

NASA

The
Journal
of the
North
American
Shortwave
Association

Volume XXX, Number 5
May, 1990

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List \$319.95 Order #2988 \$259.95 (+\$5)

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NASWA Notes

Bob Brown
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Spring is in full swing and my fly rod, golf clubs, and son's Little League all seem to be fighting for their fair share of the leisure time that radio has consumed all winter. Guess that happens to a lot of us this time of year. Always can fit in some early morning or late night DX'ing, tho.

Members In Print

NASWA members **Bill Taylor** of Unionville, PA and **Jerry Klinck** of West Seneca, NY both sent me articles about their shortwave activities that appeared in their local newspapers during Shortwave Radio Week. Bill's article appeared in the March 15th edition of *The Kennett Paper*, Kennett Square, PA and Jerry's appeared in the March 22 West Seneca Bee. Both articles were very interesting and contained pictures. Jerry looked quite dapper sporting his NASWA tee shirt while pointing out locations on a world map. Very nice job Bill and Jerry!

Member **Ed Rubin** N2JBA of Port Chester, NY sent me a copy of an article that he wrote called "*Hams As SWLS And Monitors*" that appeared in the April WECA-GRAM, the publication of the Westchester Emergency Communications Association, Inc. Another very nice article that describes the many aspects of the SWL hobby.

Feature Articles

These articles got me thinking about trying to encourage NASWA members to write for *The Journal*. Although we occasionally have members contribute articles to editor's columns, such as *Rowlands DX'ers Forum*, we really don't have a spot for features that might be general in nature. I'd like to see a regular "Feature Article" from a member appear each month. I'm sure that we have quite a bit of untapped writing talent in the club and this kind of column could be a vehicle for that talent. With this in mind I've done a couple of things. I've asked **Kevin Atkins** to prepare a masthead that we can

use for the column, and I've asked **Harold Cones** to prepare an article for next month's *Listeners Classroom* that would explain guidelines to follow for writing feature articles. Harold will reiterate some of the points related to this that originally appeared in "DX'ing According To NASWA" which was published in the 70's. Let me know what you think of this idea.

What Happened To....?

Some members have asked why a particular column may be missing. There are various reasons. Sometimes the US Mail prevents a column from reaching headquarters on the due date which is the last Saturday of each month. Sometimes an editor's personal life or job takes precedence over their hobby activities that particular month. Twice a year, in May and again in November, the English language schedules that **Tom Sundstrom** maintains are printed in their entirety and some of the columns have to be cut back during those two months to keep us within our page count. We are looking at ways to reformat those listings to get the same information reported in less pages. If you have any ideas about this, please write and tell us.

Media Network

NASWA member **Gordon Darling** who lives in Papua New Guinea has joined the cast of *Radio Netherlands Media Network*. Gordon has been asked to do a number of stories on radio in Papua New Guinea, Indonesia, and Southeast Asia. **Jonothan Marks** puts together a very good show every week and it looks like it's going to get even better! I am looking forward to hearing what Gordon has to say from both a DX'er and professional perspective. If you need the schedule for *Media Network*, the times and frequencies appear in this month's *English Schedules* under *DX shows*. Congratulations on your new assignment Gordon!

Coordinated Monitoring Event

A number of years ago, when Dan Ferguson was NASWA's LR editor & later publisher, he used to stage "band surveys" and "coordinated monitoring events" (CME), to put together fairly thorough representations of SWBC activity in a band, and provide them to participants. Recently Gerry Dexter, at the Winter SWL Fest, recalled these "events" and expressed a desire to see them revived. Dan thought a good bit about it, and found the idea appealing. It's the kind of thing he enjoys doing, and he used to be quite good at evaluating all the data that came in from the events and he put out something that was useful to the DXer. Now that we are in the age of the PC, the final data could also be provided in machine readable form, via diskette or on CompuServe, Pinelands or the ANARC RBBS, so one could easily update it on his own. Or load it in a data base for ease in searching, or whatever. Details on the CME for May are as follows:

Frequency Range: 9000-10000 kHz
Dates: Now till end of May
Stations: Only SWBC (Shortwave Broadcast) stations

FORMAT OF LOGGINGS: It will be easier for Dan if the following format is used:

kHz Time(UTC) CTY Station/City/Lang/notes/comments/dates,etc.

If you have a computer, please try to submit logs using the following format. If needed, wrap to next line, but start 2nd and subsequent lines in column 25.

```
01          10          21 25          51
=====
Freq      Time(UTC)  CTYStation/City
=====
7175      *0530-0615+  ITL Caltanissetta          ID. anmts at s/on,
                               into news read by M.
```

The * before a time means s/on. * after a time means s/off. + before or after a time means fade-in or fade-out. Note the columns for these before and after the time. For CTY (country) use the ITU abbreviations if you know them, otherwise give a 3 character English abbreviation.

DEADLINE: Dan will begin putting the results together as soon as information starts arriving. Please get logs to him as soon after 5/31 as possible, preferably by CompuServe, if you have access there. He's on HamNet daily, often several times a day. Use forum message in HamNet(public or private, as you prefer), or CompuServe EMail if you've got more than a forum message can handle. If you aren't on CompuServe, but have access to the Pinelands (609)859-1910 or ANARC RBBS (913)345-1978, send the logs in a message to me, and I'll route them to Dan on CompuServe. Or, if not computerized, use the P.O. Box below, and be sure to include a business size SASE to get a copy of the results.

Coordinator: Dan Ferguson CompuServe ID 76702,771
P. O. Box 2604
Dale City, VA 22193

RESULTS: The compiled results will be made available to participants who use US Mail by return mail, using the business size SASE you send with your loggings. Those on CompuServe will also be able to get the results there, in the HamNet SWL library. They will also be posted on Pinelands and ANARC RBBS. If there is enough interest, we may print the results in The Journal, space permitting. Suggestions are welcome.

DXer's Forum

Rowland Archer
5524 Hawthorne Park
Raleigh, NC 27613
CompuServe 70075,117



Although the Fall '89/Winter '90 DX season is on the decline, there are still some real gems to find in the noise — especially if you're willing and able to string up a 600' Beverage antenna. We have a full report on just such an effort at the *Atkins/Lineback/Tow Spring Equinox DXpedition* later in this DXer's Forum. Here's a couple of Kevin Atkins' loggings from this DXpedition that didn't make it into Jerry Lineback's report. Kevin's logs are from Fine Tuning number 558, dated 4/12/90: an ID'd logging of BBS Bhutan on 5023.1, from 1406-1430 on 3/17/90 with Asian pop music, EG ID at 1414, and into the EG service with more ID's. Don Moore had a tentative logging of the same station on 3/21. Nice work guys! Kevin also heard RRI Denpasar, 3945, on 3/17/90 from 1450-1502 with an ID at 1459, the Song of the Coconut Islands interval signal, and a Jakarta news relay. I'm green with envy guys!

This month brings another installment in the "On to the Middle" series, focusing on making the best of an indoor antenna.

On to the Middle, Part III

Hearing 100 Countries with an Indoor Antenna

by Rowland Archer

For the newcomers to NASWA and DXer's Forum, I got started in the "Forum Business" a little over two years ago when Chuck Rippel suggested I write an article about helping novice DXers become intermediates. This article turned into a series called "On to the Middle", a title derived from Don Jensen's excellent article on how to reach the pinnacle of DXing, "On to the Top" (available from the NASWA reprint service).

The premise of the *On to the Middle* series is that many aspects of DXing change fundamentally when you run out of powerful international broadcasters to hear and/or verify, somewhere around 50 countries. The next 50 countries present a new set of challenges: schedules are more erratic, broadcasts may not be in English, transmitters are less powerful, QSL's are harder to obtain, interference from stronger stations becomes more of a

factor, you have to learn more about propagation to know when you are most likely to hear the target station, etc.

Faced with these new challenges, the DXer trying to hear and verify 100 countries needs a lot of information on how to succeed at the quest. Providing that type of information is the goal of this series, and in fact a major goal of DXer's Forum.

EQUIPMENT ENVY

I don't know whether to blame it on our "instant gratification" culture or not, but when most of us first encounter "the wall" around 50 or 60 countries verified, the first impulse is to blame our equipment. We look at the *Contributors' Page* and check out the equipment used by the DXers who heard something we want to hear...and jump to the conclusion that the equipment is their edge. There's no denying the utility and pleasure of using top

equipment, but it's just a small part of DXing success. Knowledge, persistence, and experience play a larger role.

Ironically, the equipment that can help the most often costs the least. People tend to focus more on receivers than antennas and accessories. I'd rather have a great antenna connected to an average receiver than vice-versa.

The general rule for receiving antennas is simple: *get as much metal as you can up as high as you can.* If you can make it resonate at the center frequency of the band you want to tune, do so. The resonant length in feet is $468/\text{frequency}$ in MHz. If you can't build a resonant antenna, don't despair, you can easily reach your 100 countries goal with a non-resonant one.

The general rule for receiving antennas is simple: get as much metal as you can up as high as you can.

There are a thousand variations on this theme, and you can easily invest more time in building antennas than listening. My advice is to put up one or two good antennas and then save your energy for your post-100 countries phase. As new stations or countries get harder to log, you'll have more non-DXing time to burn and tinkering with antennas will give you something to do to keep your interest and hopes up!

LANDLORD PROBLEMS

Telling you to put up a couple of antennas is great advice... unless you live in a place with no space for an outdoor antenna or a landlord or family member who doesn't share your enthusiasm for the esthetics of a well-rigged dipole. Outdoor antennas are preferable, and not being able to put one up is frustrating, but it needn't mean the end to your quest for hearing 100 countries. When I was working on this goal, I lived in an apartment complex with a simple approach to this

issue: NO OUTDOOR ANTENNAS. Actually, I think they called them "aerials."

Besides giving me something to blame my lack of progress on, this restriction caused me to lay awake nights dreaming of various clandestine antenna schemes; could I get up into the attic and run a wire over the tops of the four adjoining townhouses to mine? Maybe a balcony flagpole with a fishing reel to lower an antenna under cover of darkness? Surely no one would notice a wire from my second story window to a nearby tree if it was a thin strand of "bell wire", coated with black enamel and hardly thicker than a coarse hair...

I never built any of these but the last idea did lead to an effective indoor antenna that got me to 120 countries and probably would have taken me further if I hadn't moved to a house where I could have an outdoor antenna. I'll save the discussion of that antenna, my "Indoor Secret Weapon", for the end of this article. First, some non-theory about antennas.

ANTENNA NON-THEORY

I group antennas into three classes: small but convenient (e.g. the whip antenna on your portable), average (tuned antennas and random wires up to 100'), and super antennas, like 1000' Beverages aimed right at your DX target or giant Delta Loops tuned right to the frequency band of interest.

Most people have space for small or average antennas. If you use a small antenna and can hear what you want to hear, great!, and you should file this article for future reference. At some point you may find that you've hit a wall and need some more antenna oomph to help your DXing progress. Otherwise, read on.

Archer's First Rule of Antenna Non-Theory: *The effectiveness of an antenna is inversely proportional to the level of expectations you have for it.*

I can't tell you how many times I've put together or bought a "killer" antenna and found its performance was the same or even less than a simpler design that was higher off the ground. This factor seems

to dominate for simple and average antennas as far as receiving goes. Height and length just seem more important than coils, tuning, impedance matching or dollars spent.

Currently my most effective antenna is a \$9 total cost, 60' random wire that's a good 30' higher up than my \$70 Alpha Delta DX Sloper (installed at the recommended apex height of 28'). I had the random wire up first, and I ordered the Sloper based on rave comments from other DXers. It's a rugged, well-made antenna with imposing looking coils and I was sure that all that tuned wire was going to blow the headphones off my 60' random wire. I now have over a year of experience with the two antennas, and I've heard two stations that came in better on the Sloper. It's a fine antenna, make no mistake, but the extra height of the random wire almost always gives me a stronger signal and with equal or better signal to noise ratio.

INDOOR LIFE

What does this have to do with an indoor antenna? Strangely enough, the same "as much metal as high as possible" rule has value in the Great Indoors, although the restrictions of staying within a building put obvious limits on what you can do.

The "as much metal" part means that the more wire you can devote to your indoor antenna, the better. The "as high as possible" part means your attic is better than your basement, and the second floor is better than the first. If you can get 20' of wire strung up near the ceiling, that's usually better than 6' under the rug.

When I was 13, my brother and I inhabited the second floor of our 1 1/2 story Cape Cod style home. Esthetics not being the most important thing to us at that point, I ran a 30' wire the length of the house, from one end of my bedroom, out the door and down the hall and to the other end of his room. I ran a downlead to my Heathkit GR-54 (a tube rig that let you guess frequencies to within 100 kHz if you were lucky!) and was in business. With this setup I happily logged such oldies but goodies as Congo Brazzaville and

the Windward Islands Broadcasting Service.

I would have achieved at least as good results by running the antenna in our attic and running a downlead through a wall and out near the rig. Consider this option if wires running down the hall runs counter to your taste in interior decorating.

Like basketball, this DXing game has a bigger mental component than most of us will admit.

Soon the 30' wire was joined by a more elaborate folded dipole constructed from 300-ohm TV twinlead. By clever cutting and tying together of the twin leads at the right distances from the center, this antenna was made to resonate at the major international bands. Sorry, I've long since lost the design, but any antenna construction book will include several folded dipole designs which you could adapt to use twinlead. The key point here is that folded dipoles fit in half the length of unfolded ones, of obvious importance to indoor construction. Secondly, you can connect several dipoles to a single downlead, and depending on the frequency you tune, the appropriate element of the dipole will resonate and be the main source of signal to your rig.

Alas, the folded dipole with all its resonance was usually beat in performance by its 30' random wire sibling. I wish I could tell you why. It was still a good antenna, and it made you feel better to know it was sitting there, quietly resonating while you searched through the static. Like basketball, this DXing game has a bigger mental component than most of us will admit.

With this combination of indoor antennas, I logged and verified 92 countries before I hit the canonical DX hobby high school hiatus at age 15.

INDOOR IDIOSYNCRASIES

Radio waves at shortwave frequencies are not stopped by woodframe buildings, but steel and concrete structures can greatly attenuate signals. Glass is transparent to shortwave as well as lightwaves, so high-rise dwellers can often get good results by locating their antennas near or in a window. If you can get some or all of the antenna out the window, try it and see if you get better reception.

Even in a wood-frame dwelling, beware of hidden signal-blocking metal. If your indoor antenna seems strangely devoid of signals, you may have to locate it away from metal flashing, aluminum siding, a metal roof, gutters, or building insulation in your walls or ceilings that contains a layer of aluminum foil.

Another problem with indoor antennas is getting two antennas in place with complementary directionality. Outdoors, this usually means running the antennas at right angles to one another. You can switch between the antennas while listening to a station and choose the one with the best signal.

Dipoles tend to favor signals arriving perpendicular to their length, while random wires give better reception of signals coming from the direction their ends are pointing. You can use these facts to enable two antennas, each running the long axis of your house or apartment, to have complementary directionality. This was an added benefit of my indoor hallway antenna duo.

INDOOR SECRET WEAPON

My favorite indoor antenna of all time is rather unconventional, and is really just a variant of the random wire. By the way, "random wires" is something of a misnomer, as it seems to imply some non-deterministic behavior. Every hunk of metal or wire has a measurable set of characteristics, including resonant frequencies and a directionality pattern. The catch is that the more you stray from a simple, regular antenna design the harder it is to come up with a simple set of

To receiver ->

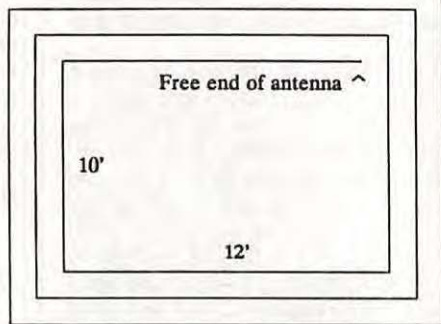


Figure 2. Packing a 132' antenna in a 10' x 12' room

formulas to predict that antenna's characteristics.

During my apartment dwelling years, I had a 10' x 12' second floor bedroom for my radio shack, and a Radio Shack DX-300 for my receiver. Although this rig got a lot of bad press, it also got a lot of us back into the hobby with the seduction of direct digital dialing. It was sure light-years ahead of my old Heathkit.

I was older and married during my second time around in the hobby, and there was no question this time of running 30' wires down the halls of our apartment. Whatever I did had to fit in that 10' x 12' room — the rule was "if you want to look at that mess, that's OK as long as you can close the door and I don't have to look at it!"

At first I tried the obvious; 10' of wire one way, 12' the other. Not bad, but not great either. Twelve feet of wire is closer to "small but convenient" than "average." While laying awake one night thinking of ways to get a "real" antenna outdoors, I hit on the idea of running a loop of wire around the ceiling. This would give me 10' + 12' + 10' + 12' or 44' of wire; but I was concerned that running it in a square would defeat the advantages of length. I can't tell you that a straight 44' wire wouldn't have worked better, but the 44' loop worked a whole lot better than the 10' or 12' straight sections. I got at least 2 or 3 S-units improvement in strength on

most signals. The feed to my receiver was a simple downlead from one end of the wire; the other end was left free, so this is really *NOT* a loop, but rather a random wire in the shape of a square with one end connected to the receiver and the other end hanging free.

Not one to leave well-enough alone, I tried two and then three turns of wire around the ceiling; things improved again! Once more, only one end of this "random square" of wire was connected to the high-impedance antenna input of my rig; the far end of the antenna was left free. The inevitable fourth turn of wire didn't do much, and the fifth made no perceptible change, so I quit experimenting at that point.

*I tried two and then three turns
of wire around the ceiling; things
improved again!*

The construction of this is simple. Any wire would do, but I found the black enamel covered "Bell Wire" to be the easiest to hang and least conspicuous. I simply stuck a brad in the molding in each corner of the room and looped the bell wire around the brads. Hooks would probably make more sense, but brads were on hand and they worked fine. Bell wire is about the thickness of a coarse hair, and is very light and unobtrusive (well, relatively).

POWERED ANTENNAS

My "random square" antenna might have gotten me past 100 countries on its own, but I'll never know. One more accessory turned my random square into my *Indoor Secret Weapon*.

An active antenna is an RF preamplifier coupled with a whip antenna element. It usually has two knobs, one for tuning and one for signal strength. The tuner resonates the whip to the frequency of

your choice, and the signal strength knob varies the gain of the RF preamp.

Some active antennas, such as the MFJ 1020 and its follow-ons, allow you to connect an external antenna element to take the place of the whip that sticks out of the active antenna box. In fact, some active antennas come with an external element, and don't even have a whip attached.

I bought an MFJ 1020, and connected my random square to its external antenna input. This gave me the ability to tune and amplify the signal from the square.

Well, I wouldn't claim this combination beats a bevy of Beverages but it sure got me past the 100 country mark with some pretty nice catches along the way, such as Radio Cook Islands.

THE BOTTOM LINE

Don't despair if you can't put up a dazzling array of delta loops at this stage in your DXing career. You CAN hear a lot with an indoor antenna. Persistence and experience will pay off far more than buying lots of equipment. When I finally heard Greenland well enough to ID them, they were in on my Sony ICF-2001D with the whip antenna as well as on the NRD-515 with the outdoor antenna. It was getting up every day at 0955 to check for them that finally got me the prize, not having an NRD-515 instead of a less expensive radio.

RESOURCES

There are lots of good antenna construction books on the market. One of my favorites, which includes a good section on indoor antennas, is *Easy-Up Antennas for Radio Listeners and Hams*, by Ed M. Noll, published by Howard Sams & Co., 1988.

* * *

What's been YOUR experience with indoor antennas? Any designs or usage hints you'd like to pass along to help other NASWAns? Send us your thoughts and you can get published in the Journal. Thanks and see you next month.

Alabama DXpedition

by Jerry A. Lineback

Kevin Atkins, John Tow and I carried out a Spring Equinox DXpedition to western Alabama March 16-18, 1990. Kevin took us to his family's home grounds in Lamar County, Alabama. The nearest town of importance is Columbus, Mississippi. The site consists of an old barn sitting at the southeastern corner of a pasture that, in turn, is surrounded by pine forest. The diagonal measurement of the pasture is at least 600 feet. Kevin put out a typical single wire ungrounded Beverage antenna oriented NNW. John had built a double-wire Beverage which has one line grounded at the far end and the other at the near end. This allows switchable directionality. It was supported by a series of three foot high miniature telephone poles. This antenna was oriented NW-SE.

It had been raining very hard for more than 24 hours before we arrived and the creek was out of its banks. This prevented putting out any longer antennas. Noise levels were quite low in the area. We set up in the barn on Friday evening using batteries and a Coleman lantern as the barn has no electricity. We determined that the antennas worked well and that the double-wire Beverage was quite directional. Performance was best on medium wave but a considerable attenuation of Latin stations could be noted on the northerly wire through 60 meters. We logged some Latin and African stations in the evening and then retired until 0800. As soon as the terminator reached Papua New Guinea and Australia, we knew we would have a good time. Australasian and Indonesian stations began to boom in at local levels as nightfall swept across that region. It was a veritable feast of DX. We noted signal enhancements during both sunset in Australia/SE Asia and during local sunrise in Alabama. We repeated the experience the next night with even better results as 120 meters opened up on Sunday morning. While none of us heard any new countries and probably no new stations, I, at least, have never heard so much so well in so short a time. Stations I noted included:

1620	Australia	3320	N Korea	4845	RRI Ambon
2310	Australia	3335	R E Sepik	4871	RRI Wamena
2325	Australia	3345	RRI Ternate	4874	RRI Sorong
2410	R Enga	3345	R Northern	4875	China
2485	Australia	3365	R Milne Bay	4890	NBC Pt Moresby
2695	RPD Ende	3375	R W Highland	4895	RTM Sarawak
2850	N Korea	3385	RRI Kupang	4915	China
2904.8	RPD Ngada	3385	R E New Britain	4920	Australia
3205	R W Sepik	3395	R E Highlands	4930	Haiti
3214.8	RRI Manado	3440	N Korea	4970	RTM Kota Kinabalu
3220	R Morobe		complete w/jammer	4975	China
3222.8	RRI Mataram	3654	RPD Luwu	4990	China
3235	R W New Britain	3904.8	RRI Merauke	5005	RTM Sarawak
3245	R Gulf	3925	Japan	5030	RTM Sarawak
3260	R Madang	3945	Japan	5046	RRI Yogyakarta
3265	RRI Gorontalo	4000.2	RRI Kendari	5052	Singapore
3275	R S Highlands	4607.3	RRI Serui	5055.4	RRI Nabire
3290	R Central	4753	RRI Ujung Pandang	5075	China
3305	R Western	4789.6	RRI Fak Fak	5145	China
3306	RRI Dili	4810	USSR	5275	Taiwan
3315	R Manus	4835	RTM Sarawak	5320	China

We also heard a carrier and probable audio on Tonga (5030).

Kevin's grandmother lives on the old home place and he brought his mother along for a visit. Well, the ladies decided that those poor boys out there in that cold wet barn needed some nourishment, so they fixed several country-style dinners and breakfasts for the crew. Something I would recommend for all DXpeditions.

Easy Listening

Alex Batman
Route 1, Box 367
Blowing Rock, NC 28605



RADIO VILNIUS

Of all the Soviet Republic broadcasters, the one which probably holds the most interest for the average SWL right now has to be Radio Vilnius. Since the current situation in Lithuania appears on the nightly news just about every single night these days, listening to Radio Vilnius adds a sense of perspective one will not get from purely domestic sources in the U.S. And since the last time I listened to Radio Vilnius (about eight months ago or so), the station has indeed gone through some radical changes, so much it's hard to even consider the station a Soviet broadcaster anymore. It's obvious that the station personnel do not. Radio Vilnius has wholeheartedly embraced the independence movement in that country, and news and commentary have often referred to Lithuania as "an occupied territory".

Quite naturally, most of the news is devoted to the politics of independence and confrontation with Moscow. Just recently the station broadcast an urgent appeal from the leaders of the Lithuanian Parliament for international recognition of the country's independence and pressure on Moscow not to use force to quell the independence movement. To be fair, however, the station has also reported faithfully on dissent within the country—especially that of Russian and Polish minorities who demanded that the independence question be put to a referendum rather than merely being decreed by the Parliament. Reports have not only featured the demonstrations these minorities have held but also many residents of a non-ethnic Lithuanian section of Vilnius have been interviewed.

Despite the even-handedness, however, the stations editorial policy is certainly and squarely in favor of independence. "Letterbox", which has aired as often as twice a week, has responded to some listeners' suggestions that perhaps Lithuania has been moving too fast and by doing so threatens

Gorbachevs hold on power and thus the entire reform program underway in the Soviet Union. The fear expressed is simply that if Gorbachev is thrown out of power, hardliners may take over, and then Lithuania will be in even worse shape than it is now. The commentators response has invariably been that when a people have suffered for so long, any delay becomes intolerable. In fact, most of the Lithuanian politicians interviewed by Radio Vilnius have expressed the opinion that the real danger facing the country is not in moving too fast, but in moving too slowly and too cautiously.

Radio Moscows response was probably predictable as well. On March 17 and 18 (a Saturday and Sunday), Radio Vilnius broadcasts were replaced by the broadcasts of Radio Moscow World Service in English. Radio Vilnius, however, was back on the air on Monday, March 19, but with notably poorer reception. The station gave an explanation of the blockade of its broadcasts and how it got back on the air, but reception was so poor that I was not really able to follow it. Even to this day (Sunday, April 1, 1990), Radio Vilnius's reception is notably poorer than that of Radio Kiev which uses the same frequencies at a later hour. At 2300 today, the signal on 12.060 was quite strong, but the station was so undermodulated that it made following the broadcast impossible. One suspects that Radio Moscow is doing some subtle sabotage of its own.

The emphasis on Radio Vilnius's programming now is, of course, news and politics, but a few old programs have still been retained. "Letterbox" has been expanded to twice a week, and "Around Lithuania" still airs every other Monday. Other features that have been retained are "History of Lithuania" and "Lithuania by Radio", as well as any number of untitled features on Lithuanian folk music and folk culture. The impulse behind these programs is obvious: to portray Lithuania as a country with a cul-

ture, history, and development uniquely its own as opposed to Soviet culture and society. One new addition is a weekly (sometimes bi-weekly) feature, "News From Estonia and Latvia" where political developments in these countries, also eager for independence from Moscow but content to move more slowly towards that goal, are reported and become the subject of commentary.

What is likely to happen to Radio Vilnius in the next few weeks is anybody's guess. By the time this article appears in *The Journal* there is even a chance that there will be no more Radio Vilnius or that the Soviets will have cracked down completely and the current station personnel have been replaced by journalists more amenable to the Soviet line. But for now, Radio Vilnius is a notably independent (in the true sense of the word) broadcaster within borders most of the world recognizes as Soviet territory.

RADIO KIEV

Far more conservative in its editorial policy is Radio Kiev. The station does report on events in Lithuania but does so from the general Soviet perspective and using the Soviet rhetoric (that is dubbing the independence forces in that country as "extremists"). Very little, if anything, is mentioned about the Ukrainian independence movement, itself much smaller than in Lithuania, although the station did report an appeal from the Ukrainian Party leadership for independence-minded political groups to stop holding meetings and rallies and thus "threatening the stability of the republic".

More noticeable in Radio Kiev's broadcasts than any change in news or editorial policy is the complete revamp of programming. Up until 1990, Radio Kiev's daily programming was ten minutes of news, followed by fifteen minutes of "The Ukraine Today", which included a number of various, unrelated features. Weekend programming included "The Dialogue" a mailbag program (the only one retained in Radio Kiev's new format, by the way), and a "DX Club" on Sunday nights. Now, however, Radio Kiev offers a different feature program for every night of the week.

The beginning of the broadcast is much the same as before, five minutes of national

and international news, followed by five minutes of purely Ukrainian news. But new feature programs include "The Land and the People", a program on agriculture and the environment, "People and the Economy", "Society", (a focus on changes in Ukrainian society), "Midweek", (a current affairs program), and "The Human Factor" (focus on individuals shaping the new direction for the Ukraine). In later editions of the column, I hope to feature some of these new programs at greater length and depth. Sunday nights feature "Sunday With Radio Kiev", a collection of untitled features, "Tourism", and "DX Club". "The Dialogue" still airs on Saturdays.

RADIO TASHKENT

I'm afraid I can say very little about Radio Tashkent since reception of this station has traditionally been the poorest of the major Soviet Republic broadcasters. Recently, however, Radio Tashkent has been coming in at a moderate level in English on 15.470 at 1200 and less well but still audible at 1330 on the same frequency.

Very little seems to have changed with Radio Tashkent since the last time I was able to follow it clearly enough to report on it. Most of the feature programs, like "Life In the Village", "The Life of Soviet Muslims" and "Music Program" (a good source for some exotic music early on Thursday mornings) have remained unchanged as the editorial policy of the station seems to have as well. Of course, saying that the editorial policy of the station does not seem much changed must be taken in context with the general editorial policy of Radio Moscow as a whole, a far different station itself than it was just five years ago.

One thing considerably different, however, is "Radio Tashkent Advertisements", a two to three minute program which airs just after the news at ten minutes into the hour (or half hour depending on when you're listening). Like Radio Moscow, Radio Tashkent is now permitting limited advertisement (good Lord, Capitalism with a capital "C") of traditional Uzbeki handicrafts, such as wooden columns and wooden boxes. The ads themselves, however, could learn a lot from Madison Avenue.

ASIAN Destinations

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Off to Asia this month where we will take a look at Indonesia, and ramble on about some other things. First, a letter (and a nice postcard) from Michael Healey of Johnston, Rhode Island commenting on All India Radio discussed in the January Destinations column. Michael says that it was a coincidence that he recently became interested in India and Indian culture when the January column discussed India. He purchased a book on the subject of India and then began looking for AIR on the shortwave bands. He continued "...reception from All India Radio on 7412 kHz from 2100 - 2200 UTC has been totally outstanding". Michael uses the old popular Panasonic RF-2800 with an MFJ antenna 16010 attached to a 200' long wire. He's now considering purchasing an NRD-525. Well, thanks for your letter Michael. I'd like to hear from some more you out there.

I just got the latest issue of OZDX, a very informative newsletter from Australia (19 Jilian Avenue, Highett, Victoria 3190, Australia) that is a good source of Asian and Latin news. As I mentioned in the January column India continues to add new sites and frequencies to its domestic shortwave network. The following information is from the latest OZDX: Robert Palmer of Spokane, WA provided this data. Future plans - New 10 kw SW stations at Itanagar (Arunachal Pradesh) and Gangtok (Sikkim). Upgrade to 50 kw is in progress at Guwahati A, Hyderabad, Madras, and Kohima. New 50 kw SW stations will be set up at Thiruvananthapuram (Kerala) and at Imphal (Manipur). Additional channels are allocated for Port Blair, Andaman Isls on 6085 and 9600. Port Blair and Leh (Kashmir) are both using 4760 on a non-interference basis pending these new allocations.

I continue to hear on occasions a station on 4760 underneath the Chinese regional and sometimes-utility with subcontinental music and Hindi. But, I can't pull enough details on it to determine which Indian regional it might be, either one would be a nice catch. By the way, if you do hear Port Blair, the verification signer, as reported by Geoff Cosier is R. Venugopal, Station Engineer.

More futer plans: 3255 Shillong is likely to move to 4790. Leh, Kashmir has been allocated two frequencies; 3330 kHz and 6000 kHz. The ID for Leh is "Radio Kashmir".

That reminds me, we need a followup on my listing of 90 meter band Indian regionals from the January column. I had indicated which stations had been logged in North America in the last few years. No sooner had I done that when the status changed on two entries. 3277 Srinagar, Kashmir was logged by Dave Clark, Sheryl Paskiewicz, John Bryant, Kevin Atkins, myself and no doubt some other folks in North America during January. In addition, Dave Clark in Ontario also reports very probable reception of AIR-Simla on 3223, and a very tentative AIR-Jammu on 3345.

Dave Clark comments in NU on these sub-contintall openings on 90 meters - "...signals for the most part came up late (1245+) and stayed in very late, resulting in first time logs of 3295 Delhi and tentative Jammu - 3345. Apparent signal path was a definatue factor. Virtually indaudible on "best" sub-continenta NE beverage antenna; came up and stayed best on NW beverage, suggesting a non-great circle path, quite likely through the donut hole. Geomagnetic field was relatively quiet - Aindex = 8, 1200 K index=2, while flux

had been stable at a relatively moderate level of 173 for 2 consecutive days". I've noticed a similar occurrence with Indonesian reception on 90 meters. Normally, from Kansas, peak directivity for Indonesian reception is via great circle in a west/northwesterly direction. However sometimes peak reception tends to drift a bit further south, say 5 to 10 degrees, from the great circle direction.

On March 17th several DXers in three or four locations across North America got together for a DXpedition. I believe this all got started when John Bryant planned a DXpedition in Washington state. Pretty soon other DXers decided to pick the same weekend, then someone suggested this was a timely occurrence for Shortwave Week. DXers in Alabama, Virginia, Oklahoma and Washington got together. One benefit, it was suggested, was the ability to compare notes on DX conditions across the country during the same 24 hour period. I haven't seen all the results, but I did talk to Kevin Atkins about their group's experiences in western Alabama (he was joined by Jerry Lineback and John Tow). The comparison of what was heard in Alabama vs what was heard in Oklahoma by Kirk Allen and myself was surprising. Kevin and crew had a logging of the very rare RRI Merauke, Irian Jaya, Indonesia on 3904.7 while we had not a whisper of it here. Several more Papua New Guineans were heard the morning of the 18th in west Alabama than was heard in north Oklahoma. We heard about three or four, while they had a full band. We noted unid Indonesians on 3415 and 3428, not heard in Alabama, and there was a difference in the number of 2 MHz Indonesians logged from the two different DXpedition locations. Latin and African reception appeared to be very similar. What does all this mean? I'm not sure, it's difficult to correlate, but it does seem to say that differences between DX locations are more noticeable for polar or near-polar path propagation.

That brings up another interesting test of tropical band DX versus the DXer's location. I wonder if DXers on the east coast of North America realize what an incredibly good catch RRI-Bukittingi (3232 kHz and 4911 kHz) and RRI-Banda Aceh (4955) are? It has been several years since I've heard either one of those two in the midwest. Yet the reports from the east coast indicate that reception can be somewhat reliable and even decent at times, during the east coast late afternoon (2200-2300 UTC)! Who said Asian DX can't be good out east?!

What intrigues me is the apparent disparity in signal strength from these two Sumatran stations, as reported on east coast and out here. I never hear more than a carrier out of 3232 anymore, same with 4911 and 4955 (even rarer). Yet loggings in Pennsylvania of these stations report decent signal levels. I can't think of any reason why the transmitter power would be changed dramatically from evening to morning broadcasts. It would only mean that this is a very good example of what grayline propagation can do for received signal-to-noise ratios. I've experienced this afternoon grayline to Indonesia only about 6 times in the last 10 years and only with reduced signal levels over what was heard the previous morning from those same stations.

Thanks to Joe Farley of Downers Grove, Illinois I may now have a better chance of hearing RRI-Bukittingi on 3232 kHz. I am now the proud owner of the Farley Loop, a directional 2'X2' amplified loop for the tropical bands. At times I am able to null the utility which is also on 3232 kHz, and which I now know is located within a one-hop distance south of my location.

One last thing - it was great visiting with several of you at the SWL Fest in Philly. Good show Brown, Field, Cones, et al.

