for private space travel for vacations and excursions as we embark on the new century. Obviously, much work needs to be done to develop cheap but reliable rocketry, but who knows...

Saturday, September 18th, 0030: *Science In Action* visits Britain's annual festival of science, reporting on sessions as varied as agriculture for the new millennium and mathematics for international finance.

Sunday, September 19th, 0045: *Waveguide* might be worth a special listen this month, as the program visits the National Association of Broadcasters ("NAB") conference in Florida. Given the importance of the NAB in setting the agenda for commercial broadcasting (and the resulting dearth of decent programming), this might be an especially relevant program.

Sunday, October 3rd, 0030: *Seeing Stars* is a look at astronomical events for the month ahead that airs on the first Sunday of each month. Those with Internet access can view the star charts referenced on the program at URL <http://www.bbc.co.uk/worldservice/seeingstars>.

#### Classical Music

Friday, September 10th, 0305: Chopin's *Piano Concerto No. 1 in e minor* is featured in the second-last Promenade concert.

Sunday, September 12th, 0305: The last night of the *Proms* Concerts features a party atmosphere and unspecified "high jinx" in-

cluding actor Jeremy Irons performing Noel Coward songs.

Sunday and Monday, September 12th and 13th, 1830: *The Millennium Concerts* is a series of ten concerts, one set each month, in a celebration of some of the world's greatest musical traditions. This month, it's Handel's *Messiah* from London's Royal Albert Hall. While this timing is not aired specifically to North America, the Sunday edition will air on 12095 kHz from the UK, which may make it this far. Alternatively, the African airings will be at the same time, and that time of day is often favorable for propagation from Ascension Island.

### Popular Music

Saturdays, 2330: *The Vintage Chart Show* visits 1970, 1982, 1991, and 1979 this month.

Thursday September 30th, 0530 and 2230: *Hot New Country* visits the 1999 *Country Music Association Awards* festival in Nashville, held at the Grand Old Opry. I always find the British spin on uniquely American culture to be interesting.

### Drama and the Arts

Saturdays, 2230: *Play of the Week* highlights include,

September 11th: *Mosquitoes* is a repeat airing of a specially commissioned play for the World Service produced in 1997 to commemorate the 100th anniversary of the discovery of the linking of mosquitoes with malaria.

September 18th: *Sisters By Chance* is the first in a new series of *Worldplays* commissioned from stations around the world broadcasting English language drama. The play was produced by the Canadian Broadcasting Corporation as a "contemporary comedy of manners on the lives of the newly divorced."

September 25th: *Yellow Bride* is set in 1980s Wellington, New Zealand as a modern version of the Medea myth. I'm no Greek mythology expert, but the myth has something

to with wifely revenge on a husband chasing after youthful female companionship. Produced by Radio New Zealand.

Tuesday-Saturday, 0345: *Off the Shelf* features include:

Week of September 14th, a selection of short stories by Anton Checkhov, read by Alistair McGowan. These include *An Incident*, *A Play*, *The Old House*, *Ivan Matveyitch*, and *Bad Weather*.

Beginning the week of September 21st for three weeks, *Pride and Prejudice* by Jane Austen, read by Patricia Hodge.

Saturdays, 0905: *Poems By Post* returns for a six-part run in the time slot normally held by *Short Story*. While this time isn't exactly convenient, at least it should propagate well due to the relay transmitter sites in use at that time. Michael Rosen hosts the request show featuring poetry from Poland, China, the USA, and England in September.

While we're on the subject, the BBC continues to solicit listener-written short stories of approximately 2,000 words in length and previously unpublished. E-mail the program at [short.story@bbc.co.uk](mailto:short.story@bbc.co.uk), or send hard copy to *Short Story* at the usual Bush House address.

## Internet Mailing List on Short-wave Programming

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

Until next month,

73 DE Richard



## DX Target: Jordan

### A Brief History of Jordan Radio and Television Services

By Richard A. D'Angelo

Radio Jordan, broadcasting from Amman, is one of the Middle East's more interesting broadcasters. It was first established over 40 years ago. Today, it continues to be well heard on the international shortwave bands with substantial amounts of Arabic and English language programming. Consequently, the station is often heard throughout the world year-round. Let's take a look at the country and its broadcasting services.

#### Location

Situated near the southeastern coast of the Mediterranean, Jordan shares borders with Syria to the north, Iraq to the east, the West Bank and Israel to the west, and Saudi Arabia to the east and south. The lands of Jordan and its people have been molded by centuries of passing civilizations. Jordan has always been at a crossroad between east and west, and its centrality has given it strategic and economic importance, making it a vital trading and communication link between countries, people and continents. Jordan is a small country of 92,300 square kilometers (57,354 square miles) that can be crossed by car in approximately four hours. However, its diverse terrain and landscape impart a feeling of it being larger than it actually is.

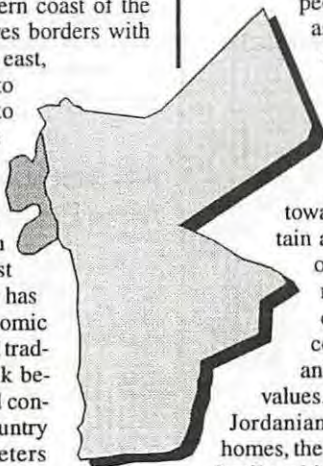
#### Population

Jordan's population was estimated at nearly 4.3 million in 1995. Jordan's high fertility rate and declining mortality rate result in a population increase averaging 3.8% annually. Jordan's stability in a turbulent region has attracted large numbers of refugees and temporary residents from neighboring regions such as the West Bank, the Gaza Strip and Lebanon. In recent years it has also seen tens of thousands of Jordanian expatriates returning from abroad.

Approximately 78% of Jordan's people reside in major cities such as Amman, Zarqa, Irbid, Salt, Mafraq, Karak, Tafleeh, Ma'an and Aqaba. Amman, the capital, comprises 38% of the country's population.

Although the national trend is towards urbanization, Jordanians retain a strong cultural identity based on village and rural life. What may seem to be a Western style of life to an outsider is, in fact, a combination of Western lifestyles and Middle Eastern traditions and values. As an example, although many Jordanian women work outside their homes, the focus of the culture remains the family, which is always the first priority for Jordanians.

The majority of the population (96%) is Sunni Muslim. About four percent are Christians.



## Geography and Climate

Jordan can be divided into three main regions, each with a distinct climate. The highlands comprise mountainous and hilly regions that run through Jordan from north to south. Several valleys and riverbeds intersect the highlands. Their altitude varies from 600 to 1600 meters (1969 - 5249 feet) above sea level, and the climate, although generally wet and cool, also varies from one area to another. The average temperature in Amman ranges from 8.1 degrees Celsius (46.6 Fahrenheit) in January to 25.1 degrees (77.2 Fahrenheit) in July.

West of the highlands is the Jordan Rift Valley, which also runs along the entire length of Jordan. The Rift Valley plunges to over 400 meters (1312 feet) below sea level at the Dead Sea, becoming the lowest spot on earth, and reaches a minimum width of 15 kilometers (9.3 miles). The Rift Valley is rich in water resources, including thermal mineral water. The valley is rich in agricultural land and is warm throughout the year. Average temperatures range from 15.6 degrees Celsius (60.1 Fahrenheit) in January to 32.5 degrees Celsius (90.5 Fahrenheit) in July.

The desert region in east Jordan is an extension of the Arabian Desert, and forms nearly two-thirds of the country. Not a true desert—there is low rainfall—it is rather a semi-arid, steppe-like region in which small plants survive in winter and spring. This region is home to the bedou of Jordan, the traditional sheep and goat herder who provide meat for the rest of the country. There is an extreme variation in the climate of the desert between day and night, and between summer and winter. Summer temperatures can exceed 40 degrees Celsius (104 Fahrenheit), while winter nights can be bitterly cold, dry and windy.

## Language

The official language of Jordan is Arabic, but English is widely spoken. Jordan Television and Radio Jordan both have an English service. French and German are spoken by a few people who have commercial or cultural

interests in France or Germany. Jordan Television transmits two hours of French programs daily. A daily English newspaper, the Jordan Times, and a weekly, the Star (which has a French section) are published in Amman.

## History of Jordan Television ("JTV")

Television transmission in Jordan started in April 1968 with four hours of programming in black and white. The following years saw two milestones for JTV, in 1972 it became the first station in the region to operate a second channel and in 1974 Jordan TV started the transmission in full color using the PAL-B system. Today JTV transmits to a large geographical area that includes Syria, Northern Saudi Arabia, Israel and South Lebanon.

Jordan TV has three working channels: (a) Channel One, (b) Channel Two, and (c) Jordan Satellite Channel. The following is a brief description of each of these channels.

Channel 1 is the main channel on JTV and broadcasts in Arabic. It provides news, entertainment, documentaries, cultural, and educational programs. Channel 1 averages about 19 hours per day of transmissions.

Channel 2 is the second channel of JTV that broadcasts in foreign languages. It offers an average of 11 hours of programs and news in both English and French daily. The French section is about 2 and a half-hours long and contains the latest French programs in addition to a local news bulletin in French. The English section is about 8 and a half-hours long and offers mainly English and American programs. The channel also covers local and international news with a daily summary ("News Headlines") at 1730 UTC and the main news ("The News at Ten") at 2000 UTC. Some very familiar shows, such as Walker Texas Ranger, NYPD Blues, and Oprah Winfrey, are popular prime time favorites in Jordan.

The Jordan Satellite Channel ("JSC") started transmission in February 1993. The station is

carried on ArabSat 2a that covers the Middle East, South Europe and the Near East and North Turkey. JSC is also part of Orbit's channel line up which covers Europe and North America. The station transmits an average of 13 hours per day, of which 80% of its programs are local.

## Radio Jordan

Since transmission began from Amman in March of 1956, Radio Jordan has developed into a modern service enabling it to reach many areas of the world. Radio Jordan's Arabic service is one of the few stations that offer 24-hour broadcasting in that language. Its programs include news, sports, documentaries, drama, community services in addition to modern and classical Arab music.

The English and French language service broadcasts 21 hours daily of English programs in addition to French FM programs which transmits around 8 hours daily. Both services, include program documentary and drama series in addition to news and sports, as well as music and songs in many languages. In 1988 the shortwave transmissions were expanded by adding three 500 kW transmitters to carry the voice of Jordan to the four corners of the world, it broadcasts for 9 hours daily in Arabic and can be listened to in North America and Europe on a regular basis.

Radio Jordan currently broadcasts on shortwave to Western Europe and North America in English on 11,690 kHz from 1000-1630 UTC during summer and from 1100-1730 UTC during the winter months from facilities located at Al Karanah. Its transmissions are usually heard well on the East Coast of North America during the winter months thanks to three 500 kW transmitters. Broadcasts in Arabic are heard around the clock on a variety of frequencies that change with the season. A recent schedule listed the following frequencies in kHz and UTC times:

6015 at 1530-0200,  
7155 at 1530-2200,

9630 at 0330-0600,  
9830 at 1800-2200,  
11810 at 0400-1300,  
11835 at 0600-1030,  
11930 at 2200-0200,  
11810 at 0400-1300,  
11835 at 0600-1030,  
11930 at 2200-0200,  
13630 at 1300-1530,  
15290 at 1030-1200, and  
15435 at 0000-0800.

Check Al Quaglieri's Listener's Notebook column on a regular basis for the latest broadcasting times and frequencies for all Radio Jordan transmissions.

Like many other international broadcasters these days, Radio Jordan has a presence on the Internet. The station's website can be found at <http://www.jrtv.com>. Radio Jordan's website provides news and information about Jordan Radio and Television. There is a section devoted to the television service and another section for the radio service. The site also contains national and international news features. Although portions of the website are still under construction, it promises to be a useful bookmark addition for those radio enthusiasts that surf the Internet.

The station is an erratic verifier of listeners' reception reports. Reports can be sent to the station in English with either US\$1.00 or two International Reply Coupons for return postage. Long waits or a follow-up report is not unusual to obtain that elusive verification from Radio Jordan. Letters should be sent to the station at:

Radio Jordan  
P. O. Box 909  
Amman  
Jordan

Remember to send in those Radio Jordan logs to either Sheryl Paszkiewicz or Wallace Treibel for the Log Report and those interesting and rare QSL verifications to Sam Barto for inclusion in the QSL Report column. Good luck with this DX Target.

# DX-ing in the Tropical Bands

By Anker Petersen (this article first appeared in the June, 1999, DSWCI Shortwave News)

## Introduction

I suppose that most of you know that by **Tropical Bands** I mean the 60, 90, and 120 metre-bands which primarily are assigned by the International Telecommunications Union to broadcasting in the countries located between the Tropic of Cancer and the Tropic of Capricorn. Most countries within this Tropical Zone do broadcast on these bands, but it is also used by some other nations like certain Republics of the former Soviet Union.

Outside the Tropical Zone, these bands are used by various Utility stations, which, of course, can make some annoying QRM to DXers. Fortunately, the trend is that more and more Utility stations replace shortwave by satellite or Internet connections.

I have devoted most of my SW-listening time for the past 40 years to DXing of Broadcasting stations on the Tropical Bands. I am fascinated by listening to a Home Service Broadcast from a low powered station in a far away country. These programmes tell you a lot about the country of origin, and they are very different from international broadcasting or from what I hear on local stations in my own area.

Most of my listening has been done at my home near Copenhagen, Denmark, but I have also been DXing tropical stations from many other places in the world, particularly Germany, Italy, the Canary Islands, Texas, Mexico, Costa Rica, Ecuador, Chile, Argentina, Tobago, Barbados, Jamaica, Sri Lanka, Thailand, New Zealand, and the Fiji Islands.

I can tell you that the hobby is just as challenging wherever you are and whoever DXer you are DXing together with! The stations that can be heard, vary of course. In Thailand, the South East Asians are dominating

and in Ecuador, the Andean stations. But the strongest stations can be heard all over the world at the right season and times of day.

## A challenging example

I will never forget my birthday in May, 1975. On that day, the mailman brought me a long letter from Mr. Bebes Korowaro, Station Manager of Radio Western Highlands at Mount Hagen, in the central part of Papua New Guinea.

This became my best QSL so far, because Mr. Korowro did verify my reception near Copenhagen, 13094 km away, of his 2 kw domestic broadcasting station on 2450 in the 120 m band, heard on March 29, 1975, at 2025-2130 UTC.

He wrote: "I hope you will be happy to know that your report is being verified after it had been checked against our station log. We are very happy about your report that you really picked us up in this part of the world in the morning, because it is often difficult for people even in other parts of Papua New Guinea to get us."

He further wrote that the station did broadcast 8 hours a day in 4 local languages in the District Service and that the total staff strength was 22 persons who all were Papua New Guinea nationals.

The same night I was able in Denmark to hear four other local broadcasting stations in Papua New Guinea on 60, 90, and 120 metres. This is Tropical Bands DXing when it is best.

Such an extreme example of long distance reception only occurs rarely, but that is what Tropical Bands DXers hunt for. In this case I was able to follow directly from the spot what was going on in 5 different town in a remote country some 13000 km away and enjoy their native instrumental music and song.

In the home service of Radio Denmark, Papua New Guinea is rarely mentioned more than once per year. This country does not have its own Foreign Service, so I would have to stick to the international broadcasters of Radio New Zealand and Radio Australia to get their version of the news from Papua New Guinea. On the tropical bands, I get it directly.

## Broadcasting in the Tropical Bands

At least five reasons can be given for allocating these three shortwave bands exclusively to the Tropical countries:

1. Geographical reason: The Tropical countries often cover large areas with sparse population. If Mediumwave or particularly FM should be used instead, it would require an extensive number of transmitting facilities to provide adequate coverage. Just imagine how many FM stations would be needed to cover Papua New Guinea which is 1500 km from east to west and 1000 km from south to north. Today 20 small transmitters in the Tropical Bands are doing the job.

2. Geophysical reason: High static levels in the atmosphere of the tropics due to thunder storms make Mediumwave reception more difficult than in other regions of the world, and greatly restrict MW coverage. MW signals require much higher transmitter power to cover the same area as compared with transmitters operating in the Tropical Bands.

3. Economical reason: For the reasons just mentioned, MW and FM coverage would be much more expensive than broadcasting on the Tropical Bands of 60, 90 and 120 m, even though quality and reliability of the former may be better, in thinly populated areas there simply are not taxpayers (or potential customers) enough to finance the number of transmitters needed.

4. Technical reasons: Electrical power distribution is very limited in the remote areas of most tropical countries. The installation of high power transmitters would lead to exces-

sive power demands and to strain and breakdown of the supply and distribution of power. If an extensive local network of MW or FM transmitters was installed to replace one or two Tropical Bands transmitters, there would still be a big technical task in building relay stations or land lines to carry the modulated signal from the Central Station out to these dispersed hinterland outlets.

5. Developmental reasons: Developing nations, like Papua New Guinea, have limited economic resources available, and a higher priority is for good reasons given to basic education, medical care, infrastructure, etc. Furthermore, a large part of the population in the developing countries is so poor that they cannot afford to buy expensive FM receivers with stereo or TV sets, but have to stick to cheap SW receivers.

## Declining number of stations

For 27 years, the Danish Shortwave Club International has now been publishing an annual Tropical Bands Survey listing all active stations broadcasting between 2200 and 5800 kHz. As of 1999, it is included in our Domestic Broadcasting Survey. The DSWCI is a unique Club having had members in more than 40 countries around the world throughout these 27 years! Thereby we have had our own monitoring network of experienced DXers who were able to observe what is actually on the air in these bands in their own region.

I have made some statistics on the total number of broadcast transmitters in this frequency range which actually were on the air during this span of years. In 1973, there was a total of 1151 transmitters. In 1985, it was reduced to 867 and in early 1997 it was further reduced to 703.

546 of these 703 were confirmed by our monitors as active domestic broadcasters, after having excluded the Foreign Service stations and clandestines. During the past two years this number has been reduced further to 465.

## Where is the reduction?

Let us have a closer look at this big reduction of nearly 50% of the broadcasting stations in the Tropical Bands since 1973, which drastically has changed our listening possibilities. During this 27 year period we had the biggest reduction of 80-90% in the Caribbean, Venezuela and Columbia, probably because these countries have a relatively good economy and are at a high technological state.

In South East Asia, Indonesia and Africa, there was a reduction in the number of active transmitters of 50-60%. Here the reason is rather that most of them have been used for decades and have become obsolete. Spare parts are often hard to obtain, and even when they are available, there may not be money to purchase them. Many of these poor nations cannot afford new and modern transmitters, so they depend on donations from the richer nations. But the interest among western nations, as well as Russia and China, to do that has also been declining during the past 10-15 years.

.....  
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domestic broadcasting stations  
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and their transmission hours  
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and then return.**  
.....

In China, Mongolia, and Brazil, the reduction was around 40%, probably because of an improved national economy. In the former USSR, the Indian Subcontinent, and the Far East, the reduction was around 25%. While in Sri Lanka two months ago, I found instability in some of the Subcontinental SW transmitters like Ekala, Calcutta, and Ranchi.

In Ecuador, Peru, and Bolivia, the reduction was only about 15%, meaning that today this is the area with the most broadcasting stations on the Tropical Bands, namely around a total of 115.

But it is not all reductions! In regions like the Middle east, North and Central America, there has been an increase in the number of stations! This is mainly caused by an increased use of these bands for International Broadcasting by religious stations or clandestine stations.

In the Pacific, I also noticed an increase from 27 stations in 1973 to 33 in 1997. Most were due to the installation of all the local stations in Papua New Guinea some years ago. Now they are deteriorating and some may be without power because of drought, so about six stations have been irregular the past two years.

In addition, I have made the general observation from all tropical regions that a majority of the domestic broadcasting stations do not broadcast on a daily basis and their transmission hours vary quite a lot. Some are even off the air for months and then return. There are many reasons for that irregularity, but the most common ones are technical, financial or power supply problems. Other stations are only switched on during special events, like elections or important sports games, or during cyclones as Radio Vanuatu was last year on 4960 kHz when it did broadcast 24 hours a day.

## Closing remarks

In conclusion, we can say that the number of active broadcasting transmitters on the Tropical Bands today is nearly half of what it was 25 years ago. But the number of interfering stations such as utility stations, jamming, and powerful Russian and Chinese stations have also been reduced, so the DX possibilities have actually improved on those 465 stations which are still there. I think that with the right propagation conditions, DXing on the Tropical Bands is still challenging with 465 Tropical broadcast stations to hunt for!


# DXing with Ham Transceivers

by Jerry A. Lineback

I am going to finish up this issue of SWC with a few comments on using HF transceivers designed for Amateur Radio use for DXing. Many DXers are also licensed amateurs and have HF transceivers about. Formerly, the biggest drawback to using transceivers for DXing, aside from the fact you have to be licensed to buy one, was that the narrow filters could only be used in a side band mode. Current transceivers, like the Icom 746, allow all mode use of any filter. For the past year, I have been using the 746 daily for tropical band DXing as well as yapping on 2, 6, and 10 m. I am using the AM mode with the 2.4 kHz filter for narrow in the 455 kHz slot and the 9 kHz filter for wide. The Drake R-7 has been consigned to the closet. Some observations: Selectivity is excellent with the 2.4 kHz filter and audio is acceptable when run to a quality outboard speaker. The 9 kHz filter is useless when there is a strong nearby station, but provides much better audio if there is no interference. Sensitivity is excellent, this thing really digs them out of the mud. Of course I am using beverages so noise level is low. The 746 has

two levels of preamplification, but the best results come from using no amplification and letting the signal come up out of the background. DSP audio does little for AM except reduce atmospheric noise a little. The receiver has only 100 memories with a mechanical switch, works well but needs more. The band scope is fun, but does not register the weakest signals the receiver is able to receive.

I would not suggest that anyone should obtain an amateur license just to get such a radio for DXing, but only if you intend to use it for amateur purposes. There are plenty of excellent receivers designed for DXing. But an Icom 746 or an Alinco DX-70 T will double as a good DX rig for an ARO. The DX-70 is a compact unit designed for in-vehicle use with a detachable face plate for remote placement of the body. I will report on its portable use some day.

You will need to keep the instruction manual handy for both these radios as many features are programmable, including use of filters. I have ordered a 3.3 kHz filter for the Icom. I will report on its use at a later date. 

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## WORLD OF RADIO SHORTWAVE-ONLY SCHEDULE AS OF AUGUST 27

Wed 2100 WBCQ 7415  
Thu 2030 WWCR 15685  
Fri 1930 RFPI 21460-USB 15049  
Sat 0330 RFPI 15049 6975  
Sat 1130 RFPI 15049 6975  
Sat 1130 WWCR 12160  
Sat 1800 RFPI 21460-USB 15049  
Sun 0200 RFPI 21460-USB 15049 6975  
Sun 0230 WWCR 5070  
Sun 0630 WWCR 5070  
Sun 1000 RFPI 15049 6975  
Sun 2300 RFPI 21460-USB 15049 6975  
Mon 0500 WWCR 3210  
Mon 0700 RFPI 15049 6975  
Tue 1230 WWCR 15685  
Tue 1900 RFPI 21460-USB 15049  
Wed 0300 RFPI 15049 6975  
Wed 1100 RFPI 15049

For full schedules of WOR on all stations, and of all our other broadcasts, Continent of Media, and Mundo Radial, see <http://www.angelfire.com/ok/worldofradio>

# Listener's Library

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

In recent years, many folks have lamented the fact that the experimentation aspect of our hobby has fallen by the way side. There are many of us (and we are not really all that old) who can remember a time when an integral part of being a radio monitoring enthusiast more or less required an occasional brush with a soldering iron or an hour or two pouring over a technical book to get the most out of the hobby. Some of us Ol' Poops never lost the bug to build and modify our gear, but where would a newcomer look if they wanted to start to *tweak the tech*? At this year's Kulpville Winterfest, I ran across an outfit that is putting the right kind of books *on the street* to allow folks to start digging into the innards of their radios.

LLH Technology Publishing  
3578 Old Rail Road  
Eagle Rock, VA 24085  
1(880) 247-6553  
www.LLH-Publishing.com

It turns out the LLH Technology Publishing is actually the rebirth of an old friend of the radio hobby, HighText Publications. The name is new but their continued commitment to the radio/electronics hobbyist is very clear from their newsletter and their website. They even have another couple of websites that support the radio experimenter:

- ▶ [www.hobby-electronics.com](http://www.hobby-electronics.com)
- ▶ [www.techtutors.com](http://www.techtutors.com)

These folks were nice enough to send me a number of their current titles that should be of interest to anyone with a desire to go beyond *Appliance Operation*.

*The Integrated Circuit Hobbyist's Handbook*  
by Thomas R. Powers  
119 pages  
\$19.95  
ISBN 1-878707-12-4

I've been building with IC's since they first became cheap enough for hobbyists in the

late sixties. Most of my work consisted of plugging the right numbered part into the right socket (hoping all along that I didn't short the little bugger out with the static build up on my hands) Lately, however, I have become involved in playing with designs that use chips in ways that go a bit beyond their original use. For this reason, it became a bit more important to understand a little more than a chip's part number. The Powers book is a great resource for getting started with understanding ICs and their potential uses. The initial chapter is a great *one stop* guide to basic chip experimentation. This section includes all the information you need to decipher packaging, manufacturers prefixes and pin sequencing. Armed with this information I can plow through piles of surplus chips in search of bargains. The book goes on with chapters covering the major device groups including Operational Amplifiers, Linear Devices, TTL Devices and CMOS Devices. All of the common chips a hobbyist is likely to encounter are covered in detail including circuit examples. Let me tell you how I used this book to my advantage recently. The New Jersey QRP Club is offering a great little one evening kit called the *Jersey Fireball 40* (for details if you have the urge to melt solder head to [www.njqrp.org](http://www.njqrp.org)) The circuit makes use of a couple of 7474 Dual Flip Flops to take a 28.322 MHz computer oscillator down to 7.080 MHz, making a tasty little 40 meter CW transmitter. Until I read up on this chip in *The Integrated Circuit Hobbyist's Handbook* I had only the vaguest notion of what was going on. Now I see that a handful of very inexpensive computer castoff parts can be turned into a great little transmitter. Those of you who attended Kulpville in March may recall somebody had a pile of old computer video cards that somebody was giving away. Well I was the only taker and surprise, surprise, each of those boards contain the oscillator cans and IC's I need for dozens of little transmitter

experiments. All figured out with the help of Tom Powers fine book. So if you want to do some thinking *Outside the Box* concerning integrated circuits, read this book and then meet me down on 7.080 MHz.

Once you have digested *The Integrated Circuit Hobbyist's Handbook* you will want to move on to another neat book from the LLH catalog.

***The Forrest Mims Engineer's Notebook***  
by Forrest Mims III  
156 pages  
\$19.95  
ISBN 1-878707-03-5

Here is a book chock full of practical circuit applications for all those chips you read about in the Powers book. I've had more fun with this book than any I've read in a long time. What I like to do with this text is dig through my junk box until I find an IC at random. Then I look up the circuit example in *The Forrest Mims Engineer's Notebook*, mix in a few resistors and capacitors and usually I've got something that is at least fun and often quite useful. Many of the circuits are reminiscent of those simple one evening projects from magazines such as *Popular Electronics* or *Electronics Illustrated*. Many of us aging Baby Boomers cut our teeth in the radio hobby on just such designs. However, back then, we played with tubes and transistors. The Mims book shows the modern experimenter how to have fun with the common components of today's electronics equipment.


Similar to the Power's book mentioned above, The book is broken down into circuits by IC type. In this case, MOS/CMOS, TTL/LS and Linear IC's. As I said, you can build these circuits in and of themselves and have a lot of fun. By the way, many of them are perfect for getting a young person started in playing with electronics or for science fair displays. A deeper understanding comes when you begin to see the designs in this book as the building blocks for more complex electronic devices such as your various monitoring hobby receiving equipment. A great learning experience would be to go through one of your receivers schematic diagrams, stopping at each IC and then looking at the applications notes pertinent to it in the Mims book.

In short order you will begin to see how radio really works and how ICs come together to build effective circuit designs. Used in this manner, you will get well more than the cover price of this book in practical knowledge of Integrated Circuits.

Okay, you say you want to go even further than a basic understanding of simple IC circuits? How about taking a look at the technology that is changing the way we play radio.

***Digital Signal Processing Demystified***  
by James D. Broesch  
203 Pages including CD-ROM  
\$49.95  
ISBN 1-878707-16-7

At the Kulpville Winterfest a few years back Alan Johnson N4LUS made the statement "I have seen the future and it's digital!" DSP is completely changing the way radio receivers go about filtering signals to make them understandable. High end examples of this technology are displayed in such receivers as the Watkins-Johnson HF-1000 but has appeared at very reasonable prices in units such as the recently discontinued Radio Shack DSP40 Noise Reduction System.

Now I'll warn you in advance, what makes DSP work is a practical application of some relatively complex mathematical principals. Broesch's book goes into excellent detail in explaining this complex math as painlessly as possible. To help those of us who pursued the path of our raging hormones when we should have been learning how to use a slide rule or calculator, Broesch's book includes *The DSP Calculator Suite*, a collection of software routine that demonstrate the basic mathematical concepts used in developing DSP designs. These include a series of *Interactive Exercises* that parallel the information shared in the pages of the book. The software was designed to run on an IBM PC compatible computer that has a minimum of a 386 processor and 4 Mb of memory. It is written for Windows 3.1x but it runs just fine under Windows 95/98 on a Pentium. If you want to at least understand the future of radio communications and maybe even go on to design and develop DSP systems, this book and CD combination is a great source. 

## Digital Short-wave Broadcasting The Quest Continues

### Part 2

Last month I described the Thomcast system proposed for digital SW broadcasting. They introduced the idea of parallel transmission. This technique breaks down the high-rate serial data stream into a number of lower rate streams. The technique has certain advantages over transmission of the high rate serial stream. This month we will learn why.

The short-wave broadcast bands are divided into 10 kHz wide chunks by the folks that allocate the spectrum. Any digital broadcast standard must conform to this allocation if the spectrum is to be shared with existing analog transmissions. Ideally there would be no energy transmitted outside the allocated 10 kHz channel. The challenge is to make maximum use of the available channel while also protecting adjacent channels.

Figure 1 shows the spectrum of a typical phase shift keyed (PSK) data stream carrying random ones and zeros data. Other angle modulation schemes behave similarly.

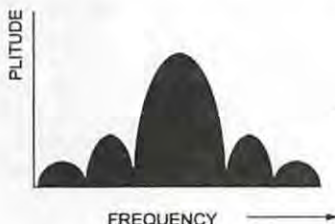


Figure 1 The spectral shape of a random data stream places most energy in a strong central lobe. Weaker sidelobes potentially extend outside the channel.

The shape of the spectral envelope is described by the mathematical equation: Amplitude (as a function of frequency) =  $\sin x / x$ , where "x" is the frequency in radians per second. The distance between nulls in the energy is proportional to the data rate. The faster the data, the farther apart these nulls will be. If the data rate approximates the channel bandwidth, sidelobes will extend into adjacent channels unless filtered.

This filtering can be done at low power levels if the amplifiers that follow are linear. If not, the sidelobes will be restored by the amplifiers that follow the filter canceling the effect of the filter. The minor humps in the pattern extend outward in frequency forever but their amplitude declines rapidly.

Alternatively, filtering could occur after the final amplifier but this too has problems. At power levels used by international broadcasters, the filter would need to dissipate large amounts of heat as the sidelobe energy was absorbed. The filter components would need to be large. The filter would also need to be rapidly retunable to accommodate the agility of modern transmitters. Designing a high Q, frequency-agile, bandpass filter that can get rid of tens of kW in absorbed power is no trivial design task.

Thomcast engineers recognized this problem and proposed a parallel transmission scheme as a way to minimize the filtering requirements. If the data stream was split into 5 streams, each with 1/5 the total rate, the channel could be used more efficiently

and the need for filtering minimized. The shape of the spectrum more naturally conforms to the shape of the allocated channel.

Remember that the spectral width between nulls is proportional to the data rate. As the data rate of each of the carriers is only 1/5 the total, the spectral width of each channel is only 1/5 of the width of a similarly modulated signal carrying the full data signal on one carrier.

Figure 2 shows how such a signal might appear on a spectrum analyzer. The sidelobes are still there, but they are now much closer to the carrier and so fall off much faster outside the channel.

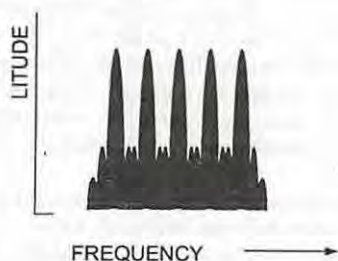


Figure 2 The spectral dispersion of the multicarrier technique eases the filter requirements. Sidelobes fall off faster than they would if the data was all on one high rate carrier.

The transmitter modulator and the receiver are more complex with this multi-carrier technique. Every bit in the original data stream must now be routed to one of five separate data modulators. At the receiver end, five detectors are required and the data bits must be reassembled in the proper order. Large scale integrated circuits can perform these functions in a single IC. The slight increase in complexity might represent a good design tradeoff compared to the cost of filters at the transmitter. Raising receiver cost by even a dollar has to be multiplied by the predicted sales. The filter costs in all the transmitters must be compared from an overall cost viewpoint. That is a typical design

problem the system designers must consider to arrive at an optimum standard.

The effect of propagation distortion is predominantly in the frequency domain. Just as selective fading affects only a small range of analog frequencies at any moment, so it will affect digital transmissions. When a particular carrier of a multicarrier signal fades, only a small fraction of the total bits is lost.

Error correction is simplified in the multicarrier approach. A system with five carriers would have 1/5 of the total data rate on each. Symbols will remain in a particular state five times as long. This simplifies the receiver's task of correcting for the smearing effect of ionospheric multipath. Demodulation is currently done using Fast Fourier Transforms (FFT) associated with time and frequency filtering/interpolation.

The multicarrier approach also places stringent linearity requirements on the transmitter. If all five carriers are transmitted through a common amplifier, they can intermodulate. To get around this, five separate transmitters could be used, one for each frequency. A high level combiner could be used to feed the signals to a common antenna.

This sort of architecture also has redundancy advantages. Instead of a single 50 kW transmitter sending the single carrier signal, five 10 kW transmitters could be used. Instead of a single spare 50 kW transmitter, only a single redundant 10 kW unit would be needed. The spare would be frequency agile and able to quickly jump to the frequency of any defective prime unit. Using low-power opens the possibility that the transmitters could be completely solid state — no more tubes to grow weak. Broadcasters could potentially save money by not having to provide spare tubes or technicians standing by to replace them.

This article will continue next time. Stay tuned.



## The NASA HF-4 Communications Receiver

I don't know the background to the name changes, but the NASA HF-4 is clearly a refined version of the Target HF-3 receiver that I reviewed in the April, 1997 Journal. The HF-4 is now distributed by Deltron Communications International.

For those who who have access to the HF-3 review, I'll list the changes made in the HF-4. The major changes are: the inclusion of a 2.6 kHz filter in addition to the original 6 kHz filter, a lighted display panel, expansion of the available memory channels from one to ten, addition of a RS232 jack to permit reception of weather fax transmissions (PC software and cable included) and substitution of a SO-239 antenna connector for the RCA jack used on the HF-3. In addition, there is a back-panel slide switch to apply 12 volt DC power to the antenna connector to be used with the NASA AA-30 active antenna or any other active antenna that can be remotely powered.

### Small And Compact

The HF-4 uses the same compact case as the HF-3, measuring 2½ x 7¼ x 7 inches (HxWxD), but the case color is now black instead of gray. There is a tilt-down bail to elevate the front of the radio for easier viewing. The control layout is the same: three knobs for Power/Volume, Clarify and Tuning and four pushbuttons for mode and memory functions. The well-illuminated LCD display shows the tuned frequency with a resolution of one kilohertz and has a ten segment bargraph S-meter which doubles as

the memory channel indicator. There is a top-mounted four inch speaker. On the back panel are the antenna jack with a solder lug for a ground connection, 1/8 inch jacks for external speaker/headphone and data out and switches for attenuator, filter selection and active antenna power.

Note that the active antenna power switch must be in the "Off" position if the radio is used with an antenna that has a DC connection to ground, such as an antenna with a balun, otherwise the power supply will be damaged. Also don't turn on the active antenna power if an external device such as a preselector is used in the antenna line. Inserting a plug into the speaker jack defeats the internal speaker and note that the data out jack is just for computer decoding of signals, not computer control of the radio.

No power supply comes with the radio but a fused power lead is included. Any source of 12 volt DC power can be used, as long as it is capable of supplying at least 300 milliamps of current. Also included is the computer cable, a length of wire with attached banana plug for use as an antenna and a spade lug to connect a ground. The U.S. selling price has not yet been set.

### The Numbers

The HF-4 covers a frequency range of 30 kHz to 30 MHz without gaps. The receiver design is a synthesized double superheterodyne with intermediate frequencies of 45 MHz and 455 kHz. The smallest step of the

main tuning is in one kilohertz steps, but the Clarify control provides fine tuning of  $\pm 800$  hertz. The Clarify control is active in both AM and SSB modes and does not affect the digital frequency display. The tuning knob tunes in varying rates of 10 kHz, 100 kHz, 1 MHz or 10 MHz, depending on how quickly the knob is turned. Sensitivity is rated at one microvolt (test parameters not given) and selectivity is spec'ed at 6 and 2.6 kHz with no mention of skirt measurements. Audio output is rated at 2 watts.

## Operation

When the HF-4 is powered up, the radio tunes to the frequency stored in memory channel one. The desired frequency can then be selected by turning the tuning knob. Tuning is quite smooth due to the heavy metal flywheel on the tuning encoder. The HF-4 variable tuning rate is not as "twitchy" as that on the HF-3, i.e. there were no sudden frequency shifts as the tuning knob was rotated. On the other hand, I had trouble getting the tuning to shift into "hyperdrive"—the 10 MHz per revolution speed for bandswitching. A "fast" button to lock in the faster tuning rate (as on the TenTec 1254) is much more convenient.

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.....

Memory channels are selected by pressing the "RCL" (Recall) button. The radio defaults to memory channel two—the tuning knob can then be used to select the other memory channels. While in memory mode, the frequency stored in the memory channels cannot be tuned. Pressing "RCL" again puts the selected memory into the VFO. By pressing the "MOD" key when the radio is in the

memory mode the radio returns to the last tuned frequency in the VFO. Pressing "RST" (restore) in either the VFO or memory mode, resets the radio to the frequency stored in memory channel one.

AM, LSB or USB modes are selected by pressing the "MOD" key when in VFO mode. Fine tuning of SSB signals is accomplished by using the Clarify control, which is also active in AM mode. Using the Clarify control in AM mode is useful with the narrow filter to shift the tonal response for better fidelity. Switching from USB to LSB mode for ECSS reception of AM signals requires retuning—up two kilohertz from the carrier frequency for USB and down two for LSB. ECSS tuning works better on the HF-4 than on the HF-3, but still requires a delicate touch on the clarifier control. In SSB mode, the narrow filter is switched in, with no capability to select the wider filter.

## Impression

The HF-4 is a significant improvement over its predecessor. The addition of a narrower bandwidth filter and the 10 memories make it much more versatile. It remains a basic, no frills receiver, but it has excellent sensitivity and very good audio quality. My major complaint is the variable rate tuning—I had trouble getting it to "scoot" across the bands and, occasionally, the faster tuning rate would engage just as I was approaching the desired frequency and overshoot it by a wide margin. In addition, the unit's light weight would permit it to move across the desk while trying to spin the tuning knob to engage the faster tuning rate. Tuning at the slower speeds was smooth and stable, however.

This is not a feature-laden DX machine, but it is a credible performer, suitable for a first receiver or as a second receiver for spotting or program listening. Its small size makes it ideal for field use, although there is no built-in battery capability. Its sensitivity makes it suitable for use with small antennas and I noticed no overloading problems with full-size antennas. Thanks to Universal Radio for providing the review unit.



# Listener's Notebook

**Al Quaglieri**  
 P.O. Box 888  
 Albany, NY 12201-0888  
 FAX: (518) 453-0864  
 Internet: [alcue@albany.net](mailto:alcue@albany.net)

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**ALBANIA** *Radio Tirana*, English to NAM 0145-0200 and 0230-0300, switches to and fro between 6115 and 6120. Parallel 7160, which spurs with 7155. (12-Aug/Thomas-CT/Rev. of Int'l. Broadcasting/Hauser-OK)

**ANGOLA** 3374.9 *Radio Nacional de Angola*, 2210-2215, PP, M talking, ID. (16-Aug/Schnitzer-GER/BC-DX/Bueschel-GER)

**AUSTRALIA** *VZBK*, Katherine, is back on 2485. Heard at 2000 Aug 16 //to 2310 VL8A, Alice Springs that was much stronger. At this time however, no sign of VL8T Tennant Creek on 2325. (16-Aug/Edh-SWE/BC-DX/Bueschel-GER) Indeed 2325 has been off since 2485 came back on, around two weeks now. (17-Aug/Ormandy-NZL/BC-DX/Bueschel-GER)

**AZERBAIJAN** 9165 *Voice of Azerbaijan* heard at 1430 in Azeri, 1600 Arabic, 1700 Russian, 1800 English. (27-Jul/Pankov-BUL/BC-DX/Bueschel-GER)

**BOLIVIA** 4926.1 *Radio San Miguel*, Riberalta, 0220-0330. Spanish announcements, love songs on extended schedule. (25-Jul/Petersen-DEN)

**CHAD** *Radiodiffusion Nationale Tchadienne (RNT)* programs are in French, Arabic and local languages (Sara, Kanembou, Moundang, Toupouri, Gorane and Massa Zakawa).

Alternative shortwave freqs: 4904.5 and 7120 kHz (7120 kHz may be used on occasions between 0700-1600 instead on 6165 kHz)

0430-0730	French/multi	6165
0730-1000	French/multi	6165 irreg wknds/holidays
1000-2230	French/multi	6165

(BBCM)

**CHINA** *China Radio International (CRI)* uses relay stations in Canada, Cuba, France, French Guiana, Russia, Spain, and Mali.