73zzzzz, Mitch Sams

L A T I N Destinations

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Like most SW hobbyists, when I started SWling in September, 1971, the first Latin American station I heard was HCJB. Soon every evening I was tuning in "Studio Seventy", a predecessor of today's "Passport". However, one evening, February 15, 1972, I didn't hear the familiar news, light pop music, and short chatty features. Instead, there were just the precorded hourly IDs and instrumental music. The next morning, in my high school library's "New York Times", I learned there had been a bloodless military coup overthrowing President Jose Velasco Ibarra's government, and Quito was under curfew. Five times Velasco had been elected or appointed president. Only once did he complete his term of office without being overthrown.

On September 11, 1973, one of Latin America's bloodiest coups ever grabbed the DX world's attention when the Chilean military overthrew President Allende's elected Socialist government. DXers listening to the then many Chilean SW stations noted nothing unusual in the days before the coup - although all stations by that time had been highly politicized. After the coup, the stations supporting Allende were used briefly to broadcast military propaganda, then taken off SW.

Latin America's governments have been no model of stability. Every country has been under military dictatorship several times. The most unstable country has clearly been Bolivia. According to John Gunther's excellent Inside South America, from 1825 to 1961 Bolivia had 179 changes of government - an average of about one every eight months. Several Bolivian presidents lasted just a day before being overthrown. Once Bolivia had three presidents in three days; the first two were assassinated, and the third, assumedly, very nervous. As recently as 1978-1982, Bolivia went through ten presidents and several coups. Honduras and Venezuela, among others, have been only slightly more stable, while still other countries, such as Guatemala and Paraguay, achieved stability through a series of long term dictatorships.

Just days after the 1973 coup in Chile, another type of Latin American politics appeared on the radio. At that time, Venezuela was king of the sixty meterband, with easily heard stations almost every ten kilohertz. Suddenly, it became impossible to tune sixty meters without hearing an upbeat jingle for Carlos Andres, presidential candidate for the Accion Democratica party in Venezuela's 1973 elections. Andres had decided to blanket Venezuela with an extensive radio campaign, which helped lead to his November electoral victory.

Perhaps because we focus on the different and violent, we sometimes forget that Latin America also has some very strong democratic traditions. In most countries after independence, two political parties quickly emerged: the Conservatives, who favored an active collaboration between the government and the Catholic Church, and the Liberals, who admired a revolutionary named Thomas Jefferson and believed in strict separation of church and state. In some places the differing parties battled in partially-honest elections, in other places they resorted to the gun. Regardless, this was a struggle between members of the elite; the common masses had no role, except as soldiers who fought and died when politics turned violent.

Beginning in the late 1800s and early 1900s, a small middle class of merchants, teachers, and government workers emerged in the cities. Unlike the peasants, they challenged the elite for political control. The elite didn't share power easily; countries such as Guatemala, Venezuela and Paraguay remained firmly under powerful caudillos. But in some countries democracy did prevail and free elections were held. In 1889, Costa Rica began 100 years of free elections. Colombia, Chile, Uruguay, and Argentina, among others, had several decades of

mainly stable democratic government. In several countries the traditional parties absorbed the middle class and evolved into modern parties; in others, they died out and new ones were born.

Unfortunately, the Great Depression of the 1930s hit Latin America hard. Europe and the United States no longer bought Latin American exports, throwing millions out of work. With civil unrest and the threat of Fascism or Communism growing daily, the army moved in and took firm control of most countries. Ecuador had twelve presidents from 1930-39. Dictators like Vargas of Brazil, Ubico of Guatemala, and Andino of Honduras began over a decade of rule. Rafael Trujillo took over the Dominican Republic, ruling until his 1961 assassination. The Somoza family began nearly fifty years of rule in Nicaragua. Dictatorship took a firm hold. Only Costa Rica, Colombia and Mexico's one-party quasi-democracy remained unscathed.

Democracy began to blossom again briefly in the late 1940s, but soon Cold War politics quashed it back down. Even Colombia succumbed to a hardline general, despite over 60 years of democratic rule. At one point, tiny Costa Rica was the only democratic country in the entire Caribbean. In the late 1950s and early 1960s, democracy once again made gains. In 1958 ruthless dictatorships were replaced by democratic governments in Venezuela and Colombia. Those two countries have consistently held free elections ever since. But democracy in other countries, such as Argentina, Brazil, Peru, and Honduras, did not fare as well. By the mid-1960s, dictatorship was once again on the rise, reaching a peak in 1977, when only five Spanish-American countries were ruled by civilian governments.

Starting in 1978 democracy rebounded, as populations demanded more freedom and military establishments realized they were not suitable for governing in the modern age. First there were elections in Ecuador and Peru; then the fall of Nicaragua's Somoza dynasty in 1979 shook dictatorships everywhere and led to that country's first free elections in 1984 and 1990. In 1982 to 1983, civilian democracy returned to Bolivia, Honduras, El Salvador, and Argentina, followed by Brazil and Uruguay in 1985 and Guatemala in 1986. In the past year, Paraguay, Panama, and Chile returned to democratic government. Today, Castro's Cuba, Haiti, and Surinam are the only dictatorships in this hemisphere. The military and wealthy elite still exercise considerable behind-the-scenes control in some countries, especially in Central America, but never has the hemisphere been so free.

Perhaps I'm optimistic, but I'll predict that never again will DXers hear a Latin American coup, unless it comes from Cuba, Haiti, or Surinam. That OK, though. Coups are never announced in advance, but elections are, so we can plan to tune them in. For SWLs who understand a little Spanish, it's a chance to hear something of another country's political culture, and for DXers, it may mean extended schedules or reactivations of otherwise hard-to-hear stations. Last month's April 9 elections in Peru nicely coincided with enhanced Andean propagation. It could be coincidence, but the morning after the election I logged three new Peruvian stations. Although conditions were even better the following day, I didn't so much as hear a carrier from any of them.

Two elections are coming up this month. On May 16 the Dominican Republic will hold what could be called the geriatric elections. Joaquin Balaguer and Juan Bosch, two popular eighty-plus year old politicians of days gone by, are contesting the presidency. Look for a possible reactivation of Radio Mil on 4930, or maybe Radio Clarin will preempt the Cuban exiles for a day of local news. Then, on May 28 presidential elections will be held in Colombia. The principal candidates are Liberal Cesar Gaviria Trujillo and Social Conservative Rodrigo Lloredo Caicedo. For some election coverage, Colombian style, tune in CARACOL on 5075. It's easily heard evenings and mornings, and could stay on all night for the elections. DXers should check normally inactive Colombian frequencies, such as Radio Guatapurí's 4818 kHz. In the meantime, of course, listen for political advertisements. They make great details for reception reports!

To finish off, here are a few upcoming station anniversaries. A reception report with a birthday card included might just do the trick! 5/14/43 R Guarujá, Brazil; 6/12/52, R Paz y Bien, Ecuador; 6/16/57, R Atlantida, Peru; 7/2/45 R Reloj, Costa Rica; 7/17/72 R Panamericana, Bolivia; and 7/26/80 R San Martín, Peru. HASTA LUEGO! *Jon*

Listener's Classroom

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This month, Listener's Classroom will be devoted to a report sent by NASWA member Guy Atkins. Guy helped organize the "Grayland DXpedition," held at Grayland, Washington, 16-19 March. For those of you that have never taken part in such an event, Guy's article will teach you a bit about what goes on and what you can expect.

I believe it was NASWA Board member John Bryant who coined the phrase "DXhaustion"...I now know what he means, because I'm still recovering from three nights of superb DXing at Grayland Beach State Park, near Grayland, Washington.

This state park is south of the shipping port of Aberdeen, Washington, and is located right on the Pacific Ocean. About 300 yards of marshland, scrub pine, and dune grass lie between campsites and the sandy beach.

In attendance at the DXpedition were Terry Palmersheim, Bruce Portzer, John Bryant, David Clark, Craig Siegenthaler, and myself. We were also visited by four other DXers from Oregon and Washington.

Our equipment line-up included three NRD525s, one NRD515, a modified FRG-7 and R-1000, a Grundig Satellit 500, and five (!) Kiwa Electronics' Multiband AM Pickup (MAP) units. Using splitters and impedance matching transformers, the six of us shared three Beverage antennas between 700 and 3500 feet long. These antennas were "aimed" at Australia/NZ/Tonga, South Pacific/PNG/Irian Jaya and along the China Coast/Sumatra. John Bryant required a pair of size "XXL" chest waders when he stretched antenna wires across a portion of a swamp! John's a truly dedicated DXer.....

Mediumwave and tropical band shortwave DX reception both were excellent. Highlights on the mediumwave frequencies included audio, IDs, etc. from Tuvalu, multiple outlets on Fiji, both Solomon Islands MW stations, literally dozens of Japanese and Australian stations, Tonga, Marshall Islands, and other international MW DX. Some of these catches were of startling quality. Particularly unbelievable was the FEBC Korean station HLAZ 1566kHz in Chenu, South Korea which was broadcasting in Russian to the USSR. This station was monitored in full-bandwidth AM mode on our receivers, with absolutely no static or interference, one and one-half hours after Washington sunrise! We did not lose audio on this station until three and one-half hours past sunrise...amazing reception!

Shortwave DX catches included a number of Indonesian outlets. RRI Denpasar was heard with a very good signal, and the "mystery" INdo on 4898.4 turned out to be RRI Gorontalo wandering around the band. RRI Merauke was received at great levels, too. TBC Tonga was heard on 5030 (// 1017); it is interesting that they were on the air during their Sunday evening (normally off on Sundays) with short religious-sounding broadcasts in language(s) that DID NOT sound at all like Tongan. In fact, between 0600 and 0615 TBC was broadcasting what sounded like Koranic chanting! IDs and the RA news relay at 0700 confirmed that this was indeed Tonga with this out-of-the-ordinary programming mix.

The great DX we listened to at the Washington Coast was there for any individual with the right equipment and antennas. The real reason for the DXpedition was to experience it as a group, to share the fun with others. I'm glad I went!

Listener's Library

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Welcome back to Listeners' Library. With spring in full bloom at this point, many of us will have a chance to do some experimenting with new antennas. If you fall in that category, one of our contributions this month is just for you; if you are a owner/operator of a PC, we have a guest review of real worth; and finally, our new Executive Director, Bob Brown, weighs in with a review of a new book on Papua New Guinea. That book, by the Cousteau Group, was recommended to us all by four different individuals within two weeks (David Clark, Harold Cones, Bob Brown and my wife!) This one is in the "Must Have" category!

Speaking of "must have" books, I practically ordered each of us to buy the biography of Dr. Harold Beverage (*Genius at Riverhead*) in the February column and then didn't give you a complete address. Sorry! The correct information on how to get one of the last few copies is in the bibliography below.

Excellence...Right Under Your Nose

A brief aside before we get started: I am writing this just a few days before the April issue of the Journal hits the streets. Go back and find your copy of the March 1990 Journal. Take a look. In my opinion, the March issue was the finest single issue of a monthly radio hobby publication ever published, bar NONE! Every single columnist hit a home run! The content was broad and deep. I know that there are parts of the March issue that I will study for a long time to come. It is darned easy to see why our membership is escalating so rapidly when the general trend of club populations has been downward. Its a real pleasure and honor to be even a small part of such an excellent service to the hobby!

One of the most common "other" interests among shortwave listeners is a fascination with maps. The advent of PCs at home and in

schools has fostered the development of a good number of PC-oriented mapping and atlas programs. The Library is fortunate to have several reviews in hand of the best of these programs. NASWAN Doug Thompson of Hartland, Vermont is a long-time computer and map enthusiast and a relative newcomer to the radio hobby. He has reviewed a shareware program called GEOCHRON for us this month. Reviews of WORLD29, PCGLOBE 3.0, and WORLD ATLAS are also on file. If you would like to read the other reviews, send the old Librarian a note requesting them and a #10 SASE at the address on the masthead.

GEOCLOCK: A Review

By Douglas F. Thompson

GEOCLOCK is shareware program available from a top-notch outfit called Public Brand Software. You may order by mail or by phone. The GEOCLOCK system requires a graphics board, and has different versions for Hercules/CGA and EGA/VGA. With the higher resolution graphics boards it requires 256K of memory and provides color output with excellent detail. At present there are about 30 maps available for registered users (registration is \$30, from Joseph R. Ahlgren, 2218 N. Tuckahoe St., Arlington, VA 22205-1946).

GEOCLOCK produces maps that each show current areas daylight and night and the twilight terminator, based on the current time in the computer, or for any specified time and date you choose to input. The program updates the twilight line in real time, or it can be speeded up to show the variations in daylight at any location for any day. (It was from using this program that I finally realized that on the first day of spring and the first day of autumn every spot on the globe has 12 hours of sunlight. I suppose I should already have known that, but the graphical output made it obvious. Where were personal

computers when I studied 9th grade science! The answer is—they hadn't been invented.)

The \$5 demo disk from PBS contains three maps: Rectangular projection World and USA maps plus a polar projection centered on the North Pole. Maps distributed to registered users include the world, eight or ten detailed maps of the US, at least one map of each continent, and a couple of my personal favorites, maps of the Arctic and the Antarctic. Additional maps can be generated for \$30 each from the author.

For those of you familiar with the computerized version of the DX Edge, the similar program from MFJ or the shareware "TERMINATOR" program, GEOCLOCK is similar, but offers the advantage of being able to see the terminator position in great detail on some of the regional maps. Those DXers who use sunrise or sunset enhancement at the transmitter as a DXing technique will love this program!!!

Country names are not included on the maps, but you can customize your maps to show locations in a cities file you generate using a text editor. For registered users two extra features are available, including the capability to point to a location with a mouse and then zoom in or out (depending on the map files available—this is particularly effective if you select New York City and zoom in from the world view). Registered users also have the capability of measuring distances between locations they select (again by use of the mouse) on any of the program's maps. DOS's GRAPHICS.EXE program will not give you a useable picture of any maps from GEOCLOCK. Perhaps a reader could suggest a way to get print-outs from this program—I've not found one that gives quality results.

In summary, GEOCLOCK is a beautiful mapping program, a real-time DXing tool and a great bargain at \$30! Highly recommended.

Cousteau's Papua New Guinea Journey

Reviewed by Bob Brown

Occasionally the Book Of The Month Club has some great bargains and when I saw the listing for a book called "Cousteau's Papua New Guinea Journey," I didn't hesitate ordering it. This fascinating 224 page book was published in 1989 by Harry N. Abrams, Inc., New York and written by Jean-Michel Cousteau and Mose Richards. Filled with beautiful color photographs, the book tells the tale of the 1988 expedition of the Cousteau Society to explore the rich aquatic and land environments and the diverse cultures of the eastern half of the large Pacific island of New Guinea known today as the independent nation of Papua New Guinea. The group travels throughout the Bismarck, Solomon, and Coral Seas to explore places with names that should be familiar to SW DXers who enjoy listening to this part of the world. New Ireland, New Britain, Bougainville, Madang, Milne Bay, and Port Moresby are visited as well as the account of their journey up the fabled Sepik River, the river of the Crocodile Men.

Ecological problems are studied and the book explores how the Cousteau team was able to help educate villagers about potential threats to their environment. Exciting discoveries including an account of men who fish with nets made of spider webs and the tribal rituals of the Mud Men are also explored.

This region's role in World War II is also covered in this book. In August 1942, a titanic battle erupted across the peaceful islands and seas of New Guinea that would determine the course of the war and the destiny of millions of people. After buying the book, I have since seen the PBS special about this expedition. It was shown as a 2 part series and will probably show up again some time on your local PBS station. In the mean time, I recommend picking up this book. If you have any interest at all in this area, you won't be disappointed.

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Technical Topics

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ANTENNAS PROJECTS FOR THE LANDED GENTRY

When radio enthusiasts think of antennas, they often think of huge arrays occupying acres of land. We have all seen photos of the curtain arrays of, say, Radio Netherland or Deutsche Welle. What most people don't realize is the concept of give and take can be used to their advantage.

If the transmitting end of things erects huge antennas, then the receiving end is not obliged to do so. Of course, if both the transmitting and receiving ends had optimum antennas it would be ideal. But most broadcasters (and I use the term for one-way and two-way radio sources) assume that the receiving end will have a less-than-ideal antenna. For example, most European broadcasters are aiming at people with portable receivers with whip antennas. They know that their audience has little spare acreage for large outdoor antennas. Likewise, in the U.S., many people live in urban areas or locations in which outside antennas are forbidden.

So when people ask me "what is the best antenna I can put-up?" I reply "how much room do you have?". It literally boils down to how many resources you have available to you. If you own an R.J. Reynolds aluminum franchise, or a few hundred acres of land in Texas, then the type of antenna you can (and should) put up will be quite different from someone with a 1/4 acre lot in the city. The best antenna you can put up is the best antenna you are able to put up.

The antenna plans that follow will work well for anyone with a moderate amount of space (like a

typical urban lot). Those with more space can use it to get the antennas higher in the air. Those with less space can experiment adapting the antennas to fit what is available. It won't lessen performance too much if the plans are not followed exactly.

WARNING!

No matter how many times you have built or installed antennas please read the following carefully.

As a former Deputy Coroner, I have seen far too many people killed while erecting an antenna. This is our hobby, folks. The closest I ever want to see someone come to death from SWLing is from staying up all night to catch an Indonesian station (right, Bob?). Literally all the deaths I saw from antenna accidents were from poor planning (or no planning). Before you even start, sit down and look at your installation. Where will the antenna go? What will be in the way? Never go up a tree or onto a roof without someone there with you. A neighbor of mine once died on his roof from a stroke. He died there after several hours because no one knew he was there, nor saw him have the stroke. Never put an antenna up where it can contact a power line - even if it would have to fall down to do so. While putting up an antenna do not let any part of it go near a power line. Don't forget the "service line" that goes from the pole to your house. It carries 220 volts - quite enough to kill most people. If you drop an antenna,

LET IT GO! You can always untangle it later - and it's easier to untangle an antenna than a human body. Only when you are certain that you are ready to go should you start to put up your antenna.

PREFACE TO CONSTRUCTION

One of the most important factors in the performance of wire antennas is the height at which they are placed above the ground. There are a couple of reasons for this: ground cancellation and angle of radiation.

In ground cancellation, part of the signal coming toward the antenna hits the ground first, then bounces up to the antenna. Unfortunately, some of that same signal also went directly to the antenna. The "bounced" signal will partially cancel the direct signal, depending on the distance the bounced signal had to travel up from the earth (the height of the antenna). The higher the antenna, the less significant ground cancellation becomes.

The angle of radiation is the angle between the earth and the arriving radio signal. If the signal arrived from directly overhead, the angle of radiation would be 180° ; if it arrived from the horizon, the angle would be 0° . If your signal source is close by, the optimum angle of your antenna is irrelevant - there's enough signal at all angles to go around. But if your signal is quite distant, such as Europe, the angle is critical. High angle signals will arrive, but they will be quixotic, and prone to fading. There will be more signals arriving at a low angle, and they will be more stable (on the average). Placing your antenna as high as possible will make it most sensitive to signals arriving at a low angle.

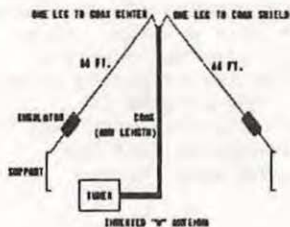
AN INVERTED "V"

There are many antennas available for individual bands of frequencies that out-perform

multiband antennas. Unfortunately, unless you only listen to a particular band, or have the resources to put up an antenna for each band you listen to, the multiband is a necessary compromise.

The inverted "V", so called because of its shape, is an excellent broadband antenna. Many antennas have optimum performance over a very narrow range of frequencies (150 KHz, for example). Such antennas might do very well between 7.5 to 7.65 MHz, but poorly anywhere else. Obviously, this won't do for most SWLs. "Broadband" means that an antenna will do well across a wide range of frequencies - but not necessarily on more than one band. By adding an inexpensive antenna tuner to the inverted V described below, the antenna can be made to cover continuously from 1.5 MHz to about 30 MHz. This means that one antenna gives you all the International Shortwave Bands (including the tropicals) as well as the Utility frequencies. A partial list of tuner manufacturers appears at the end of this column.

A distinct advantage of the inverted V is that it only requires one high, central support. The ends can come to within 6 feet of the ground, although for safety I recommend you keep them at least 8 feet off the ground. The antenna is essentially omni-directional. This means that it will receive equally well in all directions



Use 14 or 16 gauge stranded or hard-drawn copper wire for the antenna legs. It is best if the central support is not metal, but it is not essential. Just be certain that the antenna legs can't touch the support if it is metal. Be sure to observe the angle between "legs" of the inverted V. Too much angle makes the antenna behave like a dipole antenna; too little angle makes it behave like a vertical antenna.

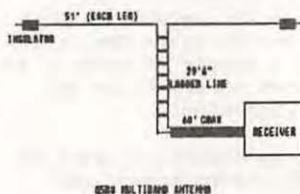
This antenna is normally fed with "ladder line" type of feedline. This is similar to the TV "twinlead" we've all seen, but is generally much wider (it is a different impedance than the TV type). Most of the tuners available can accommodate ladder line, but some don't, and it is getting increasingly difficult to obtain. In these cases, coax can be used. 50 or 75 ohm coax will work, but should be used with a balun. Any 1:1 balun can be used, and again, several suppliers are listed at the end of this column. A balun simply matches both halves of the balanced antenna to the unbalanced coax.

G5RV MULTIBAND ANTENNA

This is a classic multiband antenna, named after its designer, amateur radio operator Louis Varney, G5RV. It has the advantage that it does not need a tuner to work well, but it does require a little more construction, as well as 300 ohm ribbon lead cable and at least 68 feet of coaxial cable. One other advantage is that the end of each leg can be bent directly downward if space is at a premium. This antenna will give you complete coverage from the tropics on up to 30 MHz. The antenna is somewhat directional, with best reception broadside (off the sides, not the ends) to the antenna.

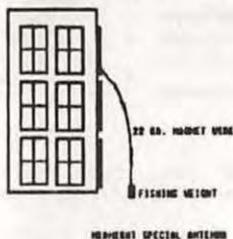
You should keep the twinlead section as straight as possible, and at right angles to the antenna legs.

The 68 foot length of coax is very important - it acts as a matching section to convert the 300 antenna impedance to the 50-75 ohm input of your receiver. You can add more coax if needed to get to your receiver, and you can coil up excess coax and secure the coil with tape or nylon cable ties.



If you have very limited space, or are not permitted to place a permanent antenna outside, there are several options available. Both follow the adage that if no one sees the antenna go up, no one notices it. If you live more than two stories above the ground, there is the "midnight special" antenna. This is a length of very fine wire, such as #22 magnet wire (available at Radio Shack, for example) with a small fishing weight at the end of the antenna. The antenna is called a midnight special because it can be discretely reeled-out after dark, then reeled-in when not in use. In fact, you can use an inexpensive fishing reel to wind the antenna wire onto, and use an alligator clip to attach the antenna to your tuner when in use. You must use the type of antenna tuner designed for "random-wire" or "long-wire" antennas (these tuners have a single binding post for the antenna connection), and you must connect the ground post of the tuner to a ground - if nothing else the ground screw of your electrical wall plate. Use enough wire to get the far end of the antenna close to the ground, but not closer than about 8 feet. Be sure that the wire will not

block any entry or exit ways when it is let out - you don't want anyone tangled-up in the wire.



The second "low-profile" antenna is the basically the same as the one above, but is designed to remain in place permanently. Using the same small-gauge wire you attach the far end of the wire to a tree or some other tall structure that isn't likely to move. By using small gauge wire the antenna will be almost invisible - unless someone is looking for it they may never see it. Be very careful that this antenna does not go over or under any electrical lines. Also be careful that if the antenna wire should break and fall (remember, it is very thin) that it won't fall where it could harm anyone - such as across a parking lot or sidewalk.



SUPPLIERS

The following is a partial list of companies that supply antenna tuners, baluns, or coaxial and twinlead cable. They all have interesting catalogues, so why

not write and request one - even if your construction plans are in the future? And don't forget to tell them you saw their address in *The Journal*!

All Electronics Company
15004 Oxnard St.
Van Nuys, CA 91411

Antennas Etc./Unadilla
P.O. Box 215BV
Andover, MA 01810-0814

DX Radio Supply
P.O. Box 360
Wagontown, PA 19376

Grove Electronics
P.O. Box 98
Brasstown, NC 28902

MFJ Enterprises
P.O. Box 494
Mississippi State, MS 39762

Mouser Electronics
2401 Hwy 287 N
Mansfield, TX 76063

Radiokit
P.O. Box 973
Pelham, NH 03076

ERRATA

In last month's column, the formula for calculating the impedance of coaxial cable was not quite correct. The "square root" sign was omitted from the formula and the sample equation. The correct formula should read:

$$Z_{\text{coax}} = (138 \times \text{LOG}_{10} D1/D2) / k$$

The correct sample equation would be:

$$(138 \times \text{LOG}_{10} .5/.07) / 2.3 = 77.7$$

I hope this did not cause too much confusion to those of you who followed the equation through.

Until next month, then, good listening, and don't hesitate to write about ideas for future *Technical Topics Columns*.

Listener's Notebook

Bruce MacGibbon
2295 Juniper Avenue
Gresham, OR 97030



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ANDAMAN AND NICOBAR ISLANDS - According to Mr. R. Venugopal, Station Manager at AIR, Port Blair, the testing phase of the new 10 kW HF transmitter is over. Since Independence Day (15th August 89), regular transmissions are on the air as per following schedule: 07-0850 on 7180 and 1030-1630 on 4760. There are plans to extend the schedule to include morning transmissions as follows: 0010-0215 on 4760 and 0230-0345 on 7180. 7180 is still used by AIR Bhopal during local afternoons. Until now this kinda co-allocation was limited to only mediumwave. Earlier at Port Blair, a 7.5 kW HF transmitter was lying with its manufacturers at Bharat Electronics Ltd. (BEL), Bangalore. AIR, Port Blair is testing on 3330 kHz in the mornings, but it is not readable here. Another example of dual allocation as AIR, Leh also uses the same channel for the same time stretch. Reports are lazily verified by a QSL letter from the following address: Mr. R. Venugopal, Station Engineer, All India Radio, Port Blair-744 101, Andaman Islands, India. Cable: Akashvani. Tel: +91 3192 20682. (Manosij Guha in his "DX Grapevine #36)

AUSTRALIA - Offshore Transmitting Site investigated:

It has been recommended by the Radio Australia Review Group that an offshore transmitting site be investigated, to give a better signal into north Asia. Mr. Richard Broinowski, General Manager of Radio Australia, is visiting Thailand to discuss such a possibility with the Thai government. He will be assessing the chances of having a transmitting base in Thailand and meeting with officials to gauge Thai response to the proposal. If this visit is productive, there will need to be continuing discussion and negotiation which may eventually lead to RA having offshore transmitting capacity. I stress that it is only a proposal at this stage. (Keith Synnott, Publicity Officer, Radio Australia) Note: The way I heard about this was I tuned into the middle of an interview between Rob Hoskin of RA and Mr. Richard Broinowski, General Manger of Radio Australia. (bmm) and AFP agency, Hong Kong, in English 1039 gmt 30 Mar 90. Excerpt from report in Bangkok:

Radio Australia is exploring the possibility of setting up facilities in Thailand to strengthen its signal in the region, particularly to China and the Indian subcontinent, the radio's head Richard Broinowski told reporters here (on) Friday (30th March).

Richard Broinowski said he had preliminary discussions with Thai officials on the possibility of installing transmitting facilities that would allow the publicly-funded radio to use signals comparable in strength to the British Broadcasting Corporation (BBC) or the Voice of America (VOA).

Potential sites, he said, could be in Udun Thani province, some 560 km (330 miles) northeast of here, or closer to the Thai capital, in Pathum Thani province, about 45 km (27 miles) north of here.

Mr. Broinowski, who took over as Radio Australia's head earlier this year, said it would also look at possibilities in other countries in the region, such as the Philippines and Vietnam, but he added: Thailand is our preference"... (WBI 4/6)

The J90 draft Operational Sked for Radio Australia effective 0000 from 6 May 90, shows widespread use of frequencies in the extended SW bands. A proposed NF is 12000, from Carnarvon (250 kW) 1330-14 Vietnamese and 14-17 General EE service. The Brandon facility is scheduled: Transmitter "G" 10 kW: 21-00 Gen EE (02-0730 Sats

Sporting Service); 6020 08-0930 Pacific English, 0930-11 Tok Pisin, 11-21 Gen EE. Transmitter "J": 6035 0730-08 Gen. EE, 08-0930 Pacific EE. 0930-11 Tok Pisin, 11-21 Gen. EE. Planned operations in the 22 mb are: 13605 Darwin 21-22 CC, 22-01 Gen. EE; 13745 Carnarvon 1430-17 Gen. EE, Shepparton 1930-2115 Gen. EE. My thanks to Hugh Murray, Frequency Manager of RA for details. (Shortwave Station News Edited by Mick Ogrizek in ADNX 4/90)

CANADA - Northern Quebec Service on 9625 heard with news and signoff at 0510 (one hour early because of Daylight Saving Time). Q: How does one save daylight in the Canadian Arctic in the summer? A: In a snow bank. (via Mike Fern, CA)

COLOMBIA - 6035.2, 1015-1032, La Voz del Guaviare, SP, Music llanera. 1031 ID "Desde San Jose del Guaviare, Colombia, escuchan a La Voz del Guaviare compania." Recently *1000V-. (Yoshinori Sano via 'Nishi-Tokyo DXers Circle (NTDXC) Tune' No. 75 edited by Junichi Nishikawa)

COSTA RICA - 5953.5, -1040-, R. Casino, SP, LA pops program. Drifted here from 5953.8 recently. Fair to poor on 4/9. (Yoshinori Sano via 'NTDXC' Tune' No. 75, 4/90)

CUBA - The Radio Havana, Cuba program "DXers Unlimited" has moved one hour later to 0335 and 0535 UTC Sundays. Best west coast reception on 11820 kHz. As heard on 4/15. (Mike Fern, CA)

Radio Havana, Cuba in French for Canada and the Antilles 03-04 on 11760 & 9750 as heard on 4/17. (WRTH90 had 5965 which 9750 replaces). (Mike Fern, CA)

Sheryl Paskowicz, Editor of 'Tropical Band Loggings' in NASWA asked why Radio Rebelde on 5025 was sometimes on and sometimes off while the new transmitter (now on 3360) was testing. I believe 5025 and 3360 are on the same site. If that is the case, then 5025 was turned off deliberately so it would not interfere with antenna measurements and signal strength measurements in the immediate neighborhood. The 90m Antenna is a simple dipole but the height was chosen so that low-angle radiation (best for DX) would be reduced in favor of good reception on the Cuban islands. 3360 is all but buried under strong c.w. QRM here. (Mike Fern, CA)

CYPRUS - The Cyprus Broadcasting Corporation, at Nicosia, has a special programme in Greek, for listeners in the United Kingdom, on Fridays, Saturdays, and Sundays from 2225 until 2245. This broadcast may also be heard throughout the world, and it uses facilities provided by the British Broadcasting Corporation's East Mediterranean Relay on Cyprus. Two freqs are in use, 9650 and 7205, and Bob Padula, in Victoria, advises that both outlets give good reception in Melbourne. (via Radio Australia's Japanese DX Time 4/14)

CZECHOSLOVAKIA - Radio Prague has suspended its English, French and some other programs for three to four weeks starting Apr. 1. Ian McFarland of RCI phoned Karel Stary of Radio Prague on Thursday. Stary said the suspension is due to a reorganization of Radio Prague shortwave services. The changes are necessary to get ready for the 90's and get away from the old propaganda approach. If more than four weeks are needed, that will be up to the director of the service. (McFarland suggested writing Radio Prague a letter of support.) & Bill Westenhaver, Montreal says Radio Prague-Inter Program still heard in Czech and Slovak on 6085 and 13715 kHz from 23-0055 UTC. (via RCI's SWLD 4/8 via Mike Fern, CA)

Interview w/Vladimir Feltman, senior editor in the English section of Radio Prague, on Radio Nederland's Media Network on 4/12 and thanks to Mike Fern, CA for this:

Marks: Last week we mentioned in passing that Radio Prague appeared to be off the air. We reached Vladimir Feltman, senior editor in the English section of Radio Prague this week. He's a regular voice on the air. So I asked him, what's the official story?

Feltman: Radio Prague went off the air on the first of April under a program of major organizational changes. It was (thought?) by the director-general of Czechoslovak Radio we are external broadcasts of

the Czechoslovak radio as such. Now, in the communique, our director charged Radio Prague with a role in what they call "the export of revolution," meaning that Radio Prague has lost its legitimacy as the voice of Czechoslovakia. So major organizational changes amount to deep cuts in our broadcasting time, time when we will not resume our broadcasts until the seventh of May.

M: And when they do so, Radio Prague will consist of 150 people. That's around 45 per cent of the previous size. The station disappeared from the airwaves at the start of this month without any explanation being allowed. It seems though that the board of directors wants to make a completely fresh start.

F: More than 300 people at Radio Prague are facing a very insecure future. We are going now through a strange kind of selection which the management prefers to call "competition" but it's not a public competition anyway, it's an internal one, and there will be no interviews. Decisions will be made behind the scenes and those people who will be found, um, discredited will have to leave. The apparent assumption is you can't have the same kind of people broadcasting different themes or different points of view after the 15th of November. Which means that they are completely unaware of the contents of our broadcasts (and they were put out?) for the last at least ten years.

M: So what is happening at the moment? Are 300 people staying at home?

F: Well, partially, yes. We're coming to work, doing nothing. Here and there we are helping out. If you know Inter Program Radio Prague, that is one of the services of Radio Prague for domestic consumption, we are helping them out with the news, different materials here and there. But that keeps only a couple of people busy here and there, but actually, we are doing nothing. We are not writing anything because we're -- I must say that we're all down anyway. There are two reasons: carrying out such a drastic decision. But the fact is that if there are some discredited people here with connections to secret police, with whatever, you have to prove that. They can't prove anything.

M: So in other words they are saying that everybody is guilty.

F: Yeah. (Radio Prague internal signal)

M: The situation remains confused there. Radio Prague will return with 14 1/2 hours of broadcasting a day. Some of the rest of the available air time may be given over to other broadcasters. A report from the Czech capital suggests that the U.S.-financed Radio Free Europe may be interested.

F: They decided to reward people, 29 of them, in the Czech section of Radio Free Europe by inviting them to Czechoslovakia, offering them one of our transmitters, medium wave, to give them a chance to broadcast from Czechoslovakia, for how long nobody knows. This information comes from independent sources, in particular Czechoslovak Television, where people from Radio Free Europe, Czechs who worked for Radio Free Europe, themselves said they are going to broadcast from Czechoslovakia.

M: Radio Free Europe in Munich tells Media Network that they are in the process of opening a bureau in Prague to send material to their studios in southern Germany. They are in close touch with the Czech government on other matters, but are not a liberty to disclose details at this stage. Meanwhile, staff at Radio Prague are openly asking for support.

F: If there is a petition or some kind of request on behalf of DXers from Europe, around the world, probably from America as well, the DXers associations, bombarding, let's say, Vaclav Havel as president, because my personal instinct of a journalist tells me that this decision is really political and it originated somewhere very high up, you know in the government or even the Prague Council.

M: Because the existence of the shortwave external service is not very well known inside the country, Radio Prague is worried about its long-term existence. It's regarded by some politicians there as an expensive luxury.

F: The reduction, I must say, won't be carried out so much at the expense of the English service as at the expense of the Spanish service, the Italian and French.

English Language SW Broadcast
Schedule
and
English Language DX Show
Schedule

Compiled by
Thomas R. Sundstrom

Prepared 04/26/90 at 1:35 PM

Thanks to **John Carson** (OK), **Kris Field** (PA) and **Gordon Darling** (Papua New Guinea), **David Alpert** (NY) for the many schedules and press clippings received. Special thanks to **Brent Allred** of HCJB for the fax received at deadline.