0000-0100	Russian	7110 9725
0000-0100	Spanish	11880 17720 15120m 5990m
0000-0030	Hakka	5250 6140 6550 7335 9457v 9870 12015 12065 15100 15135 15260 15400
0030-0100	Chaozhou	5250 6140 6550 7335 9457v 9870 12015 12065 15100 15135 15260 15400

0030-0100	Portuguese	11650 15420
0100-0200	Spanish	17720 9668.22m 5250
0100-0200	English	9570cu
0200-0300	Mandarin	9570cu 9690s 15435
0200-0300	Spanish	13685g 17720
0300-0400	English	9690s 11765
0300-0400	Russian	15120 15435 17755
0300-0400	Mandarin	9720g
0300-0400	Spanish	9560c 11768.1b
0400-0500	English	9560c 9730g
0400-0500	Mandarin	9710m 11715m
0830-0900	Hausa	7170m
0830-0930	Indonesian	8660 15135 17735
0900-1000	Mandarin	5250 6010 9550 9945 11650 11685 11700 12015 15180 15440 17785
0900-1100	English	11730 15210
0930-1530	Japanese	7190 9855
0930-1030	Malay	8660 15135 17680
1000-1100	Cantonese	11650 11915 15440
1000-1100	Mandarin	5250 6010 11685 12015 17785
1000-1100	Russian	5145 7110 7820 9695 9725
1030-1130	Cambodian	6550 9440 15165
1030-1130	Indonesian	8660 11445 15135
1100-1200	Cantonese	7335 11685 15260 17785
1100-1130	Esperanto	7170 8450 9535
1100-1300	Korean	5965
1100-1200	Mongolian	5145 5850
1100-1200	Russian	7110 7820 9725
1100-1200	Vietnamese	5250 7245 9550
1130-1200	Burmese	6550 9880 11825
1130-1200	Tagalog/EE	8660 11700
1130-1230	Thai	6010 7360 8450 9785
1200-1300	Cambodian	6550 9440 9870
1200-1300	Cantonese	15125
1200-1300	Mandarin	11685 15260 17785
1200-1300	English	6950 7265 9715 11660 11675 11980
1200-1300	Mongolian	4815 4883 5145 5850
1200-1230	Tagalog/EE	8660 11700 12110
1200-1300	Vietnamese	5250 7245 9550
1230-1330	Lao	6010 7360 8450
1230-1330	Malay	8660 11445 15135
1300-1400	Burmese	6550 9880 11780
1300-1400	Mandarin	9440 11685 15260 17785
1300-1400	English	7405 11660 11675 11900 11980 15180
1300-1330	Esperanto	11600 11840
1300-1400	French	17880

1300-1500	Russian	4815 4883 5145 5850 7820	1830-1900	Italian	7405 9965
1300-1400	Vietnamese	5250 7245 9550	1830-1900	Persian	9550 9785 11740 15110
1300-1500	Korean	5965	1900-1930	Albanian	7265 9965
1330-1430	Indonesian	8660 11445 15135	1900-2000	Cantonese	9730
1330-1430	Thai	6010 7360 8450	1900-1930	Czech	7375 11775 15415
1400-1500	Amoy	7335 9715 11650 11685	1900-2000	English	9440 11750 13650 15360
1400-1500	Cambodian	6550 9440	1900-1930	Portuguese	7180 9535
1400-1500	English	7405 11825 13685m 15110 15125m	1900-1930	Romanian	7305 9860
1400-1500	Mongolian	4815 4883	1900-2000	Russian	9365 9795 11685 11945
1400-1500	Sinhala	9900 11980 11980	1900-1930	Turkish	7405 9785 15310
1400-1430	Turkish	11750 15165	1900-2000	German	6950 7590 9685 11910
1400-1500	Vietnamese	5250 9550	1930-2000	Albanian	7405 9965
1400-1430	Tamil	11575	1930-2000	Czech	7305f 11775 15415
1430-1530	Lao	6010 7360 8450	1930-2030	French	5250 7800 11760 11825 15165 15600
1430-1500	Tagalog/EE	8660	1930-2000	Portuguese	7265 11975m 15500m
1430-1500	Tamil	11575 15165 15210	1930-2000	Romanian	9860 7305f 11775
1500-1530	Bengali	5220 8660 11810 11825	2000-2100	Mandarin	7185 7660 9730 11650 11750 13650
1500-1600	Mandarin	6550 9460 15300	2000-2100	English	6950 7590f 9440 9535 11975m 15500m
1500-1600	English	7160 9785 13685m 15125m	2000-2030	Esperanto	7405 9965
1500-1600	Hindi	7590 11675 12085	2000-2030	Polish	6150f 11775 15415
1500-1530	Nepali	7225 9535	2000-2100	Russian	7275 9795 11945
1500-1600	Russian	4815 4883 9730 11650 15415	2000-2030	Serbo-Croatian	7265 9365 9860
1500-1600	Vietnamese	9550	2030-2100	Bulgarian	6150f 9860
1500-1600	Pashto	11720 11880	2030-2130	French	5250 7800 11760 11825 12010r 15165
1500-1530	Persian	11750	2030-2100	Hungarian	9365 11775 12115
1530-1600	Bengali	8660 11810 11825	2030-2100	Italian	7265 9965
1530-1600	Nepali	7215 7225 8450 9535	2030-2100	Polish	7405 15415
1600-1700	Arabic	11750 13685m 15125m 15490 17580r	2100-2130	Albanian	6150f
1600-1700	English	9565 9870	2100-2200	Arabic	7260 9765 11750 15360
1600-1700	Hakka	9900 11825	2100-2130	English	6950 7590f 9535 11975m 15500m
1600-1700	Hindi	7265 8660 9615 11675	2100-2130	Italian	9365 9965
1600-1700	Russian	9730 9860 11700 11835 11945 15300 15415	2100-2130	Serbo-Croatian	7405 7550 9860
1600-1700	Swahili	5250 11660	2100-2200	Spanish	7545 11775
1600-1630	Turkish	11685 15270	2130-2230	French	7800 11760 11825 11975m 15165 15500m
1600-1700	Urdu	5220 7160 7590	2130-2200	Hungarian	6150f 13650
1600-1700	Vietnamese	6010 6590 7360 8450	2200-2300	English	9880r
1700-1800	Cantonese	7265 7590f 9900 11675	2200-2230	Portuguese	11590 11650 11700
1700-1800	English	5220 7405 9570 11910 15300 15310	2200-2300	Spanish	6020 7360 7545 11775 13650
1700-1800	Russian	6950 8870 9365 9730 9795 9860 11650 11835 15415	2230-2330	Mandari	5250 6140 7335 9455v 9870 11975m 12015 12065 15100 15135 15260 15400 15500m
1700-1730	Swahili	5250 11970m 15125m	2230-2300	Esperanto	9860 11700
1730-1800	Hausa	9890m 11970m	2230-2330	Mandarin	15500
1730-1800	Mandarin	5250 7800 11760 11825 13650 15110 15165	2300-0000	Russian	7335 9725 9870
1800-2000	German	6950 7590f 9685	2300-0000	Spanish	11650 11880
1800-1830	Hausa	7405 9890m 11970m	2300-0000	Mandarin	7170m 11975m
1800-1830	Hungarian	7265 8870 9860 11775	2300-0000	English	5995cu
1800-1830	Mandarin	5250 7800 9820 11760 11825 13650 15110 15165	2330-0000	Cantonese	5250 6140 7335 9455v 9870 12015 12065 15100 15135 15260 15400
1800-1830	Persian	9550 11740 15595r			
1800-1900	Russian	9365 9535f 9730 9795 11545 11685 11945 15415			
1830-1930	Arabic	12035r 13685m 15530m			
1830-1900	Bulgarian	7265 8870 9860 11775			
1830-1930	French	5250 7800 11760 11825 15165 15600			

C=Canada

Cu=Cuba

F=France  
G=French Guiana  
M=Mali  
R=Russia  
S=Spain

(BBCM + Green-UK +Alm-SWE +Brazhnikov-RUS  
+NDXC-JPN +Pankov-BUL +Ivanov-BUL/BC-DX/Bues-  
schel-GER)

**CPBS Taiwan Service** Station identification in Mandarin for both services: "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"). The Second program is off the air between 0605-0955 Wednesday only.

**First Program**

0055-0615	Mandarin/Amoy/ Hakka	11100 11935 15710
0955-2300	Mandarin/Amoy/ Hakka	9380 11100 11935
2300-0005	Mandarin/Amoy/ Hakka	11100 11935 15170

**Second Program**

0000-0105	Mandarin/Hakka	9170 11000 15880
0355-1400	Mandarin/Hakka	11000
1400-1805	Mandarin	9170 11000
2055-0000	Mandarin/Amoy	11000 15880

(BBCM)

**CHINA—TAIWAN** Here is the schedule for the new **Radio Taipei International (CBS)** relays via Merlin SW transmitters in the UK (Skelton 250 kW):

1800-1900	English	3955
1900-2000	German	6175
2300-0000	Mandarin	3975

(13-Aug/Kenny/BDXC-UK E-mail news/Rev. of Int'l. Broadcasting/Hauser-OK)

**CLANDESTINE—MIDEAST Radio Freedom, Voice of the Communist Party of Iraqi Kurdistan** (Kurdish: aira ezgay azadiya, dangi hizbi shuyu'i kurdistani iraq).

1600-1700 Kurdish 3900v

(BBCM)

**Voice of the Iraqi Communist Workers' Party** (Arabic: sawt al-hezbi al-shuyu'i al-ummali al-iraqi; Kurdish: aira dangi kizb-e communist-e kargar-e iraq)

0300-0430	Arabic/Kurdish	3900
1730-1900	Arabic/Kurdish	3900 4755

(BBCM)

**Voice of Palestine, Voice of the Palestinian Islamic Revolution** (Arabic: sawt-al-filistin, sawt al-thawrah al-islamiyah al-filistiniyah) operates from Iran. It was first heard in the mid-1980s. programs are critical of the Palestinian Authority. It broad-

casts on frequencies which at other times carry the the Arabic external service of Voice of the Islamic Republic of Iran (the official Iranian broadcasting organization).

0330-0430	Arabic	11800 13660
1930-2030	Arabic	9870 9885 11735 11965 13645

(BBCM) 11965//11735//13645//11800—Heard all these freq but best on 11965 at 1930. (5-Aug/Vaghjee-MAU/Rev. of Int'l. Broadcasting/Hauser-OK)

**Voice of the Movement of the Mojahedin of Iranian Baluchestan** (Persian: Jonbesh-e Mojahe-din-e Baluchestan Iran-e Tabati) carries programing hostile to the Iranian government and is believed to operate from transmitters in Iraq.

1200-1300 Baluchi/Arabic 11785v

(BBCM)

**Voice of the People of Kurdistan** (Kurdish: "aira dangi gelli kurdistana," Arabic: "sawt sha'b kurdistan") is the official radio station of the Patriotic Union of Kurdistan (PUK) led by Jalal Talabani. URL: <http://www.aha.ru/~said/dang.htm>, E-mail: [said@aha.ru](mailto:said@aha.ru), PUK web site: <http://www.puk.org>, E-mail: [webmaster@puk.org](mailto:webmaster@puk.org)

0245-0600	Kurdish/Arabic	4060 7000v
1500-1900	Kurdish/Arabic	4060 7000v
2000-2100	Kurdish/Arabic	4060 7000v

(BBCM)

**COSTA RICA Radio For Peace International**

0000-0800	6975 Mo-Fr
0000-1200	6975 Sa/Su
0000-2400	15050
1200-0300	21460u

(Rev. of Int'l. Broadcasting/Hauser-OK)

**ECUADOR** Changes from Aug 16th, 1999: **HCJB** German to SoAM 2230-2330 11980 (x11955 suffered interference to/from BBC SNG), 100 kW. transmission time will change from Oct 31 to 2300-2400. "The time change for the release will most likely happen at the end of Oct when we start the new season." [DG]

**HCJB** English to AUS/PAC 0700-1100 11755 (x15115). DXPL here Sat 0909-1000. (7- Aug/Weber, HCJB/Koehler-GER/BC-DX/Bueschel-GER)

**ETHIOPIA** 5990.5 **Radio Ethiopia** Gedja, 1728-1740, W speaker in vernacular, mx bridges. At 1737 M speaker. //7110 and 9704.2.. (22-Aug/Veldhuis-HOL/BC-DX/Bueschel-GER)

**FRANCE Radio France International (RFI)** via Xian is now using 11955 (x11910), //17680 at 1400-1457 in English to SoAS to avoid SLBC Colombo (who retimed their Hindi broadcast at 1330-1530 instead of 1510-1630). Noted slight het on this channel as they're on 11954. (8-Aug/Dasgupta-IND/BC-DX/Bueschel-GER)

**GEORGIA** 4875 *Radio Khara* seems to be from Georgia to autonomous Republic of Adzharia (Batumi), heard Jul 22 with clear signal with news (mainly about Georgia) & pop-songs by Joe Cocker 1600-1635. Same program was repeated at 0400 on Jul 23, all on 4875. In mailing addr given words were: "Shota Rustaveli prospekt...Zhezghaya...Zhapa." 5040 is inactive since presumed Mar 1999. (27-Jul/Pankov-BUL/BC-DX/Bueschel-GER)

**GERMANY** *Universelles Leben* (Universal Life) is a broadcast of the Wurzburg-based Original Christian community which also operates Radio Santec, The Word (Das Wort) and Cosmic Wave (Kosmische Welle). They broadcast via transmitters in Lithuania, Germany, Italy, Russia and the USA.

0100-0130	English	9495 Su
0230-0300	Spanish	7390 9450 9470 9810 9830 9860 9945 9965 11500 12010 12030 12060 Mo
0930-1000	German	7120-Italy Sa/Su
1245-1330	English	9955-WRMI Su
1300-1330	English	9710-Lithuania 9955-WRMI Su
1400-1430	German	9710-Lithuania Su
1400-1430	English	9955-WRMI Su
1600-1630	English	15105 Su
1730-1800	German	6195-(Mo-We) 7310-(Tu,SaSu) 9480-(Tu,SaSu) 11920-(Tu,SaSu) 12030-(Tu,SaSu) 15485-(Tu,SaSu)
1730-1800	Spanish	6195 Sa
1800-1830	French	15105 Su
1830-1900	English	11785 Su
1900-1930	German	3985-Italy Mo/Th
1930-2000	French	7390 9450 9810 9890 11630 11930 15485 15535 15590 Fr
2100-2130	Portuguese	9955-WRMI Su
2300-2330	German	9955-WRMI Su
2330-0000	Portuguese	7390 9450 9470 9860 9965 12010 12060 Su
2330-2359	Spanish	9955-WRMI Su

(BBCM)

*Deutsche Welle* will cease the Greek language service at the end of this year according to saving plan of DW chief Dieter Weirich. The final decision will be made by the competent board this month [August].

The Greeks are annoyed, because the remaining eight DW language programs to the Balkan are not concerned, the only one is Greek lang service which will be ceased. Especially the Turkish program will remain—at the doubled transmission time. (29-Jul/Stuttgarter Zeitung/BC-DX/Bueschel-GER)

*Deutsche Welle* plans to cease programs towards Czech Republic, Slovakia, Hungary, Slovenia, Japan and Spanish to Latin America. And will consequently reduce broadcasting time for Albanian, Bosnian,

Croat, Serb and Macedonian language programs. (16-Aug/NewsBote and Stuttgarter Zeitung/BC-DX/Bueschel-GER)

Heard on DW's "Newslink" at 2125 Aug-16:

Catastrophic budget cuts, at an unprecedented level in public broadcasting according to DW's Director General Dieter Weirich, will force major reductions in DW's services if enacted in October. Some details:

1. Elimination of six foreign language services.
2. Reduced broadcast time for up to ten other language services.
3. Elimination of DW's monthly international radio/TV program guide.
4. No participation for DW in Hanover's Expo 2000, as had been planned.
5. Elimination of DW's monitoring service.
6. Elimination of DW radio's English language news dept. (In future, news would be taken from DW TV)
7. Elimination of 160 full time jobs and 300 freelance journalists with 200 jobs coming open due to attrition not to be filled. (DW currently employs 1700)

These cuts will force greater reliance on the Internet for services to developed countries. Efforts will still be made to expand these services while preserving and focusing services on SW for less developed areas not accessible via Internet.

Report said that journalists union voiced shock at the size of the cuts—especially in as much as they are being proposed by a Social Democrat [Green Movement] Govt which made unemployment a major focus of the recent German elections. Demonstrations are planned for next month in Berlin to protest the cuts. Weirich is quoted as saying he has little hope that the cuts can be avoided when they come up for approval by the gov't in Oct. (19-Aug/Figliozzi-NY/EDXP/BC-DX/Bueschel-GER)

**INDIA** All stations of *All India Radio (AIR)* will be operating round the clock from Oct-05 to Oct-07 for broadcasting the results of the Indian elections. The process actually starts on Sep-05, continuing on Sep-11, Sep-18, Sep-25, and Oct-03. Counting and results will begin on Oct-06. Many AIR stations on the tropical bands will remain on air all night, allowing propagation on frequencies not normally heard outside of Asia. (18-Jul/Jacob/Rev. of Int'l. Broadcasting/Hauser-OK)

*AIR Ranchi* noted back on SW from Aug-16 with new 50 kW transmitter after several tests in the past, on 4960 at 0025-0406 / 0430 and 1130-1741. On Aug-16 an unid AIR station noted on 6170 at around 0900-0940 but not on Aug-17. Maybe it is Ranchi itself. In the past they tested 3305, 6140 and 7125 (18-Aug/Jacob/Rev. of Int'l. Broadcasting/Hauser-OK)

**INDONESIA** 3325 RRI Palangkaraya, 2215-2225, political information, President Habibie often mentioned. (16-Aug/Schnitzer-GER/BC-DX/Bueschel-GER)

3345 RRI Ternate, 2130-2135, M talking, stn fading out. (16-Aug/Schnitzer-GER/BC-DX/Bueschel-GER)

**IRAN** v15314.8 Found *IRIB* here with garbled audio, this may be a spur. Though HFCC registration says 1530-1630, Persian on both 15205 and 15084 are really on air at 1630-1730. (30-Jul/Green-UK/BC-DX/Bueschel-GER)

**IRAQ** 7161 *Mother of Battles Radio* s/on at 1600 with Arabic mx, followed immediately by Recital of Koran, then mx; ID at 1606 by woman in Arabic as "Idha'at umm al-ma'arik, Idha atu kul al-arab," then songs and talks mainly on Sadaam Hussein and America. 1850 Recital of Koran followed by military mx, probably NA; time pips, short annt and went off at 1900. Poor and very noisy reception Aug 5 and 6. (Vaghjee-MAU/World of Radio/Hauser/BC-DX/Bueschel-GER)

**ISRAEL** *Kol Israel* in English from 14 Sept thru 31 Oct:

0500-0515 9435 11605 17535  
1130-1135 15650 17535  
1500-1530 15650 17535  
2000-2025 11605 15640 15650 17545

(Kitching/World DX Club Contact/Rev. of Int'l Broadcasting/Hauser-OK)

23170.0 *Kol Israel* on 2nd harmonic (2x11585) at 1900 in Hebrew. (10-Aug/Kuhl-GER/BC-DX/Bueschel-GER)

Regarding yesterday's (Tues Aug 10) frequency change: Due to problems using 15210 and 13750 the old frequencies of 11605 and 9435 are not changing. 17615 has changed to 17620 as previously mentioned. (11-Aug/Rosenzweig/Rev. of Int'l Broadcasting/Hauser-OK) Contrary to Doni's latest report about frequencies in English at 1400, heard Aug 25 at 1425 on new 15650 //17620 (Hanlon-NJ/Rev. of Int'l Broadcasting/Hauser-OK)

**JORDAN** *Radio Jordan*

0000-0200 Arabic 6105 11930 15435  
0330-0600 Arabic 9630 11810-(from 0400)  
15435  
0600-0800 Arabic 11810 11835 15435  
1030-1200 Arabic 11810 15290  
1200-1300 Arabic 11810 13630  
1300-1530 Arabic 13630  
1530-1800 Arabic 6105 7155  
1800-2200 Arabic 6105 7155 9830  
2200-0000 Arabic 6105 11930 15435

(BBCM)

**KAZAKHSTAN** 12115 *Kazakh Radio*, 1620 Aug 11 with Russian-type mx and songs. At 1624 with man as ID? "Herrim de turkmen de Akhana," at 1626

with M and W under part of Equinox mx possibly with news then again with light mx and at 1546 with presume news and ID as "Kazakh Radio" under electronic mx possibly Equinox. Then light mx and hymn. 1700\*. (11-Aug/Liangas-GRC/BC-DX/Bueschel-GER)

**KOREA—NORTH** *Radio Pyongyang* sked:

0000-0100	English	3560 11845 13650 15230
0000-0100	Japanese	3250 7580 9650
0000-0100	Spanish	11335 11710 13760 15130
0400-0500	French	11710 13790
0400-0500	Korean	7200 9345
0400-0500	Spanish	13650 15180 15340 17735
0500-0600	English	11710 13790
0500-0600	French	13650 15180 15340 17735
0600-0700	Korean	3560 11710 13650 13790 15180 15340 17735
0700-0800	Mandarin	6125 7200 9345 11490
0700-1000	Japanese	3250 6070 7580 9650
0700-0800	Russian	3560 6575 9975 11710 13790
0800-0900	Korean	6125 7200 9345 11490
0800-0900	Korean/ Russian	3560 6575 9975 11710 13790
0900-1000	Mandarin	6125 7200 9345 11490
0900-1000	Russian	3560 6575 9975 11710 13790
1100-1200	Mandarin	7200 9345 11490
1100-1200	English	3560 9640 9850 9975 11335 13650
1100-1400	Japanese	3250 6070 6520 7580
1200-1300	French	3560 9640 9850 9975 11335 13650
1200-1300	Korean	7200 9345 11490
1300-1400	Mandarin	7200 9345 11490
1300-1400	Spanish	3560 9640 9850 9975 11335 13650
1400-1500	Korean	3560 9640 9850 9975 11335 13650
1500-1600	Arabic	6520 9600
1500-1600	English	3560 9640 9975 11335 11735 13650
1500-1600	French	6575 9335
1600-1700	Korean	3560 6520 6575 9335 9600 9640 9975 11335 11735 13650
1700-1800	Korean/ Russian	6520 9600 9975
1700-1800	Russian	3560 7505 9325
1700-1800	Spanish	6575 9335 11710 13760
1800-1900	Arabic	6520 9600 9975
1800-1900	English	6575 9335 11710 13760
1800-1900	German	3560 7505 9325
1900-2000	English	6520 9600 9975
1900-2000	Russian	3560 7505 9325
1900-2000	Spanish	6575 9335 11710 13760
2000-2100	Arabic	6520 9600 9975
2000-2100	French	6575 9335 11710 13760
2000-2100	German	9325
2100-2200	German	7505 9325
2100-2200	English	6575 9335 11710 13760

2100-2200	French	6520 9600 9975
2200-2300	Korean	6575 9335 11710 13760
2300-0000	English	11335 13760 15130
2300-0000	Japanese	3250 7580 9650
2300-0000	Spanish	11845 13650 15230

Service for South Korea

0000-2030	Korean	3250 3320 6250 6400
2100-0000	Korean	3250 3320 6250 6400

(BBCM)

**KOREA**—**SOUTH** Typhoon Olga which hit the nation on August 2 damaged some of *Radio Korea's* antennas. Broadcasts on 6135 were affected, now using temporary replacements while repairs are effected. (5-Aug/Yamada-JPN/EDXP/Padula-AUS/Rev. of Int'l. Broadcasting/Hauser-OK)

**LATVIA** I've just heard that *R. Latvia International* has made its last SW transmission. This was announced during Sat night's transmission, 31st July, in English 1900-1930 on 5935. They said that they would now only be on internet, but no details given as to site. (9-Aug/Southwell-UK/World of Radio/Hauser/BC-DX/Bueschel-GER)

5935 I am listening to strong signals from *Radio Caroline* on 5935. Nobody seems to be sure about the location of the transmitter. Merlin and DTK Jülich are suggested. DJ just said "...from somewhere in the middle of EUR. Where? I don't know..." (14-Aug/Veldhuis-HOL/BC-DX/Bueschel-GER) I just read, that Riga-Ulbroka 5935 was last Sat already at 0830 on air with R. Caroline programming, sign off was anyway at 2100. There are hints, that they will use 5935 regularly on weekends now. (18-Aug/Ludwig-GER/BC-DX/Bueschel-GER)

**LEBANON** 6280 *Voice of Hope*, Marjayoun, 2220-2240, New 10 kW transmitter heard strongly here with Arabic announcements and songs //11530. Also noted on both fq's July 31 & Aug 3 at 0245-0545 (30-Jul/Petersen-DEN)

**LIBYA** has been absent from 15395 and 15435 evenings and nights for some time now. Only 15415 ist still active. I have not been able to trace any replacement freqs. I was not able to determine if 15395 was a separate third transmitter (x11815) or an intermodulation product of 15415 + 15435. The signal on 15395 was consistent, though weaker than on the other two freqs.

15415 *VoAfrica* news in English 2330 (from 2325?), in French 2335-2345, then in Arabic. Libya constantly referred to only as The Great Jamahiriya (al-Jamahiriya al-Kabir). 15395 and 15435 still silent. (9-Aug/Alm-SWE/BC-DX/Bueschel-GER)

**MOROCCO** Sked for *Radio Mediterranee Internationale* (Medi 1)

0500-0200	Arabic/French	9575
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(BBCM)

**MADAGASCAR** UNID 17490, uninterrupted taped English songs and mx at 1430-1525 Aug 7; signal was very good, no anmts made during this period. It seems they played the same 15-20 mins tape again and again. On 10th noted Tamil at 1430-1525 on 17490 but abruptly ended at 1525 and the transmitter s-off immediately. They've also tested on 8th Aug evening at 1130-1225 on 15495—may be they've also started that transmission also. DTK Jülich says that IBC-Tamil on 17490 is not from their site. From where it is coming? NOR/MERLIN/CIS???? (Dasgupta-IND/BC-DX/Bueschel-GER) Also *IBC Tamil* 0000-0030 9355, most likely via Kamo-ARM in CIS (BC-DX/Bueschel-GER) R. Netherlands web-site 20th Aug says *Tamil-Oli Radio*, *IBC Tamil* and *Voice of Democratic Burma* now being carried via the RN Madagascar relay.

1128-1228	17495	<i>Tamil-Oli Radio</i>
1429-1455	17550	<i>Voice of Democratic Burma</i>
1458-1525	17490	<i>IBC Tamil</i>

(21-Aug/Barracough-UK/WDXC/BC-DX/Bueschel-GER)

**MOZAMBIQUE** 3277. 1 *Radio Mozambique*, Beira, 2140-2208, slow romantic songs, nx at 2200, Maputo often mentioned, ID: "Radio Nacional," NA and c-d at 2208. As far as I know R. Mozambique was active here until some years ago. May be a reactivation. (16-Aug/Schnitzer-GER/BC-DX/Bueschel-GER) [What is c-d?-AQ]

**NEW ZEALAND** *Radio New Zealand International* sked 05 September—31 October:

0705-1105	9700
1105-1500	6100 occasional overnites
1500-1650	6145 occasional overnights
1650-1950	11695 Tu-Sa
1850-1950	11695 Su-Mo
1950-0705	17675 Su-Th
1958-0705	17675 Fr-Sa

(Sainsbury, RNZI/Rev. of Int'l. Broadcasting/Hauser-OK)

**NIGERIA** *Radio Nigeria* 6049.92 this channel is splashed by 6055 until about 0558. Then "talking drum" IS heard and at 0600 the annt "The time is 7 o'clock. This is the National service of R. Nigeria. The news presented by..." Heard on Aug 18/19/20th at weak to fair level, fading a0630. I assume this is the Ibadan transmitter. There is no trace of *Kaduna* 6090, which should be audible when Ibadan is, so it would seem to be currently inactive. (20-Aug/Green-UK/BC-DX/Bueschel-GER)

**PAKISTAN** *Radio Pakistan's* Turkish service 1700-1730 has shifted to 11640 (x11600), //13580. A nice clear channel when FEBA Seychelles goes off, but they stay on Suns in Oromo lang.

To summarise Pakistan's changes:

0500-0700 API-1	17835 (x17555)
1700-1730 API-1	11640 (x11600)

1800-1900 API-4 15175 (x11600)  
(30-Jun/Green-UK/BC-DX/Bueschel-GER)

R. *Pakistan's* slow speed English news at 0230 is currently missing on 15485 & 17895, although these freqs are well heard until around 0215 with the WS in Urdu. Has the English bulletin been dropped? (4-Aug/Hartley-NZL/BC-DX/Bueschel-GER)

**PERU** 5645.6 *Radio Coremarca*: New station from Bambamarca, ex Radio Cultural Amauta, ex L.V. de San Antonio TC: "...le informo la hora 7 de la noche con 20 minutos, Radio Coremarca esta transmitiendo en 1430amplitud modulada y 5645 Kcs frecuencia internacional Onda Corta de los 45 metros..." On Sunday at the same time noted with Program: Saludando al Oyente, hosted by Eliodoro Chavez Bustamante "Amigos y Amigas de la sintonia de Radio Coremarca abrimos la cortina de nuestro primer programa dominical, Saludando al Oyente, desde Bambamarca le hablamos a todo el Peru a traves de nuestra onda corta 5645 kcs frecuencia internacional de los 45 metros...Somos tu Radio Coremarca siempre contigo..." Ments freq. in F.M. 101.1 mghz. and Virgilio Carranza Tello, Director. The name [Coremarca] is somewhat strange; I believe that the name should be the abbreviation of some organization or something similar. (Rodriguez-COL/Rev. of Int'l. Broadcasting/Hauser-OK)

5950 I have been monitoring this frequency for the last two subsequent days on Aug 17 and Aug 18, after the "Radio Bethel" ID I have reported (and recorded). Things have been developed different from the routine that happened on Aug 16. *Radio Arequipa* is definitely here along with *WYFR*, well before 1030. Any NA has been hrd, however. So, there is a possibility that "R. Bethel" be the name of a program from Radio Arequipa, which is not carried every day. What it baffles me is why there have been the NA here on Aug 16 and on past reportings of this in December last year. Secondly, my recording puts clear "Radio Bethel" twice, and in the last one in the recording the announcer says "Radio Bethel, su radio...(consentida?)." Third, it seems strange to have two stations from Arequipa in the same channel. (18-Aug/Nigro-URU)

**PHILIPPINES** *FEB* Manila has adjusted its frequency usage for local morning broadcasts, now noted as follows: 9405 Malay \*2200; 9780 Indonesian \*2230; 9805 Lao \*2230; 9860 Cambodian 2230. (4-Aug/Padula-AUS/BC-DX/Bueschel-GER)

Another *VOA* shortwave transmitting site will closing. On September 30th, *VOA's* shortwave relay station at Poro, the Philippines, will be taken out of service. The Poro site consists of seven shortwave transmitters with powers ranging from 35 to 100 kilowatts. The million-watt *VOA* medium wave relay at Poro, on 1143 kilohertz, will remain in service. Also remaining on the air is *VOA's* other shortwave relay in the Philippines, at Tinang.

Some of the gap created by the closure of Poro will be taken up by the new *VOA* relay at Tinian, in the Northern Mariana Islands. Three shortwave transmitters are now operating from Tinian, and three more will be added sometime this winter. However, *VOA* must share the Tinian site with Radio Free Asia, which has not been allowed to use *VOA* relay transmitters in the Philippines. (14-Aug/El-liott, *VOA* Communications World/Norfolk/Rev. of Int'l. Broadcasting/Hauser-OK)

**PORTUGAL** *RDP* is no longer feeding 21655 with *RDP* Africa FM. As from Jul 19, 21655 is beamed 215 degr to Brazil, Guinea & Cabo Verde and re-scheduled as follows: Mon-Fri 1000-1200 //21725 to same target areas and 1600-1900 //21780 to same target areas. On Sat/Sun 0700-2000 //21800 to same target areas.

The Portuguese Foreign Ministry instructed the *RDPI* to provide extended periods and better Timor Portuguese coverage, which began on Aug 2nd and is planned to last three months. Not only for the forthcoming election period. A new recently introduced FE relay of *RDPI*, is active via Taiwan, all beamed to TMP, INS & AUS, also all via satellite: 1000-1300 17740 via POR, the first hour is in both Por & Tetum langs. 1000-1100 11550 via TWN. 2200-2300 new 17600, + via TWN 11550.

At 1100, when the *TWN* relay on 11550 s-off progr suddenly changes to *RDP* Antena 1 relay and later joins *RDPI* normal progr which is to AF 142 degr 17725, EUR 30 degr 15140, 52 degr 11960, and B/CPV/GNB 215 degr 21655 and 21725. (12-16-Aug/Goncalves-POR/Green-UK/BC-DX/Bueschel-GER)

**RUSSIA** Sakhalin's MW station "*Radio Sakhalin*" disappeared from 11840-usb. Only *Radio Rossi* was relayed from late July to early Aug. R. Sakhalin relay could be heard 0100-0300 June-July here. (8-Aug/Oguma-JPN/BC-DX/Bueschel-GER)

TV & Radio Company "*Region Tyumen*" is broadcasting fulltime on 4820 and 6095. (8-Aug/Club DX/VoRUS/Alexeev-RUS/BC-DX/Bueschel-GER)

Russian shortwave transmitter skeds, 05-Sept thru 29-October:

GPR-1, Moscow	
5905	1530-2100
5910	0100-0400
5940	1430-2100
6030	1500-2000
6205	0100-0500
7175	2200-2300
7300	0000-0300
7370	0100-0400
7380	2300-0200
7390	1900-2030
7420	2000-2100
7425	2000-2100
7440	0430-1500, 1500-2000, 2300-0200
9450	1600-2000

9470 2300-0200  
 9720 0530-1400  
 9775 1700-2100  
 9810 1500-2000  
 9835 1600-2000  
 9845 1630-2100  
 9860 2300-0200  
 9865 1700-2100  
 11690 1700-2000  
 11735 1730-2100  
 11920 1700-1900  
 11980 0100-0400  
 12030 1500-1900  
 12035 1830-1930  
 12045 1700-1800  
 12060 1600-2100  
 12065 1730-1900  
 12070 0430-1100, 1400-2100  
 13615 1300-1600  
 13705 1130-1600  
 15455 0430-0700  
 15460 1200-1600  
 15540 1600-1900  
 17570 1200-1600  
 17660 0730-1700

GPR-2, Sankt-Petersburg

7130 1500-1900  
 7310 1500-2000  
 7345 1630-2100  
 7360 1730-2000  
 7380 1700-1900  
 7390 2300-0200  
 7405 0100-0600  
 9480 0000-0300  
 9485 0300-0430  
 9710 1600-2230  
 9720 1700-2100  
 11985 1500-1700  
 12045 0630-1600

GPR-2, Kaliningrad

5835 2030-2125  
 7320 1500-1900  
 7330 1500-1900  
 11745 0900-1000

GPR-3, Samara

5925 0000-0100  
 5935 1500-1900, 2000-2100  
 5945 1500-1900  
 6000 1600-2000  
 7305 0100-0500  
 7315 1400-1800  
 7350 1900-2230  
 7355 1730-2100  
 7365 1330-1700  
 7400 1500-2200  
 7440 0300-0430  
 9490 1700-1800, 1900-2100  
 9675 1400-1700  
 9690 0600-0700  
 9730 1500-1700

9765 1600-2000  
 9795 1600-1900  
 9820 1700-2100  
 9890 1600-1900, 2300-0200  
 11655 0930-1300  
 11665 0400-0500  
 11925 0800-0900  
 12010 0500-0800, 2030-2130  
 12020 1500-1900  
 12065 0530-0900  
 13690 0200-0245  
 15550 1300-1500  
 17590 0700-1100  
 17610 1200-1400  
 17670 0900-1000  
 17675 0900-0950, 1300-1400  
 17685 0800-0830, 1300-1400  
 17795 1130-1530

TCR-4, Krasnodarskiy kray

5965 1530-2100  
 7250 0100-0300  
 7260 0000-0200, 0300-0400  
 7300 1700-2100  
 7325 1500-1900  
 7430 1500-1900  
 9480 1500-2000  
 9830 0000-0200  
 11705 1700-1750  
 11980 1500-2100  
 11985 1700-1900  
 12000 1600-2000  
 12015 0830-1500  
 12025 0100-0800  
 12060 2300-0200  
 15455 0900-1000  
 15525 0800-0830  
 17665 1300-1400  
 17715 1300-1600

TCR-6, Primorskiy kray

5940 1000-1200  
 7330 1000-1200  
 7375 1200-1400  
 11665 1200-1400  
 11975 0000-0100  
 11990 -1000-1100  
 12005 2200-2300  
 15525 1200-1400  
 15595 2300-2400  
 17660 0100-0500

GPR-8, Komsomolsk-na-Amure

7305 1000-1400  
 9945 1200-1400  
 15425 0100-0500  
 15595 0100-0500  
 17625 0530-0900

GPR-8, Khabarovsk

7170 1800-1845  
 7210 1900-1500  
 7490u 0715-0800, 1000-1100, 1200-1300

9470 1000-1300  
 9480 1000-1400  
 9825 1800-1845  
 12050 0100-0500  
 12055 0715-0800  
 12070 0715-0800  
 13695 1330-1425  
 17570 0500-0600  
 17580 2330-0025

GPR-10, Irkutsk

7150 2200-2300  
 7395 1900-2100  
 7420 1130-1600  
 9655 1030-1500  
 9805 1900-2200  
 9825 0030-0200  
 9875 0900-0945, 1000-1100  
 9890 2200-2300  
 9900 1000-1400  
 10344u 0715-0800  
 12000 1200-1400  
 12025 0930-1030, 1100-1300, 2300-0100  
 12065 1800-1845  
 12075 2200-2300  
 13710 0930-1125  
 13720 1000-1400  
 15475 2230-1000  
 15490 0600-0900  
 21790 0500-0900  
 21820 0130-0215

GPR-11, Novosibirsk

7305 1430-1645  
 9875 1130-1300  
 11640 1130-1230  
 11795 2200-2400  
 11990 1300-1500  
 12005 1330-1700  
 12045 0100-0150, 2200-2300  
 12055 1230-1300  
 12075 1200-1300  
 13640 1330-1355  
 13690 2200-2400  
 15470 1000-1100  
 15490 1000-1400  
 15610 1000-1050  
 17665 1000-1200  
 17845 1000-1400

TCR-12, Chita

11640 1300-1530, 2300-2330  
 11845 1200-1300  
 12025 1400-1900  
 12055 2200-2300  
 17655 0600-0800

Ekaterinburg Radio Centre

7220 2100-0100  
 7420 1600-2000  
 9785 1600-1800  
 11630 1500-2000  
 11745 1700-2000  
 11930 1700-2000

Petropavlovsk-Kamchatskiy Radio Centre

5930 1330-1425  
 7300 1900-2000  
 7315 1000-1400  
 7340 1200-1400  
 9450 1000-1050, 1200-1300, 1330-1355  
 9790 1200-1300  
 9865 1200-1230  
 12045 0000-0100  
 12050 1900-2000  
 12065 0930-1025, 1330-1425, 2130-2200  
 13790 0100-0300  
 15455 0100-0500  
 15465 0200-0500  
 15520 0100-0300  
 17595 0100-0300, 0400-0500

(Rudnev-RUS/RusDX/Klepov-RUS)

Radio Rossiï sked 5-Sep thru 29 Oct:

GPR-1 (Moscow, 250 kW, 310 deg.)

0100-0400 7370  
 0430-1100 12070  
 1130-1600 13705  
 1630-2100 9845

GPR-2 (S.Petersburg, 400 kW, 147 deg.)

0100-0600 7405  
 0630-1600 12045  
 1630-2100 7345

TCR-4 (Krasnodar, 100 kW, 107 deg. + 327 deg.)

0100-0800 12025 (107 deg.)  
 0830-1500 12015 (107 deg.)  
 1530-2100 5965 (327 deg.)

( NR )

Voice of Russia, World Russian Service sked 05/09/99—29/10/99:

0100-0200 7125Mo 7300M 9480SP 13790PK  
 15425KA 15455PK 17595PK 17660VL  
 0200-0300 7125Mo 7300M 9480SP 13790PK  
 15425KA 15455PK 15465PK 17595PK  
 17660VL  
 1200-1300 9945KA 15460M 15525VL 17610S  
 1300-1400 9945KA 15525VL 17610S  
 1500-1600 7130SP 9675S  
 1700-1800 7330K 9865M  
 1900-1920 7420E 9865M 9890S 11630E 11745E  
 1920-1940 7350S 7420E 9490S 9710SP 9865M  
 9890S 11630E 11745E  
 1940-2000 7420E 9865M 9890S 11630E 11745E  
 2000-2100 9865M 12070M

E=Ekaterinburg

K=Kaliningrad

KA=Komsomolsk-na-Amure

M=Moscow

Mo=Moldova

PK=Petropavlovsk-Kamchatskiy

S=Samara

SP=St. Petersburg

VL=Vladivostok

(Rudnev-Rus/RusDX/Klepov-RUS)

**SOUTH AFRICA 7270, R. Paralelo 27:** "For the next few Saturdays" there will be a test transmission for this stn via Meyerton, 100 kw, 76 degrees, really on 1200-1400. This is from Meyerton Radio Station (Bloemendal) which is plus minus 70 km south of Johannesburg. The QSL address for R. Paralelo 27 is: P.O.Box 1267, Rosettenville 2130, Rep. of South Africa. E-mail: lusonet@hotmail.com (21-Aug/du Toit-RSA/BC-DX/Bueschel-GER)

**SUDAN** I have been following the situation around 8000 kHz for the past couple of days (Aug 1-5) and now can present a good picture about what is happening there.

Anti-Sudan clandestine *Voice of Sudan* starts its daily bc seemingly at 1600 (at least it did on Aug 5) on 7999.85 in full AM. Until 1700 it broadcasts in a vernacular, and from 1700-1800 in Arabic. Full ID is normally heard at 1700.

Two more stations are active on exactly 8000.0, one starting around 1600 and the other around 1630. As it seems, it varies from day to day which of the two starts its jamming activities first. In USB there is a strong station playing just local mx without any announcements. It is active most days, but not every day. And in full AM the domestic service of *Sudan National Radio* is broadcast with a full ID at 1700, followed by news in Arabic. All three stations leave 8000 around 1800, starting with the *Voice of Sudan*. I also checked 9230 and 8020 several times without tracing any signal.

I suspect that the transmitter now is used for jamming the *Voice of Sudan*. In a newsletter seemingly related to the former anti-Eritran clandestines on 9230 I found some background info concerning the peace treaty between Eritrea and Sudan. Part of the treaty was to "refrain from disseminating defamatory propaganda through the media." I suspect this is related to the clandestine broadcasters of the two sides, and might have been the reason why it's now silent on 9230. The *Voice of Sudan*, for unknown reasons, obviously decided to keep on. And what we now hear on 8000 each day is the reaction of the Sudanese to it. (8-Aug/Kuhl-GER/BC-DX/Bueschel-GER)

8000 and UNID also on 6990 has moved to 6950 and 6970 1602-1803v. This leaves Sudan alone on 8000. (20-21-Aug/Vaghjee-MAU/Rev. of Int'l. Broadcasting/Hauser-OK) August)

**SYRIA Radio Damascus**, from observations:

1600-1700	Turkish	12085
1700-1800	Russian	13610
1805-1905	German	12085 13610
1905-2005	French	12085 13610
2005-2105	English	12085 13610
2105-2205	English	12085 13610
2215-2315	Arabic	12085 13610
2315-0015	Spanish	12085 13610

(BBCM)

**TANZANIA-ZANZIBAR** The following information may be of interest to those who have written reception reports in the past to *Radio Tanzania Zanzibar* and who did not receive an answer. During my five-day visit to Zanzibar I had the opportunity to visit the radio station and to exchange information and ideas with RTZ staff, especially Ali Bakari Muombwa and Khalid Hassan Rajab. The latter is the Chief of the Shortwave Radio Transmitter and speaks very good English (he has attended training courses in the US).