Notes

Dubai at 22-24 according to its printed schedule is now using 6170 in lieu of 13605, but only 9600 is heard here. **Iraq** on probably the first week of April shifted its broadcasts an hour earlier. **Czechoslovakia's** international services disappeared during the month of April, but (according to an interview heard on RCI's SWL Digest) are expected to return by May 1. A complete reorganization of services was offered as the reason for the disappearance. **R Havana Cuba's** DX Corner and **R Japan's** DX Corner have expanded to 15 and 20 minutes respectively. **ORF's** NA service to NA at 1130 on 21490 has been clobbered since at least mid-April by the **BBC's** (special) English to Africa that runs to 1145. The **BRT's** Radio World reports that **R Moscow** has dropped its DX Program (airing Mon-Tue to NA) due to a lack of qualified staff but I haven't had to time to confirm this yet.

HCJB Ecuador

From May 6th there are a num-

ber of changes in the English language programming. All Quito-produced programming is combined into a one-hour block called **Studio 9**. It will begin with a 5-minute newscast focusing on Latin America seven days a week.

On M-F news, current affairs, features and features will occupy the next 15 minutes, and daily feature programs will begin at 20 minutes into the program. This means **Passport** is dropped and **Happiness Is** is cut back in time.

The daily feature programs are **Dateline 90** (M), **Happiness Is** (Tu & Th), **Ham Radio Today** (W), and **Musica del Ecuador** (F).

Saturday will have **Focus 2000** and **DX Party Line**, and Sunday will air **Get Set** and **Saludos Amigos**.

Studio 9 will air to NA 0030, 0230, 0500; to Eu 0730, 1900; and to S Pac 0730, 1000.

In addition to **Studio 9** programming, **Musical Mailbag** will air Saturdays 0130, 0330 and 0600 to NA, 0700 and 2130 to Eu, and 0830 to the Pac. **Music in the Night** can be heard in NA at 0630 on MWF.

If **HCJB** follows their usual pattern in announcing, these are the days in the target areas, i.e., for NA it will be the next UTC day. A complete English program schedule will be published in June.

South Africa

R RSA is scheduled to undergo a major change in its external services in May. Budgetary problems appear to be the cause of the action. Most of its programming will be targeted to Africa. The new schedule is unknown at this time. One casualty in its program lineup, announced April 14, is **Amateur Radio Spectrum**. The decision, announced April 9th, was apparently made after the printed May 5-September 1 schedule was mailed to Monitoring Panel members; the schedule gives no clue to the reorganization and cuts announced in early April. I sent faxes to two offices trying to solicit the new schedule, but no responses by deadline. The schedule within the accompanying listing is a guess; it is the residue of the received D90 schedule. I have no idea what is happening to **DX Corner**, so I have left the times as they were for the residue schedules. Check the Pinelands RBBS' SWL conference for updated information.

Pinelands RBBS News

Michael Murray of the European DX Council has been sending me the monthly EDXC newsletters on diskette. These are available for download, listed in the SWL directory. The latest issue is April: **EDXC0490.TXT**.

A PROPagation "door" has been added to the FidoNet mail door. Daily solar flux and A-index values may be viewed through a database. The data is updated every couple of days, and the data goes back to September 1, 1977.

New Zealand

Noel Brown of Chicago sent a fax on R New Zealand Interna-

tional's schedule, but it seems to conflict with other information here. RNZI has been difficult to hear since early April when the high-powered transmitter failed and I am not sure if it is back on the air as we go to press. I still hear audio on 17680 kHz but the signal level at 0130 UT on April 26 is quite low. Reportedly one of the old 10 kw transmitters was activated on 17680 until a part could be obtained from France.

According to the information Noel sent, the RNZI schedule for May 6 - September 1 is as follows: Polynesian Service 1800-2000 and 0430-0700 on 15485 (backup 15150 or 11780). Melanesian Service 2005-2200 on 15485 (backup 17730 or 15150) and 0730-1030 on 9850 (backup 11780 or 15485). General Service 22-01 on 17730 (backup 17680 or 15485). Noel comments that he regularly hears RNZI sign on at 0430 on 17680, contrary to the information derived from the monthly bulletin of the **New Zealand DX Radio Association**. For the moment I have opted not to change the schedule in the accompanying listings and leave it as it was, but you may wish to check this out as we move into mid-May.

Icom R-71A For Sale

The R-71A with pass-band tuning has all accessories: high-stability oscillator, SSB and 500 Hz CW filters, FM, remote control, voice module, UX-14/CX-17 computer interface, and a service manual. Aligned and tweaked by authorized factory service in December 1989. \$995 plus UPS shipping and insurance. Call evenings or weekends 609-859-2447 or use the fax, BBS or MCI Mail.

All Records Included

ENGLISH LANGUAGE SW BROADCAST SCHEDULES: By Start Time
Compiled by Thomas R. Sundstrom, W2IQ

Start Time (UTC)	End Time (UTC)	Country	Station	Freq #1	Freq #2	Freq #3	Freq #4	Freq #5	Freq #6	Freq #7	Freq #8	Target Area	Notes	Record Last Updated
0000	0030	Australia	R Australia	21740	17795	17750	17630	15465	15240	15160	15130	As/Pac/PapNG		03/03/90
0000	0100	China	R Beijing	17855	17705	15100						EWA	#2&3 v Mali	03/27/90
0000	0200	Cuba	R Havana	11820								Americas		03/26/89
0000	0115	India	AIR	17725	15110	11745	11715	9910	9535			GOS/As		05/24/89
0000	0030	Israel	Kol Israel	15640	11605	9435						WA		03/18/90
0000	0200	N Mariana Is	KHBI	15435								Phil/Indon/PapNG	270 deg	03/19/90
0000	0200	New Zealand	R New Zealand Int'l	17680								General Svc		03/27/90
0000	0050	North Korea	R Pyongyang	15180	15115							Am		12/25/89
0000	0030	Norway	R Norway	15165								SA	Eng Mon only	04/25/90
0000	0100	South Korea	R Korea	15575								Am		03/15/90
0000	0100	Spain	Spanish Nat'l R	11880	9630							WA		11/05/89
0000	0100	USA	VOA	15205	11740	11695	11740	11580	9815	9775	9455	Caribbean/Americas		04/03/90
0000	0200	USA	WCSN	9850								W Afr	90 deg	08/13/88
0000	0200	USA	WHRI	9495	7315							Eu/CA/SA	157/42 deg	03/19/90
0000	0300	USA	WRNO	7355								NA/CA	20 deg	03/19/90
0000	0200	USA	WSHB	13760	9410							CA/SA/NE Canada	167/25 deg	02/25/90
0000	0100	USSR	R Moscow	17720	17700	17605	15425	12050	11950	11735	9720	EWA	6000 & 6045 v Cuba	03/15/90
0000	0045	Yugoslavia	R Yugoslavia	15105	11735	7215						W Eu/NA		04/03/90
0030	0100	Australia	R Australia	21740	17795	17750	17630	15465	15320	15240	15160	As/Pac/PapNG		03/03/90
0030	0430	Ecuador	HCJB	17875	15155							NA		04/25/90
0030	0230	England	BBC	12095	9915	9590	7325	6175	5975			WS: NA/CA/Carib	#3 Bethany	03/16/90
0030	0100	Hungary	R Budapest	15160	11910	9835	9585	9520	6110			WA		03/15/90
0030	0125	Netherlands	R Nederland	15315	6165	6020						EWA	#1&2 v Bonaire	04/12/90
0050	0110	Vatican State	Vatican Radio	15180	11780	9605						NA		06/05/89
0100	0200	Argentina	RAE	11710								Americas	Tu-Sa	12/04/89
0100	0130	Australia	R Australia	21740	21525	17795	17750	17715	17630	15465	15320	As/Pac/PapNG	& 15130, 11880	03/03/90
0100	0200	Canada	R Canada Int'l	13720	11940	11845	9755	9535				LA	Su-Mo	03/16/90
0100	0150	Fed Rep Germany	R Deutsche Welle	15105	11865	9565	6145	6040				NA		03/15/90
0100	0145	German Dem Rep	R Berlin Int'l	13690	11890	6080						EWA		03/26/90

0100	0130	Israel	Kol Israel	15640	11605	9435		NA		03/18/90				
0100	0120	Italy	RAI	11800	9575			NA		03/19/88				
0100	0200	Japan	R Japan	17845	17835	17810	17765	5960	GOS/Ania/NA	#4 -0130;#5 v Canada 04/08/90				
0100	0200	Spain	Spanish Nat'l R	11880	9630				NA	11/05/89				
0100	0130	Sweden	R Sweden	17860	15405				As/Pac	04/05/90				
0100	0300	USA	KUSW	11695					Canada	70 deg;ex Mo;occ use 03/19/90				
0100	0200	USA	IVOH	13695					CA/Carib	100 deg 11/08/89				
0100	0200	USA	VOA	15205	11740	11580	9815	9775	9455	6130	5995	Caribbean/Americas	09/24/89	
0100	0300	USA	WYPR	11720	9505	5985			NA			#2&3 Network W-Sa	03/15/90	
0100	0200	USSR	R Moscow	17720	17700	17605	15425	12050	11950	11735	9720	ENA	6000 & 6045 v Cuba	03/15/90
0130	0200	Australia	R Australia	21740	21525	17795	17750	17715	17630	15465	15320	As/Pac/PapWG	& 11880	03/03/90
0130	0200	Austria	ORF	13730	9875	9870						NA/SA		10/13/89
0130	0138	Greece	V of Greece	11645	9420	9395						NA/Sweden	News/Eng ex Su	04/05/90
0130	0145	Hungary	R Budapest	15160	11910	9835	9585	9520	6110			NA	Tu/W/F/Sa	03/15/90
0130	0230	Iraq	R Baghdad	11810	9515							Ind/Pakis/NA/SA	often delayed start	04/02/90
0145	0230	German Dem Rep	R Berlin Int'l	15125	11890	11785	6080					ENA/WNA		03/26/90
0145	0200	Vatican State	Vatican Radio	15180	11750	9650						As/Aus/WZ		03/23/90
0200	0400	Australia	R Australia	21740	21525	17795	17750	17715	17630	15560	15465	As/Pac/PapWG	& 15160, 11880	03/03/90
0200	0250	Brasil	R Bras	11745								NA/CA		02/23/88
0200	0300	Canada	R Canada Int'l	13720	11940	11845	9755	9535				LA	Tu-Sa	03/16/90
0200	0400	Cuba	R Havana	11820	9710							Americas		05/20/89
0200	0330	Egypt	R Cairo	9675	9475							NA		07/20/86
0200	0250	Fed Rep Germany	R Deutsche Welle	15265	11945	11835	9690	9615	7285			S As		03/15/90
0200	0300	Guam	KSDA	13720								As	Sa-Su ; 300 deg	03/19/90
0200	0255	Romania	R Romania Int'l	11940	11830	9570	9510	6155	5990			NA		11/04/89
0200	0230	Switzerland	Swiss R Int'l	17730	12035	9885	9725	6135	6095			NA	17730 v Brazil	11/12/88
0200	0300	Taiwan	V of Free China	15345	11860	11740	9765	9680	7445	5950		NA/Jap/As/CA/AusWZ	#3,5,7 v WYPR	08/05/89
0200	0230	USA	VOA	15205	11580	9815	9775	5995				Caribbean/Americas	Tu-Sa	04/03/90
0200	0400	USA	WCSW	13775								E Afr	75 deg	02/25/90
0200	0400	USA	WHRI	9495	7315							Eu/CA/SA	157/42 deg	03/19/90
0200	0400	USA	WSHB	13760	9455							CA/Canada	167/315 deg	03/19/90
0200	0600	USA	WOCR	7520										03/27/90
0200	0230	USSR	R Kiev	17690	17665	15180	12060	12005	11770			NA		03/15/90
0200	0300	USSR	R Moscow	17720	17700	17605	15425	12050	11950	11735	9720	ENA	6000 & 6045 v Cuba	03/15/90
0230	0300	Albania	R Tirana	11825	9760							NA		12/16/89
0230	0330	England	BBC	12095	9915	9590	7325	6175	5975			WS: NA/CA/Carib	#2 Bethany	03/16/90
0230	0315	German Dem Rep	R Berlin Int'l	15240	13610	9730						Caribbean		03/26/90
0230	0245	Pakistan	R Pakistan	21490	17725	17660	15115	9545				S&SE As	Slow-speed news	12/24/89
0230	0300	Portugal	R Portugal	11840	9705	9680	9600					SA/NA	Tue-Sat	11/17/88
0230	0300	Sweden	R Sweden	15295	11705							NA		04/05/90

0250	0300	USSR	R Yerevan	17690	17665	15180	12060	12005	11770	WNA	News/Eng	03/15/90		
0255	0430	Netherland Antilles	Trans World Radio	11930	9535					NA/Carib	#1 03+	11/30/89		
0300	0400	Bulgaria	R Sofia	15310	15160	11765	11735	11720		Afr/NA		03/15/90		
0300	0400	China	R Beijing	17855	15100	11715	9690			WNA	#4 Spain;#2&3 Mali	03/26/90		
0300	0350	Fed Rep Germany	R Deutsche Welle	15205	11810	9545	6085			NA		03/15/90		
0300	0345	German Dem Rep	R Berlin Int'l	15125	13690	11785				WNA/ENA		03/26/90		
0300	0425	Guatemala	TGNC	3300								12/23/87		
0300	0330	Japan	R Japan	21610	17835	17825	17810	17765	15325	15195	11905	GOS/Asia/NA	#9 Gab;#6 Pr Guinea	04/01/90
0300	0520	South Africa	Radio 5	4880										09/08/89
0300	0505	South Africa	Radio Oranje	3215										09/08/89
0300	0400	Taiwan	V of Free China	15345	11745	9765	9680	7445	5950		NA/Jap/As/AusNZ	#4,6 v WYPR		08/05/89
0300	0350	Turkey	V of Turkey	17880	9445						Aus/NA			03/15/90
0300	0500	USA	KUSW	9815							Canada	70 deg;exc Mo		11/06/89
0300	0430	USA	VOA	11835	9575	9525	7280	6035	3990		Africa	#1 Sa-Su 0400-		04/03/90
0300	0600	USA	WENO	6185							NA/CA	20 deg		03/19/90
0300	0500	USA	WYPR	9505	6065	5985					NA	#1&2 Network M-Sa		03/15/90
0300	0330	USSR	R Moscow	15180	12050	12010	11710	9890			WNA			03/15/90
0310	0327	Switzerland	Int'l Red Cross	12035	9885	9725	6135				NA/CA	Tu&Pr after last Su		03/18/89
0310	0330	Vatican State	Vatican Radio	11725							NA			06/05/89
0315	0645	Costa Rica	R for Peace Int'l	7375								Tu-Sa;USB mode		01/31/90
0315	0345	France	R France Int'l	11995	11705	9800	9790	9745	9550	7280	7135	Am/Afr/Ind/As/Eu	#2 v Pr Guinea	12/09/89
0330	0430	England	BBC	9915	5975						WS: NA/CA/Carib			03/16/90
0330	0400	Japan	R Japan	17835	17825	17810	17765	15195			GOS/Asia			04/01/90
0330	0425	Netherlands	R Nederland	9590	6165						WNA	v Bonaire		03/15/90
0330	0400	United Arab Emirates	R Dubai	17890	15435	15400	11940				NA			10/29/89
0330	0430	USSR	R Moscow	15180	12050	12010	11790	11710	9890	9500	7230	WNA		03/15/90
0340	0348	Greece	V of Greece	11645	9420	9395					NA/Sweden	News/Eng ex Su		04/05/90
0345	0430	German Dem Rep	R Berlin Int'l	15125	11785						WNA			03/26/90
0350	0410	Italy	RAI	17795	15330						S As			11/03/89
0400	0500	Australia	R Australia	21740	21525	17795	17750	17715	17630	15560	15465	As/Pac/PapNG	#15160,11880;4&6SaSu	03/01/90
0400	0500	Austria	R Canada Int'l	15275							NR			03/16/90
0400	0500	China	R Beijing	11840	11685						WNA	#2 v Pr Guinea		03/26/90
0400	0600	Cuba	R Havana	11820	11760	9710	5965				Americas	#3 -0450		10/28/89
0400	0450	Fed Rep Germany	R Deutsche Welle	13790	11765	9765	9565	7225	7150		S&C&E Afr			10/30/89
0400	0415	Israel	Kol Israel	17630	15640	12077	11655	11605	9435		Aus/As/NA/B Eu/W Eu			03/18/90
0400	0600	N Mariana Is	KHBI	17780							China	340 deg		03/19/90
0400	0700	New Zealand	R New Zealand Int'l	17680							E Pac			03/27/90
0400	0450	North Korea	R Pyongyang	17765	15180	13650					SE As			01/01/90
0400	0455	Romania	R Romania Int'l	11940	11830	9570	9510	6155	5990		NA			11/04/89
0400	0430	Switzerland	Swiss R Int'l	12035	9885	9725	6135				NA			05/24/86

0400	0530	USA	VOA	15205	11785	7200	7170	6140	6040	5990	3380	WE/W Af/Eu	#6 0500-	04/03/90
0400	0600	USA	WCWS	9840								S Afr	105 deg	01/20/90
0400	0600	USA	WHRI	9495	7315							Eu/CA/SA	157/42 deg	03/19/90
0400	0700	USA	WNLE	9465									Mo-Sa	08/30/89
0400	0600	USA	WSHB	13760	9455							CA/Canada	230/315 deg	03/19/90
0400	0410	Zambia	R Zambia	4910									news/English M-F	01/14/89
0425	0440	Italy	RAI	9575	7275							Mediterranean		02/19/90
0430	0500	England	BBC	9915	5975							WS: NA/CA/Carib	#2 v Antigua	03/16/90
0430	0500	Swaziland	Trans World Radio	9760	9610	9550	7285	7255	7200	5055	4760	S Af	only 1 freq/bnd used	06/05/89
0430	0600	USA	VOA	9575	9540	9525	7280	6035	3990			Africa	#2 0500-; #3 -0500	04/03/90
0430	0530	USSR	R Moscow	15180	12050	9890	7340	7230	7210	7180	7170	WNA		03/15/90
0432	0505	Seychelles	FBBA	17820	15325							SE As	M #1&2 ; Sa #2	12/16/89
0500	0600	Australia	R Australia	21740	21525	17795	17750	17715	17630	15560	15465	As/Pac/PapNG	& 15160, 11880	03/03/90
0500	0700	Ecuador	HCJB	17875	15155							NA		04/25/90
0500	0530	England	BBC	9915	9640	6195	5965					WS: NA/CA/Carib	v Antigua	03/16/90
0500	1200	Equatorial Guinea	R East Africa	9585								AF	Sa & Su ; Sa -1500	10/06/89
0500	0550	Ped Rep Germany	R Deutsche Welle	11845	9700	9670	6120	5960				NA		03/15/90
0500	0545	German Dem Rep	R Berlin Int'l	15440	13690	13610	9760	6115	5965			AF/WE/Eu		03/26/90
0500	0600	Japan	R Japan	17825	17890	17810	17765	15195				GOS/As/NA/Oceania		02/19/90
0500	0800	Kuwait	R Kuwait	15345								Far E/S&E As/Aus/NZ		04/18/87
0500	0600	Spain	Spanish Nat'l R	9630								NA		07/09/89
0500	0700	Swaziland	Trans World Radio	11835	11760	11740	7285	7255	7200	5055	4760	S Af	only 1 freq/bnd used	06/05/89
0500	0700	USA	EUSW	6175								Canada	70 deg; Su only	11/06/89
0500	0530	USA	VOA	15205	11745	9715	9700	9670	7200	7170	6140	WE/W Af/Eu		10/29/89
0500	0600	USA	WTFR-	17640	15566	11580	9505	6065	5985			Eu/AF/NA	#4-6 Network M-Sa	03/15/90
0500	0530	Vatican State	Vatican Radio	21650	17730	17710	9645	6185				E&S Afr/Eu	#4&5 -0520	03/22/90
0510	1640	South Africa	Radio Oranje	7285										09/08/89
0515	0700	Canada	R Canada Int'l	17840	17775	9750	7295	6150	6050			W Eu/Afr	M-F; #1, 2, 4, 6 v UK	03/16/90
0515	0600	German Dem Rep	R Berlin Int'l	15240	11970							As		03/26/90
0525	1630	South Africa	Radio 5	11895										09/08/89
0530	0600	Albania	R Tirana	3500	7300							Eu		03/31/90
0530	0600	Canada	ORF	6015								WNA		03/18/90
0530	0730	England	BBC	9640	5975							WS: NA/CA/Carib	v Antigua	03/16/90
0530	0600	Italy	AWR Europe	7125								Eu		03/15/90
0530	0555	Romania	R Romania Int'l	21550	17790	17745	17720	15340	11840			Afr		12/09/89
0530	0600	United Arab Emirates	R Dubai	21700	17775	15435	11730					Far E/Aus/As		06/04/89
0530	0600	USA	VOA	15205	11745	9715	9700	9670	7200	7170	6140	WE/W Af/Eu	& 5965	10/29/89
0530	0700	USSR	R Moscow	12050	9890	7340	7260	7230	7210	7180	7170	WNA		03/15/90
0555	0802	Liberia	ELWA	4760									M-Sa; F-0817, Sa-0832	05/14/89
0555	0825	Malaysia	V of Malaysia	15295	9750	6175						Aus/NZ/Indonesia		04/30/89

0600	0630	Australia	R Australia	21740	21525	17715	17630	15560	15465	15240	11880	As/Pac/PapNG	03/03/90
0600	0800	Cuba	R Havana	11835								Americas	04/08/89
0600	0650	Fed Rep Germany	R Deutsche Welle	17875	15185	13790	11765					W Afr	09/30/88
0600	1000	Lebanon	V of Hope	6280	6215							ME	# 2 alt 01/25/90
0600	0800	Mariana Is	KHBI	17855	17780							Phil/China	270/310 deg 02/25/90
0600	0650	North Korea	R Pyongyang	15180	13650							SE As	01/01/90
0600	0630	Norway	R Norway	15165								Pac	Eng Sun only 04/25/90
0600	0700	USA	VOA	11745	11805	7325	7200	7170	6140	6095	6060	ME/N Af/Eu	& 3990 10/29/89
0600	0800	USA	WCSN	9840								Eu	60 deg 03/19/90
0600	0800	USA	WHRI	9620	9495							Eu/CA/SA	42/157 deg 03/19/90
0600	1200	USA	WRNO	6185								NA/CA	20 deg (Su only) 02/15/88
0600	0800	USA	WSHB	11980	9455							CA/Canada	215/315 deg 04/24/89
0600	0700	USA	WTFR	17640	15566	13760	7355	6065	5985			Eu/Af/NA	#6 Network W-Sa 03/15/90
0601	0700	USA	VOA	11915	9575	9540	9530	7280	6125	6080	6035	Africa	09/24/89
0630	0700	Australia	R Australia	21775	21740	17715	17630	15560	15465	15240	11880	As/Pac/PapNG	03/03/90
0630	0700	Belgium	BRT	13675	11695	6035						Eu/Eu	03/15/90
0630	0700	Bulgaria	R Sofia	17825	15160	11720						W Eu	03/15/90
0630	0655	Finland	R Finland	11755	9560	6120						Eu/NE/Afr	03/15/90
0630	1000	Liberia	ELWA	11830								CAW Afr	Sa-Su 05/14/89
0630	0700	Poland	R Polonia	3675	7270							Eu	08/15/89
0630	0700	Switzerland	Swiss R Int'l	21770	17570	15430	9535	6165	3985			Afr/Eu	04/18/90
0630	0700	Vatican State	Vatican Radio	21650	17730	17710						C&S Af	03/22/90
0645	0715	Romania	R Romania Int'l	21550	17805	17720	15365	15250	11940			Pac	11/04/89
0655	0832	Liberia	ELWA	4760									Su 05/14/89
0700	0730	Australia	R Australia	21775	21740	17715	17630	15560	15465	15240	11930	As/Pac/PapNG	03/03/90
0700	0830	Ecuador	HCBJ	15270	11835	9610						Eu	04/25/90
0700	0800	Japan	R Japan	21690	21500	17890	17810	17765				GOS/As/Am/Oc/Eu/NE	#1 v Gabon 10/26/89
0700	0750	North Korea	R Pyongyang	15340	11335							SE As	01/01/90
0700	0835	Swaziland	Trans World Radio	11835	11760	11740	7285	7255	7200			S Af	only 1 freq/bnd used 06/05/89
0700	0800	Taiwan	V of Free China	5950								NA	via WTFR 08/05/89
0700	1100	USA	KUSW	6135								Canada	70 deg; Su only 11/06/89
0700	0800	USA	WTFR	5566	13760	7355	6065	5385				Eu/Af/NA	#5 Network W-Sa 03/15/90
0730	0800	Australia	R Australia	21775	17715	17630	15560	15240	11930	11880		As/Pac/PapNG	03/03/90
0730	0800	Austria	ORF	21490	15410	13730	6155					ME/Eu	03/18/90
0730	1130	Ecuador	HCBJ	11925	3745							S Pac	04/25/90
0730	0815	England	BBC	9640								WS: NA/CA/Carib	v Antigua 04/06/89
0730	0825	Netherlands	R Nederland	3715	9630							NZ/Aus	via Bonaire 03/15/90
0740	0925	Monaco	Trans World Radio	3485								UK	Su -1015, Sa -0955 12/08/89
0740	0757	Switzerland	Int'l Red Cross	21695	17670	13685	9560					Australasia	MoTh after last Su 03/18/89
0745	0830	German Dem Rep	R Berlin Int'l	21465	15240	9730	7185	6115	6040			Far E/ENA/Eu	03/26/90

0800	0830	Australia	R Australia	21775	17750	17715	17630	15240	15160	As/Pac/PapNG		03/03/90	
0800	0830	Bangladesh	R Bangladesh	15195	11705					Bu		12/30/89	
0800	0825	Finland	R Finland	21550	17800					Aus		03/15/90	
0800	0930	Guam	ITWR	15200						Far East		01/05/90	
0800	1000	N Mariana Is	KHBI	17855	9530					Aus/NZ/Japan	165/340 deg	10/14/89	
0800	0850	North Korea	R Pyongyang	15180	13650	11830				SE As		03/27/90	
0800	0830	Norway	R Norway	25730	15165					P East/Aus/Pac/NA	Eng Sun only	02/16/90	
0800	0900	Portugal	AWR Europe	9670						Bu	Sunday only	03/15/90	
0800	0900	South Korea	R Korea	13670	7550					Bu		10/03/87	
0800	0900	USA	KMLS	11715						As		03/15/90	
0800	1000	USA	VCSW	9840						Bu	60 deg	10/26/89	
0800	1100	USA	WHRI	7355						Bu/CA/SA	42/157 deg	03/19/90	
0800	1000	USA	VSHB	13760	9455					Canada/SA	260/152 deg	03/19/90	
0810	0840	Mongolia	R Ulan Bator	12015						Aus		03/15/90	
0827	0957	Guam	ITWR	11805						Aus		04/05/90	
0828	0855	Netherlands	R Nederland	9770						Aus	weekdays	09/16/88	
0830	0900	Australia	R Australia	21775	17750	17715	17630	15240	15160	9580	5995	As/Pac/PapNG	03/03/90
0830	0930	China	R Beijing	17710	15440	11755						S Pacific	04/29/89
0830	0855	Finland	R Finland	21550	17800					B As		04/07/90	
0830	0925	Netherlands	R Nederland	21485	17575					Asia		09/19/86	
0830	0900	Switzerland	Swiss R Int'l	21695	17670	13685	9560			Aus/NZ		10/14/89	
0840	0848	Greece	V of Greece	17535	15625					Aus	News/Eng	04/07/90	
0900	0930	Australia	R Australia	21825	21775	17715	15240	15160	9760	9580	5995	As/Pac/PapNG	03/03/90
0900	0925	Belgium	BRT	21810	13675	6035				Afr/Bu		M-F	03/18/90
0900	0950	Fed Rep Germany	R Deutsche Welle	21680	21650	21500	17820	17780	15410	11740	9650	Aus/As/SAC&E Afr	03/15/90
0900	0945	German Dem Rep	R Berlin Int'l	21465	17880	15240	11890			Far E/ENA		03/26/90	
0900	0915	Hungary	R Budapest	15220	15160	11925	11910	9835	9585	Far East		M-F	03/15/90
0900	1000	Japan	R Japan	17890	17810	15270				GOS/As/Oc		09/08/89	
0900	0930	Norway	R Norway	17840						P East/Aus/NZ	Eng Sun only	04/25/90	
0930	1030	Afghanistan	R Afghanistan	17720	15350					S&SE As	v USSR	01/25/90	
0930	1000	Australia	R Australia	21825	21775	17715	15240	9760	9580	5995		As/Pac/PapNG	03/03/90
0930	1030	China	R Beijing	17710	15440	11755				S Pacific		04/29/89	
0930	0945	Hungary	R Budapest	15220	15160	11925	11910	9835	9585	Far East		M-F	03/15/90
0930	1000	Italy	AWR Europe	7230						Bu		03/15/90	
0945	1030	German Dem Rep	R Berlin Int'l	6115						Bu		03/26/90	
0945	1000	Hungary	R Budapest	15220	15160	11910	9835	9585	7220	Bu	Su	03/15/90	
1000	1030	Australia	R Australia	21775	15240	9580	7205	5995		As/Pac/PapNG		03/03/90	
1000	1600	Guam	KHBN	9830						China		10/21/89	
1000	1100	Guam	KSDA	13720						As	255 deg	03/19/90	
1000	1100	India	AIR	21735	17860	17387	15335	15050		GOS/WE As/Aus/NZ		12/02/89	

1000	1030	Israel	Kol Israel	21780	21745	17590	17575	15650	15485	11585	W Eu/E Bu/Aus/As	#3&6 alt	03/18/90
1000	1200	N Mariana Is	KHBI	15115	9530						Phil/Indon/China	240/310 deg	10/14/89
1000	1030	Switzerland	Swiss R Int'l	21695	17670	13685	9560				Aus/NZ		04/17/89
1000	1200	USA	VOA	15120	11915	9590					Caribbean/Americas		04/03/90
1000	1200	USA	WSRB	9495	9455						SA/Canada	25/152 deg	03/19/90
1000	1100	USA	WYPR	5950							NA		03/15/90
1000	1030	Vietnam	V of Vietnam	15010	12020	9840							11/07/89
1030	1100	Australia	R Australia	21775	9580	7205	5995				As/Pac/PapNG		03/03/90
1030	1100	Austria	ORF	21490	15450						Aus/As	Sa-Su	03/18/90
1030	1100	Canada	R Korea	11715							BNA		03/15/90
1030	1045	Hungary	R Budapest	15220	15160	11910	9835	9585	7220		Eu	Sa	03/15/90
1030	1125	Netherlands	R Nederland	11890	6020						Aus/Carib	v Bonaire	10/26/89
1030	1110	United Arab Emirates	R Dubai	21605	17775	15435	15320				Eu/Afr		06/22/89
1040	1048	Greece	V of Greece	15630	11645						Pac	News/Eng	12/23/89
1040	1057	Switzerland	Int'l Red Cross	21770	17830	15570	13635				Far East	Mo&Th after last Su	03/09/90
1050	1115	Finland	R Finland	21550	15400						NA	M-F	03/15/90
1055	1257	Netherlands Antilles	Trans World Radio	15345	11815						ENA/Carib	Sat -1400/Sun -1332	05/31/89
1100	1230	Australia	R Australia	21775	11930	11800	9710	9655	9580	7240	7205	As/Pac/PapNG	03/03/90
1100	1200	China	R Beijing	17855							ENA		03/27/90
1100	1200	England	BBC	11775	9740	9515	6195	5965			WS: NA/CA/Carib	#1&4 Ant;#2&5 Sack	03/16/90
1100	1150	Fed Rep Germany	R Deutsche Welle	21600	17800	17765	15410				W Afr	17800,15410 v Kigali	03/30/88
1100	1145	German Dem Rep	R Berlin Int'l	17780	13690	9665	6115				Eu/NE		03/26/90
1100	1200	Japan	R Japan	11840	11815	6120					GOS/Asia/NA	#3 v Canada	03/08/89
1100	1130	Mongolia	R Ulan Bator	12015	9615						Japan		03/15/90
1100	1150	North Korea	R Pyongyang	11735	9977	9645					Am		01/01/90
1100	1115	Pakistan	R Pakistan	21575	17555						W Bu	Slow-speed news	01/20/90
1100	1156	South Africa	Radio RSA	11805	9555						Afr		04/25/90
1100	1200	South Korea	R Korea	15575							NE/Afr		10/03/87
1100	1130	Switzerland	Int'l Red Cross	7210							Eu	last Su of month	03/18/89
1100	1130	Switzerland	Swiss R Int'l	21770	17830	15570	13635				SE As/Aus/NZ		07/29/89
1100	1200	Taiwan	V of Asia	9845	7445	5980					SE As		05/13/89
1100	1300	USA	KUSW	9850							Canada	70 deg!Su only	03/19/90
1100	1400	USA	WHRI	11790	9495						Eu/CA/SA	157/157 deg	03/19/90
1100	1200	USA	WYPR	11580	5950						NA		03/15/90
1100	1200	USSR	R Moscow	21725	17810	17700	15500	15475	15460	15435	15175	World Service	03/27/90
1130	1200	Austria	ORF	21490	15430	13730	6155				BNA/As/Bu		03/18/90
1130	1155	Belgium	BRT	21810	17555						SE As/NA	Su	03/15/90
1130	1300	Ecuador	HCFB	11740							NA		04/25/90
1130	1215	German Dem Rep	R Berlin Int'l	21465	17880	15440	11970				As		03/26/90
1130	1225	Iran	R Tehran	11790	9685	9610	9520				S&SE As/NE/India		03/09/90

1130	1225	Netherlands	R Nederland	21520	21480	17575	9715	5955	Su/MB/As	#2 v Madagascar	03/15/90
1130	1200	Sweden	R Sweden	21610	21570	17740			As/Pac		04/09/90
1130	1230	Thailand	R Thailand	11905	9655				SE As		07/29/89
1200	1300	Canada	R Canada Int'l	17820	11855	9635			Carib/USA	M-F	03/16/90
1200	1300	China	R Beijing	17855	15450	11660	11600	9530	RNA/S Pac/SE As		03/27/90
1200	1400	Costa Rica	AWR Costa Rica	11870	9725						12/14/89
1200	1630	Ecuador	HCJB	17890	15115	11740			NA	#3 -1500	04/25/90
1200	1400	England	BBC	11775	9915	9740	9515	6195	WS: NA/CA/Carib		03/16/90
1200	1225	Finland	R Finland	21550	15400				NA	M-F	03/15/90
1200	1300	Ivory Coast	AWR Africa	17890					AF	Su only	02/28/88
1200	1315	Jordan	R Jordan	13655					W Eu/NA		03/15/90
1200	1400	N Mariana Is	IHBI	15285	9465				Aus/PapNG/SE As	198/270 deg	10/14/89
1200	1230	Norway	R Norway	15165					NA/CA	Eng Sun only	04/25/90
1200	1225	Poland	R Polonia	11815	6095				Su		08/15/89
1200	1230	Romania	R Romania Int'l	17720	15340				As		11/04/89
1200	1256	South Africa	Radio RSA	21590	11900	11805	9555		S&S Afr	#3 to Namibia	04/25/90
1200	1230	Switzerland	Swiss R Int'l	12030	9535	6165			Su		03/27/90
1200	1400	USA	WRNO	9715					NA/CA	20 deg (Su only)	10/21/89
1200	1400	USA	WSHB	11930	9495				CA/NE Canada	182/25 deg	03/19/90
1200	1500	USA	VYFR	17750	13695	11350	6015	5950	NA	#1-3 Network M-Sa	03/15/90
1200	1300	USSR	R Moscow	21785	17810	17790	17700	15560	World Service		03/25/90
1200	1225	USSR	R Tashkent	17745	15470	11785	9500	7325	As		04/22/90
1200	1215	Vatican State	Vatican Radio	21515	17865				As/Aus/NZ	Pr only	03/22/90
1200	1230	Vietnam	V of Vietnam	15010	13020	3840					02/23/90
1200	1230	Yugoslavia	R Yugoslavia	25795	21555	17740			NA/Aus/Sar B		03/31/90
1215	1330	Egypt	R Cairo	17595					As		05/18/88
1215	1300	German Dem Rep	R Berlin Int'l	15240	11705				WB		03/26/90
1215	1315	South Korea	R Korea	9750					As		04/08/90
1230	1300	Australia	R Australia	21775	21525	11930	9655	9580	As/Pac/PapNG		03/03/90
1230	1300	Bangladesh	R Bangladesh	17850	15040				Su		03/25/90
1230	1255	Belgium	BRT	21815	17555				SE As/NA	#1 M-F/#2 M-Sa	03/15/90
1230	1255	France	R France Int'l	21645	21635	17650	15195	15155	Am/Afr/Ind/As/Eu	News & fest/English	11/13/89
1230	1300	Poland	R Polonia	15120	11840	9525			AF		08/15/89
1230	1300	Turkey	V of Turkey	17785					SW As		03/15/90
1235	1248	Greece	V of Greece	17535	15630	11645			NA/Sweden	News/Eng	04/07/90
1240	2205	Liberia	ELWA	11830					C&W Afr	Su	05/14/89
1245	1330	German Dem Rep	R Berlin Int'l	21465	17880	15440	11970		As		03/26/90
1300	1400	Australia	R Australia	21775	21525	11930	9655	9580	As/Pac/PapNG		03/03/90
1300	1600	Canada	R Canada Int'l	17820	11955				Carib/NA	Su	03/16/90
1300	1400	China	R Beijing	11660	11600	9530			SE As		11/07/89

1300	1330	China	R Canada Int'l	15385	11955				SE As & India		03/16/90			
1300	1325	Finland	R Finland	21550	15400				NA	Sa -1345, Su -1400	03/15/90			
1300	1345	German Dem Rep	R Berlin Int'l	6115					Eu		03/26/90			
1300	1350	North Korea	R Pyongyang	15180	13650	9640	9345	9325	SE As/Am/Eu		03/27/90			
1300	1330	Norway	R Norway	9590					Eu	Eng Sun only	03/30/89			
1300	1355	Romania	R Romania Int'l	21665	17850	15365	11940		Eu		03/27/90			
1300	1356	South Africa	Radio RSA	11805	9555				Afr		04/25/90			
1300	1500	Taiwan	WYFR	15055					India	via WOPC	03/26/89			
1300	1700	USA	XUSW	15590					Canada	70 deg; Su only	03/19/90			
1300	0200	USA	WOCR	15690						W-F	03/27/90			
1300	1400	USSR	R Moscow	21785	17840	17810	17780	17700	17660	15560	15480	World Service	11840 v Cuba 1330-	03/25/90
1300	1400	USSR	R Stn Peace & Progress	17870	17840	17635	15535	15520	15420	15330	15130	SE As	#2,5,8 from 1330	03/22/90
1310	1327	China	Int'l Red Cross	11695	9620				S&SE As/Far East	Mo&Th after last Su	03/18/89			
1315	1730	Jordan	R Jordan	9560					W Eu/NA		03/15/90			
1330	1400	Austria	ORF	15430					As		03/18/90			
1330	1500	India	AIR	15335	11850	11810	11760	9565	9525	GOS/SE As	# 1,4,5 maybe tests	07/27/89		
1330	1400	Switzerland	Swiss R Int'l	25680	21695	17830	15570	11695	9620	B Afr/India/Aus/NZ	#5&6 v China	04/18/90		
1330	1400	United Arab Emirates	R Dubai	21605	17775	15435	15320		Eu/Afr		06/04/89			
1330	1355	USSR	R Tashkent	17745	15470	11785	9500	7325	As		04/22/90			
1330	1400	Vietnam	V of Vietnam	15010	12020	9840					11/07/89			
1345	1430	German Dem Rep	R Berlin Int'l	9730					Eu		03/26/90			
1345	1415	Mongolia	R Ulan Bator	15305	9575	9645			India		03/15/90			
1345	1400	Vatican State	Vatican Radio	11740	9645	7250	6248		Eu		03/15/90			
1400	1430	Australia	R Australia	21525	15160	11930	9655	9580	7240	7205	6080	As/Pac/PapNG		03/03/90
1400	1500	China	R Beijing	15165	11795	7405			S As/WNA		12/08/89			
1400	1500	England	BBC	9740					WS: NA/CA/Carib	v Sack	03/16/90			
1400	1425	France	R France Int'l	21770	11925	7125			SE As	#2&3 v China	11/13/89			
1400	1500	Japan	R Japan	11865	11815				GOS/Am/As		02/16/90			
1400	1600	N Mariana Is	KHBI	15385	9530				SE As/India/China	285/310 deg	10/14/89			
1400	1430	Norway	R Norway	21710					Ind/S As/Aus	Eng Sun only	08/17/89			
1400	1556	South Africa	Radio RSA	11925	9555				Afr		04/25/90			
1400	1500	South Korea	R Korea	9570					SE As		03/15/90-			
1400	1430	Sweden	R Sweden	21610	17740				As/Pac		04/09/90			
1400	1600	USA	WCSN	21780					Eu	45 deg	04/24/89			
1400	1500	USA	WHRI	15105	9495				Eu/CA/SA	157/42 deg	03/19/90			
1400	1500	USA	WRNO	15420					NA/CA	20 deg (Su only)	03/19/90			
1400	1600	USA	WSHB	17555	13760				CA/Canada	245/315 deg	03/08/89			
1400	1500	USSR	R Moscow	21785	17810	17660	17585	15560	15480	15475	15305	World Service	#9 v Cuba	03/25/90
1405	1430	Finland	R Finland	21550	15185	11820			Eu/WR/Afr		04/01/90			
1420	1430	Sudan	National Unity Radio	9435						nx/88 some days	12/19/88			

1430	1500	Australia	R Australia	15160	11930	9655	9580	7240	7205	6080	6060	As/Pac/PapNG	03/03/90
1430	1500	Austria	ORP	21490	13730	11780	6155					W Af/SE As/Eu	04/01/89
1430	1530	Bulgaria	R Sofia	17825	15310	11735						Afr	03/15/90
1430	1600	Lebanon	V of Hope	6280	6215							NE/India	01/25/90
1430	1525	Netherlands	R Nederland	17605	17575	15150	13770	5955				S&E As/Eu	01/22/89
1430	1455	Poland	R Polonia	11815	9540	6135						Eu	08/15/89
1445	1500	Canada	R Canada Int'l	21545	17820	17795	15325	15315	15305	11935		C&E Eu	03/16/90
1445	1530	German Dem Rep	R Berlin Int'l	17380	11970							As	03/26/90
1458	1600	Seychelles	FRBA	15330	9590							SE As	12/16/89
1459	1601	Guam	KTWR	11650								India	04/05/90
1500	1530	Australia	R Australia	15160	11930	9655	9580	7240	6080	6060	5995	As/Pac/PapNG	03/03/90
1500	1600	China	R Beijing	15165	11795	7405						S As/WNA	12/10/89
1500	1745	England	BBC	15260	11775							WS: NA/CA/Carib	04/06/89
1500	1550	Ped Rep Germany	R Deutsche Welle	21600	17765	11965	9735					S&C&E Afr	03/15/90
1500	1600	Japan	R Japan	21700	11865	11815						GOS/As/Am/Eu/NE	02/16/90
1500	1550	North Korea	R Pyongyang	11750	9977	9640	9325					Eu/NE/Af	01/01/90
1500	1530	Romania	R Romania Int'l	17745	17720	15335	15250	11940	11775			As	02/19/90
1500	1555	Seychelles	FRBA	11865								SE As	12/16/89
1500	1515	Taiwan	VTPR	11550								India	03/26/89
1500	1600	USA	EWLS	11715								As	03/15/90
1500	1700	USA	VOA	15205	9700	9380						NE/W Af/Eu	04/03/90
1500	1600	USA	WHRI	21840	15105							Eu/CA/SA	03/19/90
1500	2100	USA	WRNO	15420								NA/CA/Eu	03/19/90
1500	0200	USA	WWCR	15690									20 deg
1500	1600	USA	VTPR	17750	13695	11850	11830	5950				NA	03/27/90
1500	1600	USSR	R Moscow	17810	17585	15475	11840					World Service	03/15/90
1500	1530	Vietnam	V of Vietnam	15010	12020	9340							03/25/90
1515	1530	Hungary	R Budapest	15220	15160	11910	9835	9585	7220			Eu	02/23/90
1530	1600	Australia	R Australia	15160	13700	11930	9770	9655	9580	7240	6080	As/Pac/PapNG	03/03/90
1530	1555	Belgium	BRT	21810	17550							Afr	03/31/90
1530	1538	Greece	V of Greece	17535	15630	11645						NA/Sweden	10/15/89
1530	1600	Sweden	R Sweden	21655	21500	17880						NE/NA	04/09/90
1530	1600	Switzerland	Swiss R Int'l	21620	17830	15430	13685					NE/E Afr	04/25/88
1545	1630	German Dem Rep	R Berlin Int'l	17780	15350	9730	7295					Af/Eu	03/26/90
1545	1630	Pakistan	R Pakistan	21740	21480	17895	17580	15605	13665			NE/EAS Afr	01/20/90
1545	1600	Vatican State	Vatican Radio	17870	15090	11945						As/Aus/NZ	03/21/90
1555	2205	Liberia	ELWA	11830								CAW Afr	05/14/89
1559	1659	Guam	KTWR	11910								Africa	04/05/90
1600	1630	Australia	R Australia	13700	11930	9770	9655	9580	7240	6080	6060	As/Pac/PapNG	03/03/90
1600	1700	China	R Beijing	15130	15110	9570						EAS Afr	12/08/89

1600	1650	Ped Rep Germany	R Deutsche Welle	21680	17825	15595	15105	7225	6170	S As		10/30/89	
1600	1655	France	R France Int'l	17850	17795	17620	15360	12015	11705	6175	Afr/NE/As/W Eu	#5&6 v Gabon 11/13/89	
1600	1700	Guam	KSDA	11980							India	285 deg 03/19/90	
1600	1800	N Mariana Is	KHBI	15385	13745						SE As/India	285/310 deg 03/19/90	
1600	1630	Norway	R Norway	21705	17765						NA/CA	Eng Sun only 04/25/90	
1600	1630	Poland	R Polonia	9540	6135						Eu	08/15/89	
1600	1630	Portugal	R Portugal	21530							NE	M-F 10/06/89	
1600	2100	Saudi Arabia	BC Serv of Kingdom of SA	9720								07/20/86	
1600	1700	South Korea	R Korea	9870	5975						NE/Afr/GOS	11/05/88	
1600	1630	Swaziland	Trans World Radio	11835	11760	11740	5055	4760			EAS Af	only 1 freq/bnd used 06/05/89	
1600	1640	United Arab Emirates	R Dubai	21605	15435	15320	11790				Bu/Afr	03/25/90	
1600	1800	USA	VOA	17870	17800	17785	15600	15580	15445	15410	11920	Africa	09/24/89
1600	1800	USA	WGSW	21640								E Afr	75 deg 08/28/89
1600	1700	USA	WHRI	21840	15105	11790						Bu/CA/SA	#2 Su ; #3 W-Sa 03/19/90
1600	1700	USA	WYFR	21615	21525	17885	17612	15566	13695	11580	11830	Bu/AF/NA	#3,6,7 Network M-Sa 03/15/90
1600	1700	USSR	R Moscow	17810	17585	15475	11840	9740				World Service	#4 v Cuba 03/25/90
1615	1630	Canada	R Canada Int'l	21545	17820	15325	15305	11935				C&B Bu	#3&5 v Bu relays 03/16/90
1630	1730	Australia	R Australia	13700	11930	11720	9710	9655	9530	7240	6080	As/Pac/PapNG	03/03/90
1630	1700	Austria	ORF	21490	13730	11780	5945					Af/Eu/As	03/18/90
1630	1830	Egypt	R Cairo	15255								S Afr	08/17/87
1630	1725	Netherlands	R Nederland	15570	15375	6020						R&S Afr	03/15/90
1630	1700	Poland	R Polonia	15120	11840	9525						Af	08/15/89
1630	1700	USSR	R Stn Peace & Progress	17565	15585	15470	12055	11980	11910	11850	9705	Af/As	03/22/90
1635	2400	South Africa	Radio 5	4880									09/08/89
1645	1930	South Africa	Radio Oranje	3215									04/17/89
1700	1750	Brasil	R Bras	15265								Eu	03/26/90
1700	1800	China	R Beijing	11575	9570	9500						R&S Afr	12/08/89
1700	1715	Israel	Kol Israel	11655	11585							E Eu/W Eu	03/18/90
1700	1800	Japan	R Japan	11865	11815	9695	9535					GOS/As/As	02/16/90
1700	1750	North Korea	R Pyongyang	11750	9977	9640	9325					Bu/NE/Af	01/01/90
1700	1730	Norway	R Norway	25730	17765							Af/NA	Eng Sun only 02/16/90
1700	1730	Sweden	R Sweden	9615	6065							Bu/Af	04/09/90
1700	1730	Switzerland	Int'l Red Cross	7210								Eu	No after last Su/mo 03/18/89
1700	2200	USA	KUSW	15590								Canada	70 deg 03/19/90
1700	1800	USA	VOA	15260	15205	11760	9760	6040				NE/N Af/Eu	04/03/90
1700	1800	USA	WHRI	15105	13760							Bu/CA/SA	157/42 deg 03/19/90
1700	2000	USA	WNLX	9465								Su-Pr	08/30/89
1700	1900	USA	WYFR	17885	17750	13695	11830	11580				Bu/AF/NA	#1,3,5 Network M-Sa 03/15/90
1700	1800	USSR	R Moscow	17810	17585	15475	11840	9740				World Service	#4 v Cuba 03/25/90
1710	1727	Switzerland	Int'l Red Cross	17830	15525	15430	11955	3885				Africa	No&Th after last Su 03/18/89

1715	1800	German Dem Rep	R Berlin Int'l	9730	7295	7260				Bu		03/26/90		
1715	1800	Pakistan	R Pakistan	15605	11570					W Bu		03/14/90		
1725	2230	Liberia	ELWA	4760							BBC WS news 2200	03/15/90		
1730	1800	Albania	R Tirana	9480	7155					Bu		03/31/90		
1730	1800	Australia	R Australia	13700	11930	11720	9710	9655	9580	7240	6080	As/Pac/PapMG	03/03/90	
1730	1755	Belgium	BRT	13675	5910					Bu		03/15/90		
1730	1830	Bulgaria	R Sofia	15370	11840	11735				Afr		03/15/90		
1730	1815	German Dem Rep	R Berlin Int'l	15350	15145	13610	9665			Af		03/26/90		
1730	1800	Romania	R Romania Int'l	17720	15365	15340	11940			Afr		12/09/89		
1730	1800	Switzerland	Swiss R Int'l	9535	6165	3985				Bu		04/18/90		
1730	1800	Vatican State	Vatican Radio	21650	17730	17710				EAS Afr		03/22/90		
1731	1804	Seychelles	FRBA	11820						B Afr		12/16/89		
1800	1900	Argentina	RAE	15345						Bu/Afr	W-F	03/28/90		
1800	1830	Australia	R Australia	11930	11855	11720	9710	9655	9580	9505	7240	As/Pac/PapMG	03/03/90	
1800	1830	Canada	R Canada Int'l	17820	15260	13670				Afr		Sa&Su -1900	12/09/89	
1800	2330	Costa Rica	R for Peace Int'l	21566	13660							Sa-Su	01/31/90	
1800	2000	India	AIR	15360	11935					GOS/R Afr		05/24/89		
1800	1900	Ivory Coast	R Cote-d'Ivoire	7215								exc Sundays	12/05/87	
1800	2100	Kuwait	R Kuwait	13610						Bu/Af/NA/Aus/NZ		10/20/89		
1800	2000	N Mariana Is	KHBI	17555	9455					China/NZ	125/165 deg	03/19/90		
1800	1830	Norway	R Norway	21730						NB/Af	Eng Sun only	04/25/90		
1800	1856	South Africa	Radio RSA	21535	15270	7230				Afr		04/25/90		
1800	1900	South Korea	R Korea	15575						Bu		11/05/88		
1800	2200	USA	VOA	15205	11760	9760	6040			NB/W Af/Bu		09/24/89		
1800	2000	USA	WCSM	21640						S Afr	105 deg	08/28/89		
1800	2400	USA	WHRI	17830	13760					Bu/CA/SA	157/42 deg	03/19/90		
1800	2000	USA	WSRB	21780						Canada	25 deg	03/19/90		
1800	1830	USSR	R Kiev	7240	6165	6090	6010			Bu		03/15/90		
1800	1900	USSR	R Moscow	17585	15475	11840	9740	9685		World Service	13 v Cuba	03/25/90		
1800	1830	Vietnam	V of Vietnam	15010	10200	9840						11/07/89		
1801	1900	USA	VOA	21485	17870	17800	17785	15600	15580	15445	15410	Africa	A 7195	09/24/89
1805	1845	Swaziland	Trans World Radio	11835	11760	11740				B Af	only 1 freq/bnd used	06/05/89		
1815	1900	Bangladesh	R Bangladesh	15255	11860					Bu/NB		03/31/90		
1830	1930	Afghanistan	R Afghanistan	15440	11830	9635				Bu	11&2 v USSR	03/07/90		
1830	1900	Australia	R Australia	15320	11930	11855	11720	9710	9655	9580	9505	As/Pac/PapMG	03/03/90	
1830	1900	Bulgaria	R Sofia	15330	11660	9700				W Bu		03/15/90		
1830	1900	Canada	R Canada Int'l	21675	17875	15325	7235	5995		W Bu	W-F ; 11&5 v JK	03/16/90		
1830	1900	Ethiopia	V of Ethiopia	9660						W Bu		01/22/89		
1830	1845	Finland	R Finland	15185	11755	9530	6120			Bu/NB/Afr	11 not snncd	04/01/90		
1830	1900	Hungary	R Budapest	15160	11910	9835	9585	7220	6110	Bu		03/15/90		

1830	1925	Netherlands	R Nederland	21685	17605	15560				Afr	13&17m	Bon, 19m	Madg	04/08/89
1830	1855	Poland	R Polonia	11840	9525	7285	7125	6135	5995	Af/Eu				08/15/89
1830	1900	Switzerland	Swiss R Int'l	11955	9885					Afr				04/18/90
1830	1900	Yugoslavia	R Yugoslavia	11735	7215	5980				Af/Bu				03/15/90
1840	1848	Greece	V of Greece	15630	12105	11645				S Afr			News/Eng	ex Su 10/14/89
1840	1910	Mongolia	R Ulan Bator	12050	9985					W Bu				03/15/90
1845	1945	India	AIR	11620	7412					GOS/W Bu				07/04/88
1900	2000	Algeria	R Algiers	15215						SA				03/14/90
1900	1930	Australia	R Australia	15320	11930	11855	9710	9655	9580	9505	7240	As/Pac/PapNG		03/03/90
1900	1930	Canada	R Canada Int'l	17820	15260	13670				Afr			M-F	12/09/89
1900	2000	China	R Beijing	9440	6955					W&N Afr				11/25/89
1900	2100	Cuba	R Havana	11800						Eu/Af/NB				12/02/89
1900	2000	Ecuador	HCJB	21470	17790	15270				Bu				04/25/90
1900	1950	Fed Rep Germany	R Deutsche Welle	17810	15390	13790	11810	11785		W Afr				10/30/89
1900	1930	Israel	Kol Israel	17630	17590	15640	15485	12077	11605	Af/W Bu/NA			#4 alt	03/18/90
1900	1930	Japan	R Japan	15270	11865	11850				GOS/Am/Oc				02/16/90
1900	2200	New Zealand	R New Zealand Int'l	17680						Pacific				03/27/90
1900	1930	Norway	R Norway	15165						Bu			Eng Sun only	02/16/90
1900	1930	Portugal	R Portugal	11740						Bu			M-F	04/09/90
1900	1956	South Africa	Radio RSA	15270						W Afr				04/25/90
1900	2000	Spain	Spanish Nat'l R	15395	15375	12035	11790			NB/Afr/Bu				03/17/90
1900	2015	Swaziland	Trans World Radio	5055	4760					S Af			only 1 freq/bnd used	06/05/89
1900	2200	USA	VOA	21485	17870	17800	17785	15600	15580	15445	15410	Africa		04/03/90
1900	2000	USA	WTPR	21615	17885	15566	13695	11830	11580			Eu/Af/NA	#2,4,6 Network	M-Sa 03/15/90
1900	2000	USSR	R Moscow	17585	15520	11840	9740	9685	9450	7240		WS & UK/Ireland	#1-3 WS & #4-7 UK	03/25/90
1900	1930	Vietnam	V of Vietnam	15010	12020	9840								11/07/89
1915	2000	German Dem Rep	R Berlin Int'l	15350	13610	9665				Af				03/26/90
1920	1930	Greece	V of Greece	3395	7430					Bu			News/Eng	ex Su 11/25/89
1930	2000	Australia	R Australia	15320	15160	11930	11855	9710	9580	9505	7240	As/Pac/PapNG		03/03/90
1930	2000	Austria	ORF	13730	12010	6155	5945			Af/NB/Bu				03/18/90
1930	2030	Iran	R Tehran	9022	6035					NB/W Af/Bu/ENA				03/31/90
1930	2025	Romania	R Romania Int'l	3690	7195	7105	6105	5930		Bu				02/19/90
1930	0300	South Africa	Radio Orion	4810	3320									04/17/89
1935	1955	Italy	RAI	11800	9710	7275				Great Britain				04/08/89
1945	2030	German Dem Rep	R Berlin Int'l	6115						Bu				03/26/90
1945	2045	India	AIR	11860	9755					GOS/W&N Afr				05/24/89
1948	1955	Sudan	Sudan Broadcasting Serv	11635									news/Eng	01/25/90
1950	2010	Vatican State	Vatican Radio	3645	7250	6190				Bu				03/15/90
2000	2100	Angola	R Mac de Angola	9535	7245	3375				Afr			(RNWH)	03/15/90
2000	2030	Australia	R Australia	15320	15160	11930	11910	11855	11800	9710		As/Pac/PapNG		03/03/90

2000	2100	China	R Beijing	15110	11715	11515	11500	9920	9440	WAN Af/EAS Af/Eu	#1&2 v Mali	03/25/90	
2000	0330	Costa Rica	R for Peace Int'l	21566	13660						M-F	04/13/90	
2000	2100	Cuba	R Havana	11850						Eu/Af	v USSR	11/29/89	
2000	2100	England	BBC	5375						WS: NA/CA/Carib	v Antigua	03/21/89	
2000	2300	Equatorial Guinea	R Africa	7189						Af		06/17/89	
2000	2400	Guam	KHBM	9840						China		10/21/89	
2000	2030	Hungary	R Budapest	15160	11910	9835	9585	7220	6110	Eu		03/15/90	
2000	2200	Iraq	R Baghdad	11720						Eu	often delayed start	04/02/90	
2000	2300	Lebanon	V of Hope	6280	6215					Eu/WE	exc Sa	01/25/90	
2000	2200	N Mariana Is	KHBI	15265	9455					Aus/Japan	180/340 deg	03/19/90	
2000	2050	North Korea	R Pyongyang	9977	9640	9345	6576			WE/Af/Eu		01/01/90	
2000	2025	Poland	R Polonia	11840	9525	7125				Af		08/15/89	
2000	2030	Portugal	R Portugal	15250						Afr	M-F	04/09/90	
2000	2050	Turkey	V of Turkey	9795						Eu		03/15/90	
2000	0100	USA	KVOH	17775						CA/Carib	100 deg	08/13/88	
2000	2200	USA	WCSN	15610						Eu	60 deg	03/19/90	
2000	2200	USA	WSHB	17555	13760					CA/Canada	137/25 deg	03/19/90	
2000	2300	USA	WYPR	17885	13635	11830	11580			NA	#1,2,4 Network M-5a	03/15/90	
2000	2100	USSR	R Moscow	17585	11840	9860	9740	9685	9600	7240	World Service	#2 v Cuba	03/25/90
2005	2105	Syria	R Damascus	15095	12085					Eu/NA		03/25/90	
2025	2045	Italy	RAI	11800	9575	7235				Near East		06/17/89	
2030	2100	Australia	R Australia	15465	15320	15160	15130	11910	11880	11800	9710	As/Pac/PapNG	03/03/90
2030	2100	Bulgaria	R Sofia	15330	11660	9700				Eu		03/15/90	
2030	2200	Egypt	R Cairo	15375						W Afr		08/17/87	
2030	2125	Netherlands	R Nederland	15560	13700	9860				W Afr		04/08/89	
2030	2130	South Korea	R Korea	15575	7550	6480				Eu/WE/Afr		11/05/88	
2030	2100	Vietnam	V of Vietnam	15010	12020	9340						11/07/89	
2040	2140	Cuba	R Havana	15340	11725					Carib		09/04/88	
2040	2048	Greece	V of Greece	9425						Aus	News/Eng ex Su	01/25/90	
2045	2230	India	AIR	15255	11715	11620	9910	9550	7412	GOS/W Eu/Aus/NZ/Af		04/07/90	
2100	2130	Australia	R Australia	17795	15465	15320	15160	15130	11910	11880	11800	As/Pac/PapNG	03/03/90
2100	2125	Belgium	BRT	9925	5910					Eu		03/15/90	
2100	2115	Cameroon	R Cameroon	5010							news in English	12/04/88	
2100	2100	Canada	R Canada Int'l	17875	15325					W Eu		03/16/90	
2100	2200	China	R Beijing	15110	11715	11500	9920			EAS Af/Eu	#1&2 v Mali	03/25/90	
2100	2130	England	BBC	17715	5975					WS: NA/CA/Carib	#1 Bethany; #2 Antiq	09/23/89	
2100	2150	Fed Rep Germany	R Deutsche Welle	15435	13780	11810	9765	9670		Aus/As		03/15/90	
2100	2125	Finland	R Finland	15400	11755	6120				Aus/SASS As/Af/WE/Eu		03/24/90	
2100	2145	German Dem Rep	R Berlin Int'l	13690	9730					ENA		03/26/90	
2100	2110	Ghana	Ghana BC Corp	3366							News in English	12/23/87	

2100	2130	Japan	R Japan	17890	17810	15270	15230	11835	11815	GOS/As/Oc/Eu	#5 v Gabon	02/19/90		
2100	2125	Romania	R Romania Int'l	9690	7195	7105	6105	5990		Eu		02/19/90		
2100	2200	Spain	Spanish Nat'l R	12035	11790					Eu		03/17/90		
2100	2130	Sweden	R Sweden	11705	9655					Eu/Af		09/20/89		
2100	2130	Switzerland	R Beijing	3985						Eu		03/15/90		
2100	2130	Switzerland	Swiss R Int'l	15525	13635	12035	9885			Afr	#3 v Gabon	03/30/90		
2100	2400	USA	WRMO	15420	13720					NA/CA/Eu	20 deg; #1 alt freq	03/19/90		
2100	2200	USSR	R Moscow	11950	11850	11840	11745	11630	9740	9685	9600	World Service	#3 v Cuba	03/25/90
2100	2200	USSR	R Sta Peace & Progress	9610	7360	7215	7205	6145	4795			Eu		03/22/90
2100	2115	Vatican State	Vatican Radio	21650	17730	17710				C&S&W Af		03/22/90		
2100	2145	Yugoslavia	R Yugoslavia	11735	9660	9620	7215			Af/NA/Aus/Eu		03/15/90		
2105	2205	Syria	R Damascus	15095	12085					NA/Aus/NZ		03/25/90		
2115	2245	Egypt	R Cairo	9900						Eu		04/02/88		
2130	2200	Albania	R Tirana	9480	7245					Eu		03/31/90		
2130	2200	Australia	R Australia	17795	15465	15160	15130	11880	11800	As/Pac/Pap/WG		03/03/90		
2130	2230	Bulgaria	R Sofia	15330	11680					W Eu		03/15/90		
2130	2200	Canada	R Canada Int'l	17820	15150	13670	11880			Afr		01/21/90		
2130	2200	Ecuador	HCJB	21470	17790					Eu		04/25/90		
2130	2200	England	BBC	5975						WS: NA/CA/Carib	v Antigua	09/23/89		
2130	2200	Israel	Iol Israel	17630	17575	15640	12077	11605		Af/LA/NA/W Eu		03/18/90		
2130	2200	Lithuania	R Vilnius	9765	6100					Eu		03/15/90		
2130	2200	Switzerland	Swiss R Int'l	6190						Eu		03/27/90		
2145	2230	German Dem Rep	R Berlin Int'l	13690	9730	5965				ENA/Eu		03/26/90		
2200	2230	Australia	R Australia	21740	17795	15465	15240	15160	15130	11880	As/Pac/Pap/WG		03/03/90	
2200	2230	Canada	R Canada Int'l	11905	9755	5960				USA		03/16/90		
2200	2300	Cuba	R Havana	7215						Eu	v USSR	11/18/89		
2200	0030	England	BBC	12095	9915	9590	7325	6175	5975	WS: NA/CA/Carib	#3&5 Sack; #6 Antigua	03/16/90		
2200	2225	Italy	RAI	11800	9710					Japan		02/19/90		
2200	2230	Japan	R Canada Int'l	15440	11705					SE As	v Japan	09/23/89		
2200	2230	Lithuania	R Vilnius	17690	17665	15180	12060	11770	6100	NA		03/15/90		
2200	2400	N Mariana Is	KHBI	15405	15275					China/Jap/Phil/Indon	310/240 deg	02/25/90		
2200	2205	Nigeria	R Nigeria	4990						News in Eng		10/11/89		
2200	2230	Norway	R Norway	17730						W Af/SA	Eng Sun only	04/25/90		
2200	2300	Taiwan	V of Free China	17845	15440	15370				Eu/Aus/NZ	#1&2 v WYFR	03/27/90		
2200	2250	Turkey	V of Turkey	17880	9685	9665	9445			Aus/Eu/WE/NA		03/15/90		
2200	2400	United Arab Emirates	V of UAE	11985	9600	6170				WNA		04/13/90		
2200	0300	USA	KUSW	15580						Canada	70 deg	03/19/90		
2200	2215	USA	VOA	15225	11880	9640				Caribbean/Americas	M-P	09/24/89		
2200	2400	USA	WCSW	15300						W Afr	90 deg	03/08/89		
2200	2400	USA	WSHB	17555	9465					SA/WE Canada	152/25 deg	09/25/89		

2200	2300	USSR	R Moscow	17720	17700	17605	15425	12050	11950	11735	9720	ENA		03/15/90
2205	2225	Vatican State	Vatican Radio	15105	11830	9615						As/Aus/NZ		04/25/90
2230	2400	Australia	R Australia	21740	17795	15465	15240	15160	15130	13605	11880	As/Pac/PapNG		03/03/90
2230	2300	Poland	R Polonia	7270	7125	6135	5395					Eu		08/15/89
2245	2255	Ghana	Ghana BC Corp	4915	3066								News in English	12/23/87
2245	2400	India	AIR	15110	11745	11715	9910	9535	7215			GOS/As		05/24/89
2300	0000	Bulgaria	R Sofia	15330	11680							NA		03/15/90
2300	2330	Canada	R Canada Int'l	11730	9755							Carib		09/23/89
2300	0100	Costa Rica	AWR Costa Rica	11870	9725									12/14/89
2300	1030	Costa Rica	R for Peace Int'l	7375									Sa-Su;USB mode	01/31/90
2300	2327	Finland	R Finland	15185	11755							NA/SA		03/24/90
2300	0100	Guam	KSDA	15125								SE As	270 deg	03/27/90
2300	2330	Israel	Kol Israel	15640	11605	9435						NA		03/18/90
2300	2400	Japan	R Japan	21610	17810	17765	15195	11835				GOS/As/Eu/WE	#4 v Gabon	04/08/90
2300	0100	Luxembourg	R Luxembourg	4090								regional		03/25/90
2300	2350	North Korea	R Pyongyang	13650	11735							Am		12/28/87
2300	2330	Norway	R Norway	15165								NA/CA	Eng Sun only	04/25/90
2300	2310	Sierra Leone	SLBS	3316									nx/Eng	09/05/89
2300	2400	USA	WRNO	7355								NA/CA/Eu	20 deg/alt freq	08/28/89
2300	0100	USA	WFFR	15170	13695	5985						NA	#2A1 Network W-Sa	03/15/90
2300	2400	USSR	R Moscow	17720	17700	17605	15425	12050	11950	11735	9720	ENA	6000 & 5045 v Cuba	03/15/90
2305	2355	Poland	R Polonia	7270	7125	6135	5395					Eu		08/15/89
2330	2400	Albanja	R Tirana	11825	9760	6120						NA		10/15/89
2330	2355	Belgium	BRT	10875	9925							SA/NA		03/31/90
2330	0100	Canada	R Canada Int'l	9755	5960							USA	Sa-Su	04/21/90
2330	0300	Costa Rica	R for Peace Int'l	7375									M-F;USB mode	01/31/90
2330	0000	Hungary	R Budapest	15160	11910	9835	9585	9520	6110			NA	exc Su	03/15/90
2330	2400	USSR	R Kiev	17690	17655	15180	12060	12005	11770			NA		03/15/90
2330	2400	Vietnam	V of Vietnam	15010	12020	9840								11/07/89
2335	2345	Greece	V of Greece	11645	3395							SA/CA	News/Eng ex Su	08/15/89
2345	0030	German Dem Rep	R Berlin Int'l	13690	11890	5080						ENA		03/26/90

ENGLISH LANGUAGE DX SHOWS: By Day of Week
Compiled by Thomas R. Su

Shortwave DX Program	Show Start Time	Xasn Start Time	Country	Station	Freq #1	Freq #2	Freq #3	Freq #4	Freq #5	Freq #6	Freq #7	Target Area	Notes re DX Show	Record Last Updated
** DAY OF THE WEEK: Sunday														
DXers Unlimited	0040	0000	Cuba	R Havana	11820							Americas		04/07/90
DX Party Line	0050	0030	Ecuador	HCJB	17875	15155						NA		04/25/90
World of Radio	0100	2300	Costa Rica	R for Peace Int'l	7375									04/18/90
Communications World	0110	0100	USA	VOA	15205	11740	11580	9815	9775	9455	6130	Caribbean/Americas		06/11/89
SW Merry-Go-Round	0220	0200	Switzerland	Swiss R Int'l	17730	12035	9885	9725	6135	6095		NA		05/16/86
DX Asiawaves	0230	0200	Guam	KSDA	13720							As		01/16/90
DXers Unlimited	0240	0200	Cuba	R Havana	11820	9710						Americas		04/07/90
DX Party Line	0250	0030	Ecuador	HCJB	17875	15155						NA		04/25/90
Bonaire Wavelength	0330	0255	Netherland Antilles	Trans World Radio	11930	9535						NA/Carib		05/31/89
SW Merry-Go-Round	0420	0400	Switzerland	Swiss R Int'l	12035	9885	9725	6135				NA		05/16/86
Listeners' Corner	0430	0400	Austria	R Canada Int'l	15275							ME		03/16/90
DXers Unlimited	0440	0400	Cuba	R Havana	11820	11760	9710	5965				Americas		04/07/90
DX Party Line	0520	0500	Ecuador	HCJB	17875	15155						NA		04/25/90
World of Radio	0630	2300	Costa Rica	R for Peace Int'l	7375									04/18/90
DXers Unlimited	0640	0600	Cuba	R Havana	11835							Americas		04/07/90
AWR DX Program	0815	0800	Portugal	AWR Europe	9670							Eu		03/15/90
SW Feedback	0835	0800	South Korea	R Korea	13670	7550						Eu		02/26/89
Pacific DX Magazine	0838	0800	Guam	KTVR	15200							Far East		04/05/90
DX Corner	0930	0900	Japan	R Japan	17890	17810	15270					GOS/As/Oc		04/05/90
SW Club	0945	0945	Hungary	R Budapest	15220	15160	11910	9835	9585	7220		Eu		03/15/90
Shortwave Panorama	1030	1030	Austria	ORP	21490	15450						Aus/As		03/18/90
SW Feedback	1040	1030	Canada	R Korea	11715							ENA		04/08/90
Shortwave Panorama	1130	1130	Austria	ORP	21490	15430	13730	6155				ENA/As/Eu		04/01/89
SW Feedback	1135	1100	South Korea	R Korea	15575							NE/Afr		02/26/89
DX Programme	1200	1200	USSR	R Tashkent	17745	15470	11785	9500	7325			As	Su after 2nd Sat/mo	11/05/88
Listeners' Corner	1307	1300	China	R Canada Int'l	15385	11955						SE As & India	occ has sked data	03/16/90
Communicator	1430	1430	Australia	R Australia	15160	11330	9655	9580	7240	7205	6080	As/Pac/PapNG		01/25/90