Mr. Ali Bakari Muombwa, a friendly 25-year old employee, is handling all incoming correspondence including foreign mail. Ali's problem is that he does not read, speak or write English well enough to read or answer letters from foreign listeners. He has to have all English letters translated into Swahili! This explains why most reception reports remain unanswered—Ali simply does not understand them. In certain cases, Mr. Khalid Hassan Rajab has answered reception reports in the past, even though this does not fall into his area of responsibility. So don't be disappointed if you don't get an answer from RTZ. The employees I have met are extremely nice, they make very little money (about \$ 30 per month), they do what they can but they receive far more foreign mail than they can handle.

Now some information about the radio station itself: RTZ employs more than 150 people including 18 announcers and 10 technicians. The station broadcasts 8 hours a day on 11734 kHz shortwave, using a 50kW chinese transmitter and a rhombus antenna directed towards Oman, where a large number of Zanzibaris reside. A parallel program is broadcast during 18 hours daily on 585 kHz medium wave, using a Harris transmitter with also 50 kW power output. All broadcasts are in Swahili language, including a rebroadcast of a 30-minute news program produced by the Deutsche Welle, which is transmitted by satellite directly from Cologne to Zanzibar three times a day. English language broadcasts are planned for the future. Also, the station has plans to broadcast in FM stereo, if they can get the funding from the Tanzanian government.

The broadcast house is impressive and was built in 1993 with financial and technical help from China. Mr. Rajab was nice enough to show me around on a Saturday morning, where I also had the occasion to speak with the station director and with Mr. Abulrahman M. Said, the chief engineer. I also had the opportunity to visit the studios and to be present during the recording of a broadcast. RTZ has four studios with relatively modern Swiss Studer equipment.

The highlight of my stay in Zanzibar was a visit to Ali Bakari's village of Makunduchi, where Ali's family prepared a big welcome lunch for us. We also took part in the festivities of the annual Makwa Kogwa festival which is the celebration of the New Year by the people of Makunduchi. An interesting part of the festival is the traditional fight between

youngsters from North and South Makunduchi, who literally beat the hell out of each other using banana stems. The purpose of the fight is to alleviate pent-up aggressions and to end conflicts among hostile families. It's really an odd sight to watch! After two hours of fighting, the conflicting parties bury the hatchet and drink and dance together until the wee morning hours. The festival was being filmed by reporters from the National Geographic Society, so some of you may get to see it on TV sooner or later. It is well worth watching. (Gehrig-ESP/HCDX)

**UNITED ARAB EMIRATES UAE Radio Dubai**

0230-0330	Arabic	12005	13675	15400
0330-0400	English	12005	13675	15400
0400-0530	Arabic	15435	17830	21700
0530-0600	English	15435	17830	21700
0615-1030	Arabic	13675	15395	21605
1030-1100	English	13675	15370	15395 21605
1100-1200	Arabic	13675	15370	15395 21605
1200-1330	Arabic	13630	13675	15395 21605
1330-1400	English	13630	13675	15395
1400-1600	Arabic	13630	13675	15395 21605
1600-1645	English	13630	13675	15395 21605
1645-1700	Arabic	13630	13675	15395
1700-2100	Arabic	11950	13630	13675 15395

(BBCM)

**UNITED KINGDOM Merlin Network One**

0000-0100	English	6015	7325	9720 Sa
1300-1700	English	9750	12035	15235 Sa
1600-1700	English	6175	Mo-Fr	
2100-2300	English	6140	7325	9720 Fr
2300-0000	English	6015	7325	9720 Fr

(BBCM)

**UNITED STATES WTJC**, 9790: I talked with Dave Robinson of WTJC (call letters tentative), the new religious station from Newport, NC, that is to operate with 50 kW beamed "to Canada." This afternoon [Tuesday] it got the official approval from the FCC, and was to begin testing from 0000 UTC Wednesday (Tuesday night EST [sic]), on 9790. It will test intermittently on that frequency for at least the next week. The station is a conservative evangelical religious station, but, unlike most others, won't be selling airtime. The call letters, if formally approved, will stand for "Working Til Jesus Comes." No public address as of yet, but one will be announced. (17-Aug/Magne-PA/NU/EDXP/Rev. of Int'l. Broadcasting/Hauser-OK) *[Thus helping fill the pressing need for more religious broadcasters to spread the word of God to heathen Canada...AQ]*

**WRMI Radio Miami International**

0000-0330	Spanish/English	9955
0330-0400	Spanish/English	7465
0400-0500	Spanish/English	7465 Tu-Su
0400-0500	Spanish/English	9955 Mo
0845-1000	Spanish/English	9955 Mo-Fr
1000-1200	Spanish/English	9955 Mo-Sa
1200-1300	Spanish/English	9955 Sa/Su

1300-1700	Spanish/English	9955 Su
1900-2000	Spanish/English	9955 Sa
2000-2300	Spanish/English	9955 Sa/Su
2300-0000	Spanish/English	9955

(BBCM)

**URUGUAY** 11735/9595/6140 *Radio Montecarlo/Oriental* transmitter is currently off the air. Station's technicians are installing a new MW transmitter. (4-Aug/Nigro-URU)

**VIETNAM Voice of Vietnam** sked. Certain frequencies are relayed from transmitters in Russia (-r).

0000-0030	Cambodian	7285
0000-0100	Vietnamese	9730
0030-0100	Lao	7285
0100-0130	English	7250r
0130-0230	Vietnamese	7250r
0230-0300	English	7250r
0300-0330	Spanish	9830r
0330-0400	English	9830r
0400-0500	Vietnamese	17595r
0830-0930	Mandarin	9840 12020
0930-1000	Indonesian	9840 12020
1000-1030	English	9840 12020
1030-1100	Indonesian	9840 12020
1100-1130	English	7285
1100-1130	Spanish	9730 13740
1130-1200	Russian	9840 12020
1130-1200	Thai	7285
1200-1230	Cambodian	7285
1200-1230	Japanese	9840 12020
1230-1300	English	9840 12020
1230-1300	Lao	7285
1300-1330	Cambodian	7285
1300-1330	French	9730 13740
1330-1400	English	9730 13740
1400-1430	Lao	7285 9730
1430-1500	Cantonese	9730
1430-1500	Indonesian	9840 12020
1500-1530	Mandarin	7285
1500-1530	Thai	9840 12020
1530-1600	Cantonese	9840 12020
1600-1630	English	9730 13740
1630-1700	Russian	9730 13740
1700-1800	Vietnamese	9730 13740
1700-1730	English	12070r
1730-1830	Vietnamese	12070r
1800-1830	English	9730 13740
1830-1900	French	9730 12070r 13740
1900-1930	Russian	12030
1900-1930	English	9730 13740
1930-2030	Vietnamese	12030
1930-2000	French	9730 13740
2000-2030	Spanish	9730 13740
2030-2100	English	9730 13740
2100-2130	French	9730 13740
2130-2200	Japanese	9840 12020
2200-2230	Mandarin	9840 12020
2230-2300	Cantonese	9840 12020
2300-2330	Thai	9840 12020
2330-0000	English	9840 12020

(BBCM)

# Pirate Radio Report

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

Hello and welcome to the September 1999 edition of the edition of the **PIRATE RADIO REPORT**. I hope all of you had a great summer. Now that the days are getting shorter, static levels should start to decrease allowing for better pirate DX!

## International Pirate Skeds

Pirates throughout the world continue to be active and can, when propagation permits, be heard by us here in North America.

From Latin America, there's The *Andino Relay Service*. Recent information had them relaying an American pirate, *Radio UNH*. Look for the Andino Relay Service to operate on or about 6880 kHz in the lower side band [LSB] mode. They usually operate weekends between 0100-0500 UTC.

To contact the Andino Relay Service, you can write to Casilla 159, Santiago 14, Chile or via email at [arssw@usa.net](mailto:arssw@usa.net). They publish a web site address of: [www.geocities.com/Area51/Shadowlands/4401/andino/html](http://www.geocities.com/Area51/Shadowlands/4401/andino/html).

The *SWRS*, that is the *Shortwave Relay Service* continues to pursue a heavy schedule from Europe. Latest information at press time has them using 3905 and 7465 kHz in the AM mode and 11470 and 21680 kHz in the USB mode. They usually operate on Friday, Saturday and Sunday evenings, local time. Programming is usually in blocks of programs which are repeated throughout the transmission whose times range from 1900 to 0500 UTC.

The *SWRS* address is: Postfach 220342, 42373 Wuppertal, Germany. Email is: [swrs@usa.net](mailto:swrs@usa.net). Their web site is <http://listen.to/swrs>.

Both the *Andino Relay Service* and the *SWRS* have been heard here in North America, so give them a try!

## Loggings...

I want to thank Ohioans Lee Silvi and George Zeller for this months loggings.

**KMART RADIO**. Host DJ Stone Cold was logged on August 22<sup>nd</sup> at 1953 UTC on 6955 kHz USB. Programming from *Kiss My Ass Radio Transcontinental* consisted of music from the Doors. [Zeller-OH]

The *VOICE OF ANARCHY* was heard a couple of times on August 22<sup>nd</sup> and 23<sup>rd</sup> on 6955 kHz in the AM mode. This was a repeat of the station's Fourth Of July broadcast and was most likely a relay by pirate powerhouse *Radio Metallica Worldwide*. Host Leonard Longwire thanked Dr. Tornado for the relays. [Zeller-OH][Silvi-OH]

**WMFQ, Where's My F—ing QSL**, was heard on 6956 USB at 2107 UTC on August 22<sup>nd</sup>. Programming consisted of rock music with a chorus promoting the QSL process. [Zeller-OH]

## Pirating With Cumbre

Don't forget to check out my monthly radio show on Dxing With Cumbre hosted by Marie Lamb on *World Harvest Radio*. *Pirating With Cumbre* is usually heard on the third weekend of the month.

There you'll find logs, pirate audio and we even have our own QSL card!

That's all for this month. Until next month, Happy Pirate DX!



# QSL Report

Sam Barto  
47 Prospect Place  
Bristol, CT 06010

## RADIO DUBLIN

INTERNATIONAL

# Q.S.L.

To *Kel* Journal  
or *Selenio* C1750

We are pleased to confirm your reception report of Radio Dublin on \_\_\_\_\_ KHz between \_\_\_\_\_ and \_\_\_\_\_ GMT on the \_\_\_\_\_ at \_\_\_\_\_.

Studios 58, INCHICORE ROAD, DUBLIN 8 (Visitors welcome)  
Mailing Address: RADIO DUBLIN, DUBLIN 8, IRELAND.  
Telephone: 01-758684



**ALASKA:** KNLS 7365 f/d cd. in \* 3 wks. (Barto-CT). HAARP 6990 and 3390 f/d "Antenna Array" cd. in 11 ds. for ms (Brouillette-IL).

**ANTARCTICA:** LRA36 Radio Nacional Arcangel San Gabriel 15476 f/d cd. w/ ltr. in 109 ds. for a SP rpt., cassette tape and \$1.00. v/s Fernando R. Garcia Pinasco, Director. Quite pleased w/ this QSL. (Stewart-MO).

**ANTIGUA:** BBC World Service Relay 17840 f/d cd. w/ ltr. in 24 ds. (Humenyk-ONT). De-

**utsche Welle** 17730 f/d "Transmission Tower" cd. in 82 ds. v/s Horst Scholtz, Transmission Management. (Humenyk-ONT).

**ARGENTINA (Pirate):** Radio Dr. Tim 6949.3 via Radio Cochiquaz cd. w/ ltr. and station sticker in 41 ds. This is a German station. (Eramo-ARG). Radio Mariquita "La Voz de La Musica" 6980 via Radio Cochiquaz cd. in 234 ds. for 2 IRCs. Station is located in Italy. (Eramo-ARG)...Very nice...Sam.

**ARMENIA:** Voice of Russia 15735 via Yerevan f/d E-mail in 4 ds. for an E-mail rpt. (Neal-TX).

**ASCENSION ISLAND:** Radio Japan 15220 f/d "The Lady in Waiting Suo" cd in 29 ds. w/ report form and schedule. (Humenyk).

**ASIATIC RUSSIA:** Radio Canada International 12075 via Irkutsk f/d cd. in 17 ds. (craighead-KS).

**Voice of Vietnam** 7250 f/d "Logo" cd. in 48 ds. w/ station pennant and schedule. (Borokowski-NY).

**Voice of America** 11990 via Novosibirsk f/d "Liberty Bell" cd. in 75 ds. (Neal-TX).

**AUSTRALIA:** Radio Australia 21740 via Shepparton f/d "Southbank Centre" cd. w/ schedule in 92 ds. for 2 IRCs. v/s John Wright. (Brouillette-IL).

**AUSTRIA:** Radio Canada International 11835 via Moosbrunn f/d "Nunavut" cd. in 17 ds. v/s Bill Westenhaver. (Humenyk-ONT)

**BELGIUM:** Radio Vlaanderen International 15565 f/d cd. in 32 ds. w/ sticker for 1 IRC. (Griffin-VA).

**BONAIRE:** Radio Vlaanderen International 15250 f/d "Rabbit w/ Prunes" cd. in 6 wks. w/ sked. and stickers. (Barto-CT).

**BOTSWANA:** Voice of America 7415 f/d "Yosemite National Park" cd. in 5 wks. (Barto-CT).

via Trummel



QSL  
Verification Card  
Turkish Police Radio  
(Turkiye Polis Radyosu)

Dear listener,

Your report of reception of Turkish Police Radio (on 6310 kHz) on 28 September 1985 from 1505 to 1550 GMT is correct. Thank you very much for your interest.

Station: 6310 kHz  
Yayin vakti: 05.15-05.50  
Emniyet Genel Müdürlüğü  
Ankara/TURKEY

## Q. S. L.

CONFIRMACION REPORTE DE SINTONIA

RADIODIFUSORA : BAHAMAS  
FRECUENCIAS : 1420 kHz MW HCRN-1  
: 4390 kHz SW HCRN-2  
ORIGEN DE LA SEÑAL : Otavalo, Provincia de Imbabura  
República del Ecuador, Sud América  
POTENCIA EN ANTENAS: 1000 - 3000 vatios

NOMBRE: Richard A. Barto  
FECHA: 21 de Septiembre  
HORA: 00.53 a 09.37  
FRECUENCIAS: 4.950 kHz



**RADIO TELEVISION HONG KONG**  
(10 Box 70200, Kowloon Central Post Office, Hong Kong)

CHINESE RADIO PROGRAMMES — RADIO 1 785 640 KHz (AM)  
RADIO 2 94 MHz (FM Stereo)  
ENGLISH RADIO PROGRAMMES — RADIO 3 567 545 KHz (AM)  
via Gordon Darling RADIO 4 91 960 MHz (FM Stereo)  
Radio 5 96 010 MHz (FM Stereo)  
TRANSMISSION (BOTH SERVICES) 0600-0200 hours (Hong-Kong Time)

Radio Television Hong Kong confirms your direct reception report on our programme broadcast on 7290° ±4Hz/KHz and we forward the official QSL card with compliments. \*The transmission of 7290 KHz is a special broadcast in Vietnamese to boat people and listeners in Vietnam.

**BOLIVIA: Radio Mosoj Chaski**

\* 3310 n/d ltr. w/ religious information in 3 wks for \$1.00. v/s Eldon Porter, Gerente. (Myers-VA).

**BRASIL: Radio Aparecida 5035**

f/d cd. in 3 wks. for a PT rpt. and \$1.00. (Myers-VA). **Radio Bare** 4895 f/d personal ltr. in PT/EG in 33 ds. for a PT rpt. and \$1.00. v/s Socrates Bomfim Neto. (Brouillette-IL).

**CLANDESTINE: Voice of China**

\* 11940 p/d personal ltr. Heard while in Vietnam. (Craighead-KS)....What part were you in? I was there in 1970. Sam. \* **Voice of Oromo Liberation** 15715 via **Julich** f/d ltr. w/ transmitter site cd., and schedule in 12 ds. for a rpt. to Julich. v/s Walter Brodowsky. (Craighead-KS).

**CHINA, PEOPLES REPUBLIC OF: China Radio International** 9665 via **Beijing** cd. w/ schedule and station pennant in 68 ds. (Eramo-ARG).

LRA 36  
**RADIO NACIONAL**  
"ARCANGEL SAN GABRIEL"

QTH 9411

BASE ANTARCTICA ESPERANZA  
TERITORIO ANTARTICO ARGENTINO  
REPUBLICA ARGENTINA

UBICACION GEOGRAFICA VIA CASTRO

Latitud	67° 24' SUR
Longitud	50° 55' OESTE



**HELP:** Your **Editor** is looking for an address book for FM radio stations. Does anyone have one, even a few years old, which they may wish to sell or lend out for a very short period?....Sam. I am also looking for the same type of publication but geared towards short-wave utility stations.

**CUBA: Radio Habana Cuba** 9820 f/d "DX Club" cd. in 9 wks. w/ personal ltr. v/s Lourdes Lopez, Head of the Correspondence Department. I also reported on 7 spur frequencies. They did not respond. (Barto-CT). 11705 same cd. w/ personal ltr. in 85 ds. (Humenyk). **China Radio International** 9570 f/d "Dacheng Hall of Confucius Mausoleum" cd. in 29 ds. (Humenyk). f/d cd. in 37 ds. for an E-mail rpt. (Neal-TX). f/d "Terra Cotta Warriors" cd. w/ site in 3 wks. They also sent a cd thanking me for telling them about their transmitter problems. (Craighead-KS).

**CYPRUS: CBC** 9760 f/d cd. in 126 ds. for a taped rpt. and \$1.00 (Comeau-MA).

**CZECH REPUBLIC: Radio Prague** 13580 f/d "Radio Receivers from the Past" cd. in 23 ds. w/ sticker and schedule. (Humenyk-ONT).

**EGYPT: Radio Cairo** 9990 f/d cd. of "Ancient Egyptian Mural" in 172 ds. for 2 IRCs. Schedule and postcards were rcvd. w/ a personal greetings. (Brouillette-IL). 9900 f/d "Hieroglyphics" cd. in 178 ds. w/ schedule, bookmarks and postcards. (Borokowski-NY).

**ENGLAND: Radio Canada International** 11975 via **Skelton** f/d "Nunavut" cd. in 17 ds. w/ schedule and sticker. v/s Bill Westenhaver. (Humenyk). f/d cd. w/ personal note, schedule and pennant in 18



QSL CARD

RADIODIFUSORA "PAZ Y BIEN".  
La Voz Católica de Ambato

AIR MAIL  
PAR AVION

TO MS MSARF ALEXANDER H.  
CONFIRMS RPT/G2XON  
FREQ. 7110kHz  
DATE 10th January 1999  
TIME 2310 GMT  
RPT. 2333z  
TX/RX Marconi 100kHz



MR MARK ALEXANDER HUMENYK  
26 CRESTRIDGE HEIGHTS ROAD  
WESTON-ONTARIO-M9P 1A4  
CANADA

ds. (Stewart-MO). VOA  
Woofferton 7170 f/d  
"Liberty Bell" cd. in  
203 ds. (Clement-GA).  
BBC - Falklands Island  
Service 11680 p/d ltr.  
in 43 ds. for a rpt.  
sent to the Falklands  
who FAXed it Bush Hou-  
se. v/s Dee Palmer.  
(Borokowski-NY).

EUROPIRATE: SWRS 11469.6

\* f/d orange rectangular  
cd. in 94 ds. for \$2.00  
via the Merlin drop.  
(Comeau-MA).

EUROPEAN RUSSIA: Voice of  
the Mediterranean 12060

BBC Far Eastern Relay Station, Kranji, Singapore

via Krasnodar f/d "Luzzu Maltese Fishing Boat" cd. in 54 ds. (Humenyk)  
FINLAND: Radio Finland 9865 and 11845 via Pori f/d "Guy Wires w/ Towers"  
cd. in 37 ds. w/ stickers. v/s R. Makela. (Humenyk).

**NOTES:** Richard Davis says that getting the QSL from WWBS was a real head  
ache. He needed their QSL for the 40 station endorsement sticker for  
the All American DXer Award and for the 50 station endorsement stick-  
er for the Senior Ecclesiastic DXer Award. He sent them two reports.  
No reply. He sent a personal letter asking them when they might return  
to the airwaves. A reply was received from Charles Josie who said his  
wife was handling the reception reports. No reply. then sent a  
report, 90 minute cassette tape, a prepared card, sase and  
\$5.00. He received a thank you letter and returned the \$5.00!  
What puzzles Rich is that they did not use the SASE or return  
the prepared card. All the squirrels  
arn't in the park...  
Sam.

Florence Dx  
Casella Postale 5640 - 50127 Firenze - Italia

Florence, May 23<sup>rd</sup>, 1999

Mr Mark Alexander Humenyk  
26 Crestridge Heights Road  
Weston, Ontario  
M9P 1A4  
Canada

Radio Budapest - Special Italian Broadcast  
Series No.2 - January-February 1999

Dear Friend,

we hereby confirm your reception report on the special Italian broadcast from Radio Budapest, we helped to organise for the second time earlier this year, as you listened to on February 10<sup>th</sup>, 1999 at 2345 UTC on 11985kHz.