Shortwave Panorama	1430	1430	Austria	ORF	21490	13730	11780	6155	V Af/SE As/Eu	04/01/89	
SW Feedback	1435	1400	South Korea	R Korea	9570				SE As	11/05/88	
DX Corner	1440	1400	South Africa	Radio RSA	11925	9555			Afr	11/26/89	
DX Corner	1530	1500	Japan	R Japan	21700	11865	11815		GOS/As/Am/Eu/WE	04/05/90	
SW Feedback	1635	1600	South Korea	R Korea	9870	5975			NB/Afr/GOS	11/05/88	
DX Show & Mailbag	1815	1800	USSR	R Kiev	7240	6165	6090	6010	Bu	03/15/90	
SW Feedback	1835	1800	South Korea	R Korea	15575				Bu	11/05/88	
SWL Digest	1836	1800	Canada	R Canada Int'l	17820	15260	13670		Afr	04/15/90	
DX Corner	1840	1800	South Africa	Radio RSA	21535	15270	7230		Afr	02/05/88	
DX Corner	1920	1900	Israel	Kol Israel	17630	17590	15640	15485	12077	11605	03/18/90
Message for Diers	1930	1900	Spain	Spanish Wat'l R	15395	15375	12035	11790	NB/Afr/Bu	01/01/89	
DX Corner	1940	1900	South Africa	Radio RSA	15270				V Afr	02/05/88	
World of Radio	2030	1500	USA	WRNO	15420				NA/CA/Bu	03/19/90	
SW Feedback	2105	2030	South Korea	R Korea	15575	7550	6480		Bu/NB/Afr	11/05/88	
DX Corner	2130	2100	Japan	R Japan	17890	17810	15270	15230	11835	11815	04/05/90
Message for Diers	2130	2100	Spain	Spanish Wat'l R	12035	11790			Bu	01/01/89	
Listeners' Corner	2135	2130	Canada	R Canada Int'l	17820	15150	13670	11880	Afr	occ has sked data	04/15/90
SWL Digest	2136	2100	Canada	R Canada Int'l	17875	15325			V Bu	04/15/90	
DX Corner	2150	2130	Israel	Kol Israel	17630	17575	15640	12077	11605	03/13/90	
Listeners' Corner	2207	2200	Japan	R Canada Int'l	15440	11705			SE As	occ has sked data	03/16/90
R Sofia Calling	2215	2130	Bulgaria	R Sofia	15310	11680			V Bu	03/15/90	
World of Radio	2230	1800	Costa Rica	R for Peace Int'l	21566	13660			Carib	02/02/90	
SWL Digest	2306	2300	Canada	R Canada Int'l	11730	9755			NA	04/15/90	
DX Corner	2320	2300	Israel	Kol Israel	15640	11605	9435		NA	03/18/90	
R Sofia Calling	2345	2300	Bulgaria	R Sofia	15310	11680			NA	03/15/90	
DX Show & Mailbag	2345	2330	USSR	R Kiev	17650	17665	15180	12060	12005	11770	03/15/90
** DAY OF THE WEEK: Monday											
DX Corner	0020	0000	Israel	Kol Israel	15640	11605	9435		NA	03/18/90	
Message for Diers	0030	0000	Spain	Spanish Wat'l R	11880	9630			NA	01/01/89	
Listeners' Corner	0035	2130	Canada	R Canada Int'l	9755	5950			USA	occ has sked data	03/16/90
SW Feedback	0035	2000	South Korea	R Korea	15575				Am	04/11/90	
DX Corner	0120	0100	Israel	Kol Israel	15640	11605	9435		NA	03/18/90	
DX Corner	0130	0100	Japan	R Japan	17845	17835	17810	17765	5950	GOS/Asia/NA	04/05/90
Message for Diers	0130	0100	Spain	Spanish Wat'l R	11880	9630			NA	01/01/89	
DX Show & Mailbag	0215	0200	USSR	R Kiev	17690	17665	15180	12060	12005	11770	03/15/90
DX Corner	0330	0330	Japan	R Japan	17835	17825	17810	17765	15195	GOS/Asia	04/05/90
R Sofia Calling	0345	0300	Bulgaria	R Sofia	15310	15160	11765	11735	11720	Afr/NA	03/15/90
World of Radio	0400	0315	Costa Rica	R for Peace Int'l	7375				NA	04/18/90	
Mailbag	0430	0400	New Zealand	R New Zealand Int'l	17680				E Pac	03/20/90	
Message for Diers	0525	0500	Spain	Spanish Wat'l R	9630				NA	10/14/89	
Waveguide	0530	0500	England	BBC	9915	9640	6195	5965	WS: NA/CA/Carib	11/18/89	

World of Radio	0200	2330	Costa Rica	R for Peace Int'l	7375				01/31/90
Sweden Calling DXers	0240	0230	Sweden	R Sweden	15295	11705		NA	09/20/83
World of Radio	0545	0315	Costa Rica	R for Peace Int'l	7375				01/31/90
DX Program	0635	0630	Poland	R Polonia	9675	7270		Eu	08/13/83
Ham Radio Today	0750	0700	Ecuador	HCJB	15270	11835	3610	Eu	04/25/90
Ham Radio Today	0751	0730	Ecuador	HCJB	11925	9745		S Pac	04/25/90
Ham Radio Today	1020	0730	Ecuador	HCJB	11925	9745		S Pac	04/25/90
DX Program	1435	1430	Poland	R Polonia	11815	9540	6135	Eu	08/19/89
DXer's Special	1820	1800	Argentina	RAB	15345			Eu/Afr	03/28/90
DX Program	1835	1830	Poland	R Polonia	11840	9525	7285 7125 6135 5995	Af/Eu	08/13/89
Ham Radio Today	1920	1900	Ecuador	HCJB	21470	17790	15270	Eu	04/25/90

** DAY OF THE WEEK: Thursday

World of Radio	0030	0000	USA	WRNO	7355			NA/CA	03/19/90
Ham Radio Today	0050	0030	Ecuador	HCJB	17875	15155		NA	04/25/90
Waveguide	0130	0030	England	BBC	12095	9915	9590 7325 6175 5975	WS: WA/CA/Carib	12/19/88
Ham Radio Today	0250	0030	Ecuador	HCJB	17875	15155		NA	04/25/90
Ham Radio Today	0520	0500	Ecuador	HCJB	17875	15155		NA	04/25/90
Media Network	0750	0730	Netherlands	R Nederland	9715	9630		NZ/Aus	11/29/89
Media Network	0850	0830	Netherlands	R Nederland	21485	15755		Asia	11/29/89
Media Network	1050	1030	Netherlands	R Nederland	11890	6020		Aus/Carib	04/10/88
Media Network	1150	1130	Netherlands	R Nederland	21520	11480	17575 9715 5955	Eu/WS/As	08/22/86
Media Network	1450	1430	Netherlands	R Nederland	17605	17575	15150 13770 5955	SAB As/Eu	09/04/86
JW Club	1515	1515	Hungary	R Budapest	15220	15160	11910 9835 9585 7220	Eu	03/15/90
World of Radio	1530	1500	USA	WRNO	15420			NA/CA/Eu	03/19/90
Media Network	1650	1630	Netherlands	R Nederland	15570	15375	6020	EAS Afr	09/04/86
Media Network	1850	1830	Netherlands	R Nederland	21685	17605	15580	Afr	08/22/86
World of Radio	2030	2000	Equatorial Guinea	R Africa	7:29			Af	10/29/89
Media Network	2050	2030	Netherlands	R Nederland	15560	13700	9860	W Afr	08/22/86
DX Programme	2220	2200	Lithuania	R Vilnius	17690	17665	15180 12060 11770 6100	NA	bi-weekly
World of Radio	2300	2100	USA	WRNO	15420	13720		NA/CA/Eu	#1 alt freq

** DAY OF THE WEEK: Friday

World of Radio	0030	0000	USA	WRNO	7355			NA/CA	03/19/90
Media Network	0050	0030	Netherlands	R Nederland	15315	6165	5020	ENA	03/17/89
JW Club	0130	0130	Hungary	R Budapest	15160	11910	9835 9585 9520 6110	NA	03/15/90
Media Network	0350	0330	Netherlands	R Nederland	9590	6165		VNA	03/17/89
Communicator	1030	1020	Australia	R Australia	21775	9580	7205 5995	As/Pac/PapNG	11/26/89
DX Show	1615	1600	Portugal	R Portugal	21530			MB	05/08/89
Mailbag	1905	1900	New Zealand	R New Zealand Int'l	17690			Pacific	Fr after 183 Mo/wo
DX Show	1915	1900	Portugal	R Portugal	11740			Eu	04/09/90
World of Radio	2000	2000	Costa Rica	R for Peace Int'l	21566	13660			02/02/90

DI Show	2015	2000	Portugal	R Portugal	15250		Afr		04/09/90				
R Sofia Calling	2045	2030	Bulgaria	R Sofia	15330	11660	9700	Eu	1st of wkend series				
World of Radio	2130	2330	Costa Rica	R for Peace Int'l	7375				01/31/90				
R Sofia Calling	2345	2300	Bulgaria	R Sofia	15330	11680		NA	03/15/90				
** DAY OF THE WEEK: Saturday													
SW Club	0130	0130	Hungary	R Budapest	15160	11910	9835	9585	9520	6110	NA	03/15/90	
Dier's Special	0135	0100	Argentina	RAR	11710						Americas	10/20/89	
DI Show	0245	0230	Portugal	R Portugal	11840	9705	3680	9600			SA/NA	01/16/88	
World of Radio	0300	0300	USA	WRMO	6185						NA/CA	03/19/90	
World of Radio	0315	2300	Costa Rica	R for Peace Int'l	7375							01/31/90	
R Sofia Calling	0645	0630	Bulgaria	R Sofia	17825	15160	11720				W Eu	03/15/90	
World of Radio	0645	2300	Costa Rica	R for Peace Int'l	7375							02/02/90	
DI Party Line	0750	0700	Ecuador	HCJB	15270	11835	9610				Eu	04/25/90	
DI Party Line	0751	0730	Ecuador	HCJB	11925	9745					S Pac	04/25/90	
Pacific DI Magazine	0900	0827	Guam	KTWR	11805						Aus	04/05/90	
DI Party Line	1020	0730	Ecuador	HCJB	11925	9745					S Pac	04/25/90	
SW Club	1030	1030	Hungary	R Budapest	15220	15160	11910	9835	9585	7220	Eu	03/15/90	
SW Merry-Go-Round	1115	1100	Switzerland	Swiss R Int'l	21770	17830	15570	13635			SE Au/Aus/NZ	09/06/86	
Bonaire Wavelength	1130	1055	Netherland Antilles	Trans World Radio	15345	11815					BNA/Carib	05/10/89	
World of Radio	1200	0500	Equatorial Guinea	R East Africa	9585						AF	may be 1215	
Radio World	1240	1230	Belgium	BRT	21815	17555					SE Au/NA	03/15/90	
DI Programme	1330	1330	USSR	R Tashkent	17745	15470	11785	9500	7325		Au	2nd Sat of month	
SW Merry-Go-Round	1345	1330	Switzerland	Swiss R Int'l	25680	21695	17830	15570	11695	9620	R Afr/India/Aus/NZ	03/04/86	
Pacific DI Magazine	1515	1459	Guam	KTWR	11650						India	04/05/90	
Radio World	1540	1530	Belgium	BRT	21810	17550					Afr	03/15/90	
SW Merry-Go-Round	1545	1530	Switzerland	Swiss R Int'l	21630	17830	15430	13685			NR/E Afr	05/24/86	
DI Asiawaves	1630	1600	Guam	ESDA	11980						India	01/16/90	
Radio World	1740	1730	Belgium	BRT	13675	5910					Eu	03/15/90	
DIers Unlimited	1915	1900	Cuba	R Havana	11800						Eu/AF/NR	04/14/90	
DI Party Line	1920	1900	Ecuador	HCJB	21470	17790	15270				Eu	04/25/90	
World of Radio	1930	1900	Costa Rica	R for Peace Int'l	21566	13660						02/02/90	
DI Radio Time	2020	2000	Turkey	V of Turkey	9795						Eu	Biweekly	
Listeners' Corner	2106	2100	Canada	R Canada Int'l	17875	15325					W Eu	occ has sked data	
Radio World	2110	2100	Belgium	BRT	9925	5910					Eu	03/15/90	
Communications World	2110	1900	USA	VOA	21485	17870	17800	17785	15600	15580	15445	Africa	09/24/89
SW Merry-Go-Round	2115	2100	Switzerland	Swiss R Int'l	15525	13635	12035	9885			Afr	05/24/86	
DI Radio Tips	2320	2200	Turkey	V of Turkey	17880	9685	9665	3445			Aus/Eu/NR/NA	Biweekly	
World of Radio	2300	2100	USA	WRMO	15420	13720					NA/CA/Eu	#1 alt freq	
DI Asiawaves	2330	2300	Guam	ESDA	15125						SE Au	01/16/90	
SWL Digest	2336	2330	Canada	R Canada Int'l	9755	5960					USA	04/07/90	
Radio World	2340	2330	Belgium	BRT	13675	3925					SA/NA	03/15/90	

DOMINICAN REPUBLIC - Radio Amanecer International (change of slogan), 6025 kHz, Santo Domingo, has an EG program between 03-04. Fair reception when Radio Nederland on 6020 is silent. (WRTH90 says sked is 1000-0300, so 0400 is an addition. (Mike Fern, CA)

ECUADOR - Marlin Field, MI received a letter from Ron Cline, President of World Radio Missionary Fellowship (HCJB)

"Today, 80 percent of the world's population has the opportunity to hear Christ's good news via radio... 213 languages from HCJB, TWR, FEBC, and ELWA... As we add just 164 (last number smudged, bmm) more major languages by (2000) that figure will jump to 97 percent."

Station Profile of Radio Popular Independiente by Tom Davis. via Andex International Vol 17, No. 1 Feb-Mar 90 and thanks to John Carson, OK for this:

Radio Popular Independiente has been operating for 30 years. The station broadcasts on the medium wave frequency of 1220 kHz and on 4800 kHz shortwave. A 5 kW transmitter is used for the shortwave service, but was off the air at the time of my visit due to equipment failure. The only person at the station when I visited was the daughter of the manager, Manena de Villavicencio, and she was not able to give me any details on the transmitter or the antenna.

A comprehensive record library was proof of how important music is to the station's programming. Senora de Villavicencio said that the station only plays Ecuadorian folk and pop music (hence the name "Popular"). The station also carries local commercials and community notices. Senora de Villavicencio said the station receives many letters from listeners outside Ecuador. She cited recent letters even from places like the Philippines and Southeast Asia.

Radio Popular Independiente will verify correct reception reports with a QSL letter, although your chances of a reply to your first report are not high. When I went into the station's office I could see why my first report had not been answered. They do not have a very orderly filing system. In fact, it took Senora de Villavicencio several minutes just to find a letterhead amongst the piles of papers and other items.

The address of the station is Radio Popular Independiente, Box Correo Central (or Av. Loja 2-400, La Gloria), Cuenca, Azuay, Ecuador. Return postage in the form of unused Ecuadorian postage stamps is highly recommended. Senora de Villavicencio understands a little English, but you would have a better chance in receiving a QSL if your report is in Spanish.

HCJB - As heard from 0030-0500* on 4/16, HCJB has resumed its Spanish-language service on 11960 kHz. Not the 500 kW transmitter, unless it is beamed to South America only. Some of the speeches one hears on this service are not sermons. HCJB sometimes carries debates from the Ecuadorian Congress after 0300 UTC.

As heard on 4/17, 9745 kHz signs off at 0200, not 0300. There may be a bug in the new antenna switching boards. On both 4/10 & 4/17, 9745 went off the air at 0200, and 11795 and 15155 also went off the air at the same time. 9745 stayed off but the other two were back on the air within minutes. (Mike Fern, CA)

HCJB will begin a new English service format on Sunday 5/6.

All programs produced in Quito will be fitted into the same one-hour blocks. This will make better use of the limited English-language staff in Quito. The format will be: (1) Latin American news; (2) Magazine; (3) Half-hour feature; (4) World News. The one-hour blocks will be called "Studio Nine."

Studio Nine will be broadcast three times daily to NA, at 0030, 0230 and 0500; two times daily to Europe, at 0730 and 1900; and two times daily to the South Pacific, at 0730 and 1000.

DX Party Line will be broadcast on Saturdays only: 0050, 0250, and 0520 to NA; 0750 and 1920 to Europe; and 0750 and 1020 to the South Pacific. (via HCJB's 'DX Party Line' on 4/17 w/Brent Allred via Mike Fern, CA)

EQUATORIAL GUINEA - 4925.9, 1945-2002, R. Nacional Bata, Vernacular, Reactivated! Absent on 5004. W talk. 1949 ID "Radio Nacional". Poor on 3/17. (Junichi Nishikawa, Editor of 'NTDXC' Tune No. 75, 4/90), but

Nobuyoshi Aoi, ibid heard them on 5003.8 at 20-2010 in SP. Poor on 4/9.

INDIA - All India Information via Monosij Guha in his 'DX Grapevine' Publication #36.

AIR's External Service in Tamil to Sri Lanka is now heard on an additional HF transmitter from Madras. This is the old RCA 100 kW HF transmitter at the Avadi station near Madras, which was removed from service when a new and more efficient BBC 100 kW HF transmitter was installed to replace it in 1987. This old transmitter has now been reactivated. According to sources inside the AIR headquarters in New Delhi, tests have been sanctioned on this dilapidated transmitter for a "specific purpose". What this specific purpose is anybody's guess, hi! The newly elected Indian government is busy salvaging its loss of face after the hiatus in the Emerald Isle, by ordering a speedy troop withdrawal. These "official" clandestine broadcasts will soon be a thing of the past, as India's new foreign policies are facilitated. The Tamil propaganda broadcasts from Madras are heard as follows, which includes relays of English and Hindi News from Delhi: 2345-0330 on 1449, 7205, 7340; 07-0930 on 1449, 9910; 08-0830 on 720, 936, 1197, 1215, 7160; 11-17 on 1449, 7340; 11-1230 on 720, 1197, 1215, 4920.

7340/9910 are via the old 100 kW HF transmitter which has been reactivated. It goes without saying that they are not announced and are not listed in the official schedules. 7205 is via the newer 100 kW HF transmitter, which is normally used for the Vividh Bharati Service and also for the External Service to SE Asia. 4920/7160 are via the old 10 kW HF transmitters used for the domestic Madras A channel - this is currently being upgraded to 50 kW HF. So in all there are 3 HF transmitters at Madras. 1449 is via the clandestine 10 kW MF transmitter at Pondicherry, which is a Union Territory and is therefore not bound by the state policy of Tamil Nadu. This is significant as the state government's views on the IPKF action on Tamil rebels in Sri Lanka are different from the erstwhile central government. This station has an inverted-L type antenna put on the roof of the building. Recently that building was taken over by Doordarshan as their studio! AIR had to reduce their modulation due to interference to the TV-wallahs' recordings, etc. Additionally, these programs are also partially relayed by the domestic HF transmitters at Madras A, Madurai, Tirunelveli and Tiruchirapalli A on 720, 1215, 1197 and 936 kHz resp. This probably for local consumption as there are alot of Sri Lankan Tamil refugees scattered throughout the state of Tamil Nadu.

It is interesting that the Annual Report of the Ministry of Information and Broadcasting for the fiscal year 1988-89 states that AIR is broadcasting to Sri Lanka for 12 hours daily in Tamil, whil the bureaucratic thickheads in the Broadcasting House prefer to stay mum about this, officially that is.

Kohima - AIR Kohima on 3268 kHz now signs off at 1630, not at 1741 - being located in the far east of the country, the sun sets much earlier there. Kohima is now heard with increased signal strength and it has been upgraded to 50kW HF since 3rd Jan 90. Mr. G.C. Tyagr is the new Station Engineer.

Leh: Radio Kashmir Leh (J&K) with its new 10 kW HF transmitter is testing daily between 1130-1630 on 4760 - the frequency is shared with AIR Port Blair on a non-QRM basis. Leh is also heard in the mornings at 0120-0300 on 3330. It relays chunks of programming from the Srinager A outlet, besides relaying its own MF outlet on 1053 kHz. This station played an active role during the Buddhist unrest in the Ladakh region. Reports should be sent to this address: Radio Kashmir, Leh-194 101, Jammu & Kashmir, India. Tel:(-) 63, no direct dialling. Cable: Akashvani. The new Station Engineer at AIR Leh since 9th October 1989 is Mr. S. Sarangarajan. Leh is expected to test on 6000 kHz during the local afternoons, but this channel has not been heard so far.

Panaji: AIR ESD's station at Panaji (Goa) with 2x250 kW HF transmitters is coming up at a fast pace. Installation work is going on, and a microwave feeder link via Bombay from the studios in Delhi has been leased from the Department of Telecommunications. Once ready, this station will take over the commercialized Gulf Service,

currently being transmitted from Delhi.

Shillong - AIR Shillong is heard testing on 4790 kHz from 0025-0125. This channel will eventually replace existing 3255 kHz.

Srinagar - AIR's HF station at Srinager has been upgraded to 50 kW HF. But the new transmitter hasn't gone on air yet, as the Kashmir valley is suffering from a massive power insufficiency. A diesel power generator set is being airlifted to alleviate this problem.

Trivandrum: Renamed Thiruvananthapuram, this city of seven hills will also be on the shortwave map of India. A 50 kW HF transmitter will be installed at a cost of Rs. 20 million to serve the Malayalam speaking expatriates in the Gulf countries. The foundation stone for the transmitting station was laid in Aug '89. The antenna masts are already up, and only the transmitter remains to be installed.

Tuticorin: The MF transmitting station at Tuticorin in Tamil Nadu, to serve Sri Lanka extensively, will now have 2x100 kW MF transmitters. The antenna tower has already been erected, and transmitter installation is in an advanced stage of completion. With pressures from the Ministry, the station is expected to go on-line by Feb '90 - much earlier than planned. It will take the programming load off Pondicherry which is a stop-gap measure.

Autonomy: With the change in government, autonomy of the electronic media is once again being resurrected like a Phoenix. As promised in the election manifesto of the National Front, the newly elected Prime Minister Mr. Vishwanath Pratap Singh has reaffirmed that both AIR and Doordarshan will be granted autonomy and will be made into public corporations. This decision has been welcomed by the staff of both the media.

External Service: AIR External Service is to be expanded and improved at a cost of Rs.1000 million in the near future. Yet another transmitter site has been chosen near Pune, in Maharashtra, to install 2x500 kW HF transmitters to bolster the General Overseas Service.

Upgradation and New HF Stations: Two 50 kW HF transmitters earmarked for upgrading the Madras and Hyderabad domestic HF stations, presently 10 kW HF, are ready at the manufacturer's - BEL, Bangalore. The stations at Bhopal and Kohima are also to be upgraded to 50 kW HF. New HF stations are to be set up at Imphal (Manipur, 50 kW), Itanagar (Arunachal Pradesh, 50 kW) and Gangtok (Sikkim, 10 kW)

Vividh Bharati: Since 9th July 89, Vividh Bharati has extended by 2.5 hours on Sundays to 16.5 hours.

INDONESIA - 9853.75, 1138-1215, RRI Jambi, Indo, 1200 Jakarta news. 1214 ID. FaIr on 3/15. (Nobuyoshi Aoi via 'NTDXC' Tune No. 75, 4/90)

ISRAEL - Reshet Bhet announced sked from 3/25-8/25 on Kol Israel DX Corner: *03-2210* on 17545, 15615, 13750; 03-0510 11585; 0510-11 21760; 11-1530 21760, 17590, 11585; 1530-1630 21760, 11655, 11585.

ITALY - Arthur Cushen was notified by telegram from Rome that Italian-language transmissions to Australia and New Zealand are being suspended indefinitely. They had been broadcast at 2050 and 0830. (via RNZI 'Mailbag' program on 4/16 via Mike Fern, CA)

JAPAN - Radio Japan Broadcast Sked from 5/6-9/1: Regional Service: AR: 19-1930 ME & NAF on 15325; Burmese: 1115-1145 SE Asia on 17820, 15300; Bengali: 16-1630 S.Asia on 15235, 9535; CH: 03-04 Asian Cont. on 17835, 17765; 1130-1230 on 9580, 7210; 1245-1345 SE Asia on 15300; 15-16 Asian Cont. & SE Asia on 11840, 9580, 7210; EG: 03-0330 N.Central & SAM, Hawaii on 21610, 17825; 03-0330 CAM on 15325 (French Guiana); 09-10 Oceania 17890, 15270; FR: 0630-07 Eur on 21690 (Gabon), 21500; 1830-19 ME & NAFr 15325; 2030-21 Eur 21640 (Gabon), 15230; GM: 06-0630 Eur 21690 (Gabon), 21500; 20-2030 21640 (Gabon), 15230; Hindi: 1630-17 S.Asia on 15235, 9535; IT: 0545-06 on 21690 (Gabon), 21500; 2115-2130 15230; INDO: 1015-1115 SE Asia on 117820, 15300; 23-0000 on 17785, 11840; JP: 02-03 N.Central & SAM, Hawaii on 21610, 17825; KR: 1030-1130 & 14-15 Asian Cont. on 9580, 7210; Malay: 1145-1215 SE Asia on 17820, 15300; PT: 09-0930 SAM on 15390, 9675 (French Guiana); RS: 05-0530 Eur on 21690 (Gabon), 21500; 1230-13 Asian Cont. on 9580, 7210; SW: 0530-0545 Eur on 21690 (Gabon), 21500; 21-2115 on 15230; SP: 0330-04 CAM on 15325 (French Guiana), SAM on 15350 (French Guiana), Central &

SAM on 21610, 17825; 0930-10 SAM on 15390, 9675(French Guiana); Swahili: 1730-18 E.Afr on 15235, 9535; Thai: 1215-1245 SE Asia on 17820, 15300, 11875; Urdu: 17-1730 S.Asia on 15235, 9535; VT: 1345-1415 SE Asia on 15300, 111875; 2230-23 on 17785, 11840.

General Service: SE Asia: 0000-0030 JP on 21610, 17810; 01-02 EG, 02-03 JP, 03-04 EG, 04-05 JP, 05-06 EG, 06-07 JP, 07-08 EG on 17810; 08-09 JP on 21610, 17810; 09-10 EG on 21610; 10-11 JP, 11-12 EG, 12-14 JP, 14-15 EG on 11815; 16-17 JP on 11815, 7210; 17-18 EG on 11815; 21-22 EG, 22-23 JP, 23-24 EG on 21610, 17810.

Asian Continent: 0000-0030 JP on 17765, 15195; 01-02 EG on 17835, 17765; 02-03 JP on 17835; 04-05 JP, 05-06 EG, 06-07 JP, 07-08 EG, 08-09 JP on 17765; 09-10 EG, 10-11 JP, 11-12 EG on 11840; 13-14 JP on 9580, 7210; 16-17 JP on 9580, 9695; 17-18 EG on 9695; 20-21 JP, 21-22 EG on 17765; 22-23 JP, 23-24 EG on 17765, 15195.

S.Asia: 0000-0030 JP, 01-02 EG, 02-03 JP on 17845; 18-19 JP on 9535.

N.America: 01-02 EG on 5960(via Sackville, Canada), 02-03 JP on 15195, 5960(Sackville, Canada), 03-04 EG on 15195; 04-05 JP, 05-06 EG, 06-07 JP on 17825, 15195; 10-11 JP, 11-12 EG on 6120 (Sackville, Canada); 12-14 JP, 14-16 EG, 16-17 JP, 17-18 EG on 11865; 18-19 JP on 17825, 11865; 19-1930 EG on 11865; 20-21 JP on 17825.

Central Am: 02-03 JP on 15325(French Guiana).

South Am: 0000-0030 JP on 21635(Gabon), 02-03 JP on 15350 (French Guiana), 08-09 JP on 15390, 9675(French Guiana); 10-11 JP on 15350(French Guiana); 22-23 JP on 9685(French Guiana).

Oceania: 05-06 EG, 06-07 JP, 07-08 EG, 08-09 JP on 17890; 18-19 JP on 11850; 19-1930 EG on 17890, 15230; 20-21 JP on 17890, 15270; 21-2130 EG on 17890; 21-22 EG on 15270.

Eur, ME, & Afr: 03-0330 EG, 04-0430 JP S.Afr on 7125(Gabon); 07-08 EG on 21690(Gabon) (ME,etc), 21500; 08-0830 JP on 21690(Gabon) (ME,etc); 08-09 JP 21640(Gabon) (Eur,etc), 21500; 15-16 EG, 16-17 JP on 21700(Gabon) (ME, etc); 22-23 JP on 15210(Gabon), 11835(Gabon) (Eur,etc); 23-24 EG on 11835(Gabon) (Direct)

LAOS - 6130, 1135-1202, National R. Vientian, Laotian, Native music program. 1200 time check & 7-note chime, then M news. Recently absent on 580kHz. (Yoshinori Sano via 'NTDXC' Tune No. 75, 4/90)

MOZAMBIQUE - 9636.8, -1500-, R. Mocambique, Vern, Afro-pops program. Reactivated! Poor due to heavy QRM from N. Korean station on 9640kHz. (Yoshinori Sano via 'NTDXC' Tune No. 75, 4/90)

PERU - 4238.1, 1046-1112, R. Inca, SP, Folk music, M talk. At 1109 M w/ID "Radio Inca". Very poor to poor on 3/28. (Kazuo Yamaguchi via 'Nishi-Tokyo DXers Circle' (NTDXC) Tune No. 75, April 90) 4495.1, 1050, SP, Poor on 4/7. (Nobuyoshi Aoi, via 'NTDXC' Tune No. 75, April 90) 4860, 1057-1100, SP, ID "El mundo de ... Radio La Hora, Peru." Poor on 4/4. (Nobuyoshi Aoi, ibid) 5025, 1025-1042, R. Quillabamba, SP, 1040 ID. M talk, Poor on 4/5 (Kazuo Yamaguchi, ibid) 5059.1, *1127-1138, R. Lircay, SP, S/on w/NA, then ID. Poor on 3/12 (Nobuyoshi Aoi, ibid) 5147.3, 1110, R. Estirella, SP, Poor on 4/9. (Nobuyoshi Aoi, ibid) 5618.2, 1030-1120, R. Ilucan, SP, Program "Cutervino Ausente"-Huayno, Huaynito Criollo music & M talk. Many IDs w/time check as "La hora de los estudios de Radio Ilucan, 6 de las manana 43 minutos, 6 de la manana 43 minutos en los estudios de Radio Ilucan." "La hora de los estudios de Radio Ilucan, solamente 6 minutos y tenemos 7 de la manana ... su estudio y territorio nacional. La hora de informa de Radio Ilucan y su programa Cutervino Ausente." (Takeshi Sejimo, ibid) 6144.8, 1005-1020, R. Concordia, SP, Huayno music program. ID as "6 horas 9 minutos, music nacional de nuestro pueblo Concordia." Varying from 6150kHz. Poor on 4/7 (Nobuyoshi Aoi, ibid) 6173.85, 1004-1017, R. Twantinsuyo, SP, Folk music, pops. 1015 ID. Poor on 3/28 (Kazuo Yamaguchi, ibid) 6281.1, 1205, R. Huancabamba, SP, Poor on 4/9 (Nobuyoshi Aoi, ibid) 6895, 1110-1210, R. Sesacion, SP, Poor on 4/9 (Nobuyoshi Aoi, ibid) 9674.9, 1151-1202, R. del Pacifico, SP, Religious program. 1200 ID. Fair on 3/22 (Kazuo Yamaguchi, ibid)

PHILIPPINES - 3330.4, 1030-1045, FEBC, Taglog, W talk, music program. Fair on 4/8 (Nobuyoshi Aoi via 'NTDXC' Tune No. 75 April 90)

SOCIETY ISLANDS - R. Tahiti - Something a bit strange noted here on 3/25. Great reception (SIO 444) here from RFO tune-in 0725 past 0940 (which, incidentally is past the WRTH listed sign-off time. Not bad considering my temporary student set-up of an Ambassador 2020 and a 10' long wire out the window.)

Non-stop island pop records with no talk until 0800, then jingle, Tahitian ID, then more non-stop records with one more jingle and a couple FR language drop-ins. At 0830 they switched over to classical programming with announcements ever half hour or so by a woman including this ID in both breaks heard:

"Vous etes a l'ecoute de Radio France. Ces programmes remplacent ceux de Franc-Inter, France-Infos, France-Culture, France-Musique, Fip, Radio Bleue, et certaines stations locales de Radio France, obsedeles par les arrêts de travail de fin de semaine." Literally:

You are listening to Radio France. These programs replace those of France-Inter, France-Infos, France-Culture, France-Musique, Fip, Radio Bleue, and certain local Radio France stations beset by the weekend work stoppages. (Nolan Stephany, NY).

SOUTH AFRICA - Via Radio Netherlands, Hilversum, in EG 1150 gmt 12 Apr. Excerpts from "Media Network" report:

(Presenter) Major cuts will take place to South Africa's external service at the end of this month. Twenty-one of the 105 jobs at the station will go, resulting in the cancellation of all broadcasts beamed outside the African continent. Fanus Venter is the director of Radio RSA...

(Venter) Jonathan, that is quite true - as of the end April this year we will be cutting down all our overseas services, that is services beyond the borders of African continent, and the languages affected will be our German, Dutch, Spanish and Brazilian services.

(Presenter) So these will simply go off the air?

(Venter) They will go off the air completely, yes.

(Presenter) Now what will you do with the transmitters, I mean, you're using transmitters at the moment - quite high-power transmitters - to beam to these parts outside Africa, will you then re-focus them?

(Venter) I think that would be a logical conclusion. Initially I think we will just switch off all the overseas transmitters and then we have to work out new frequencies and - time is very limited until the end of the month and they must be approved by the ITU as you know - so that, I think, will take some time before some of the transmitters can be re-employed.

(Presenter) But why has this happened? Is this because of an internal discussion at the SABC?

(Venter) ... SABC was told there was not sufficient funds available to continue the overseas services.. The SABC is running other services that provide satellite broadcasts to several parts of the world including Europe and then to the United States, and it was felt that new technology has opened up more avenues to people and to listeners that obviously cannot be reached by shortwave. I must add that for Radio RSA and for myself personally this is a very, very sad decision and a sad day.