Let us firstly apologise for this belated letter. In the past three months we received an overwhelming number of reception reports from listeners around the world, totalling more than 100 letters from 10 different countries. The same occurred in Budapest where Bela Szomraky at Szofoldok's HQ reported much more reactions from listeners this time than in the previous experiment in 1997. Your report is the only one we received from Canada. Other extra-European listeners wrote from India, Australia and Japan.

We're really very happy of having contributed to those special broadcast reviving the Italian language on the frequencies of Radio Budapest. Growing cooperation between Italy and Hungary in the frame of a united Europe let us hope for a future rebirth of the Budapest Italian programme. In the meanwhile in Florence, as well in Budapest and wherever you are, dear Friend, we are proud of the contribution we were able to give for the second time.

Florence Dx, an informal group of radio listeners, devotes part of its activity to promote Italian language broadcasts in conjunction with the Internet operations of Italradio. Since 1997 we've been organising two Italian series on Radio Budapest, a special Italian Service celebration on the BBC World Service and the Italradio Prize. Full information can be found at the web site [www.intraSoft.it/italradio](http://www.intraSoft.it/italradio). In the meanwhile a copy of our Newsletter is enclosed.

Thank you again and all the best,

Florence Dx  
(Luigi Cobisti)

**FRANCE: Radio France In-**  
**ternational** 15195 cd.  
w/ schedule in 212 ds.  
for 1 IRC. (Griffin-GA)  
11995 via Issoudun  
f/d "Toucan Antenna -  
Montsinery" cd. in  
173 ds. w/ schedule.  
(Humenyk-ONT).

**FRENCH GUIANA: Radio**  
**France International**  
17630 via Montsinery  
f/d cd. w/ schedule  
in 135 ds. (Humenyk).

**FRENCH MOROCCO: Voice of**  
**America** 7195 via Bri-  
ech f/d "Canyonland  
Park" cd. in 58 ds.  
(Klinck-NY).

**GABON: Radio France In-**  
**ternational** 4890 via

QSL

Verification Card

Station RADIO EASTERN HIGHWAYS - Keano Railway (Holland)  
For MR. J.L. SKULLERA, 337 BULLER HOLE ROAD - U.S.A.

Thank you for your reception report. We are pleased to verify your reception of our transmission on 2395 kHz from 1712 from 2205-2227 hours  
Power 1000 watts on 2395 kHz, with a power of 10,000 watts.

AERIAL - CO-PHASED DIPOLE (1/2)

X Brig

K161 NICE - Engineering Div

Official Seal  
(Not available at  
the time)

GUAM: KSDA Adventist World Radio 11625 f/d "Antenna/Studio" cd. in 6 wks. w/ sticker and schedule. (Barto-CT). 11660 f/d "Philanthropy Stamp" cd. in 20 ds. w/ schedule for \$1.00. (Comeau-MA).

NOTES: Wendel Craighead says that he mentioned the Sines transmissions listed in the JOURNAL as Singapore because Bill Westenhaver said he was receiving reports from DXers expecting QSL cards for the rare Singapore site when the broadcasts are via Sines in Portugal. Apparently someone mistook RCIs Sines abbreviation SIN for Singapore....Thanks Wendel....I put the note in. I hope it helps...Sam. Gene Borokowski says he continues to enjoy the QSL Column every month....I hope everyone does.....Sam.

Moyabi f/d cd. w/ schedule in 151 ds. (Eramo-ARG).  
GERMANY: Adventist World Radio 15560 via Julich f/d cd. in 14 ds. for an E-mail rpt. (Neal-TX). Radio Canada International 15215 and 17870 via Wertachtal f/d "Nunavut" cd. in 17 ds. (Humenyk). Radio Vilnius 9855 via Julich f/d cd. in 1 mo. (Glotzbach).

GREECE: Voice of Greece 12105 f/d "Athens as seen from Plaka" cd. w/ schedule in 32 ds. (Humenyk-ONT).

HOLLAND (Pirates): Bandonica Radio \* 11480.5 n/d ltr. in 16 ds. for a relay of Radio Alfa Lima. Rcvd. postcards and a photo of the shack and the rig. 300 watts \* (Comeau-MA). Radio Alfa Lima \* 6269.5 f/d ltr. in 15 ds. for \$1.00. 100 watts. (Comeau-MA). Farmers From Holland 6300.2 f/d color sheet in 145 ds. for \$1.00. (Comeau-MA). \* Radio Blue Star 6306.3 f/d photo copy ltr. for a taped rpt. and ms. in 1 mo. Addr: Postbus 1104, 8110BC, Zwolle, The Netherlands. (Sgru-HONDURAS: Radio Iglesia Ebenezer 4930.6 p/d ltr. in 6 wks. 11etta-NY) \* for a SP rpt. Addr: 14 calle A, Colonia Villa Eugenia, Sur Oeste, San Pedro Sula, Honduras. (Barto-CT).

The State Enterprise of Broadcasting and Radio Communications No. 2 (GPR-2)

Radionova Pavlova Street 13A, St. Petersburg, 191376, Russia  
Tel: +7 (812) 234 1001 Fax: +7 (812) 234 2971

No. 876, St. Petersburg 26 April 1995

Dear Mr. Richard A. D'Angelo

Thank you very much for your reception report on our transmission.

Date 5 February 1995

Time 13.03 - 14.01 UTC

Freq. 12065 kHz

The VOICE OF RUSSIA program

was broadcast that time in English

via 2 x 200w "Smer" transmitters located at Морской

SAINT-PETERSBURG (Popovka) резерваторе радиостанции

The antenna curtain / 147° и на высоте 2

Your sincerely Mikhail Timofeyev (ТПР-2)

GPR-2 Verification Card С.С.С.Р. Санкт-Петербург

ул. Академика Павлова, 13А

\* 6269.5 f/d ltr. in 15 ds. for \$1.00. 100 watts. (Comeau-MA). Farmers From Holland 6300.2 f/d color sheet in 145 ds. for \$1.00. (Comeau-MA). \* Radio Blue Star 6306.3 f/d photo copy ltr. for a taped rpt. and ms. in 1 mo. Addr: Postbus 1104, 8110BC, Zwolle, The Netherlands. (Sgru-HONDURAS: Radio Iglesia Ebenezer 4930.6 p/d ltr. in 6 wks. 11etta-NY) \* for a SP rpt. Addr: 14 calle A, Colonia Villa Eugenia, Sur Oeste, San Pedro Sula, Honduras. (Barto-CT).

Estimado Oyente/Dear Listener:

Esta tarjeta QSL verifica su recepción de Radio Copán Internacional en Honduras. This QSL card confirms your reception of Radio Copan International in Honduras.

Fecha/Date: July 24, 1993 UTC

Hora/Time: 2152-2243 UTC

Frec/Freq: 15675 kHz

Gracias por su informe. Thank you for your report. J. L. Lopez

RADIO COPAN INTERNACIONAL  
P.O. BOX 526852  
MIAMI, FLORIDA 33152 USA



Christopher Lobdell  
Box 146  
Stoneham, MA 02180

IRELAND (Pirates):

\* Laser Hot Hits 6220 f/d blue & white cd. in 227 ds. after a f/up rpt. 200 watts. (Comeau-MA). in 5 wks. for an E-mail rpt. Rcvd. sticker & several leaflets. Postmark was from Merlin Ontario. (Sgru-11etta-NY).

ISRAEL: Kol Israel

15650 f/d cd. w/ sked. in 58 ds. (Humenyk).

ROGER THE RADIO SAYS...



"I'M  
TUNED  
IN  
TO

LASER HOT HITS"

47W, 49W, 75W

via Sgrulletta

11605 f/d cd. w/ schedule in 88 ds. (Wright-NC). 15640 and 17535 f/d "Logo" cd. in 9 wk (Barto-CT).

**ITALY (Pirates): Radio Inter-**

\* **ferenze** 7590 f/d black and yellow cd. in 2 mo. for \$2.00. I had rcvd. a n/d E-mail reply prior to the QSL. v/s Andrea and Federica. I used the PLAY-DX address.

\* (Sgrulletta-NY). **Radio Strike** 6880.3 via **Andino Relay Service** cd. w/ sticker, ltr, pennant and station info. in 42 ds. for 2 IRCs. (Eramo).

**JAPAN: Radio Canada International** 15195 via **Yamata** f/d

**FM ATLAS: Bruce Elving** of P.O. Box 336, Esko, MN 55733-0336 informs me that the 18th Edition of the "FM Atlas" will be ready for distribution on or about August 2nd. It is priced at \$19.99 plus \$2.00 per copy for shipping or \$17.00 per copy and \$1.00 for shipping if you order two (2) copies or more. It will be 240 or so pages complete with new maps. Advance orders are now being accepted. For more information about this publication and a peek at the new cover go to: <http://members.aol.com/fmatlas/home.html> ....Sam.

Its a great publication; however, does anyone have a suggestion for obtaining FM station addresses?.....Sam.

"1985 International Youth Year" cd. in 17 ds. (Humenyk-ONT).

**KOREA, REPUBLIC OF: Radio Canada International** 13710 via **Kimje** f/d cd. in 17 ds. v/s Bill Westenhaver. (Humenyk-ONT).

**LEBANON: Voice of Hope** 11530 f/d certificate ltr. in 2 mo. w/ schedule. v/s Gary Hull, Manager. (Barto)

**LAOS: Lao National**

**Radio** 6130 f/d ltr. in 184 ds. after a f/up rpt. v/s Ms. Malivarn. Also rcvd. several Laotian stamps. (Comeau-MA).

**MEXICO: Radio Mexico International** 9705 f/d cd. in 53 ds. for an EG rpt. and \$1.00. Also rcvd a beautiful pennant and ltr.

from Martin Rizo, Station Manager. (Comeau-MA).

**MONACO: Trans World Radio**

9870 f/d green "Program Distribution" cd. in 22 ds. for 2 IRCs. v/s John Moore. Schedule rcvd. w/ beautiful stamps on the envelope. (Brouillette-IL). f/d "Family Gathering Around The Radio" cd. w/ personal ltr., pennant, sticker and schedule in 2 wks. for 1 IRC. (Humenyk).

RADIO BLUE STAR



Your reception report was:

Date: 27.5.99  
Time: 08.57.00 UT  
freq: 6306 kHz



Internet site:  
[Listen.to@bluestar](mailto:Listen.to@bluestar)

email: [bluestar@limit.nl](mailto:bluestar@limit.nl)

Hello John..

I'm very happy that I received a reception report from you. My name is Henk.  
I was born on March 28th 1967.  
My location is Zwolle. Zwolle is located in the east part of the Netherlands. Zwolle is a city with 100,000 people. Zwolle is located 100 km east from Amsterdam.  
I'm active on Mw since 1980,  
on the 48 meters I'm active since 1985,  
on the 76 meters I'm active since April 1997  
and on the 11.460 kHz I'm active since August 1998.  
Our freq. for the 76 meters is 3941 kHz,  
for the 48 meters is our freq. 6306 kHz but we're going to move to another freq. but we don't know where or when.  
In the future we're going back to the 6910 kHz.

# THE VOICE OF VIETNAM

38 Quan Su Street  
HANOI

Democratic Republic of Vietnam

via Jeff Molander

Date: Jan 15, 1976

## VERIFICATION

Thank you for your report of reception  
at 07.34 GMT on 9525 kHz  
on Nov. 23, 1975

All details check with our log

Regular reception reports with detailed remarks and suggestions on programming and technical matters are highly appreciated.

Enclosed are



**NEW ZEALAND: Radio**

**New Zealand International** 17675  
via **Rangitaki** f/d  
"Land of the Sheep  
and Men with Boots  
cd. in 17 ds. w/  
schedule and sticker.  
(Humenyk)...  
just kidding..Sam.

**NORWAY: Radio Denmark**

**mark** 17505 via  
**Svleo** f/d "There  
is a Lovely Land"  
cd. in 26 ds. w/  
schedule and sticker.  
v/s Erik Koie  
(Humenyk-ONT).

**OMAN: BBC** 15310 f/d

**NOTES:** **Paul Brouillette** says that his shortwave QSL reply rate is under 50%. (So is mine!) Stations don't seem to be so concerned about reports these days. Its not like it was 10 or 20 years ago. Paul says that his mediumwave QSL reply rate is actually much worse than the shortwave reply rate. I'm not too surprised...Sam.

ADVENTIST WORLD RADIO  
Dr. Adrian M. Peterson  
Co-Ordinator  
International Relations



AWR "Wavescan"  
DX Program

To: **MR HENRY WEISSBORN**

We are pleased to verify your reception of our station.

Date: **August 31 1986** Time: **0130 UTC**

Frequency: **9855** MHz **50KW** 31 meters

Transmitter location: **WRMI MIAMI FLORIDA**

AWR - Africa 18 PO Box 1751 Abidjan 18 Ivory Coast	AWR - Asia PO Box 7501 Agat, Guam 96928	AWR - Europe PO Box 383 47101 Forth Italy	AWR-Latin America PO Box 1177 4050 Alajuela Costa Rica
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ltr. in 6 wks. for \$1.00 (re turned). v/s David Plater. (Myers-VA).

**PERU: Radio Comas Television** 3250.8  
f/d prepared cd. w/ personal ltr  
and a station keychain in 85 ds.  
for a SP rpt. w/ tapes. v/s Gam-  
aniel Francisco Chahua, Producer  
y Programador AM, FM. I also sent  
\$1.00. (Klinck-NY).

**PHILIPPINES: VOA Tinang** 11715 f/d  
"Liberty Bell" cd. in 5 wks.  
(Barto-CT). 9760 f/d "Yosemite  
National Park" cd. in 1 mo (Barto)

**PORTUGAL: Radio Difusora Portugal**  
"Liberty Sarana. (Barto). 21655  
f/d "Oil Painting on Wood" cd. w/  
personal ltr. in 49 ds. (Humenyk).

**PUERTO RICO: APRTS** 6458.5 p/d E-mail reply in 1 mo. v/s Wayne Eternicka.

**ROMANIA: Radio Romania International** 7195 f/d "Poppies" (Comeau-MA).  
cd. w/ survey form and schedule in 128 ds. (Humenyk-ONT). 15390 personal  
ltr. w/ schedule in 17 languages in 101 ds. (Glotzbach-NM).

**RUSSIA: Radio Rossii** 13705 f/d "PTP" cd. in 17 mo. for \$1.00. (Myers-VA).  
**Voice of the Mediterranean** 7440 f/d "10th Anniversary" cd. in 14 ds.  
for 2 IRCs. Card stated "VOR Russia Transmitter". (Comeau-MA).

**SEYCHELLES: BBC Indian Ocean Relay**  
15420 f/d ltr. in  
45 ds. on Merlin  
letterhead. v/s  
Steve Gray, Resident  
Engineer.  
(Borokowski-NY).

**SINGAPORE: Radio Canada International** 15360 f/d  
cd. in 17 ds. A  
letter from Bill  
Westenhaver confirms  
what I suspected:  
3 of the 4 broadcasts  
listed in the  
April JOURNAL as  
via Singapore are

Dear Mr. Molander.....  
This is to verify your report dated March 18, 1988  
on our broadcast in English..... on  
the frequency of 9810... at 12.30... hrs GMT  
Thank you very much for your

detailed report. I found it very  
useful to our broadcast. Hope you  
write me again with more information.

*Amorn Samosornj*

(Amorn Samosornj)  
Chief, Radio Thailand, World Service



Radio Thailand, World Service  
236 Vibhavadi Rangsit Road  
Bangkok 10400, THAILAND



**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 additional 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 include an extra \$3.00 for overnight USPS delivery. Mail your order to your NASHA OSL Editor.



actually via Sines, only 15360 at 2300 is from Singapore. (Craig-head-KS).

**SLOVAKIA: Radio Slovakia International** 5930 f/d cd. in 54 ds. for 1 IRC. (Griffin-GA).

**SOUTH AFRICA: Channel Afr-**

ica 17870 f/d cd. w/ schedule and sticker in 29 ds. (Glotzbach-NM).

**SRI LANKA: Deutsche Welle** 9815 f/d "Transmission Tower" cd. in 94 ds. v/s Horst Scholz, Transmission Management. (Humenyk-ONT).

**SWEDEN: Radio Sweden** 15240 and 17505 f/d "Stockholm Historical Museum" cd. in 15 ds. w/ schedule. (Humenyk).

**SYRIA: Radio Damascus / Syrian Arab Republic Broadcasting Service** 13610 cd. w/ postcards and stickers in 420 ds. (Eramo-ARG). 12085 f/d cd. of "Globe and Tower" in 80 ds. w/ schedule, sticker and a copy of the Syrian Times newspaper. (Humenyk).

**TAHITI: RFO Polynesie Francaise** 15170 p/d cd. in 123 ds. for a taped rpt. and \$1.00. I also sent a Mark McGuire #62 home run newspaper clipping. (Stewart).

## LASER HOT HITS

BOX 233 MERLIN  
ONTARIO  
CANADA  
N0P 1W0

### QSL

via Sgrulletta

We thank you for your reception report for our transmission on

SUNDAY 9<sup>th</sup> MAY 1999  
ON 6220 KHz 3:35 - 4:30 UTC  
SINPO 14122  
POWER 100 WATTS

**TAIWAN: Radio Taipei International** 9610 f/d cd. w/ sticker and schedule in 36 ds. Also rcvd. report forms. (Stewart).

**THAILAND: VOA Udorn** 9645 f/d cd. of "Statue of Liberty" in 1 mo. (Barto-CT).

**TINIAN: VOA** 15240 f/d "Statue of Liberty" cd. in 65 ds. (Davis-NM).

**TURKEY: Voice of Turkey** 9445 via Emirler f/d "Young Lady in Local Costume" cd. w/ schedule, sticker and a cata-

log in 33 ds. (Humenyk-ONT).

**URUGUAY: Radio Oriental** 11735 f/d ltr. in 34 ds. after a f/up rpt. in SP \* w/ \$1.00. v/s Deborah Ibarra, Secretaria de Direccion. (Comeau-MA).

**USA: Voice of America** 6035 f/d "Liberty Bell" cd. in 84 ds. (Wright-NC).

**WHRI** 9495 f/d "Globe w/ Logo" cd. in 134 ds. w/ schedule and report forms. v/s James L. Holycross, Engineering. (Humenyk-ONT). **WSHB** 7535 f/d "The First Church of Christ, Scientist" cd. in 177 ds. for ms. v/s Cindy Biehm. I filled out one of their Do-It-Yourself QSL cards which they sent w/ their schedule and sent it to them. They filled out a

different card with the same data and returned it to me! Baffling? (Bro-uillette-IL). **WBCC** 7415 card in 22 ds. (Humenyk). **WWV** 10000 f/d "Arapahoe Chief" cd. in 19 ds. (Clément-GA). **KCJJ** 1630 p/d E-mail in 1 day for an E-mail rpt. v/s Tom Suter. (Sgrulletta-NY).

**USA (Pirates): WBIG** 6955 f/d "Pirate Map" sheet in 41 ds. for 3 ms. to the Belfast POB. (Comeau). **Blind Faith Radio** 6955 f/d "Blind Faith Album" sheet #46 in 21 ds. for an E-mail rpt. (Comeau).

# interferenze

UN PROGRAMMA DI RADIO ALLA RADIO

A RADIO PROGRAMME ABOUT THE RADIO

BY ANDREA & FEDERICA



TO J. SGRULLETTA  
DATE 21/10/98 TIME 23:30 UTC  
FREQUENCY 3000 KHZ - MODEL 303  
RELAY SERVICE



Radio Interferenze c/o  
Play Dx - Via Davanzali 8  
20158 Milano ITALY  
interferenze@hofmail.com

**CERW Crazy Elmo's Relay World** 6955 f/d E-mail reply in 17 ds. for a relay of **Scream of the Butterfly** in 5 ds. (Comeau). **WNRB Jams** 6955 f/d "Cat" sheet in 36 ds. for 3 ms. via the Lula, GA POB. (Wilkins-MO). **WLIS** 6955 f/d "9th Anniversary Design III" cd. # 1401 in 36 ds. for ACE FRW log. (Comeau-MA).

RADIO ESPERANZA, CE-609, Onda corta (SW) Banda de 49 m. en 6.090 KHz. de la ciudad de Temuco, en la República de Chile, certifica que  
 HA SINTONIZADO NUESTRA EMISORA, Radio Esperanza, el día **31 AGO. 1998** a las ..... (Hora local) ..... (Hora de Chile) y que su Informe de Sintonía es correcto y que se transmite el día y hora indicados.

RADIO ESPERANZA, de Temuco, Chile, le agradece su Informe de Sintonía y le saluda fraternalmente en Cristo.



**Indira Calling** 6954.9 f/d "Sitar" sheet in 42 ds. for 3 ms. via the Providence POB. v/s Vijay Nehru. (Comeau-MA). **KIPM** 6955.5 f/d multi-colored letter w/ decal in 20 ds. for 3 ms. via the Lula POB. (Wilkins MO). **KMART Radio** 6955 photocopy ltr. #19 in 3 wks. for an E-mail rpt. v/s Stone Cold. (Sgrulletta-NY).

**UZBEKISTAN: Radio Vlaanderen Internatio-**

**NOTES: Mark Humenyk** is looking for a complete address for the BBC World Service Relay Station on Ascension Island. The Canadian Post Office returned his first report stating that the address was incomplete...Mark, did you place South Atlantic on the address?...Sam. **Jerry Klinck** says the Building Inspector in East Aurora, NY charged him \$30.00 to erect a 30 foot mast with a few guy wires. I don't charge for this at all. I work with the building inspector in Thomaston, CT. I'm in charge of Zoning Board of Appeals, the Planning and Zoning Commission, the Inland Wetlands and Watercourses Commission and act as an aide to the First Selectman. I'm also on 4 Commissions at the regional level. I know what government can be like and it can be brutal....Sam.