(Presenter) Those other projects that Fanus mentioned appear to be specially-made radio and TV programmes, some of which are done for the CNN "World Report" programme. (WBI 4/20) & also thank you to Mike Fern, CA for written transcript. (bmm)

On Radio RSA's 'DX Corner' on 4/16, presenters in the English service of Radio RSA have begun saying their farewells to listeners (including listeners in the U.S.). The opening announcement on DX Corner 4/16 by Cathy Fitch said that the Dutch, German, Brazilian and Spanish services will no longer be broadcast to the world at large after midnight SA time May 1. "In addition to those services, the Portuguese, French and English Services of Radio RSA will, from the end of transmissions on 30 April, be broadcasting exclusively to Africa." (via Mike Fern, CA)

(Comments from Mike Fern, CA) - This picks up the point that Jonathan Marks missed on Media Network. One reason that has not been mentioned publicly is this: Prior to March the South African

government controlled directly the domestic service of Namibia's SWABC. Now it has to try to match that domestic service, which has 10 or 11 native languages plus German.

SWEDEN - External service reorganisation to take place in autumn - Radio Sweden, Stockholm, in Swedish 0930 gmt 17 Apr 90. Excerpts from report:

(Announcer) Now we talk about our external programme Radio Sweden, which will be getting a new face this autumn, as we reported earlier. There is a new proposal from the directors of Radio Sweden as to how the reorganization may look according to the guidelines laid out by the head of Riksradio, Ove Joanson, this last winter. According to the proposals put before the directors of Riksradio today, transmissions in Estonian and Latvian will stay, increased in the autumn to a quarter of an hour a day for each language. In addition, priority will be given to transmissions in German, Russian and English. It is proposed that Portuguese transmission be dropped entirely, French and Spanish will be cut down to a quarter of an hour. So how do the changes look for broadcasts in Swedish? Head of Programmes at Radio Sweden, Goeran Loewing:

(Loewing) There won't be terribly big changes, but one thing can be noted; that is the listeners in Europe will have a chance, from the autumn, to listen to "Kanalén" on P1 at 1700 hours (1600 gmt) before "Eko"... There will be some increase in co-operation with the "Eko" programme, and we will be rebroadcasting in some direction, probably to Asia, a summary of "Eko", which goes out late in the evening here. So it can be heard an hour or so later in Asia. That is also something new compared with today.

(Announcer) Considering the whole operation of Radio Sweden, one might say this proposal is for an investment towards the east - East Europe?

(Loewing) Yes, in a marginal way that is so. But that is a very small effort within the whole country anyway, because East Europe, from Radio Sweden's point of view, plays a small part, if you look at transmissions and such is the case also in the future. What we are planning is to increase the transmissions we began in Estonian and Latvian. At the moment they have a quarter of an hour each and next year we will probably also be broadcasting in Polish, a quarter hour of a day too. So that is what the investment in Eastern Europe really means.

(Announcer) At the same time these proposals will reduce the Romance languages sharply - Portuguese disappearing completely, French and Spanish shortened in their transmission times.

(Loewing) Yes, there was a proposal earlier from the head of Riksradio that French and Spanish might be broadcast only once, for example, at the weekend, in a weekend summary, but here at Radio Sweden we found it very important for these broadcasts to continue each day, so as to have a continuity of news transmitted from Sweden. On the other hand, we were forced, so to speak, to cut the length of the broadcasts, from a half to a quarter hour each day.

(Announcer) ...Today the reorganisation proposals are being presented to the directors of Riksradio. In May, the board of Riksradio will make its final decision and the changes to Radio Sweden's broadcasts will take effect in the autumn, when we go over to winter time. (WBI 4/20)

TANZANIA - Radio Tanzania transmitter tests observed. Monitoring research 12 Mar-10 Apr 90.

Radio Tanzania is testing what appears to be a new shortwave transmitter. It was first heard at 0830 gmt on 12th March on 5985 relaying the domestic service. It was heard again on 5th and 6th April on 6105 and 5985 respectively with continuous music at around 0900-10 gmt.

On 7th April, 5985 was heard relaying Radio Tanzania's External Service from around 1100 until closedown at 1915 gmt.

The music tests were heard again around 0730-0930 gmt on 9th and 10th April, on 5985 and 6105 respectively. An announcement in Swahili broadcast on 10th April said: "This is Radio Tanzania, Dar es Salaam, broadcasting on an experimental basis on 6105 in the 49 metre

shortwave band. We call on our listeners to write to us and tell us what reception is like at their location. Tell us what time you heard us and the model of radio you are using. Our address is: Chief Engineer, Radio Tanzania Dar es Salaam, P.O. Box 9191, Dar es Salaam".

Both 5985 and 6105 have been used by Radio Tanzania in the past, although neither frequency had been observed for some time, possibly since the mid 1980's. (WBI 4/20)

UNITED STATES - Radio Free Europe/R. Liberty Broadcast Sked Effective 3/25: 3960(L9), 22-04 RR; 3985(B5), 02-0230 BR; 3990(B5), 03-04 PO;

5995(B9), 18-22 RO; 5955(G16), 0000-02 RR; 5955(B9), 05-06(Sun) RO; 5955(B9), 22-0000 RR & 02-05(Sun) RR; 5955(B9) 02-06 RO; 5970(B6) 02-0230 BR; 05-23(Sun) PO; 5970(B6), 03-05(Sun); 5985(B7), 0000-04 & 0205(Sun) RR; 5985(B7), 04-23 HU & 05-23 (Sun);

6045(B9), 06-07 RO; 6050(B6), 23-02 RR; 6105(HD), 22-01 RR; 6105(L9), 04-22 RR; 6105(G13), 0130-04 RR; 6115(G7) 20-24 CS; 6115(B2), 03-05(Sun) RR; 6115(B2), 03-06 CS; 6115(B2), 05-06(Sun) CS; 6135(HD), 01-02 RR; 6135(L4), 02-0330 RR; 6155(B3), 23-01 RR; 6170(B9), 23-02 KA; 6170(G15), 14-18 RR; 6155(L3), 20-23 RR; 6170(HD), 02-0530 in half hour segments in ES, LA, RR, LI, ES, LA and then from 0530-14 RR;

7115(G17), 03-04 CS; 7115(B5), 04-23 HU; 7115(B5), 05-23(Sun); 7130(L3), 18-20 RR; 7145(G17), 22-23 RR, 23-02 KA, 02-03 RR; 7155(HA), 17-18 ES; 7155(L5), 22-23 RR, 23-2330 TA, 2330-01 KI, 01-02 RR; 7155(HA), 18-19 BR; 7155(HA) 02-0530 in half hour segments ES, LA, RU, LI, ES, LA, LI then 0530-07 RR; 7155(HA) 19-20 LA, 20-21 LI, 21-22 ES; 7165(B1), 18-22 RO, 0000-02 RR, 05-07(Sun) RO; 7165(HA), 22-24 RR; 7165(B1) 02-05(Sun) RR; 7165(L3), 07-18 RR; 7165(B1), 02-07 RO; 7180(L6) 0000-02 AZ, 01-02 AR, 02-03 GE, 03-05 RR; 7190(G5), 23-02 RR; 03-05(Sun) RR; 7190(B3), 06-23 PO; 7190(B2), 02-0230 BR, 0230-03 RR; 7190(G5), 05-06(Sun) PO; 7190(G5), 03-06 PO; 7220(L7), 24 hrs RR; 7245(B2), 18-23 CS, 0000-01 UZ, 01-02 TU; 7245(G17), 04-05(Sun) RR; 7245(G17), 04-06 CS; 7245(G17), 05-06 CS; 7245(B2), 06-13 CS; 7255(L5), 21-22 RR; 7255(P5), 0000-02 RR; 7255(P5), 22-24 RR; 7295(B2), 13-18 CS; 7295(B0) 18-23 UK, 23-24 RR, 0000-01 UZ, 01-02 RR; 7295(B0), 02-04 UK;

9505(HD), 14-15 BR; 9505(P5), 18-19 BR, 19-20 LA, 20-21 LI, 21-22 ES; 9505(L4), 22-24 RR, 0000-01 UZ, 01-02 RR; 9505(G16) in half hour segments 02-0530 ES, LA, RR, LI, ES, LA, LI then 0530-07 RR; 9505(HD), 15-16 LA, 16-17 LI, 17-18 ES; 9520(P), 18-0130 RR; 9520(L5), 0530-18 RR; 9520(P1), 18-22; 9520(P3) 22-24; 9520(P1), 0130-0530 RR; 9555(G10), 19-22 BU; 9555(G19) 22-0230 RR; 9555(G19), 0230-03 PA, 03-0330 DA; 9565(P4), 16-18 RR; 9565(L6), 18-23 UK; 9595(G16) 18-24 CS; 9595(B3), 02-0230 BR; 9595(G14), 05-08(Sun) CS; 9595(B0), 08-18 CS; 9595(G14), 03-05(Sun) RR; 9595(G14), 03-08 CS; 9625(HD), 18-22 RR; 9625(P2), 2330-0030 RR, 0030-01 TA; 9625(P2), 22-23 RR, 23-2330 TA; 9625(B3), 01-02 RR; 9625(P5), 02-06 UK, 06-07 RR; 9660(HC), 17-23 RR; 9660(G7), 23-02 KA, 02-04 UK; 9660(B0), 04-06 UK, 06-08 RR; 9680(L4), 20-22 RR; 9680(L3) 0000-01 AZ, 01-02 AR, 02-03 GE; 9680(HA), 03-06 RR; 9680(G10) 22-24 RR; 9695(G7) 18-23 HU, 04-05(Sun) RR; 9695(B1), 07-18 HU; 9695(G13), 04-07 & 05-07(Sun) HU; 9705(G5), 18-23 PO; 9705(B5), 2330-01 KI; 9705(G10), 03-07 PO; 9705(B9), 07-18 PO; 9705(B5), 23-2330 TA; 9705(G10), 02-05(Sun) RR, 05-07(Sun) PO; 9725(G11), 23-02 RR; 9725(B4), 05-07 & 10-22(Sun) RO; 9725(G1), 02-05(Sun) RR; 9725(B4), 05-22 RO; 9725(B4), 14-22 RO; 9725(G1), 02-05 RO; 9725(B4), 07-10(Sun) RR; 9725(B4), 07-14 RR; 9725(G11), 22-23 RR; 9740(B5), 01-02 TU; 9750(L2) 21-24 RR; 9750(HC) 0000-01 TB; 9750(HC), 01-03 TB;

11725(G3), 23-24 RR, 0000-01 TB, 03-05(Sun) RR; 11725(G3), 05-23(Sun) PO, 01-03 TB; 11725(G3), 03-23 PO; 11770(G9), 2330-01 KI, 01-02 TU, 02-0230 RR; 11770(L5), 04-0530 BR; 11770(G9), 08-10(Sun) RR, 13-22 BU; 11770(G9), 22-23 RR, 23-2330 TA, 0230-03 PA, 03-0330 DA, 08-13 RR; 11770(G9), 08-13 RR; 11770(G9), 10-13 RO; 11815(HB), 23-02 KA; 11815(G2), 05-05(Sun) RO, 08-10(Sun) RR, 14-22 RO; 11815(HB), 22-23

RR; 11815(G2), 02-05(Sun) RR, 07-14 RR; 11815(G2), 02-07 RO, 10-22(Sun) RO; 11825(G2), 0000-01 UZ, 01-02 RR; 11825(G4), 08-24 CS; 11825(G20), 02-08 RR; 11855(HA), 0000-01 TB; 11855(G4), 03-05(Sun) RR, 22-24 RR; 11855(HA), 01-03 TB; 11855(G4), 05-08(Sun) CS; 11855(G4), 03-08 CS; 11875(L1), 08-11 RR, 11-12 AZ, 12-13 RU, 13-14 AR, 14-15 AZ, 15-16 BR, 16-17 GE, 17-18 AZ, 18-19 GE, 19-20 AZ, 20-24 RR, 24-01 AZ, 01-02 AR, 02-03 GE, 03-04 RR, 04-05 AZ; 11855(P6), 18-23 UK, 23-2330 TA, 2330-0030 RR, 0030-01 TA, 01-02 RR, 02-06 UK; 11855(P3), 06-18 RR; 11895(LS), 02-04 RR; 11895(G6), 05-23(Sun) HU; 11895(G6), 04-23 HU; 11905(G20) 11-16 (RR); 11915(G6), 23-02 KA, 02-04 RR; 11915(B3), 04-06 RR; 11925(P4), 14-15 BR, 15-16 RR; 11935(G18), 23-05 RR; 11935(L1), 05-07 RR; 11935(HB), 17-22 RR; 11935(G18), 22-23 RR; 11970(L6), 14-15 BR, 15-16 LA, 16-17 LI, 17-18 ES, 18-19 BR, 19-20 LA, 20-21 LI, 21-22 ES; 11970(G15), 0000-01 KI, 01-02 RR, 0530-08 RR; 11970(G15), 22-23 RR, 23-2330 TA, 2330-24 KI, 02-0530 in half-hour segments ES, LA, RR, LI, ES, LA, LI; 11970(L6), 08-11 RR, 11-14 KA;

15115(G14), 13-22 BU; 15115(G19), 0330-04 RR, 04-0530 BR, 0530-07 RR; 15130(G14), 22-0230 RR; 15130(G13), 04-0530 BR; 15130(P6), 11-14 KA, 14-15 BR, 15-16 LA, 16-17 LI, 17-18 ES; 15130(G17), 18-19 BR, 19-20 LA, 20-21 LI, 21-22 ES; 15130(P6), 06-11 RR; 15145(G8), 0000-01 TB, 03-05(Sun) RR; 15145(G8), 01-03 TB, 05-21 PO; 15145(G8), 03-05 PO; 15170(G21), 05-07 RR; 15170(G7), 1230-1330 RR; 15170(L5), 18-19 GE, 19-20 AR, 20-21 RR; 15170(G7), 07-1230 RR, 1330-14 PA, 14-1430 DA; 15170(G21), 15-1730 UK; 15215(G11), 02-07 RO, 07-10(Sun) CS, 10-22(Sun) RO; 15215(G11), 03-05(Sun) RR, 05-07(Sun) RO, 07-12 CS, 12-14 & Sun t/22 UK; 15215(G11), 14-22 RO; 15255(G12), 0000-05 RR, 05-24 CS; 15290(G21), 02-05 RR; 15290(L6), 05-08 RR; 15290(G21), 08-10 RR, then 1030-1130 half-hour segments TA, IK, TU, then 1130-1230 UZ, 1230-1330 RR, 1330-14 KI, 14-1430 TA, 1430-22 RR; 15340(L2), 0000-01 AZ, 01-02 AR, 02-03 GE, 03-04 RU, 04-05 AZ, 05-11 RR, 11-12 AZ, 12-13 RR, 13-14 AR, 14-15 AZ, 15-16 RR, 16-17 GE, 17-18 AZ, 18-19 GE, 19-20 AR, 20-21 RR; 15340(G8) 21-24 RR; 15355(G1), 05-23 HU; 15370(B4), 22-23 RR, 23-2330 TA, 2330-0030 RR, 0030-01 TA; 15370(G18), 05-06 RR; 15370(HC), 1430-15 TU, 15-16 UZ; 15370(B4) 01-02 TU, 02-0230 RR, 0230-03 PA, 03-0330 DA, 0330-05 RR; 15370(G9), 06-07 RR; 15370(HC), 16-17 TB; 15370(P5), 07-1230 RR, 1230-1330 TB, 1330-1430 RR; 15370(G19), 17-22 RR; 15380(G9), 0330-06 UK; 15380(P1), 13-1330 RR, 1330-14 KI, 14-1430 TA; 15380(G21), 1730-23e UK; 15380(P1+P2), 06-13 RR, 15-1730 UK; 15445(P1), 22-23 RR, 23-2330 TA, 2330-0030 RR, 0030-01 TA; 15445(L3), 03-04 RR, 04-05 AZ, 05-07 RR; 15445(G10), 07-13 RR; 15445(HC), 1330-14 PA, 14-1430 DA;

17612(G15), 12-14 UK; 17725(G18), 06-13 RR, 13-22 BU; 17735(G5), 06-11 PO; 17735(P4), 11-14 KA; 17735(G16), 14-15 RR, 15-18 UK; 17750(HA), 06-10 RR, 10-1030 TA, 1030-11 KI, 11-1130 TU, 1130-12 UZ, 1330-14 KI, 14-1430 TA, 1430-15 TU, 15-16 UZ; 17750(HA), 1230-1330, 16-17 TB; 17760(L4), 04-05 AZ, 05-11 RR, 11-12 AZ, 12-13 RR, 13-14 AR, 14-15 AZ, 15-16 RR, 16-17 GE, 17-18 AZ, 18-19 GE, 19-20 AR; 17770(P2), 13-15 RR; 17770(G17), 15-16 LA, 16-17 LI, 17-1730 RR; 17805(G19), 07-10(Sun) CS, 10-16(Sun) RO; 17805(G7), 16-20 RO; 17805(G19), 07-12 CS, 12-14 UK; 17805(G19), 07-16(Sun) RO; 17805(G19), 14-16 RO; 17835(B3), 0230-03 PA, 03-0330 DA; 17835(G17), 06-15 CS; 17835(G20) 6-18 RU; 17865(G7), 15-16 UZ; 17865(G19), 16-17 TB; 17895(G13), 07-10 RR, 10-1030 TA, 1030-11 KI, 11-1130 TU, 1130-1230 UZ, 1330-14 PA, 14-1430 DA, 1430-15 TU, 15-18 UK; 17895(G13), 1230-1330 TB;

21455(G14), 08-11 RR; 21455(G5), 11-12 AZ, 12-13 RR, 13-14 AR, 14-15 AZ, 15-16 RR, 16-17 GE, 17-18 AZ; 21510(HB), 07-10 RR, 10-1030 TA, 1030-11 KI, 11-1130 TU, 1130-1230 UZ, 1330-14 KI, 14-1430 TA, 1430-15 TU, 15-16 UZ; 21510(HB), 1230-1330 TB, 16-17 TB; 21665(G16), 07-11 PO, 11-14 KA; 21745(G14), 11-13 RR; 21745(G10), 13-19 BU.

Languages: AR - Armenian; AZ - Azerbaijani; BR - Belorussian; BU - Bulgarian; CS - Czechoslovakian; DA - Dari; ES - Estonian; GE - Georgian; HU - Hungarian; KA - Kazak; KI - Kirghiz; LA - Latvian; LI - Lithuanian; PA - Pashto; PO - Polish; RO - Romanian; RR - Russian; TA - Tajik; TB - Tatar-Bashkir; TU - Turkmen; UK - Ukrainian; UZ - Uzbek.

Transmitter Sites: Biblis - Germany B1 to B9 100 kW; Gloria - Portugal G1 to G19 250 kW, G20 and G21 50 kW; Holzkirchen - Germany HA to HD 250 kW; Lampertheim - Germany L1 to L7 100 kW, L9 20 kW; Pals - Spain P1 to P6 250 kW. Note: Some transmitters at Pals can be operated on a combined mode resulting in twice the power output. Transmitters in the combined mode are shown for example as P1 & P2, etc. (Tetsuya Kondo, Japan & James Kline, CA)

Via "Diario de Las Americas", Miami, March 15 & thanks to Mike Fern, CA for this: The director of Radio Marti, Ernesto F.

Betancourt, has been dismissed from that job. He has been named an "investigator" for the Voice of America, parent of Radio Marti. The dismissal seems to be connected to infighting between Cuban political factions in Florida, who anticipate the early departure of Fidel Castro as head of the Cuban government. One Cuban emigre leader allegedly seeking Betancourt's dismissal is Jorge Mas Canosa, head of the Cuban-American Federation (FCA). Mas has denied this.

The Washington Post and Miami Herald have alleged that Mas worked through Betancourt to promote Mas's desire to be president of a free Cuba. Diario's editorial columnist Luis Aguilar Leon slays the FCA was the main backer of Radio Marti, that Radio Marti's programs have been objective under Betancourt's dedicated management, that Mas was personally satisfied with what Betancourt had achieved, and that only Castro will benefit because Betancourt was kicked upstairs.

FCA sponsors broadcasts to Cuba over WHRI, Noblesville, IN, and has sponsored broadcasts from Radio Clarin in the Dominican Republic.

Betancourt is said to have contacted a Cuban official named Arnaldo Coro without prior State Department clearance.

(Note: The presenter of "DX Spotlight" on Radio Habana Cuba identifies himself as Arnie Coro, CO2KK. Is Arnie the same as Arnaldo? via Mike Fern, CA)

Just received a letter from "The World Service of The Christian Science Monitor" dated Mar 1990:

Dear Friends: We have news that will please many of you: Now that the construction work on our three transmitting sites is completed and our programming well established, we will be issuing formal QSL cards. (Then an explanation of what a QSL is.)

We have enclosed not only the latest frequency information but also three cards that can be used to begin the QSL verification process for each of our three sites: WCSN, WSHB, and KHBI.

If you would like a verified QSL card, tune in to one of our broadcasts and fill in the required information on back of the corresponding card: date, time (in UTC) frequency, and enough information to make it clear to our staff that you did indeed hear us. Then, fill in your name and address, put the card(s) in an envelope, and send it (them) to us in Boston: World Service/Herald, P.O. Box 860 Boston, MA 02123 USA.

We will forward them to the appropriate station for verification and mail the card back to you, duly signed.

We hope this adds to your enjoyment of shortwave listening!

A NOTE TO ENTHUSIASTS: Once you have collected a card from each station, feel free to write in again with comments about our programming or questions for Letterbox. However, we'd rather you didn't send in further reception reports, which are not needed.

Note: When I first heard this on Letterbox program on 4/6, they said you would get these three QSL Cards if you were on their mailing list. If you are not on their mailing list, you can still get a verified QSL card(s) by listening to each of the sites and sending in your report to the above address. (bmm)

World Wide Christian Radio (WWCR) - Via Kol Israel, 'Calling All Listeners' on 4/16 and thanks to Mike Fern, CA for this:

WWCR, Nashville, TN, is *not* being paid to carry the "Israel Press Review" at 1945 UTC. This program is distributed free by the transcription service of Israel Radio.

U.S.S.R. - Observations on Estonian Radio broadcasts on 9560 kHz.
Monitoring research Mar-Apr 90. 1440-15 First Pgm; 15-16 RS-language Pgm; 16-17 Second Pgm; 18-1915 Second Pgm; 1915-20 First Pgm; 20-2030 Ext. svc in SW. (WBI 4/20). 73's, Bruce

QSL Reports

Sam Barto
47 Prospect Place
Bristol, CT 06010



ABU DHABI: Voice of the UAE 13605 f/d folder cd. in 40 ds. for 1 IRC. v/s Ahmed A. Shouly. Rcvd. 2 UAE coins. (Zobro-MI)... Thanks for the clipping on the v/s - verie interesting! Sam.

ALBANIA: Radio Tirana 9760 cd. w/ pin and postcard in 51 ds. for an EG rpt. (Terrence-NY).

ALGERIA: RTVA 15215 p/d cd. in 50 ds. for an 88 reception. (MacHarg). 17745 f/d "Tapestry" cd. in 39 ds. w/ pre-addressed report form. (McDavitt).

ARGENTINA: LOL 5000 p/d cd. in 3 1/2 mo. for \$1.00. (Lare-MI). **RAE** 11709.9 f/d cd. in 90 ds. v/s M. Campos. (Terrence-NY).

ARMENIAN SSR: Radio Moscow 17570 via **Yerevan** f/d cd. in 98 ds. (Kremer-IN). **Radio Yerevan** 15180 p/d plain cd. in 95 ds. (Peake-IA). 11675 and 11790 n/d personal ltr. w/ 2 stamps, 12 postcards and schedule in 186 ds. for 2 IRCs. This after a f/up rpt. (Woloch-QUE).

ASCENSION ISLAND: BIC 6005 f/d ltr. in 133 ds. for \$1.00. v/s Neil Johnson. (Mann-NE). 6005, 9600, 15400 and 17740 2 f/d prepared cds. in 31 ds. for \$1.00. (Rugg-QUE).

ASIATIC RUSSIA: Radio Moscow 4810 via **Vladivostok** f/d "Friendship" cd. in 2 mo. (Lare). 5980 f/d cd. in 3 mo. (Palmerheim-MN). 7315 via **Komsomolsk-on-Amur** f/d cd. in 3 mo. (Palmerheim).

7345 and 9895 via **Petropavlovsk-Kamchatsky** f/d cd. in 3 mo. (Palmerheim). 7370 via **Khabarovsk** f/d "Kremlin" cd. in 52 ds. (Butcher-MA). 15560 f/d cd. in 56 ds. (Butcher). 7492 f/d "Moscow State University" cd. for USB reception. (Kusalik-ALB). 12055 and 12010 f/d cds. in 47 ds. (Turnick-PA). 9745 via **Irkutsk** f/d cd. in 80 ds. (Wilkins-CO). **Radio Kiev** 15180 via **Komsomolsk** f/d "Striysky Park" cd. in 3 mo. w/ schedule. (Butcher). **Khanty-Mansiysk Radio** 4520 f/d cd. in 3 mo. w/ sticker and schedule for reception of RS transmission. (Barto-CT).

AUSTRALIA: Radio Australia 6020 via **Brandon** f/d "Wilderness Society" cd. in 18 ds. after a f/up rpt. v/s Hugh Murray, Frequency Manager. (Weber-OH). same cd. in 1 mo. It took a phone call to get this one! (Kusalik). **VLM6** 6140 via **Waneroo** f/d cd. in 23 ds. for \$1.00. (Hart-FL).

AUSTRIA: Radio Austria International 13730 f/d "Salzburg Costume" cd. in 17 ds. w/ sked. for 1 IRC. (Brouillette-IL). 13730, 11780 and 21490 f/d "Klagenfurt Carinthie" cd. w/ sticker and schedule in 5 wks. (Barto-CT).

AZAD KASHMIR: Azad Kashmir Radio 4790.5 p/d personal ltr. in 46 ds. for ms. v/s Abrar * Ali, Engineer-Manager who mentions that "It is informed that A.K.R. transmitters are situated in Azad Kashmir." C/V #203: (Palmerheim-MN).

AZORES: Radio Club de Angra 13584 f/d cd. w/ 909 khz freq. in 2 mo. for a PT rpt. (Field).

BANGLADESH: Radio Bangladesh 15195 n/d cd. w/ ltr. in 163 ds. after a f/up rpt. (Mann-NE).

BELGIUM: BRT 9925 f/d "St. John's the Baptist Church" cd. in 90 ds. (Zobro). **RTBF Radio 1** 9925 and 25645 f/d "Grand Square" cd. in 5 wks. w/ schedule and sticker. (Barto-CT).

BENIN: La Voix de la Revolution 4870 f/d cd. in 71 ds. after a f/up rpt. (MacHarg). f/d cd. in 10 wks. for a FR rpt. and ms. (Klinck-NY). **Radio Parakou** 4870 f/d cd. in 54 ds. for a FR rpt. and 2 IRCs. (Gaharan)

BONAIRE: Radio Nederland

17605 f/d cd. in 26 ds. (Davisson-OH). 11720 f/d "Amsterdam Bridge" cd. w/ sked., pennant and sticker in 1 mo. (Kohlbrunner-PA).



"La Emisora de la Familia"

Frecuencias: 1420 kHz MW
48.0 kHz SW 40 ms.
Estaciones: HCRN - 1
HCRN - 2



VERIFICATION SIGNERS: Radio Guarujá 5980 Ireneu Cemelli Jr., Director. Radio Educadora da Bahia 9540 Francisco Emilio de Aquino Bruno, Coodenador do Centro de Radio. Ondas de Ortequaza 4975 Norberto Plaza Vargas, Subgerente. Radio Rio Amazonas 4870 Miriam Marino, Secretaria. HDZIOA 7600 Victor Yepez Valarezo. Radio Atlantida 4790 Julio Reategui Trigos, Director General.



- BOHAIRE:** Radio Nederland 6165 f/d "Windmills" cd. w/ sticker and schedule in 48 ds. for 1 IRC. (Wallace-CT). Trans World Radio f/d cd. in 32 ds. (Machgar)
- BRASIL:** Oeara Radio Clube 6105 f/d prepared cd. in
 * 54 ds. for a SASE. This was for a 78 reception. v/s Manuel Eduardo P. Campos, Director Presidente. (Moore-MI).
 * Radio Clube de Pernambuco 6015 f/d prepared cd. w/ stickers in 27 ds. for a f/up rpt. on a 79 reception. (Moore-MI). Radio Clube Rondonopolis 4955 f/d personal ltr. in 2 mo. on my 9th try for a PT rpt. v/s Antonio Riberto Cones, Director Geral. (Field-MI). Radio Marajoara 4955 f/d prepared cd. w/ ltr. in 17 ds. for a PT rpt. and \$1.00. v/s Elizete Mados Santos Pamplona. (D'Angelo-PA). f/d prepared cd. w/ p/d ltr. and an FM station sticker in 30 ds. for a PT rpt. and \$1.00. (Wilkins-CO) f/d prepared cd. w/ stickers in 1 mo. for a PT rpt. and SASE. (Moore-MI). Radio Nacional ZYG810 4875 f/d prepared cd. w/ personal ltr. in 172 ds. for a PT rpt. and \$1.00. v/s Eudson Monteiro Lima. (D'Angelo). Radio Cultura Araraquara 3365 f/d prepared cd. w/ ltr. and decal in 7 wks. for SASE and a PT rpt. v/s Antonio Carlos Rodrigues dos Santos, Diretor Artistico. (Moore-MI). Radio TV Gaucha n/d "Tower" cd. in 14 mo. for a PT rpt. and a tape. (Huniwell-NJ). Radio Educacao Rural Tefe 3385 f/d prepared cd. w/ schedule in 3 wks. for SASE and a PT rpt. v/s Diacono Thomas Schwamborn. (Moore). f/d ltr. w/ schedule in 3 mo. for a PT rpt. (Barto-CT). Radio Jatui 4935 f/d prepared cd. w/ ltr. and sticker in 6 wks. for a PT rpt. and a f/up rpt. v/s Zacaridas Faleiros. Addr: Rua Jose Carvalhos Bastos 542. (Moore). Radio Anhanquera 4905 p/d ltr. w/ coverage map in 3 wks. for a PT rpt. and \$1.00. v/s Edson Guimaraes. (Rugg-QUE)....Great going guys!...Sam.
- BOTSWANA:** Radio Botswana 4830 f/d "Herdsboy Milking Cow" cd. in 27 ds. for \$1.00. v/s Ted Makgekgenene, Chief Engineer. (Weber-OH). f/d cd. in 26 ds. for \$1.00. (Klinck-NY). 4820 same cd. in 1641 ds. (!) after 2 f/up rpts. and 2 IRCs. (Woloch-QUE).
- BULGARIA:** Radio Sofia 7115 f/d cd. in 35 ds. (Turnick-PA). Radio Moscow 9700 via Sofia f/d cd. in 60 ds. (Watts-KY).
- BURKINA FASO:** Radio Burkina 4815 f/d prepared cd. in 6 wks. for a FR rpt., cassette tape, and ms. (Huniwell).
- BYELORUSSIAN SSR:** Radio Moscow 11745 via Minsk f/d cd. in 76 ds. (Turnick-PA).
- CAMBODIUM:** CRTV 4850 via Yaounde f/d cd. w/ schedule in 13 wks. for a FR rpt., tape and 3 IRCs. (Klinck-NY).
- CANADA:** CRZI 6160 f/d "CBC Centre" cd. in 33 ds. (Peake-IA).
- CHAD:** Radiodiffusion Nationale Tchadienne 4904.5 p/d ltr. in 11 wks. w/ sticker and schedule for a FR rpt. and 2 IRCs. (Kohlbrener-PA). (Barto-CT).
- CHILE:** CHV 8677 f/d cd. in 2 mo. for a SP rpt. v/s German Valdivia Ibarra, Capitan.
- CHINA, PEOPLES REPUBLIC OF:** Radio Beijing 11695 f/d "Silk Figurine" cd. w/ paper cuts in 23 ds. (Levendusky-CO). 11715 same f/d cd. in 22 ds. for 1 IRC. (Wallace-CT). 15125, 12110.1 and 11445 (Kumming) p/d cd. in 2 mo. w/ schedule. (Barto). 7516 via Lingshi cd. in 3½ mo. (Barto). 4815 and 4882 f/d cd. in 3 mo. for a f/up on an 85 reception. (Barto) 8260 via Beijing and 9440 via Kumming f/d "Peihai Park" cd. in 2½ mo. (Barto-CT). 7405 * via Jejiang Province f/d cd. w/ site in 15 ds. Card was sent back for site information. (Rigas-IL).....much more to follow...Sam.



Radio Mil C. P. R. A.
 27 de marzo, 1987

Nombre: Edward A. D'Angelo,
 2214 Boney Drive
 Framlingham, PA 17018,
 E.E. UU. DE AMERICA (USA)

Nombre: Distinguido Señor:

Asunto: Recibo de su cheque de fecha 21 de Noviembre/86
 en la cual aparece nuestra donación al día 7 de Junio/86

Comentarios: Recibimos vuestra donación en su fecha, para el programa de 11700 kilohertz en la banda internacional, de 15 minutos por semana a la estación Radio Eladio, la cual actualmente algunos programas nuestros, representados de que usted reporta.

Esperamos que este informe sea de alguna ayuda que usted tenga sobre el particular, para algún momento nuestra donación en la frecuencia de 11700 kilohertz en y 181.1 kh.

Atentamente,

PIERO JACINTONI F.
 Vice Pte. Director General.

CHINA, PEOPLES REP. OF: Radio Beijing 7820 and 9945 via Xian, 7360 via Baoding and 9785 via Beijing f/d "Velvet Ornament" cd. in 2½ mo. (Barto). 9920, 15400, 15450, 11660 and 11600 f/d cd. in 3 mo. (Barto). 9365 via Kunming and 9965 and 7470 via Baoding f/d "Coconut Hair Ornament" cd. in 2 mo. (Barto). Voice of Jinling 4875 f/d cd. in 25 ds. (Rigas). Guangxi PBS 5010 f/d cd. in 3 mo. for 83 reception. (Barto). Qinghai PBS 3950 f/d cd. in 2 wks. via Beijing. (Palmerheim). Jiangxi PBS 5020 via Nanchang f/d cd. in 22 ds. (Kusalik). Xinjiang PBS 4735 via Urumqi f/d "Memorial Hall" cd. in 22 ds. (Kusalik). Nei Menggu PBS 5981.7 and 9750 f/d cd. in 3 mo. (Barto). CPBS 5075 via Urumchi f/d "Great Wall" cd. in 21 ds. (Lare). 7440 via Lingahi f/d "Golden Thread Cloth Ornament" cd. in 3 mo. (Barto). Radio Beijing 17855 via Shijiachuang f/d cd. in 3 mo. (Barto).

NOTES: Jerry Klinck likes the idea of utilizing personal photos on his reception reports. they seem to work out quite well. Marlin Field of 128 Oak St., Hillsdale, MI 49242 needs the address for Voice of the Libyan People on 9500. He used the IL address but the report was returned. Remember to send in any new address changes to the Column. Space permitting - I'll get them in...Sam. Rugy in Quebec says the DX seemed to be much better during the previous 3 winters. I agree...Sam. Don Hooser says that he had a great deal of fun while competing in the NU/FT NADXC. Dave Turnick should have a new ICOM R71A by the time this gets printed. Hope it works well for you...Sam. Eric Svedberg sent a very detailed letter explaining how he obtained his Radio Pyongyang QSL. Eric, I forwarded your letter to Harold Cones. Very good material for the bulletin...Sam. John Scruletta has just completed his second Graduate Course in Quantitative Methods at LIU. Let us know how you do...Sam.

COLUMBIA: La Voz de Los Centauros p/d cd. in 154 ds. for a SP rpt. and ms. v/s Juan Carlos Torres Leyva, Gerencia. (Turnick-PA).