**na1** 17685 via **Tashkent** f/d "Rabbit w/ Prunes" cd. in 2 mo. (Craighead). 17690 same cd. in 6 wks. w/ schedule and info.

from the station, (Barto-CT).

**VATICAN: Radio Vatican** 21850, 11740 and 15595 f/d "Antenna Site" cd. in 1 1/2 mo. w/ schedule. (Barto). 15595, 9645 and 7250 f/d "Earth Station Satelite" cd. in 1 mo. w/ schedule. (Barto-CT).

**VENEZUELA: Ecos Del Torbes** 4980 f/d "Map" cd. for a SP rpt. (Humenyk).

**ZAMBIA: ZNBC** 6265 f/d cd. in 5 wks. after a f/up rpt. and 2 IRCs. I sent the rpt. registered. v/s Patrick Nkula. (Myers-VA).

**PS NOTES:** Jerry I forgot to mention that I am also Zoning and Wetlands Enforcement Officer for the community. Do you need any assistance?.....Sam.

Good QSL Column this time around. See you next in October...

*Sam*

Dear Mr. Jeff A. Malander

Thank you for your report.

Confirming our transmission JJJ on 8 MHz

Day	Month	Year	UTC
29th	Dec.	1998	1458-1510

Remarks: Reception site: Elk Grove CA USA

Standard-Frequency and Time-Signal Station JJJ

Frequency and Time Standards Section  
Standards and Measurements Division  
Communications Research Laboratory  
Ministry of Posts and Telecommunications  
2-1, Nukui-Kitamachi 4-chome,  
Koganei-shi, Tokyo Japan  
184-8795



**ZIMBABWE BROADCASTING CORPORATION**



TO  
NAME  
TELEPHONE NO.  
ADDRESS  
CITY  
COUNTRY  
QSL

YOUR QSL CONFIRMED  
DATE 10 OCTOBER 1998  
FREQ 2200 kHz  
SERVICE RADIO 4  
SIGNED Sam

Tomas Hood, NW7US, has an extensive amateur radio Web site. Why should this be of interest to listeners? There is a section on propagation — lots of information — and a unique capability to have updated WWV announcements e-mailed to you every 3 hours. Hood sends them to his pager. And the site also features eqi-azi maps generated by your input. Should you choose the long form you can add major cities, grayline at a date and time you specify, and more. It really is quite something. Dial up <http://www.hfradio.org/> and tell him W2XQ sent you.

Many listeners know of Joseph Ahlgen's excellent GeoClock (<http://www.clark.net/pub/bblake/geoclock/>) grayline and time program, but we found another small sun clock program that may be useful. This one is a small relief map — showing day and night. Look for "Windows Sun Clock" near the bottom of the page at <http://www.geocities.com/SiliconValley/Horizon/2691/files.htm>.

If you have attended the Winter SWL Festival in 1998 or 1999, you met DJ Stevie of Radio 510 International, Switzerland. He just told us that his programming will be airing on WBCQ starting this month. It will certainly make Radio 510 International easier to hear in North America. No other details are available as The Journal goes to press. Check out <http://www.radio510.org/> and WBCQ's Web site at <http://theplanet.wbcq.net/> for

air times.

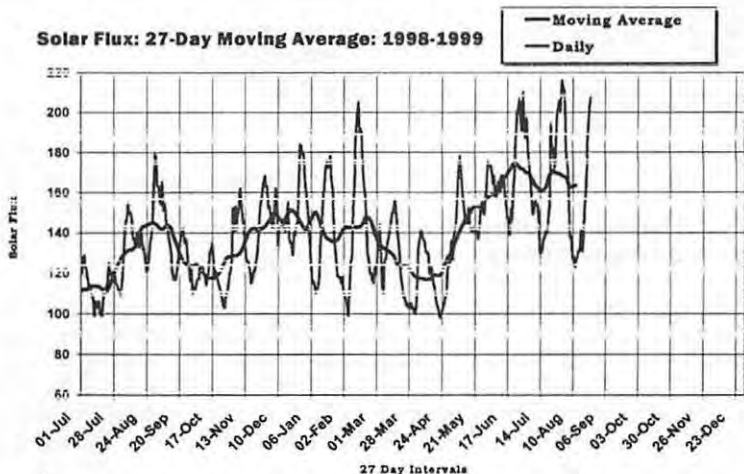
## Solar Images

You would have to be on another planet not have seen print, video and Web-based media coverage of the last solar eclipse of this century. On August 11, there was live video coverage on the BBC Web site, re-broadcasting BBC TV, as the shadow left the North Atlantic, passed over Europe and the Middle East, and ended in the Bay of Bengal.

We explored numerous links on a number of solar eclipse Web sites, and that led us to the Discovery cable channel Web site. Discovery has a link to three solar images: ultra-violet and doppler images of the sun, and a coronameter view. This is a solar eclipse, all the time, using a circle to block the sun so as to view the corona. The doppler image is a conventional picture of the sun, and sunspots are clearly visible. The pictures are updated twice a day. The images are at <http://www.discovery.com/cams/sun/sun.html>.

Compare the doppler image on the Discovery page with the near-real-time, one-minute cadence H-alpha monochrome images from the U.S. National Solar Observatory at Sacramento Peak, New Mexico. The H-alpha image clearly shows the disturbances spread beyond the black sunspots themselves. Look at <http://vtt.sunspot.noao.edu/sunpic.html>, then backtrack to the observatory's home page and visit the links to other images. Interesting stuff, indeed!

Solar Flux: 27-Day Moving Average: 1996-1999



# 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 sent in contributions:

Bill BERGADANO, East Freehold, NJ	TS430S 170' inverted MFJ Versa Tuner II
Gerry BISHOP, Niceville, FL	
Gene BOROWSKI, Staten Island, NY	
Ralph BRANDI, Tinton Falls, NJ	R8 PR150 Dressler ARA60
Ross COMEAU, Andover, MA	R8 325' LW
Norm CONSTANTI, Rosebud, MO	
Peter COSTELLO, Matawan, NJ	AR3030 DX-390 YB400 70' LW Tun-4A
Nicolas ERAMO, Buenos Aires, ARGENTINA	Sony 2010 ICF-7600 7600G LW's
Marlin FIELD, Hillsdale, MI	
John FIGLIOZZI, Clifton Park, NY	HF-150 w/ whip YB-400 w/ reel antenna
Jeff FINDLATER, Los Angeles, CA	
Andre FREDETTE, Oakville, ONTARIO	NRD-535D R8B G5RV
George GLOTZBACH, Santa Fe, NM	Grundig G-2000A 23' LW
Hugh O. GRIFFIN, Jr., Portsmouth, VA	
Mark HUMENYK, Weston ONTARIO	Magnavox D-2935 AN-60 DX-SWL sloper
Ed KRUCENSKI, Panama City, FL	Sony 2010 AN-LP1 antenna
Jerry LINEBACK, Scranton, KS	Icom 746 beverage antennas
Jack LINOIS, West Middlesex, PA	DX-375 DX160A NCX-20 65' LW Sloper
William McGUIRE, Cheverly, MD	DX-380
Gary NEAL, Sugarland, TX	Grundig YB-400
Don NELSON, Beaverton, OR	HF1000A NRD-545 Collons 2050 R7A 70' LW
Jay NOVELLO, Wake Forrest, NC	R8A LW's
Takayuki Inoue NOZAKI, Tokyo, JAPAN	NRD515 NRD535 FRG7000
Denis PASQUALE, New Brighton, PA	Sony 2010 beverage antennas
Sheryl PASZKIEWICZ, Manitowoc, WI	R8 NRD-525 60' LW Eavesdropper
Steve PONDER, Houston, TX	Panasonic RF-3100 Grove TUN-3
Stephen PRICE, Johnstown, PA	
Bob RAYMOND, Nashua, NH	DX-398 20m 5/8 wave vertical
Chuck RIPPEL, Cornland, VA	WJ-HF1000A R8B R390A/SE-3 51S-1 LW's
Betsy ROBINSON, Clinton, TN	Sony 2010 Indoor antenna
Giovanni SERRA, Rome, ITALY	NRD-525 AD Sloper
Bill SMITH, Mineola, TX	
Randy STEWART, Springfield, MO	FRG-100 w/Collins filters
Fred TRESCHER, Philadelphia, PA	Sony 2010 FRG-7700
Gerald WITHAM, Keauau, HI	R8 ANC-4 135' LW
Bobby WRIGHT, Mount Airy, NC	DX392 LW

Several of our contributor's sent in loggings made while on summer holidays. John Figliozzi's logs were made while on a vacation to Cape Cod. Giovanni Serra's loggings during July were made while he was on vacation in Corsica using a SONY ICF-2001 and telescopic plus long wire antennas. He said that notwithstanding the large volume of loggings he sent in, he did spend a lot of time on the beautiful beaches of Corsica. What a life!

George Glotzbach writes that he has just returned Europe where he cycled from Berlin to Prague. He spent quite a bit of time Dxing there and heard more than twenty new stations. He has a few questions that perhaps our members can help him with. He needs an address for "Overcomer Ministries", and an ID and address for "Radio Travella" broadcasting on 9.745 at 0615 UTC. He also wonders if "Radio Neighbor in Need" on 5.945 at 1920 UTC is relayed via Radio Austria International. If anyone has an answer to the above send them to me and I'll forward them on to George.




# Tropical Band Loggings

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

- 2310 AUSTRALIA *Caama R* 8/5 1114 EG pgm //others (Line-KS)  
 2325 AUSTRALIA *Caama R* 8/5 1114 EG pgm (Line-KS)  
 2485 AUSTRALIA *Caama R* 8/5 1114 EG pgm (Line-KS) 7/2 1125 nature discuss, nx, rock mx (Nels-OR)  
 \*2960 INDO *RPDT Manggari* 7/2 1047 ment Manggari, ID, nx (Nels-OR)  
 3205 NEW GUINEA *R Sundaun* 8/6 1045 lang tlk (Line-KS) 7/2 0914 YL in Pidgin, Ids, C&W, pop mx (Nels-OR)  
 3220 NEW GUINEA *R Morobe* 8/6 1049 lang tlk mix w/HCB (Line-KS) 7/2 0959 ID, conch shell, drums, nx (Nels-OR)  
 3235 NEW BRITAIN *RWNB* 8/6 1051 lang tlk (Line-KS)  
 3245 NEW GUINEA *R Gulf* 8/6 1052 woman in lang (Line-KS) 7/2 0900 pop Mx, ID (Nels-OR)  
 3250.8 PERU *R Comas* 8/6 1055 SP tlk, mx (Line-KS)  
 3255 S AFRICA *BBC* 7/5 0453 usual BBC pgms (Nels-OR)  
 3260 NEW GUINEA *R Madang* 8/6 1056 lang tlk (Line-KS) 7/2 0949 rel pgm, ID (Nels-OR)  
 3265 SULAWESI *Gorontalo* 8/6 1057 instl, SCI, TP, nx (Line-KS)  
 3275 PAPUA *R S Highlands* 8/6 1058 local mx (Line-KS)  
 3280 ECUADOR *LV del Napo* 8/6 1058 SP tlk, mx (Line-KS)  
 3315 ADM ISL *R Manus* 8/6 1059 bagpipe (Line-KS) 7/29 1116 student instl pgm, mx, NA, birds (Nels-OR)  
 3320 S AFRICA *R Sonder Grense* 7/5 0451 AK pgm (Nels-OR)  
 3335 NEW GUINEA *R E Sepik* 8/6 1102 nx in lang (Line-KS) 7/2 1037 PD ID (Nels-OR)  
 3345 MOLUCCAS *Ternate* 8/6 1104 IN nx, SCI (Line-KS)  
 3356 BOTSWANA *R Botswana* 7/2 0443 Afr mx, ID //4820 (Nels-OR)  
 3358.5 BOTSWANA *R Botswana* 7/26 0306 EG anmts, mx (Line-KS)  
 3365 NEW GUINEA *R Milne Bay* 7/2 0844 pop mx, ID (Nels-OR)  
 3365.1 BRAZIL *R Cultura* 7/25 0834 mx, TC, ID (Eram-ARG)  
 3366 GHANA *GBC* 8/5 2358 "good night," ID, chorus (Bran-NJ) 7/23 2258 EG nx, mx, TC, IDs (Nels-OR)  
 3375 NEW GUINEA *RW Highlands* 8/6 1105 lang nx (Line-KS) 8/8 1150 US pop mx, ID to 1202\* (Nels-OR)  
 3385 SUNDAS *Kupang* 8/6 1106 nx, SCI, chime IS, TP, nx (Line-KS)  
 3395 NEW GUINEA *R E Highlands* 8/6 1107 local mx, lang tlk (Line-KS)  
 3810 ECUADOR *HD2IOA* 8/5 1058 fair w/time sigs (Line-KS)  
 3880 CHINA *unid* 8/7 1114 CH tlk (Line-KS)  
 3905 IRIAN JAYA *Merauke* 7/16 1159 SCI (Line-KS) 8/8 1216 Ids, nx (Nels-OR)  
 3905 NEW IRELAND *R New Ireland* 8/7 1111 local mx (Line-KS) 8/3 1135 pop mx to 1204\* (Nels-OR)  
 3912 S KOREA *Vo People* 8/7 1109 KR tlk (Line-KS)  
 3945 VANUATU *R Vanuatu* 7/2 0707 orch, pop mx, IDs (Nels-OR)  
 3976 KALIMANTAN *Pontianak* 8/7 1159 SCI (Line-KS) 8/8 1217 IN mx, Orch mx, SCI, ID (Nels-OR)

- 4000.2 **SULAWESI** *Kendari* 8/7 1144 instl (Line-KS)  
 4606 **IRIAN JAYA** *Serui* 8/7 1159 SCI (Line-KS) 8/3 1132 IN pgm, SCI & ID (Nels-OR)  
 4753.3 **SULAWESI** *Ujung Pandang* 8/7 1143 IN vocals (Line-KS) 8/8 1220 IN pops, ID (Nels-OR)  
 4770 **ECUADOR** *Centinela del Sur* 0145 SP Andean mx (Lino-PA)  
 4770 **NIGERIA** *R Nigeria* 7/12 1900 lang instl mx & tlk (Serr-FR) 0510 EG/lang ment Nigeria (Lino-PA)  
 4775 **SWAZILAND** *TWR* 7/15 0406 chants, rel tlk, mx (Serr-FR) 7/2 0513 EG rel pgm (Nels-OR)  
 4785 **BRAZIL** *R Caiari* 7/25 1022 mx, cmtry, ID (Eram-ARG)  
 4789 **IRIAN JAYA** *Fak-Fak* 8/7 1142 female IN vocals (Line-KS)  
 4800 **GUATEMALA** *R Buenas Nuevas* 0215 SP, ID, rapid fire tlk (Lino-PA)  
 4800 **LESOTHO** *R Lesotho* 7/19 0310 lang cmtry, ment Lesotho (Eram) 7/5 0409 mx pgm, IDs (Nels-OR)  
 4800.6 **MEXICO** *XERTA* 8/11 \*2358 full ID, tlk, mx (Smit-TX)  
 4810 **ARMENIA** *Vo Armenia* 7/14 1848 FR tlk, chant, IS, IDs (Serr-FR)  
 4815 **BURKINA FASO** *R Burkina* 7/5 0539 Afr vcls, FR DJ (Nels-OR)  
 4820 **BOTSWANA** *R Botswana* 7/18 0358 pop songs, anmts (Serr-FR)  
 4820 **HONDURAS** *HRVC* 8/2 0140 SP cmtry, mx (Tres-PA)  
 4824.4 **PERU** *LV de la Selva* 7/17 1005 mx pgm, nx (TIN-JP)  
 4830 **HONDURAS** *R Litoral* 0000 SP poss rel pgm (Lino-PA)  
 4830 **VENEZUELA** *R Tachira* 7/23 0322 tlk, ID, pgm preview (Serr-FR) 8/9 0957 NA, Ids, nx (Berg-NJ)  
 4832 **COSTA RICA** *R Reloj* 8/2 0140 Latin mx (Tres-PA)  
 4835 **GUATEMALA** *R Tezulutlan* 7/18 0224 marimbas, long tlk (Serr-FR)  
 4835 **MALIRTM** 7/15 2104 anmts, percussion (Serr-FR) 7/5 0559 ID, mx //5995 (Nels-OR)  
 4835 **UNID SITE** *VOA* 7/23 EG/RO ID, Yankee Doodle (Serr-FR)  
 4840 **PERU** *R Andahuaylas* 7/25 1004 Quechua/SP mx, TC, ID (Eram-ARG)  
 4845 **MOLUCCAS** *Ambon* 7/12 1052 tlk, bell IS, nx (Line-KS)  
 4850 **CAMEROON** *Yaounde* 7/12 1907 FR nx, mx (Serr-FR)  
 4855v **MAURITANIA** *ORTM* 0630 Koran, nx (Lino-PA)  
 4860 **INDIA** *AIR* 7/14 1906 Indian vcls, anmts (Serr-FR)  
 4875 **IRIAN JAYA** *Sorong* 7/18 1122 IN pops (Line-KS)  
 4890 **GABON** *RFI* 7/22 0400 FR ment freq, nx, anmts (Serr-FR)  
 4890 **PAPUA** *NBC* 8/7 1130 EG pops, PSAs (Line-KS) 8/6 1037 pop mx (Figl-MA) 1140 EG/lang BBC nx (Lino-PA)  
 4890 **PERU** *R Chota* 7/24 0130 high Andean guitars & OM vcls, professional sounding nxcast, IDs (Nove-NC)  
 4910 **AUSTRALIA** *Caama* *R* 7/2 0818 //4835 mx, bird calls (Nels-OR)  
 4914.4 **PERU** *R Cora* 7/26 1028 nx flash (TIN-JP) 7/31 1045 SP nx TC, ID (Eram-ARG)  
 4915 **BRAZIL** *unid* 7/13 0129 tlk, mx, ment Brazil (Serr-FR)  
 4915 **GHANA** *GBC* 7/15 tlk, chants, ID in EG (Serr-FR) 8/1 0603 EG nx, ID (Eram-ARG) 0610 EG nx, Afr pop mx (Lino-PA)  
 4920 **ECUADOR** *R Quito* 7/19 0145 SP cmtry (Tres-PA)  
 4925 **SUMATRA** *Jambi* 8/5 1110 Koran reading, SCI (Line-KS) 8/8 1258 SCI, ID (Nels-OR)  
 4939.6 **VENEZUELA** *R Amazonas* 8/8 0325 bouncy ballads, ID (Berg-NJ)  
 4940 **CHINA** *Vo Strait* 8/6 1147 CH europop, tlk (Line-KS)  
 4955 **COLOMBIA** *R Nacional* 7/18 0351 SP anmts, Ids, mx (Serr-FR) 8/2 0145 SP cmtry (Tres-PA)  
 4976 **UGANDA** *R Uganda* 7/12 1919 EG tlk (Serr-FR)

- 4980 **VENEZUELA** *Ecos del Torbes* 7/19 0140 SP Latin mx (Tres-PA)  
 4985 **BRAZIL** *R Brasil Central* 0000 nx, mx, poss sports rpt (Lino-PA)  
 4991.9 **PERU** *R Ancash* 8/3 0359\* mx, NA (Ripp-VA)  
 4995.6 **PERU** *R Andina* 7/26 1025 nice huaynos (TIN-JP)  
 5000 **VENEZUELA** *YVTO* 7/12 0146 time sigs (Nels-OR)  
 5003.9 **RIO MUNI** *R Nacional* 8/1 0535 SP ID, mx pgm, FC (Eram-ARG)  
 5015.2 **BRAZIL** *R Cultura* 8/1 0653 mx, TC, ID (Eram-ARG)  
 5020 **SOL ISL** *SIBC* 8/7 1102 EG nx (Line-KS) 8/6 1045 lang tlk (Figl-MA)  
 5025 **PERU** *R Quillabamba* 7/17 1007 folklore, comunicados, ID (TIN-JP)  
 5025 **UNID** 7/13 0140 soccer, Cuba or Peru? (Serr-FR)  
 5026.3 **UGANDA** *R Uganda* 7/31 0333 lang nx, cmtry, ID (Eram-ARG)  
 5030 **COSTA RICA** *AWR* 7/5 0435 rel pgm, ID (Nels-OR)  
 5040 **SUMATRA** *Pekanbaru* 8/8 1250 SCI, ID, mx (Nels-OR)  
 5047 **TOGO** *Lome* 7/12 1924 romantic songs (Serr-FR) 8/8 2331 EZL (Berg-NJ) 7/5 0507 long tlk in FR, ID (Nels-OR)  
 5050 **CHINA** *Vo Strait* 7/15 2114 talk, ment Taiwan (Serr-FR)  
 5050.2 **TANZANIA** *R Tanzania* 7/31 0342 lang cmtry, ID (Eram-ARG)  
 5055 **COSTA RICA** *Faro del Caribe* 8/2 0415 SP cmtry (Tres-PA)  
 5055 **FR GUIANA** *RFO* 8/4 0350 FR tlk, US pops (Ripp-VA)  
 5060 **UZBEKISTAN** *R Tashkent* 7/17 2006 GM //5035. W tlk, mx (Serr-FR)  
 5070 **USA** *WWCR* 7/18 0339 ads, mx, tlk (Serr-FR)  
 5076 **COLOMBIA** *Caracol* 7/13 0153 tlk, ads, jingle, ID (Serr-FR)  
 5085 **USA** *WGTG* 7/18 0240 sermon, songs (Serr-FR)

Many thanks to all contributors. Don Nelson, you sent some nice program details with your logs. 

### Welcome to the following new NASWA members

Bill Andrade, San Luis Obispo, CA	Rich McHale, Upper Darby, PA
Rick Blair, Ontario, OR	H Miller, Albany, OR
Richard Cooper, Waterbury, CT	Mel Mosgrove, Santa Clarita, CA
Robert Dyer, Grand Junction, CO	Alfredo Ravelo, Paterson, NJ
Andre Fredette, Oakville, Ontario CANADA	Wayne F. Stack, Chesterfield, VA
Charles Huck, Warrenville, IL	Jim Wilson, Worcester, MA
Jack Linonis, West Middlesex, PA	Steven R. Woosley, Coos Bay, OR

**FOR SALE:** Lowe HF-150 receiver, Lowe preselector PR-150, the Lowe audio processor AP-150 complete with key pad, Lowe antenna rod, and two 12-volt power supplies. All in excellent condition except for a small problem with the S-meter on the audio processor either not working properly or in need of calibration. Price \$700.00 or best offer. Please call Donna Ring evenings at (410) 319-7416 or e-mail <ring99@worldnet.att.net>.

**WANTED:** "Passport to World Band Radio", 1993 edition. Dennis Tackett, 1452 Countryside Drive, Indianapolis, IN 46231. Phone (317) 484-2585.

# International Band Loggings

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

- 59247 VIETNAM *Hanoi 1* in VT 1214, cmntry by YL and OM, exc, //9875 (Nelson OR 7/29)
- 5945nf CROATIA *Hrvatski Radio* in EG 0606, nx, wx rpt, ID, mx, //7365, 9830, f (Serra CORSICA 7/23)
- 5955 SOUTH AFRICA *Chan Africa* in EG 0419, African nx, ID's, into PT 0430, p (Serra CORSICA 7/22)
- 6010 MEXICO *R Mil* in SP 0940, continuous play of CD mx, ID at 0957, f (Bergadano NJ 8/8)
- 6010 test SRILANKA *VOA* relay test xmsn 2358, snatches of IS under R Mil? (Brandt NJ 7/16)
- 6015nf SOUTH AFRICA *Adven World R* relay in EG 0329\*, tlk on economy, QTH, ID's, IS, f-p (Serra 7/18)
- 6035 SAO TOME *VOA* relay in EG 2146, discussion re Chinese money, //11975, f (Humenyk ONT 7/11)
- 61151 PERU *R Union* Lima in SP 0715, SP musical pgm (huaynos), ID, g (Eramo ARGENTINA 7/18)
- 6130 CANADA *CHNX* Halifax in EG 1109, MW relay, pgm of oldies, exc for 1/2 kw (Bergadano NJ 8/8)
- 6135 BOLIVIA *R Santa Cruz* in SP0744, DJ with SP musical pgm, ID, g (Eramo ARGENTINA 7/18)
- 6145 NEW ZEALAND *RNZI* in EG 1652, IS, ID, unclear tlk under strong splats, p (Serra CORSICA 7/22)
- 6155 BOLIVIA *R Fides* La Paz in SP 0245, SP musical pgm, call-in pgm, TC, ID, f (Eramo 7/25)
- 6155nf UNITED KINGDOM *R Telefis Eireann* relay Rampisham in EG 0140, political nx, sports rpts, traffic info, tire commercial, g (McGuire MD 8/11)
- 6185 MEXICO *R Educacion* in SP 0757, musical pgm with 2 announcers, ID, TC, g (Eramo 7/18)
- 6280nf LEBANON *Voice of Hope* in AR 0301, local mx & AR vocals, //11530 (Costello NJ 8/10)
- 6520 NORTH KOREA *R Pyongyang* in EG 1909, lcl nx, ID, lyric song, //9975 (Serra CORSICA 7/22)
- 7145 UNITED KINGDOM *BBC* Skelton in EG \*0600, IS, ID, world nx, ment Iran, p (McGuire MD 7/21)
- 7160 ALBANIA *R Tirana* in EG 0145, US Defense Sec'y to meet Albanian counterpart (Pasquale PA 7/11)
- 7210 MOROCCO *VOA* relay in Serbian 0355, ID, rpt on Yugoslavia & Kosovo, f (McGuire MD 7/29)
- 7230 ITALY *Adven World R* relay Forli in EG 0932, relig tlk, mail, ID, f-p (Serra CORSICA 7/23)
- 7250 RUSSIA *V of Vietnam* relay in EG 0100, nx, historical review of Indochina & Korean problems, tlk on trade unions, alleviating poverty, China loan to Cambodia (Fredette ONT 7/21, Field MI, Linois PA)
- 7255 NIGERIA *V of Nigeria* in EG 0455, tlking drums & horn IS, ID's, NA, nx, p (Witham HI 7/20)
- 7300 SLOVAKIA *R Slovakia* in EG 0100, rpt on refugees, tlk re Kosovo (Pasquale PA, Linois PA 7/28)
- 7375 BOTSWANA *VOA* relay in EG 2146, discussion abt Chinese money, //7415, g (Humenyk ONT 7/11)
- 9330 PAKISTAN *R Pakistan* in RS 1515, tlk, mx breaks, vocal chants, //7260, f (Serra CORSICA 7/18)
- 9410 CYPRUS *BBC* relay in EG 0225, rpt on solar total eclipse, financial nx, g (McGuire MD 7/29)
- 9435 ISRAEL *Kol Israel* in EG 0400, ID, political nx, ment of Barak, wx forecast, g (McGuire MD 7/21)
- 9470nf NORWAY *RNI* in NO 0300, nx rpts, tlks, into relay of R Denmark in DN 0330, f (Findlater CA 7/26)
- 9470nf GERMANY *Hrvatska R* (Croatia) relay via Julich in EG \*0500, ID, nx re murder of Serb farmers in Kosovo, anti-Milosevic protests, into Croatian lang 0515, f (Findlater CA 7/25)
- 9500 SWAZILAND *Trans World R* relay in EG 0522, relig tlks, ID's, Web site, p (Serra CORSICA 7/23)
- 9515 CANADA *BBC* relay Sackville in EG 1504, Wimbledon tennis finals live, //15220 (Humenyk ONT)
- 9525 INDONESIA *V of Indonesia* in JP 1130, fantastic mx, ID, nx, cmntry (Eramo ARG, Bergadano NJ)
- 9535 CHINA *China R Int* in EG 2040, tlk abt environment, ID, f, // 6950, 9440 (Serra CORSICA 7/21)
- 9560 HUNGARY *R Budapest* in EG 0100, "Hungary Today", wx rpt, feature on various mineral baths in Hungary, ID's in several languages (Fredette ONT 7/15, Pasquale PA 7/24, Humenyk ONT 7/13)
- 9580 GABON *Africa #1* in FR 2200-2319\*, ID, African nx and pop mx (Findlater CA, Trescher PA 7/19)
- 9585 MOROCCO *VOA* relay in Serbian 0540, ments of Serbia, Kosovo, NATO, ID, g (Witham HI 7/26)
- 9590nf ALBANIA *Trans World R* relay in Belarus 1805, vocal rx and choral mx, //11635, p (Witham HI 7/5)
- 9605 VATICAN STATE *Vatican R* in EG 0300, ID, relig tlks, rpt on children (McGuire MD, Trescher PA)
- 9645 COSTA RICA *Faro del Caribe* in SP 1001, ID, NA, //5055 much stronger (Bergadano NJ 8/9)
- 9655 AUSTRIA *RAI* Vienna in EG 0033, nx, ID in 4 langs, classical mx (Fredette ONT, Humenyk ONT)
- 9675 ITALY *RAI* Rome in EG 0056, nx re Govt trying to avoid air traffic strikes, g (Fredette ONT 7/11)

- 9737 **PARAGUAY R Nacional** in SP 0110, political speech, L Am mx (Linoia PA 8/1, Bergadano NJ 8/9)
- 9735 **GERMANY Deut Welle Wertachtel** in GM 0520, national & regional nx, ID, g (McGuire MD 7/22)
- 9765nf **COSTA RICA R Ext España** relay in SP 0100\*, tk, ID, fqys, sked, g, //15170 (Witham HI 7/17)
- 9790nf **SPAIN R Ext España** in SP 0635-0655\*, varied mx including bagpipes, ID, g, //17665 (Witham HI 7/16)
- 9840 **VIETNAM V of Vietnam** in EG 1010, mx, ID, rpt on violence in Indonesia, p (Bergadano NJ 8/9)
- 9875 **VIETNAM Hanoi I** in VT 1214, YL and OM cmntry, exc, //59247 ED: Presumably this is the same station I reported in February as being a relay from Petropavlovsk, Russia (per Kligenfuss Frequency Guide). The signal strength on my stingy S-meter was above S-9, i.e. like a local - not a likely output direct from Hanoi)
- 9925 **GERMANY Croatian R** relay Julich in EG 0200, story on mx festivals in Croatia (Pasquale PA 7/11)
- 11530 **LEBANON V of Hope** in EG 1645, relig sermon, ID, Mideast mx, f (Serra CORSICA 7/18) Mideast mx and ID at 0040 (Nelson OR 7/20) Mideast mx at 2230, f (Figliozzi, NY but on Cape Cod 8/5)
- 11570 **PAKISTAN R Pakistan** in Urdu 1705, monologue, prayers, g, //15335 (Witham HI 7/17)
- 11635 **PHILIPPINES FEBC** in EG 0934, nx, into magazine pgm talking abt chocolates (Bergadano NJ 8/9)
- 11640 **SEYCHELLES FEBA** in Persian? 0320, vocals w/organ background, tk over flute, IS (Witham HI 7/20)
- 11650nf **AUSTRALIA R Australia** in EG 1432, interview by two OM's, bridge mx, //9580 (Humenyk ONT 7/4)
- 11655nf **TURKEY V of Turkey** Ankara in EG 0335, rpt on relations with Syria in WW I, p (Witham HI 7/20)
- 11675 **CHINA China R Int** Kunming in EG 1358\*, s/off 1200-1400 xmsn w/fqy quotes, g (Treibel WA 8/3)
- 11675 **KUWAIT R Kuwait** in AR 0215-0230, Holy Koran prayers, exc signal (Linoia PA)
- 11690 **CHILE R Voz Cristiana** Santiago in SP 0800, relig pgm, //11745, f (Nozaki JAPAN 7/17)
- 11695nf **SEYCHELLES FEBA** in Azeri/Farsi 1524, relig sermon, QTH ancmt in EG, piano mx, into pgm in Farsi language, ID, IS, f-p (Serra CORSICA 7/18)
- 11700 **BULGARIA RB** in EG 0200, tk re BG constitution (Linoia PA) in EG 2300, nx (Trescher PA 7/19)
- 11715 **ALGERIA R Algiers Int** in EG 2007, nx, mx breaks, ID, QRM splash (Serra CORSICA 7/21)
- 11720 **SOUTH AFRICA Channel Africa** in EG \*0500, ID, nx re African countries, rpt on a lawsuit against a Nigerian politician, sports nx, "Deadline Africa" (Findlater CA 8/1, Witham HI 7/20, Serra 7/19)
- 11730nf? **ECUADOR HCJB** Quito in EG 0705, nx, ID, Mission Network News, DX pgm (Witham HI 7/16)
- 11730 **SAUDI ARABIA BSKSA** in AR 0220, AR mx, into Koran service, ID 0230 (Linoia PA 8/1)
- 11730nf? **CHINA China R Int** in EG 1013, end of nx, "People in the Know", f (Bergadano NJ 8/9)
- 117841 **BRAZIL R Guaiba** in PT 0220, soccer match with frenetic commentator, g (Witham HI 7/9)
- 11880 **AUSTRALIA R Australia** in EG/VT 1253, lesson in Vietnamese, g (Figliozzi CAPE COD 8/7)
- 11885 **SEYCHELLES FEBA** in SH 1618, relig choral chant, tk, ID, QRM, f-p (Serra CORSICA 7/22)
- 11900 **SOUTH AFRICA Channel Africa** in SH 1625, phone tk, ID, into FR 1630, exc (Witham HI 7/10)
- 11930nf **GUAM Adventist World R** in Hindi 1510, IS, ID in EG 1529 with QTH in Hong Kong, into half hour of pgming in EG at 1530, signal strong enough to bury R Marti underneath (Treibel WA 8/5)
- 11935 **CHINA CPBS Taiwan See** in CH 1248, pgm sounded like actuality rpts, f (Figliozzi CAPE COD 8/7)
- 11960 **PORTUGAL RDP** in PT 0510, regional pop mx, phone interview, //15140, 15585 (Witham HI 7/20)
- 12015 **MONGOLIA V of Mongolia** in EG 1159, IS, ID prior to commencing EG xmsn (Brandt NJ 6/30)
- 120198v **VIETNAM V of Vietnam** Hanoi in EG 1231, nx, ID 1235, f, polar flutter (Figliozzi CAPE COD 8/7)
- 12040 **PHILIPPINES VOA** relay Tinang in CH 1228 under heavy jamming & polar flutter (Figliozzi 8/7)
- 12055nf **NORWAY R Denmark** relay in DN 0550, lks re Kennedy tragedy & Kosovom f (Witham HI 7/20)
- 12075 **RUSSIA R France Int** relay Novosibirsk in CH 1224, tk by YL, brief mx, flourishes (Figliozzi 8/7)
- 12180 **USA WGTG McCaysville GA** initial test pgm in EG 2330, owner making his case for Single Sideband as WGTG policy, mostly infomercial re station's operation (Costello NJ 8/2) Tnx to Mark Fine for tip.
- 13610 **SYRIA R Damascus** in FR 1915, DJ with pops pgm, nx in EG 2015, ID, chants, f (Findlater CA 7/30)
- 13625nf **INDIA AIR** in EG 0007, nx, ID as "Overseas Service of All India Radio", film mx (Brandt NJ 8/6)
- 13659nf **CHINA China Nat R** in EG 1900, ID, "News and Views", sports data, into CH, g (Findlater CA 7/25)
- 13685 **FRENCH GUIANA China R Int** relay in SP \*0200, IS, ID, national nx, g (McGuire MD 7/29)
- 13720 **IRAN VOIRI** Teheran in IT 1930, fqys, TC, ID, regional nx, cmntry, f, //11660 (Serra CORSICA 7/22)
- 13755nf? **CANADA RCI** in EG 0510, national nx, ID, "First Edition" pgm, g (McGuire MD 7/22)
- 13790nf **PORTUGAL Deut Welle** relay in AR 1337, discussion, cmntry re DX pgm, f (Humenyk ONT 7/4)
- 13820 **GERMANY Croatian R** relay Julich in EG/CR 0701, lcl nx, skeds, IS, ID, nx in CR (Serra 7/23)
- 13820 **NO MARIANAS KHBI** Saipan in EG 1820, relig sermon, ancmts, Bible lesson, f (Serra 7/14)
- 15105 **NETHERLANDS ANTILLES Deut Welle** relay Bonaire in EG \*0300, IS, ID, report on IMF loan to Russia, g (McGuire MD 7/29)

- 151504nf **IRAN IRIB** in EG 1610, nx, rpt on propaganda in US film industry, abrupt s/off 1625, f (Witham 7/17)
- 15180 **ROMANIA RRI** Bucharest in Persian? 2020, mx, tlks, ID, s/off 2025, p, //17720 (Witham HI 7/16) in EG 2104, nx abt peace in Ireland, Pakistan, //11840, g (Humenyk ONT 7/4)
- 15195 **JAPAN R Canada Int** relay Tokyo in FR 1234, ment Ottawa, Montreal, //9680 not hrd (Humenyk 7/4)
- 15200 **INDIA AIR** Aligarh in EG 1809, nx, ID, cmntry, vcl chant, f, //7410, 9635, 9950, 11620 (Serra 7/20)
- 15205 **PHILIPPINES VOA** relay in IN \*2200, ID, nx, ments Iran, Katami, Kennedy, f (Findlater CA 7/23)
- 15215 **SOUTH AFRICA Chan Africa** in EG 0557, IS, ID's, drum, pips, nx, "Deadline Africa", f (Serra 7/19)
- 15220 **ASCENSION ISLAND R Japan** relay in JP 2215, national & regional nx, ID, mention of Tokyo, China, and Taiwan (McGuire MD 7/20, Findlater CA 8/5)
- 15250nf **FINLAND R Finland** in FN 0620, YL w/tlk, ID, into EG pgm 0630, f, //9560, 11755 (Witham HI 7/16)
- 15285nf **SINGAPORE BBC** relay in Mandarin 1515-1530\*, ID in EG at s/off and frequent ment of BBC in Mandarin during xmsn which runs from 1000-1530, //6065 (Thailand relay) with fair signal but 15285 was strong with very lite QRM underneath, // on 9605 buried under jamming (Treibel WA 8/9)
- 15315nf **GERMANY Swiss R Int** relay Julich in EG 1004, topical nx w/correspondents, ID, f-g (Serra 7/23)
- 15355 **GABON R Japan** relay in EG 1725, Lili Marlene song, ancmts, ID, tlk re cinema, f (Serra 7/17)
- 15365 **ROMANIA RRI** Bucharest in RO 2300-2357\*, ID, nx ment Barak, Arafat, Taiwan etc. (Findlater 8/2)
- 15440 **FINLAND R Finland** in FN 0430-0530\*, ID, dialog, nx, into choral mx, g, //9860 (Findlater CA 8/3)
- 15445nf **ROMANIA RRI** Bucharest in EG 1345, nx re NATO, QTH and IS at 1355\*, f (Field MI 7/15)
- 15450 **PHILIPPINES FEBC** in Mandarin 0500, ID, relig tlk, hymns, f (Findlater CA 7/24)
- 15465 **PAKISTAN R Pakistan** in EG 1625, rpt on how Marshall Plan would benefit Pakistan, ID (Witham HI)
- 15515nf **AUSTRALIA RA** in EG 0509, nx, ID, mx bridge, ancmts, Pacific nx, f, //15240, 21725 (Serra 7/19)
- 15560nf **GERMANY Advent World R** relay via Julich in EG 2034, gospel, choir mx, g (Humenyk ONT 7/4)
- 15565nf **SRI LANKA VOA** relay test transmission 2359, Yankee Doodle IS and TC for 0000 hrs, ID, "VOA News Now", very first broadcast, heard sign on (Brandt NJ 7/16)
- 15570 **VATICAN CITY VR** in Tigre 1655, IS, mx, s/off 1700 but continued in FR on //17550 (Witham 7/19)
- 15575 **CYPRUS BBC** relay in EG 0410, rpt on spy case concerning China, ment Sierra Leone (McGuire 8/6)
- 15575 **UNITED KINGDOM BBC** Rampisham in EG 1504, Wimbledon tennis finals, //15485 (Humenyk 7/4)
- 15595 **VATICAN CITY VR** in IT/FR 0600, ID, nx in langs to 0630, in EG 0630, AR 0645 (Findlater CA 8/1)
- 17535 **ISRAEL Kol Israel** in EG 1030, pips 1030, ID, nx, wx rpt, f-g, //15650 (Serra CORSICA 7/23)
- 17565nf **HUNGARY R Budapest** in HG 2258, nx abt Czechoslovakia, Bulgaria, //15120 (Humenyk ONT 7/4)
- 17595nf **RUSSIA V of Vietnam** relay Petropavlovsk in VT \*0400, mostly tlk, no EG, exc signal (Field MI 7/8)
- 17675 **NEW ZEALAND RNZI** in EG 0304, ID, nx, mailbag, interviews (Fredette ONT 8/5, Serra 7/21)
- 17860nf **SOUTH AFRICA Chan Africa** in EG 1710, sports nx, ID's, req for letters, QTH, f (Serra 7/18)
- 17865nf **ROMANIA RRI** Bucharest in EG 1725, pgm on prostitution in RM, ID, //15270 (Costello NJ 8/14)
- 18960nf **SWEDEN R Sweden** in EG 1130, natl & regional nx, wx rpt, "60 Degrees North", ID (McGuire 7/21)
- 21660 **THAILAND BBC** relay in EG 0500, nx re N. Ireland peace settlement problems, switchover to relay in Singapore at 0530 and continuing with UK Hit Parade, ID, g (Findlater CA 7/18)
- 21700 **UNITED ARAB EMIRATES R Dubai** in EG 0552\*, Islamic pgm, ID, no //s heard (Serra 7/19)

## Clandestine, Tentatives, Presumed, Or Unknown

- 7155 **ITALY(p) V of Mediterranean** from s/on at 0500, mostly talking in Italian?, site as found in literature from VOM(sic), g (Field MI 7/13)
- 9575 **MOROCCO(p) R Medi Un(p)** in AR 0130 with Koran chants?, into nx (Linois PA 8/1)
- 11785 **THAILAND(t) VOA** relay in CH 1308, very weak, p (Figliozzi CAPE COD 8/7) ED: Assumption is valid since the latest VOA sked indicates programming in CH from Udo Thani during time shown.
- 13625 **NO MARIANAS R Free Asia** relay Tinian in Cantonese 1407, nx, taped cmntry (Humenyk ONT 7/4)
- 15680 **TADJIKISTAN R Free Asia** relay Dushanbe in CH 2004, nx, bridge mx, f (Humenyk ONT 7/4)
- 15715 **CLANDESTINE V of the Oromo Liberation** via Julich, Germany relay in Oromo 1715, regional mx, several mentions of Oromo, g (Witham HI 7/1)



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**Publisher/Business Manager:** Bill Oliver, 45  
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**Executive Council:** Jerry Berg, Ralph Brandi,  
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