COSTA RICA: Radio Impacto 5030 p/d ltr. w/ pennant in 71 ds. for \$1.00. v/s Hector Requena C.,

* Asesor. General. (Mann). Radio Reloj de Costa Rica 6017 p/d cd. w/ ltr. in 2 mo. for a SP rpt. on an 81 reception. (Barto-CT). AMR Radio

Lira International 9725 f/d cd. w/ pennant in 38 ds. for 1 IRC. v/s David L. Gregory, General Manager. (Peake). 9725 and 11870 cd. w/ personal ltr. and pennant in 45 ds. for \$1.00. (Hart-FL).

* same in 2 mo. for 1 IRC. (Butcher-MA). United Nations Radio 21566 via RPPI f/d cd. in 10 ds. w/ sticker and schedule. (Weber-OH).

CUBA: Radio Moscow 6000 and 6045 f/d cd. in 3 mo. (Barto). 4765 f/d cd. in 88 ds. w/ personal ltr. (Levison-PA).

CYPRUS: HEC 6180 f/d cd. w/ sticker in 21 ds. for \$1.00. Addr: Box 219, Limassol. (Rugg-QUE).

CZECHOSLOVAKIA: Radio Praha 5930 cd. in 35 ds. (Turnick). 7345 f/d "Svihov Castle" cd. in 26 ds. (Landau-NJ). 17705, 15110, 21505 and 13715 same cd. in 6 wks. w/ schedule. (Barto-CT).

DJIBOUTI: Radio TV Djibouti 4780 p/d cd. in 3 mo. for a FR rpt. and \$1.00. (Paszkievich-WI). p/d cd. in 45 ds. for a FR rpt. and 2 IRCs. (Palmerheim-MN).

DOMINICAN REP.: Radio Amanecer 6025 p/d cd. w/ ltr. in 4½ mo. for a SP rpt., tape, ms. and \$1.00. My prepared cd. was not returned. (Huniwell-NJ).

arctic radio club

SUECIA SWEDEN

FIRST MEDIUM WAVE DX CLUB IN EUROPE

1451501 - 1451505

10 YEARS
International pirate station since 1977

ORANG UTAN

QSL FOR 1

NAME Dave Valko
RECEIVED ON 3 Dec 89
TIME 8-12 - 8-58 UTC
FREQUENCY 6206 kHz
SINPO poor To Fair



THE MONKEY OF THE NETHERLANDS
ON MW WITH 200 W

ional 5030 f/d prepared cd. w/ sticker in 2 mo. for a SP rpt. and \$1.00. (Moore-MI).
n/d cd. w/ ltr. in 74 ds. for ms. v/s Antonio Arregui. (Paszkiwicz). Radio Pastaza
f/d prepared cd. in 6 mo. for a SP rpt., tape and ms. (Hunwell-NJ).

ENGLAND: AJE 9242.3 and 10538 p/d ltr. in 2 mo. for 80 reception of AFRS USB relay. v/s
Richard L. Simpson, Radio Program Manager. (Barto-CT).

EURO PIRATES: Radio Orang Utan 6206 f/d cd. in 11 ds. for \$1.00. Sticker rcvd. (Druzak).

* Radio Atlanta 6225 n/d sheet in 46 ds. for ms. (Druzak). Radio Titanic International
6230 f/d cd. w/ sticker in 37 ds. for \$1.00. (Druzak-BEL).

NOTE: Bob Brown informs us that Ed Cockburn (WALJGO), who is a new broadcast engineer at WCSN, will be QSLing reception reports for WCSN. The address to use is: P.O. Box 130, Costigan, ME 04423. ATTN: Ed Cockburn. For the past two QSL Columns I have been illustrating the new QSL cards from Trans World Radio in Bonaire. These were received via Chuck Roswell (PJ4CR). Thanks Chuck... Sam. Norman Wittschen III sent me a copy of a letter he received from Deutsche Welle in which they requested reports in writing only - no taped reports. Interesting. Alex Vranes, Jr. sent along a very nice letter including his remarks about the Radio Mogadishu \$50.00 scam. I guess quite a few of us are getting that. Tim Davison has 3 reports out to Radio Australia including 2 f/up reports as far back as 8/89. As far as your reports go Tim, they are in great order - keep reporting just the way you always do... Sam.

EUROPEAN RUSSIA: Radio Moscow 11880 via Moscow f/d cd. in 78 ds. (Carson-OK). 9685 f/d cd. in 49 ds. (Paszkiwicz). 11710 and 15200 f/d cds. in 2 mo. (Wilkins). 9820 via Kingisepp f/d cd. in 47 ds. (Turnick). 7150 via Armavir f/d cd. in 58 ds. (Watts). 9865 f/d cd. in 55 ds. (Butcher). 15280 via Zhigulevsh f/d cd. in 2 mo. v/s Olga Troshina. (Butcher-MA). 15305 via Veronezh f/d "Kosmos Hotel" cd. in 75 ds. (Butcher). 10344 (USB) f/d cd. in 3 * mo. (Barto). RNE39 Radio Moscow 12135 f/d cd. in RS in 2 mo. w/ ltr. v/s Eng. Pavel Mikhaylov, DX Editor. (Barto). Radio Station Peace and Progress 17635 via Moscow f/d cd. in 41 ds. (Humenyk). 11980 and 17635 f/d cd. in 3 mo. (Humenyk-QNT).

FRANCE: Radio France International 17620 f/d cd. in 36 ds. (Davisson). 17650 f/d "Maison de la Radio" cd. w/ schedule in 5 wks. (Roth).

FRENCH GUIANA: Radio France International 9800 via Montsinery f/d cd. w/ schedule in 31 ds. for 1 IRC. (Wallace). 11670 cd. w/ schedule in 1 mo. for a FR rpt. (Taylor-PA).
Hi Bill! Thanks for the newspaper item. I loved it... Sam.

GABON: Radio Japan 11835 via Moyabi n/d cd. in 5 wks. (Barto). 21635 cd. in 2 mo. (Barto).

GEORGIAN SSR: Radio Moscow 21725 via Tbilisi f/d cd. in 66 ds. (Butcher-MA).

DURAI: UAE Radio 11940 f/d "Map" cd. in 4 wks. (Roth).

ECUADOR: HCJB 15155 f/d cd. in 24 ds. (Macharg). f/d "Mountain" cd. in 30 ds. (Gaharan). 17890 f/d "Antisana" cd. in 26 ds. for 1 IRC. (Wallace-CT). Radio Centro 3290 p/d personal ltr. in 35 ds. for a SP rpt. and \$1.00. v/s Luis A. Gamboa T., Director-Gerente. (D'Angelo). La Voz de los Caras 4795 p/d ltr. in 97 ds. for ms. v/s Marcelo Nevarez Faggioni. (Paszkiwicz)

* Radio Rio Amazonas 4870 n/d ltr. via registered mail in 9 wks. for a SP rpt. and \$1.00. v/s Miriam Marino, Secretaria. (Moore-MI). Radio Catolica Nacional



GERMAN DEMOCRATIC REPUBLIC:

Radio Berlin International PERU
11785 f/d cd. in 1 mo.
(Peake). 11785 and 6080
f/d cd. in 1 mo. (Zobro).
9730 f/d cd. in 32 ds. for
1 IRC. (Carson). 15240 f/d
cd. in 1 mo. (Zobro-MI).

GERMANY, FEDERAL REP. OF: Sender

Freies Berlin 6190 f/d cd.
w/ stickers and sched-
ule in 17 ds. for ms.
(Butcher). f/d cd. in
42 ds. (Goering-KS).

Deutsche Welle 6085 n/d cd.

in 37 ds. (Carson). **Radio Free Europe** 7165 p/d "Map" cd. in 2 wks. (Roth). **Bayerischer Rundfunk** 6085 f/d "Clouds" cd. in 49 ds. (Goering).

GHANA: GBC 4915 f/d cd. w/ personal ltr. and schedule in 37 ds. for \$1.00. (Kremer-IN).

GREECE: Voice of Greece 12105, 15630 and 11645 f/d "Metemora Monasteries" cd. in 2 mo. (Barto). 7430 same f/d cd. in 1 mo. (Roth).

GUATEMALA: La Voz de Atitlan 2390 f/d prepared cd. w/ personal ltr. in 32 ds. for a SP rpt., ms. and 1 IRC. v/s Juan Ajtzip Alvarade, Director. (Hart-FL).

HONDURAS: Radio Mundial 2840 (2x1420) f/d prepared cd. w/ ltr. in 40 ds. for a SP rpt. * and \$1.00. v/s Profesor Pedro Quiroz Carransa, Gerente. (Moore-MI).

HUNGARY: Radio Budapest 9585 f/d cd. w/ pennant in 25 ds. (Rugg). 9835 f/d cd. w/ decal in 62 ds. (Terrence-NY).

ICELAND: INBS 15767 f/d cd. in 3 wks. for \$1.00. (Taylor). 13859 f/d "Viti Crater" cd. in 16 ds. w/ schedule for 2 IRCs. (Brouillette-IL).

INDIA: All India Radio 11860 f/d "Lingaraj Temple" cd. in 49 ds. w/ sticker for 2 IRCs. (Brouillette). 11810 f/d "Vishnu Bronze Sculpture" cd. in 2 mo. (Barto). 9565 same f/d cd. in 1 mo. for 2 IRCs. (Roth). 11620, 7412, 11715, 11810 and 9910 f/d "Velha Goa" cd. in 2 mo. w/ sticker. (Barto). 4860 via **Delhi** same f/d cd. w/ sticker in 1 mo. for 2 IRCs. No answer for rpts. to Kurseong or Guahati. (Moore).

ITALY: AMR Radio - Forli 7230 f/d sticker cd. in 35 ds. for \$1.00. (Landau). 7125 same f/d cd. w/ personal ltr. and schedule in 28 ds. for 1 IRC. v/s Lina Lega (Hart-FL).

* **European Christian Radio** 6205 f/d "Map" cd. w/ personal ltr. in 7 wks. for 2 IRCs. v/s John Adams, Director. (Moore-MI). **IRRS** 9860 f/d cd. in 1 mo. for 2 IRCs. (Moore).

* **Voice of Europe** 7556.5 f/d cd. w/ ltr. in 5 wks. Transmitter site given as "East of Venice" and at 1 KW. Addr: P.O. Box 26, 33170 Pordenone. (Barto-CT).

JAPAN: JYU 8000 f/d cd. in 3 wks. (Taylor). 2 f/d cds. on their 50th anniversary (EG/JP) in 3 wks. for a taped rpt. and \$2.00 (Huniwell). **Radio Tampa** 9595 f/d folder cd. in 46 ds. for \$1.00 (Wilkins). 3925, 6055 and 9595 f/d cd. in 16 ds. for \$1.00 (Hart).

Radio Japan 17845, 15195, 21610, 11815 and 17810 n/d cd. in 7 wks. (Barto). 17835, 17810, 17765 and 15325 p/d cd. in 2 mo. (Barto). 9745 n/d cd. in 3 mo. (Barto). **Far East Network** 11750 p/d ltr. in 3 mo. w/ schedule for a reception while I was in RVN. v/s Darwin R. Overbeck, MSgt USAF Operations Supervisor. (Barto). **Radio France International** 17710 via **Yamata** f/d cd. in 32 ds. (Rigas-IL).

JORDAN: Radio Jordan 9560 f/d cd. w/ schedule in 7 wks. (Taylor). 13655 f/d cd. in 9 1/2 mo. after a f/up rpt. (Goering-KS). (MacHarg).

KENYA: Voice of Kenya 4804 f/d ltr. in 60 ds. for 1 IRC. v/s Waweru Mwea, Engineer.

KOREA, REPUBLIC OF: Radio Korea 11725, 9870, 9570 and 15570 p/d "Staff Photo" cd. in 2 mo. (Barto). 15575 f/d "Woman Spinning Cotton" cd. in 3 wks. (Roth). 9750, 9570 and 15575 p/d "Fan Dance" cd. in 3 mo. (Barto-CT).

LESSER SUNDA ISLANDS: RPDYK2 Man-oggaral Ruteng 2962 f/d ltr. in 2 mo. after a f/up rpt. in IN for \$1.00. v/s Simon Saleh B.A. (Kus-alik-ALB).

LITHUANIA: Radio Vilnius 9610 and 11675 f/d cd. in 148 ds. for ms. (Carson-OK). 11675 via **Moscow** (?) f/d cd. in 190 ds. (Rigas).

LUXEMBOURG: Radio Luxembourg 6090 f/d cd. w/ stickers in 29 ds. for 1 IRC. (Wallace-CT).



RADIO MADRE DE DIOS BOX 71 4950 QKXTL 1230 FM 92.50
AFDO. ST. FUENTE MALDONADO PERU





MALAGASY REP: Radio Nederland 15375 £/d

cd. in 39 ds. w/ schedule. (Barhydt).
MALAY: MEC 3380 £/d prepared cd. in 32 ds. after several f/up rpt. over 5 yrs. (Paszkiewicz-WI).

MALI: Radio Beijing 11715 via Bamako p/d cd. in 3 wks. (Roth).

MALTA: Voice of the Mediterranean 9765 £/d cd. in 129 ds. (Landau-NJ), same in 112 ds. for \$1.00. (Kusalik).

MEXICO: Radio Huayacocotla 2390 f/d prepared cd. w/ personal ltr. in 40 ds. for SASE and a SP rpt. and \$1.00. v/s Elvia Sanchez Alvarez and Javier Jaime Villasenor. (Moore-MI). **Radio Educacion** 6185 £/d form ltr. w/ personal note by registered mail in 170 ds. for a SP rpt. and 2 IRCs. v/s Ing. Gustavo Carr-

eno Lopez. (Barhydt). same in 13 wks. for a SP rpt. and \$1.00. (Kohlbrener-PA).
MONGOLIA: Radio Sainshand 4863 f/d prepared cd. w/ £/d RUB cd. in 50 ds. w/ schedule for \$1.00. v/s N. Boldmaan, Mail Editor. (Kusalik). **Radio Uliqii** 4750 same data as above in 50 ds. for \$1.00. (Kusalik)...Great QSLs!

MOROCCO: Radio TV Morocco 15330 f/d cd. in 62 ds. for 2 IRCs. (Estes-AL).

NEW ZEALAND: RNZI 17680 f/d pennant cd. in 15 ds. w/ schedule for 3 IRCs. (Levendusky-CO). same in 26 ds. (Gaharan). f/d cd. in 39 ds. w/ pennant for 3 IRCs. (D'Angelo). same in 24 ds. for 3 IRC (Peake). in 7 wks. for 3 IRCs. (Roth). 15485 cd. in 46 ds. for 3 IRCs. (Carson). 15485.6, 17680 and 17705 f/d paper pennant cd. in 3 mo. **Rangitai** site. (Barto). same in 19 ds. for 3 IRCs. (Kusalik).

NEW BRITAIN: Radio East New Britain 3385 f/d cd. in 1 yr. for ms. v/s Raka D. Saini, Manager. (Eckert-PA). same in 6 mo. for ms. (Eckert-PA).

NIGER: La Voix du Sahel 5020 f/d ltr. in 42 ds. for a FR rpt. and ms. v/s Yacouba Alwali. (Lare-MI).

NIGERIA: Radio Nigeria 3326 and 4990 via Lagos n/d cd. in 3 mo. w/ schedule. (Barto-CT).

NORWAY: Radio Norway International 11925 p/d cd. in 44 ds. w/ sticker and schedule. (Peake). 21705 via Sveio f/d "Ardal Aluminium Works" cd. in 1 mo. w/ sticker. (But-

cher-MA). **PAKISTAN: PEC** 9645 f/d cd. in 64 ds. w/ schedule for 1 IRC. (MacIarg).

PAPUA NEW GUINEA: Radio Milne Bay n/d ltr. w/ cd. in 7 wks. w/ tape. (Huniwell-NJ).

PERU: Radio Atlantida 4975 ltr. w/ poster in 97 ds. for a SP rpt. and \$1.00. v/s Julio Reategui Trigo, Director Gerente. (Turnick).

PHILIPPINES: Radio Veritas 15445 f/d cd. in 74 ds. for 2 IRCs. v/s Ms. Cleofe R. Labindao. Station info. folder rcvd. (Landau-NJ).

PORTUGAL: Radio Portugal 11840 f/d cd. w/ sticker in 18 wks. for ms. (Klinck). **RFE** 7245 p/d "Map" cd. in 12 ds. for ms. (Barhydt-OR).

RIO MUNI: Radio Africa 7188.9 f/d cd. in 12 ds. w/ schedule. (MacIarg).

SALPAN: RIBI 17780 f/d prepared cd. in 9 wks. (Taylor-PA).

SCOTLAND: Radio Stella International

6320 f/d "Red Deer" cd. in 18 ds. for \$1.00. (D'Angelo-PA). **MMR** 15043 f/d cd. w/ decal in 35 ds. for \$1. (Rigas). 6235 cd. w/ ltr. in 7 wks. for \$1.00. (Taylor-PA).

SEYCHELLES: FEBA 11865 p/d ltr. w/ schedule in 5 mo. for 3 IRCs. (Klinck-NY).

SINGAPORE: BEC 15360 f/d cd. in 40 ds. for \$1.00. (Hart-FL).

SOUTH AFRICA: Radio RSA 11935 f/d cd. w/ schedule and pennant in 21 ds. (Levendusky-CO). 9580 f/d "Rhino" cd. in 5 wks. (Roth).



ATLANTA RADIO

ELEVENTH BIRTHDAY CELEBRATION

We confirm that _____

heard the 11th Birthday
 broadcast from Atlanta
 Radio.

SUNDAY 21st JANUARY
 1990

Thanks for your reception
 report.

We hope to hear from you
 again soon.

ATLANTA RADIO 1979-1990 ELEVEN YEARS OF
 BROADCASTING TO EUROPE ON 48 METRES

SPAIN: RRR 9630 f/d "Arco Cuchillero" cd. w/ stickers in 49 ds. (Butcher-MA).

SPANISH MOROCCO: Radio Monte Carlo 13695 p/d folder cd. in 32 ds. for \$1.00. (Wilkins).

SRI LANKA: Deutsche Welle 17800 f/d cd. w/ site in 10 wks. v/s Peter Senger. (Rugg-QUE).

SULAWESI: RKPDTK2 Lanu 3654 2 f/d prepared cds. in 22 mo. for a f/up rpt. in IN. v/s
 * John Ibrahim, Pimpinan Studio. (Kusalik). same in 87 ds. for \$1.00. v/s Arman Mailan-
 skaya. This was for an 89 reception. (Kusalik). (Palmerheim-MN).

SUMATERA: RRI Bukittinggi 4910.9 f/d prepared cd. in 18 ds. for an IN rpt. and ms.

SWAZILAND: Trans World Radio 15210 f/d folder cd. in 54 ds. for 3 IRCs. v/s Carol Tat-
 low. (Barhydt-OR). (Landau-NJ).

SWITZERLAND: Srias Radio International 9535 via **Sarnen** f/d cd. in 12 ds. for 1 IRC.

TADZHIK SSR: Radio Moscow 15295 via **Dushanbe** f/d "Kremlin" cd. in 10 wks. (Butcher-MA).

TAIWAN: Voice of Free China 15345 f/d cd. w/ sticker and schedule in 55 ds. (Hart-FL).

THAILAND: Radio Thailand 9655 n/d "Emerald Buddha" cd. w/ pennant in 1 mo. for ms. and
 \$1.00. It took me 15 yrs! (Huniwell-NJ).

TIBET: Xizang PBS 4035 via **Lhasa** f/d "Silk Figurine" cd. via Beijing in 3 wks. (Lare-MI).
Radio Beijing 9490 via **Lhasa** f/d "Peihai Park" cd. in 3 1/2 mo. (Barto-CT).

TURKEY: Voice of Turkey 9445 f/d "St. Nicholas" cd. in 4 wks. (Roth). f/d "Jewelry Boxes"
 cd. w/ pennant and stickers in 36 ds. for 1 IRC. (Wallace-CT).

UKRAINIAN SSR: Radio Moscow 15135 via **Vinnitsa** f/d cd. in 98 ds. for 1 IRC. (Carson-OK).
 7115 via **Ivano-Frankovsk** f/d cd. in 3 mo. (Barto). 6165 via **Kiev** f/d cd. in 3 mo. (Palm-
 ersheim). 11705 f/d "Arbat Square" cd. in 10 wks. (Butcher). 15260 f/d cd. in 75 ds.
 (Butcher). 7290 via **Lwow** f/d cd. w/ stamps and schedule in 98 ds. (Carson). **Radio Kiev**
 f/d cd. in 88 ds. (Carson). **Radio Station Peace and Progress** 4795 via **Khar'kov** f/d cd.
 in 64 ds. (Hart-FL).

URUGUAY: Radio El Espectador 11835 f/d prepared cd. w/ personal ltr. and sticker and key
 chain in 18 ds. for a SP rpt. and ms. (Hart). same in 5 wks. for a SP rpt. and \$2.00.
 v/s Carlos Maria Berro Collado. (Eckert-PA).

USA: WNCN 15690 n/d "Globe" cd. in 51 ds. (Wittschen-OH). same cd. in 7 1/2 mo. after a f/up
 rpt. (Huniwell). n/d cd. w/ schedule in 8 1/2 mo. v/s Jay Litton. (Landau). same in 9 mo.
 (Butcher). in 6 1/2 mo. on my 2nd rpt. (Goering). n/d cd. w/ schedule in 2 mo. (Barto). in
 63 ds. for ms. (Druzak-BEL). n/d cd. in 5 1/2 mo. for ms. (Hart). cd. in 81 ds. The cd. is
 a typical "ham" style used for many years. (Macharg). in 72 ds. for ms. (Wilkins-CO).
 cds. in 200 ds. for 2 different rpts. (Rigas-IL). cd. w/ schedule in 124 ds. (Carson).
 7520 cd. in 5 ds. for ms. (Estes). **WCSN** 15300 f/d ltr. in 7 ds. for ms. (Weber-OH).
Voice of Free China 15215, 17845 and 9852.5 f/d "Pottery" cd. in 3 wks. (Barto). 11740
 same cd. in 1 mo. (Barto). 5985 f/d cd. in 53 ds. w/ sticker and schedule. (Levison-PA).
 15130 and 17805 f/d cd. in 2 mo. (Barto). 5950 f/d cd. in 11 ds. (Davison). **WMLK** 9465
 f/d ltr. in 33 ds. for ms. (Brouillette). **KUSN** 15580 f/d cd. in 29 ds. v/s Sheryl Shea-
 for. (Levendusky). **WHRI** 17830 f/d cd. in 4 mo. for ms. (Klinck). **KVOH** 17705 f/d cd. in
 * 21 ds. (Davison). **KCRI** 15280 f/d cd. in 1 mo. for ms. (Butcher). **Radio Libertas** 11790
 via **WHRI** f/d "Globe/Logo" cd. in 81 ds. for ms. v/s Vivian Gamulin. (Wilkins). same in
 * 5 ds. for \$2.00. (Sellers-ONT). **La Voz de la Fundacion** 7315 and 9495 via **WHRI** f/d prepared
 cd. in 34 ds. v/s Amsola Perez. Addr: P.O. Box 440069, Miami, FL 33144 (D'Angelo).

USA (Pirates): WENR 6250 f/d cd. in 114 ds. (Zeller-OH). **Voice of Laryngitis** 7415 f/d cd.
 * w/ ltr. in 6 wks. (Name?) **WHRI** 7425.7 This is my all time favorite. First it was my 75th
 QSL and secondly it came from the FCC!!! Rcvd. QSL "post-it-note" attached to FCC press
 release on the bust of WHBH in 33 ds. for a rpt. to the FCC on the bust announcement.
 v/s Dennis J. Everett, FCC Field Operations Bureau. (Zeller). **WJAR** 7425 cd. in 25 ds.
 (Zeller). **Samurai Radio** 15052 f/d cd. in 31 ds. for ms. (Hart). **Radio Carbanzo** 7412 f/d
 ltr. in 35 ds. for ms. (Rigas). **East Coast Pirate Radio** 15063 f/d cd. in 20 ds. for ms.
 (Rigas). **Voice of Stench** 7410 f/d cd. in 60 ds. for ms. (Rigas-IL).

UZBEK SSR: Radio Tashkent 4850 f/d cd. in 2 mo. (Barto-CT). (Barto-CT).

VATICAN: Radio Vatican 11715, 6185 and 9755 f/d "Palazzo Pio" cd. in 9 wks. w/ schedule.

VENEZUELA: YVKE Radio Mundial f/d "Map" cd. w/ ltr. in 38 ds. for a SP rpt. and \$1.00.
 * This was for an 83 reception. v/s Omar Espinoza. YV DXer helped me. (Wilkins-CO).
 * 1 lik)...Please see following...

VIETNAM (South): Binh Tri Thien Radio 4678 and **Nhphia Binh Radio** 4798 ltr. in 6 mo. (Kusa-
 * lik)....Please see following...

VIETNAM (North): Bac Thai Radio 6691, **Hoang Lieu Son Radio** 6733, **Cao Bang Radio** 6575 and
Lai Chau Radio 6252 rcvd. a very nice QSL ltr. in 6 mo. v/s Dao Dinh Tuan, Director of
 External Broadcasting. (Kusalik)...Verie nice!

WEST BERLIN: RIAS 6005 p/d cd. in 2 mo. for 1 IRC. (Kohlbrener-PA).

PLEASE NOTE: As far as I can remember this is the first time I ever submitted a page w/o
 an illustration! This goes back something like 15 years or more! I had to cut a few
 reports but they will be in next month. The only answer is to cut down on the number
 of illustrations per page. I'm getting more reports than ever and this directly re-
 lates to the success of the organization. Keep the reports coming in. No one report
 is more valuable than anyone elses. They will all get printed....Thank you...Sam.

Tropical Band Loggings

Sheryl Paszkiewicz
1015 Green Street
Maritowoc, WI 54220



- 1629 AUSTRALIA, 2RPH/3RPH, 11/3, 1123 fade in w/YL tlk in EG, whistling tune, dialog. Nearly gone 1130. (Clark-ON)
- 2410 NEW GUINEA, R. Enga pres., 25/3, 1052-1104 w/island mx, PD tlk, ment. PNG, drums & singing. (Field-PA) 8/3, 1155 pres., mx & watery sig. (Clark-ON) Also 25/3, 1155 w/C&W mx. (Clark-ON)
- 3205 NEW GUINEA, R. West Sepik, 11/3, 1140 in EG w/anmt abt health center, TC, ID, "R. Sundaun." Accordion mx. Very good sig. (Clark-ON)
- 3214.8p SULAWESI, RRI Manado, 1/4, 0956-1005 poor-fair w/flutes, no ID on hour, YL tlk in IN, choir, bad fading. (Ross-ON)
- 3215 SOUTH AFRICA, SABC, 6/3, 1830-1840 w/ID, instls, signal going slowly down. (Schulze-PRG)
- 3222 TOGO, R. Kara, 5/3, 0548-0602 in FR w/choral mx, M anncr, faded by 0600. (Royston-HI) 13/3, 0610 w/FR tlk (Johnston)
- 3222.9p LESSER SUNDAS, RRI Mataram, 1357-1405 strong sig w/poss. Indo sports scores, ment. Mataram. No break 1400. (Atkins-WA)
- 3230 LIBERIA, ELWA, 13/3, 0635 in vern. w/tlk, EG ID, rel pgm. (Johnston-KY)
- 3230 NEPAL, R. Nepal, 26/3, 1512-1542 in Nepali w/mx, ads, some in EG, TP 1515, nx, fair sig. (Royston-HI) 17/3, 1510-1520 w/Asian pops, 3+1 TP 1515, prob. ID, fair, //5005 after RTM Siby s/off. (Atkins-WA)
- 3231p SUMATRA, RRI Bukittinggi, 12/3, 1425 in IN w/erie SEAs vcls brief anmt, vcls & Islamic-like strings. (Howell-CA)
- 3249.8 HONDURAS, R. Luz y Vida, 5/4, 0252-0325 in SP w/rel mx, very poor sig. (Barhydt-OR) 11/3, 0338-0406* in EG w/US prod rel pgm, closing anmts, call letters, FC, sked, addr, "The Old Rugged Cross." (Alexander-PA)
- 3264.7 SULAWESI, RRI Gorontalo, 17/3, 1010-1015 w/lagu melayu mx, ID 1015, OM tlk, good-very good. (Atkins-WA)
- 3265t SUMATRA, RRI Bengkulu, 14/3, 1423 in IN w/OM tlk, SEAs ballads, most likely them at this time. (Howell-CA)
- 3280 ECUADOR, LV del Napo, 3/3, 1035-1110 in SP w/anmts, ment. Tena, Napo, instls. rel tlk, fair. (Royston-HI)
- 3285 BRAZIL, R. Sentinela de Amazonia, 10/3, 0327-0402* w/Sounds of Silence, vcls, ID, FC, jingles, ID 0352, s/off w/no anthem SIO-333. Tnx Valko. (D'Angelo-PA) 1/4, 0923 pres., PT tlk, accordion mx, fair. (Moore-MI)
- 3290 ECUADOR, R. Centro, 18/3, 0906-0930 w/IDs, tlk, Andean mx, fair sig. (Bobb-MN) Hope you'll continue submitting your logs, Norman--sp. Norman mentions a number of factors may make him leave the hobby such as poor reception conditions. Hang in there! 8/3, 1048, TCs, IDs. (Johnston-KY)
- 3306 TIMOR, RRI Dili, 31/3, 1048-1125 poor-fair w/IN vcls, tlk 1058, piano 1059, ID, quick fade, then back up, choir mx. HIC 196. (Ross-ON) Congratulations! 11/3, 1135 w/pops, fair sig, vcls, chimes, orch theme 1156, ID 1159, SCI, Jak nx. (Clark-ON)
- 3315 ADMIRALTY ISLANDS, R. Manus, 25/3, 1051 tent w/faint island mx, many other PNGs active today. (Field-PA) 3/4, 1057-1121 in PD w/rel pgm, ID, nx, ment. "Voice of Hope." (Streitmatter-IN)
- 3316 SIERRA LEONE, SLBS, 7/3, 0620-0631 in EG w/mx, ID, into lang 0630, poor-fair. (Royston-HI)
- 3325 BRAZIL, R. Liberal, 10/3, 0505-0524 w/ID after Braz. pops, ute QRM but fair when ute off. (D'Angelo-PA)
- 3325 BORNEO, 11/3, 1159 w/SCI, Jak jingle, nx, faded by 1210. Het from Guatemala & PNG absent, ute silent. Poss. ID 1159. Also 8/3, 1159. Very tough here. (Clark-ON)
- 3326 NIGERIA, PRNC Lagos, 25/3, 0501 in EG w/nx, ID, fair. (Moore) 5/3, 2305 w/TC, Nigerian Pledge of Allegiance, NA (Johnson-MD)

- 3345 MOLUCCAS, RRI Ternate, 1/4, 0943-1142+ w/IN tlk, AR like strings/flutes, singing 0944, sig dropped but back 1115. ID, rel, Qur'an, mixing w/PNG. HIC 197 (Ross-ON) Wow! Pretty soon 2001--sp. 10/3, 1158 w/lagu, ID, SCI, Jak jingle, fair. (Clark-ON) Also 1/4, 1115 w/responsive rel pgm, good. (Clark-ON)
- 3354 ANGOLA, RN Luanda, 25/3, 0324-0403 w/ballads, amts, ment. RN, hilife 0402. Fair. (Moore-MI)
- 3355 INDIA, AIR Kuraseong, 26/3, 1543-1548 in EG w/nx, tlk in lang, EG ID 1546, cmtry, poor-fair. (Royston-HI)
- 3355 NEW GUINEA, R. Simbu, 17/3, 1000-1010 w/ID, YL tlk in PD w/pres. nx. Fair-good. (Atkins-WA)
- 3356 BOTSWANA, R. Botswana, 14/3, 0425-0431 in lang w/discussion //4830, 7255, poor sig. (Royston-HI)
- 3359.8 CUBA, R. Rebelde, 8/3, 0401-0425 //5025 w/sports coverage by 2 OM. SIO=343. (D'Angelo-PA) 23/3, 0553-0627 w/mx, tlk, ID, fair sig. (Barhydt-OR) 21/3, 0826-0900 w/varied LAM mx, tlk, IDs, fair. (Bobb-MN) 10/3, 0928-0940 w/pops, amts, //710. Also hrd 11/3, 0115. (Alexander-PA) 8/3, 0945 w/mx, ID. (Johnston-KY)
- 3360 ECUADOR, R. Federacion, 3/3, 1140-1201 w/mx, ment. Sucua 1200, into lang, fair. (Royston-HI)
- 3365 NEW GUINEA, R. Milne Bay, 17/3, 0750-0800 w/C&W mx, tlk in PD, ID, TC 0800, choral mx, good sig. (Atkins-WA)
- 3366 GHANA, GBC-2, 13/3, 0603 //4915 w/nx by W. (Johnston-KY)
- 3370 GUATEMALA, R. Tezulutlan, 19/3, 0206 //4835 w/marimba mx. (Johnston-KY) 31/3, 0227-0241 good w/marimba mx, tlk in Indian lang, IDs. (Ross-ON)
- 3385 FRENCH GUIANA, RFO Cayenne, 9/4, 0655-0720 in FR w/tlk, IDs, fair. (Bobb-MN)
- 3385p LESSER SUNDAS, RRI Kupang, 17/3, 1505-1511* w/Jak relay to sudden off 1511 w/o amts or NA. Fair w/o PNG. (Atkins-WA)
- 3385 NEW BRITAIN, R. East New Britain, 1/4, 0745+ w/rel choral mx. No audio on other PNG outlets. (Clark-ON) 17/3, 0750 w/powerhouse sig, S9 sig w/perfect copy. Kids pgm. (Atkins-WA) 1/4, 0805-0835 w/PD tlk, choral mx, other PNGs not as loud or on as long. (Ross-ON) 18/3, 0945 in PD w/rel pgm, tlk wrecked it but wait for ute to be off. (Howell-CA) 18/3, 1142-1201 w/EG rel mx, ID 1155. SIO=454. (Streitmatter)
- 3394.8 SUMATRA, RRI Tanjungkarang, 1/4, 1107 w/Qur'an, rel tlk, the PNG much weaker. (Clark-ON) 1/4, 1108-1119 fair but tent w/Qur'an mixing w/PNG, strings/flutes, trad mx, bad QRN 1119, best on LSB. (Ross-ON)
- 3395 ECUADOR, R. Zaracay, 5/4, 1013-1025 w/ID, TC, Andean mx, Tlk, fair. (Bobb-MN)
- 3550.3 CLANDESTINE, R. Venceremos, 18/3, 0143-0205 w/non-stop LAM mx, ID, tlk 0200 //6340.1v. (Alexander-PA)
- 3607.5 JAPAN, NHK (Tokyo?) 10/3, 1122 w/JP tlk by YL, mx bridge, OM tlk, fair in USB. Poss. NHK Osaka carrier & threshold audio same time on 3377.5. (Clark-ON)
- 3900t CHINA, Hulunbeier PBS poor w/tlk & QRM, very weak on 14/3, 1040 in CH. (Park-HI)
- 3925 JAPAN, R. Tanpa, 10/3, 1035-1105 in JP w/tlk by W, brief spots of JP pops, tone 1100, poss. nx //6055, 9595. (Alexander-PA)
- 3940 CHINA, Hubei 1, 25/3, 1134 w/operatic vel in CH. Poor-fair No sign of Hong Kong wx broadcasts. (Clark-ON)
- 3945 BALI, RRI Denpasar, 17/3, 1450-1502 w/poss. sports rpt, ID 1459, SCI, Jak nx //3385 Kupang. Fair-good. (Atkins-WA)
- 3970 CAMEROON, R. Buea, 25/3, 0440-0501 w/choral mx, FR tlk, poor w/ARO QRM. (Moore-MI) 31/3, 2245-2305* w/Afro pops, clx mx, instls, ID 2301 plus ment. Buea. ham QRM to s/off. (Ross-ON)
- 3985.8p IRIAN JAYA, RRI Manokwari, 31/3, 1147-1159 poor-fair w/IN vcls, YL tlk, bad ham QRM, poss. ID, SCI. (Ross-ON)
- 4000 CAMEROON, R. Bafooussam, 25/3, 0436-0504 w/rel mx, FR tlk, poss. sermon or prayers. ID 0503. Fair w/some ham QRM. (Moore-MI)
- 4001p SUMATRA, RRI Padang, 12/3, 1435 w/EZL mx, tlk in IN, gone by 1450. (Howell-CA)

- 4040 ARMENIA, Yerevan, 27/3, 0248 w/Mayak pgm //4930. WRTH says 4040 carries lcl pgm at this time. (Johnson-MD)
- 4040p ASIATIC RSFSR, Vladivostok, 28/3, 1038-1112 w/non-stop tlk in RS, no TP or ID at hour, fair. (Moore-MI) How did you two determine these were Yerevan & Vladivostok respectively?
- 4055 USSR, 3rd pgm, 2/3, 0300 s/on w/anmt, piano concerto, no IS or ID despite several rechecks but RS tlk. (Johnson-MD)
- 4118.1t BRAZIL, Rdf. Sena Madureira, 1/4, 1027-1040, ballads in prob. PT. Very poor. (Moore-MI)
- 4238.3 PERU, R. Inca del Peru, 27/3, 1056-1103 w/Cajamarca area ads, ID, fair w/occ. ute QRM. (Moore-MI)
- 4465 WEST GERMANY, RFE/RL in LSB (feeder), 19/3, 0306 w/tlk. (Johnston-KY)
- 4607 IRIAN JAYA, RRI Serui, 1/4, 1146-1205 w/EZL instls, anmt 1204, back to mx. Good. Also hrd Indos on 4719, 4874, 5055. (Moore-MI)
- 4681p BOLIVIA, R. Paititi, 1/4, 0041-0202 w/romantic mx, anmts. Too poor to pick out more than occ. words. Other Bolivians on 3473, 4600, 4649. (Moore-MI)
- 4719.3 SULAWESI, RRI Ujung Pandang, 31/3, 1126-1135 fair w/Indo vcls under a ute. Flute mx, ID, tlk over mx. Sig peaked nicely while YL tlk 1130-33. (Ross-ON)
- 4725 MYANMAR, Voice of Myanmar, 25/3, 1140-1150 in EG w/ID, then into lang & IS. (Streitmatter-IN)
- 4740 USSR, R. Afghanistan Relay, 11/3, *0125-0140 w/flute IS, anthem 0127, tlk in lang 0130. ME chanting. (Alexander-PA) 14/3, 0130 s/on //4975 w/IS, anthem. Tnx Sheedy & FT. (Johnson-MD) 3/3, 0137 in poss. AR w/Qu'ran, signal lost 0149. (Leibowitz-NY)
- 4753.5 SULAWESI, RRI Ujung Pandang, 23/3, 1302-1405 w/nx, mx, tlk & ID, fair. My 1st Indonesian! (Barhydt-OR) Congratulations!
- 4760t ANDAMAN ISLANDS, AIR Port Blair, 1/4, 1150-1205 poor w/s/on w/no IS, subcont. mx, vcls, bits & pieces breaking through. Over the CH station at times. Seasonal propagation favors Port Blair, not Leh but no ID so no cigar! (Ross-ON) 11/3 virtually certain Pt. Blair at 1205 w/subcont. chants, vcls, mixing equally w/CH station. Tlk 1210. On 1/4, 1155 Hindi mx, fair but quick fade. This consistent w/rpt from Karl Forth, who hrd them while in Singapore, opening at 1200 in February. (Clark-ON)
- 4760 LIBERIA, ELWA, 13/3, 0620 in EG w/rel pgm (Johnston-KY)
- 4774.8 JAVA, RRI Jakarta, 1/4, 1401-1444 w/mx, poss. radio play, cow mooing sound effects, good. (Barhydt-OR) Your 2nd Indo!
- 4789.7 PERU, R. Atlantida, 3/3, 0149 w/tlk, mx, ID. (Leibowitz-NY)
- 4790.1 PERU, R. Atlantida, 21/3, 0332-0405 w/mx, sev. IDs, mx, poor sig. (Barhydt-OR)
- 4795p CAMEROON, R. Douala, 25/3, 0443-0505 w/hilife mx, OM tlk in FR, good. (Moore-MI) 31/3, 2237 hilife mx, FR tlk btwn 2 M ute QRM, ID. 2309 canned IDs, anmts in FR/EG, 2310 NA and s/off. (Johnson-MD)
- 4800 GUATEMALA, R. Buenas Nuevas, 29/3, 0324-0334* in SP w/EZL instls, ID 0331, anmts, brief instls. SIO-342. (D'Angelo-PA)
- 4810 SOUTH AFRICA, R. RSA, 10/3, 0350 in AK w/tlk, mx. (Klinck-NY)
- 4815 BURKINA FASO, RTV Burkina, 8/3, 2300 in FR w/tlk, ID, lcl mx. (Klinck-NY)
- 4815 CHINA, R. Beijing via Togtoh per PWBR (& ILG says Hohhot--sp) 29/3, 1547 in RS w/tlk, s/off anmt 1654, theme mx //4883. (Park-HI) Dale says atlas puts Togtoh near Hohhot so I guess both PWBR and ILG are right--sp.
- 4820.8 PERU, R. Atahualpa, 18/3, 0840-0905 w/anmts, TCs, ID, echo anmts, ads, jingles. Disappointed to hear US rap mx here. Tried to vindicate themselves by also playing LAM mx, SP pops & Andean mx. (Alexander-PA) 18/3, 0853 w/LAM & US pops, TCs, ID. (Howell-CA)
- 4824.5 PERU, LV de la Selva, 8/3, 1028 w/tlk, ads, rooster crows, IDs. (Johnston-KY)
- 4825 GUATEMALA, R. Mam, 10/3, 0435-0613 in lang, played same group of songs over and over! Fair. (Barhydt-OR)

- 4830 BOTSWANA, R. Botswana, 13/3, *0356-0420 in Setswana/EG w/farm animal IS, 0400 anthem, ID, anmts, rel tlk & hymns. SIO=343. (D'Angelo-PA) 11/3, *0357-0500 w/anmts, FC, rel hymns w/Afr. words & rhythms. (Renfrew-NY) 10/3, 0358 in lang w/singing & tlk. SIO=444. (Levison-PA) 12/3, 0450 in EG/Setswana w/lcl mx, ID, nx in Setswana & then in EG. (Klinck-NY)
- 4835 MALI, RTV Malienne, 2/3, 0606 in AR w/chanting //5995, 4783, fair sig. (Royston-HI) You're sure getting some good loggings of Africa there in Hawaii!--sp. 13/3, 0629 in FR w/tlk & AR-like mx. (Johnston-KY) 16/3, 2129 in FR w/ID, tlk in FR. (Klinck-NY)
- 4840 PERU, R. Andahuaylas, 23/3, 0201-0238 w/flashy IDs, QTH & freq. refs, ballads, upbeat mx, fair sig. (Jordan-PA)
- 4840.4 VENEZUELA, R. Valera, 23/3, 0224-0306 w/mx, many IDs, TC, fair sig. (Barhydt-OR)
- 4844 GUATEMALA, R. K'ekchi', 31/3, 0220 w/anmts, mx, ID, s/off anmt 0302. (Forth-IL)
- 4845 MAURITANIA, ORTM, 5/3, 0635-0701 in AR w/Qur'an, ID 0700, poor-fair. (Royston-HI)
- 4860 INDIA, AIR Delhi, 26/3, 1553-1557 in EG w/nx abt India, poor sig. (Royston-HI)
- 4865 COLOMBIA, LV del Cinaruco, 12/3, 0715 //4945 w/election results. (Johnston-KY) 11/4, 0844-0908 w/mostly ballads, freq. IDs, Caracol ID 0906, good sig. (Field-PA)
- 4866.5 IRIAN JAYA, RRI Wamena presumed move from 4871. 1/4, 1120 fair w/native vcls, EZL EG tune, weak 1137. Same time Sorong 4874.6 in at armchair level w/C&W mx. (Clark-ON)
- 4870 BENIN, ORTB, 2/3, 0617-0631 in FR w/tlk by M, drums 0630, more tlk, poor sig. (Royston-HI) 16/3, 2129 in FR w/ID, anmts, lcl mx. (Klinck-NY)
- 4871p IRIAN JAYA, RRI Wamena, 17/3, 0859-0920 w/drums, ME sounding mx, tlk in IN, super sig but no ID. (Atkins-WA)
- 4874.6 IRIAN JAYA, RRI Sorong, 8/4, 1040-1135 in IN except EG at 1100-1135, pgm abt development in Indonesia. QRM from ute 1114 and on and off. Anncr said goodbye in EG 1129, then mx, more ute QRM. Strong & clear but hard to understand. (Dunn-OH) 1/4, 1126-1135 best ever hrd. EG pops. Serui & others also good. RTTY QRM. ID 1130. Sig so strong I left them to look for others. (Ross-ON)
- 4875.6p BOLIVIA, R. La Cruz del Sur, 27/3, 1043-1053 in Indian lang w/YL tlk in SP later. Hymn-like Andean mx, poor & fading fast. (Moore-MI)
- 4885 COLOMBIA, Ondas del Meta, 23/3, 0110-0130+ w/clear echo ID, pops, rapid-fire tlk, nx, sev. anmts. (Jordan-PA)
- 4899.9 GUINEA, RTV Guineenne, 4/3, 2355-0001* w/Afr. folk mx, FR ID by W. Instl NA 0000. (Alexander-PA)
- 4904.7 CHAD, Rdf. Nat. Tchadienne, 23/3, *0430-0446 in FR w/mx, poor sig. (Barhydt-OR) 25/3, 0440-0510 w/mx, discussions, ID 0502, poor. (Royston-HI) 25/3, 0445 w/hilife mx, ID, chit-chat, best this year. SIO=555. (Klinck-NY)
- 4910 HONDURAS, LV de la Mosquitia, 4/3, 0215-0300* in EG w/rel tlk. SP & Miskito anmts. (Jordan-PA)
- 4915 BRAZIL, R. Anhanguera, 10/3, 2330 w/ID, TC, soft pop mx. Anmts by M. (Prath-FL) 31/3, 2352 canned IDs, into mx. Nice sig. (Johnson-MD)
- 4915 COLOMBIA, Armonias del Caqueta, 31/3, 0105-0150 w/ID, QTH, brief tlks, pop mx, ads, IDs, fair sig. (Jordan-PA)
- 4915 GHANA, GBC-1, 13/3, 0529 in EG w/NA, ID. (Johnston-KY)
- 4920 ECUADOR, R. Quito, 21/3, 0416-0438 in SP w/mx, ads for Banco Central & El Comercio, fair. (Barhydt-OR)
- 4924.6 GUATEMALA, R. Mam, 10/3, 0505-0605 w/several tunes repeated sev. times--a test? tlk in some SP, ID and off. (Renfrew-NY)
- 4925 RIO MUNI, RN Bata, 10/3, 2150-2201* w/hilife mx, SP tlk, ID, s/off anmts, long NA. SIO=2+52+ (D'Angelo-PA)
- 4931.9v JAVA, RRI Surakarta, 11/3, 2220 w/mx, anmt to 2225* Very weak. Hrd them earlier in season 2210-2215 after Jak nx. That does it for afternoon Indos until September. (Clark-ON)
- 4934 KENYA, Voice of Kenya, 25/3, 0250-0316 in EG w/pop mx, ID 0300, nx. (Kohlbrener-PA)

- 4940 COTE D'IVOIRE, RTV Ivoirienne, 2/3, 0641-0703 in FR w/ pop-type mx, FR anmts, ID 0700, fair. (Royston-HI) 11/3, 2145-0001* in FR w/pops/ballads. Afr. pops, clx mx, W anncr, very good, //7215. Yesterday only hrd Russian here w/clx piano mx. S/off with NA. (Alexander-PA)
- 4940 UKRAINE, Kiev, 11/3, 0413-0430 in RS w/tlk, pop mx, flute type IS 0414 //6020. Also hrd 2214 w/flute IS & clx piano mx under Cote d'Ivoire.
- 4945 COLOMBIA, Caracol Neiva/Bogota, 12/3, 0716. (Johnston-KY)
- 4955 BRAZIL, R. Cultura Campos, 1/4, 0845-0910 w/15-minute ad, promo & ID string, tlks, voice overs, guitar/brass pop mx, fair. (Jordan-PA)
- 4955 BRAZIL, R. Marajoara, 8/3, 0923 w/ID, EZL mx, tlk. (Johnston-KY)
- 4960.9 ECUADOR, R. Federacion, 10/3, 0055-0100* w/tlk in lang, HC mx, s/off w/march mx. (Alexander-PA) 31/3, 0045-0100* w/mx, ID, QTH in SP, martial NA 0058. (Jordan-PA)
- 4970 CHINA, Xinjiang PBS, 1/4, 1206-1210 w/tlk in Kazakh, //5440 both fair. (Moore-MI) 4/3, 1220, //5440. No sign of RTM-Kota Kinabalu which was all alone here 3/3. Also hrd separate Xinjiang pgm 5060 //4220. (Clark-ON)
- 4975 COLOMBIA, Ondas del Ortegua, 11/3, 0012-0028* w/nx, ads, ID, s/off anmt, partial vcl. SIO=353. (D'Angelo-PA) 8/3, 1100 w/anmts, TCs, etc. (Johnston-KY)
- 4976 UGANDA, R. Uganda, 26/3, 0403-0422 in EG w/nx, ID 0409 pgm preview, anmts, ID 0415, lcl items. (D'Angelo-PA)
- 4991 PERU, R. Ancash, 24/3, 0635-0652 w/OA vcls, lively chatter, IDs, TCs, SIO=2+52+ (D'Angelo-PA)
- 4995 MONGOLIA, Ulaan Bataar HS, 13/3, 1553 in pres. Mongolian, tlk w/weird modulation. 1557 NA //7263.6. QRM from WWVH. (Park-HI)
- 4995.8 PERU, R. Andina, 8/3, 0948-1008 w/mx, ID 0957, song by Antonio Ramos? (Kohlbrenner-PA)
- 5004t RIO MUNI, RN Bata, poor on 21/3, 0504 w/Afr. mx, best in LSB to avoid WWVH QRM. (Park-HI) 24/3, 0523-0532 w/tlks in SP, folk mx, ID 0523, WWVH QRM made this difficult. Poor. Royston-HI Another great catch--sp.
- 5004 USSR, RID, 28/3, 1125-1129 w/time pips. (Moore-MI)
- 5005 SARAWAK, RTM Sibn, 18/3, 1450-1502 w/EZL mx, s/off routine, site ID in pres. Iban, NA, very good sig. Also could hear Nepal & RID. (Atkins-WA)
- 5005 NEPAL, R. Nepal, 26/3, 1620-1628 in Nepali, mx & tlk by W, //7320. WWVH QRM. (Royston-HI) 4/4, 1652 w/tlk, CH-style mx w/Indian singing, tent ID 1700. (Park-HI)
- 5015 BRAZIL, R. Pioneira, 2/3, 0133-0237 w/vcls, occ. IDs, TC, fair sig. (Rugg-PQ) 1/4, 0152 ID, mx through hour, TC over mx. 0202 canned ID w/FC. (Johnson-MD) 13/3, 0800 w/mx, tlk, TCs. (Johnston-KY)
- 5015 CIANDEPINE, R. Truth, 13/3, 0420-0442 w/cmtry in lang, bird IS, EG ID, nx, anti-Zimbabwe govt tlk. Noisy. (D'Angelo-PA)
- 5015.4 PERU, Estacion Tarapoto, 17/3, 1015-1105 w/lcl mx, vcls, ment. Tarapoto but no ID. (Forth-IL)
- 5020 NIGER, LV du Sahel, 15/3, 0529 in FR w/NA, flute IS, ID, Qur'an (Johnston-KY) 28/3, 0533-0601 w/tribal chant, 4 TP 0600, ID, flute/drum IS. (Streitmatter-IN) 23/3, 0537 w/folk mx, OM anncr, poor. (Royston-HI) 9/3, 0540 w/lcl mx, ID. (Klinck-NY) Also 21/3, 0545 (Klinck-NY)
- 5020 SOLOMON ISLANDS, SIBC, 18/3, 0715-0730 w/island mx, TC, sig rose from poor-superb in 15 min. Rel mx, ID, nx, ads ("10-Min. Meal . . . goes perfect with meat, taro root or vegetable") (Atkins-WA) 13/3, 0814-0905 EG econ pgm, messages (Barhydt)
- 5023t BHUTAN, BBS, 21/3, tent w/lang tlk, flutes. (Moore-MI) 17/3, 1406 w/Asian pops, CW QRM, ment. Bhutan, EG ID 1414 (Atkins)
- 5030 ECUADOR, R. Catolica Nac., 22/3, 0253 tlk btwn songs, poor. (Barhydt-OR)
- 5030 TONGA, TBC, 17/3, 0600-0710 good w/ads, wx, ID, island mx. 18/3 w/Qur'an, sermons. Usually not on Sundays. (Atkins-WA)
- 5035 BRAZIL, R. Ed. Rural, 24/3, 1000 w/NA, ID, pops. (Moore-MI)
- 5052 SINGAPORE, SBC, 9/3, 1513 EG rock mx (Barhydt-OR)
- 5286.2 CHAD, R. Moundou, 0458-0558 FR NA, chorus, drums (Johnston, Alexander) Just enough room to say thanks! Good DX!--sp.

International Band Loggings

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



5900-30000 MHz

- 5990 ROMANIA RRI Bucharest in EG 0240, tlk on democracy in Romania (Carson OK 3/30)
5995 ZAIRE LV de Zaire in FR/Vern 0635, relig tlk, ID, IS, nx (Streitmatter IN 3/28)
6000 BRAZIL R. Guaba in PT 0748, BR ballads & pops, ID, //11785 (Alexander PA 3/31)
6015 TANZANIA VOT Zanzibar in SH7 0331, tlks w/ment of capitol, ID (Royston HI 3/22)
6025 PARAGUAY R Nacional in SP 0914, folk mx, p, //9735 exc (Moore MI 4/1)
6025 NIGERIA R Nigeria in Vern 0405, nx w/ments of Nigeria (Howell CA 3/4)
60352 COLOMBIA LV del Guaviare in SP 2332, tlk, mx, several ID's (Kohlbrener PA 3/12)
6040nf? URUGUAY R Libertad Sport in SP 2348, trop mx, complete ID & QTH (Moore MI 4/1)
6060 ARGENTINA R Nacional in SP 0501, tlks, several ID's, p (Barhydt OR 3/19)
6065 SWEDEN RS in SW 0510, press review, //15390 both g (Wood HI 3/2)
6070 CANADA CPRX Toronto in EG 0805, hockey scores, wx rpt, ID's, f (Royston HI 3/11)
60788 BOLIVIA R San Gabriel in Aymara(p) & SP 0014, Andean mx, ID, TC (Moore MI 4/1)
6085 CANADA Deut. Welle relay in EG 0312, tourist feature on Germany, g (Carson 3/26)
6085 WEST GERMANY Bayerischer Rundfunk in GM 0230-0400, mx, ID's (Klinck NY, Royston)
60883v NIGERIA RN Kaduna in Vern 2155-2301*, lcl tribal mx, chants, ID (Alexander 3/17)
6095 MOROCCO VOA relay Tangier in EG 0608, nx rpts, ID, mx (Royston HI 3/24)
60986 NICARAGUA LV de Nicaragua in SP 0754, SP pops, ID's, ex-6001? (Alexander 3/18)
6115 MEXICO R Universidad de Sonora in SP *1300, NA, freqs, ID, mx (D'Angelo TX 3/20)
6135v BOLIVIA R Santa Cruz in SP *0900, freqs, addr, ID's after each song (Moore 4/1)
6280 LEBANON King of Hope in AR 0400, inspirational mx, ID, freq, NA (Johnson MD 3/1)
65495 LEBANON V of Lebanon in EG 0220, lcl nx, ID, into AR 0230 (Kohlbrener PA 3/25)
7125 ITALY AMR in EG 0633, "Mailbag" & "DX Corner" (Renfrew NY 3/18)
7145 POLAND RP in PO 0512, tlk on Solidarity, //6095, 7285, 9525 (Wood HI 3/2)
7150 UNITED KINGDOM BBC London in EG 0613, nx, ID, TC, lcl nx, f (Royston HI 3/23)
7205 GREECE VOA relay Kavalla in EG 0230, cmtry on imports (Klinck NY 3/25)
7205 CYPRUS Cyprus B/C Corp in GK 2212, IS, ID, conversation (Klinck NY 4/8)
7215 YUGOSLAVIA RY in EG *2200, ID, nx, cmtry on E Bloc reforms (Prath FL 3/10)
7240nf? AUSTRALIA RA in EG 1120, mx pgn, "Matters of Faith", f-g (Forth SINGAPORE? 3/17)
ED: My long range logging register shows RA was last on this freq in 1980.
7245 PORTUGAL R. Free Europe in CZ 0446, tlk, //9725 f (Barhydt OR 3/15)
7255 NIGERIA V of Nigeria in EG 0502, pgn review, "Reflections", g (Carson OK 4/1)
7270 POLAND RP in EG 2250, rpt re Soviet military in Poland (Prath FL 3/10) in EG
2248 w/ cmtry on Nazi war criminals trials, econ rpt, ID, IS (Cichorek NJ 3/17)
7270 SOUTH AFRICA RSA in EG/PT 0429, ID in EG, into PT w/nx, g (Carson OK 3/21)
7376usb COSTA RICA R for Peace Intl in EG 0432, interview, "World of Radio" (Price VA)
in EG 0435, pgn re women, hrd carrier only from 0448, g (Carson OK 4/1)
7400 USSR R. Yerevan Armenia in EG/AR 0330, class mx, nx in both lang (Levison PA)
7412 INDIA AIR in EG 2205, nx, cmtry, ID, //11620 (Karcheski MA, Prath FL 3/24)
74176 VIETNAM VoV Hanoi ending pgn in Lao 1425, 3 min silence then into CH 1430, ID,
//9732 barely audible but readable (Treibel WA 4/5)
7475 TUNISIA RTVT in AR 0541, folk mx, annmts, ID, //12005, 17610 (Royston HI 3/2)
8450 CHINA R. Beijing in Lao(p) 1440, hrd //7195 but very weak (Treibel WA 4/5)
8492 BRAZIL PPR Time Sta w/pips *2125-2130*, 60th pip sustained, no ID (Renfrew NY)
9208 ICELAND ISBS in IC 2314-2333*, tlk, annmts, //13855, 11418 (Alexander PA 3/31)
9425 GREECE VoG in SP 2340, ID, into nx pgn (Prath FL 3/31)
9475 EGYPT R. Cairo in EG 0207, Q & A pgn on agriculture, vocals (Cichorek NJ 3/18)
9510 ROMANIA RRI in SP *0000, ID "Aqui R. Romania Internacional", nx (Prath FL 3/31)
9635 PORTUGAL RP in PT 0230*, choral anthem at s/off (Wood HI 3/2)
9705 SAUDI ARABIA BSKSA in EG 1902, soft rock vocals, ID, mx, tlk (D'Angelo PA 3/10)
97197 ANGOLO RN de Angola in PT 0545, Hi-Life mx, tlk (Johnston KY 3/12)
9725 COSTA RICA AMR in EG/SP 0055, relig pgn in EG, SP sked & pgn 0104 (Forth 3/15)
9770 PHILIPPINE IS VOA relay in EG 2240, "Words & Their Stories" (Prath FL 3/17)
9810 SWITZERLAND SRI in IT 2320, answering tech questions from listeners (Prath 3/10)
9815usb ITALY IRRS in multi-lang 0615-0746*, relig pgms, ID in EG, address, Sunday only
"Midnight Cry" (Alexander PA 3/18, Kohlbrener PA 3/18) ED: New freq & time?
9860 ITALY IRRS in EG 0722, mailbag, "Perspective & Scope", ID, addr (Carson OK 4/1)

9875 AUSTRIA RAI in EG 0134, Greta Garbo's films, "Postbox", g (Carson OK 3/26)
 9885 SWITZERLAND SRI in EG 0405, nx followed by "Dateline" (Grenier CA 4/3)
 9885 SWITZERLAND Red Cross BS in EG *0308, ID, rpt on RC activities (Forth 3/2)
 9885 SAUDI ARABIA BSKSA in AR 2215, AR mx, ID, brief tlk, more mx (Prath FL 3/17)
 9900 EGYPT R. Cairo in EG 2130, nx, terrible modulation as usual (Klinck NY 4/1)
 9930nf? BELGIUM BRT in EG 2330, nx, press review (Price VA 4/2) ED: Move from 9925?
 11550 TUNISIA RTVT in AR 2150, AR mx and annmnts (Klinck NY 4/1)
 11590 CHINA VO the Strait Fuzhou Haixia-1 in CH 1700, pips, CH mx, //7285 barely
 readable (Treibel WA 3/18) ED: 11590 listed as inactive WRTH 1990. Not so now.
 11600 CHINA R. Beijing in EG 1305, nx, cmntry, mx, //11660 (Prath FL 3/31)
 11605 ISRAEL Kol Israel in EG 2145, tlk on terrorism (Klinck NY) in EG 2310, mailbag
 pgm, nx (Carson OK 3/25) in EG 0105, tlk on Israeli politics, ID (Price VA 3/18)
 11620 INDIA AIR in EG 2110-2210, "Producer's Choice", mx, political discn, ID, "Quiz
 Time", nx (Forth 3/31, Klinck NY 4/1, Kohlbrenner PA 3/24)
 11645 GREECE VoG in EG 0346, activities of GK Communist party, ID (Carson OK 3/28)
 11680 BULGARIA R. Sofia in EG 2220, tlk re EG relig folklore, into FR 2230 (Prath FL)
 In FR *0100, pgm directed to the Americas, annod 25 & 19 mbs (Wood HI 3/2)
 11705 SWEDEN R Sweden in SW 0300, nx, ID (Wood HI 3/2)
 11715 INDIA AIR in EG 2200, nx, cmntry, ID's, exc (Klinck NY 4/1)
 11720 IRAQ R Baghdad in EG 2106, NA, ID, freqs, tlks on Qu'ran, nx (Jordan PA 3/18)
 11720 BULGARIA R. Sofia in EG 0338, nx, press review, exc (Carson OK 3/30)
 11725 VATICAN STATE RV in FR *0247, IS chimes, xmsn to WONA, g (Wood HI 3/2)
 11730nf YUGOSLAVIA RY in EG *0100, nx re Lebanon civil war, g (Wood HI 3/2)
 11734 TANZANIA R. Zanzibar in SH 1800, nx, mx, annmnts at 1830 s/off (Renfrew NY)
 In SH 1740, tlk, AR-like mx, African drum mx (Howell CA 3/13)
 11735 YUGOSLAVIA RY in FR/EG 0030, nx & cmntry, f-g, //6005 (Carson OK 3/24)
 11740 VATICAN STATE RV in EG 0615, '4 voices on Teresa of Avila', IS, into IT 0620,
 'Orizzonti Cristiani', //6248, 9645 all g (Wood HI 3/2)
 11755 FINLAND RF in FN 0105, 'uutiset' (nx), g (Wood HI 3/2)
 11760 COCK ISLANDS RCI in Maori 0931, pop/rock mx, ID, ads (Howell CA 3/18)
 11780 BRAZIL RN de Amazonia in PT 2132, ID, tlks, BR pop mx, g (D'Angelo PA 3/24)0
 11785 EAST GERMANY R. Berlin Int. in EG 0435, "Faces & Places", f (Carson OK 3/21)
 11805 BRAZIL R. Globo in PT 0045, ads, mx, ID's (Johnston KY 3/11)
 11830 BRAZIL R. Anhangera in PT 0720, tlk, ID's, mx (Johnston KY 3/13)
 11835 GABON R. Japan relay in EG 2318, cmntry re E Bar developmt, g (Carson OK 3/26)
 11850 PHILIPPINE IS. PEBC in EG 1015, religious pgm, ID (Klinck NY 3/25)
 11870 INDIA AIR in EG 0245, world & home nx, promo, tennis, g (Wood HI 3/2)
 11885 SPAIN R Liberty relay in RS 0240, remote rpt, ID, nx 0300 (Forth 3/28)
 11915 BRAZIL R. Gaucha ("Gow-oo-sha") in PT 0729, mx, ID (Johnston KY 3/13)
 11925 NORWAY RNI in NO 0125, tlk on Televerket (PT Administration), g (Wood HI 3/2)
 11930nf AUSTRALIA RA in EG 0706, world & Australian nx, mx w/B. Seaver (Carson OK 3/30)
 11940 ROMANIA RRI in EG 0400, nx, press review, mx (Carson OK 4/1, Levison PA 3/18)
 11940 LESOTHO BBC relay in EG 0500, ID, African nx (Klinck NY 3/21)
 11970 PORTUGAL R. Liberty in RS 0600, IS, ID "Govorit R Svoboda", nx(Johnston KY 3/25)
 11990 CZECHOSLOVAKIA R. Prague in EG 0330, cmntry, interview (Carson OK, Levison PA)
 12010nf BELGIUM BRT in EG 2210, DX items, folk mx, cmntry, f (Levison PA 3/17) in EG
 2330, IS, ID, s/on w/"Brussels Calling", heavy QRM (Prath FL 3/25)
 12010 AUSTRIA RAI in EG 1945, mailbag pgm, //13730 (Prath FL 3/25)
 12025 MONGOLIA R. Ulan Bator in EG *1200-1230*, IS hrd a second or so after R. Moscow
 IS and s/on annmnts, ID?, tlks, instrumentals & vocals, bad QRM (Jordan PA 3/23)
 12035 SWITZERLAND SRI in PT 2211, IS, ID, freqs, g (Carson OK 4/4) in EG 0216, end of
 "Dateline Saturday", "ShortWave Merry-go-Round", f (Royston HI 3/11)
 12085 SYRIA R. Damascus in EG 2010, nx, ID, AR mx (Prath FL 3/25)
 13610 KUWAIT RK in EG 1800-2100, nx, rock mx, classics, interview (Bader 3/26)
 13660v COSTA RICA R for Peace Intl in EG 0215, "Caribbean Echo", UN rpt (Price VA 4/5)
 13660nf UNITED KINGDOM BBC London in AR 1220, tlks, recitations, AR mx, ID's (Jordan PA)
 13675 BELGIUM BRT in EG 0900, ID, nx, exc reception (Klinck NY 4/2)
 13700 NETHERLANDS RN Plevio in DT 2215, sports nx and scores, //6020 (Prath FL 3/11)
 13700nf? AUSTRALIA RA in EG 0515, tlk re missiles in Israel (Grenier CA, Johnston KY)
 13715 CZECHOSLOVAKIA R. Prague in multi-lang *2300, ID, "Inter-Pgm", nx (Prath FL 3/11)
 13740nf AUSTRALIA RA in EG 1740, mx sels, vocals, rpt, interview (Jordan PA 3/31)
 13745nf USA WCSN Scotts Corner, ME in EG 1715-1755*, nx, ID, freqs (Treibel WA 4/17)
 13780 WEST GERMANY Deut Welle in GM 2245, lite ezi mx, annmnts, //6075 (Prath FL 3/11)
 141977usb KIRIBATI R Kiribati in EG 0600, R. Australia nx, UN pgm (Atkins WA 3/17) in EG
 0618, tlk, several country mx tunes, discussion on care of Kiribati's elderly, p
 (Kohlbrenner PA 3/18) in Kiribati 0900, nx, local mx (Klinck NY 4/2)

15030 CHINA CPBS2 Beijing in EG 0650, EG lesson, 6 pips, ID, mx (Johnston KY 3/12)
 15040nf? BANGLADESH RB in EG 1900*, mx, Press Review, ID, freqs (Kohlbrener PA 3/24)
 15055nf? GUAM TWR Agana in IN 2315-2328*, ID, move from 15420? (Treibel WA 4/3)
 15095 SYRIA R. Damascus in EG 2118, nx, mx, Syrian Press Review (Kohlbrener PA 3/15)
 15110 INDIA AIR in EG 0105-0115*, mx, ID's, freqs, severe QRM D.Welle (Klinck NY 4/3)
 15110 CZECHOSLOVAKIA R. Prague in EG 1802, "Farmer's Corner", f (Kohlbrener PA 3/19)
 15180 NORWAY R Denmark relay in DN 2159, ID in EG, nx, "Listener's Corner" (Forth 4/1)
 15180 USSR R Vilnius (Komsomolsk) in EG 2300, "Dawn of Democracy" (Wolfson 3/12)
 15185 FINLAND RP in FN 0520, wx rpt (Wood HI) in EG 2310, "Compass North" (Prath FL)
 15220 HUNGARY R. Budapest in HG 2230, IS, ID, nx, //9835 (Prath FL 3/10)
 15225 NORWAY RNI in EG (Sun only) *0000, IS, ID, nx (Johnston KY 3/26)
 15230 SOUTH AFRICA RSA in EG 1805, nx, cmtry, ID (Klinck NY 3/22)
 15235 LIBYA R. Jamahiriya in AR 1812, AR mx, ID's (Klinck NY 3/22)
 15245 CYPRUS BBC relay in EG 0658, pgm review, ID, IS, world nx, p (Royston HI 3/10)
 15250 ROMANIA RRI in EG 0704, nx, ID, mx, freqs, anncts, //15335, f (Royston HI 3/10)
 15295 MALAYSIA Voice of Malaysia in Malay 1000, ID, tlk, mx (Klinck NY 3/16)
 15320 NORWAY R Denmark relay in DN 2350, tlk, IS, EG ID (Howell CA) 15325 per LN April
 15325 YUGOSLAVIA RY in EG 1259, IS, ID, freqs, skeds, nx abt reforms, f (Cichorek NJ)
 15395 SPAIN REE in EG 1935, "Sunday DX Spot" w/tips, tlks, //15375 (Prath FL 3/11)
 15425 AUSTRALIA ABC Perth in EG 0700, ID, nx, g (Royston HI 3/8)
 15425 MALTA Deut Welle relay in PT 2255, tlks, ID, freqs, nx, //15105 (Prath FL 3/4)
 15475 GABON Africa #1 in FR 1717, DJ w/rock'n roll, cigarette ads (Howell CA 3/10)
 15525 SWITZERLAND SRI in GM 1856, IS, nx, extreme QRM from R Moscow in FR (Carson OK)
 15560nf AUSTRALIA RA in EG 0420, International rpt re govt in Israel (Grenier CA 3/12)
 15605 PAKISTAN RP in EG 1600, nx, cmtry on younger generation, mx (Jordan PA 3/21)
 15780 ICELAND LSBS in IC 1938, tlk, //15767 also hrd (Howell CA 3/4)
 17550 GREECE VoG in EG 1238, nx re Yugoslavia, ID 1242 (Wolfson 3/23)
 17680 NEW ZEALAND RNZ in EG 0242, rugby match (Carson OK) in Maori 0515 (Grenier CA)
 17705nf CHINA R. Beijing (relay?) in EG 0040, mailbag, IS, ID, CH 0100 (Treibel WA 4/2)
 17725 PORTUGAL R Free Europe in BG 1800, ID, nx, speech w/crowd noise (Forth 3/11)
 17805nf SPAIN RNE in SP 0305, ID, //11880 also hrd, f-g (Treibel WA 3/30)
 17865 UNITED ARAB EMIRATES UAER Dubai in AR 1430, Koran prayers, //21605 (Howell CA)
 17880 SWEDEN R Sweden in FR 1500, tlk, ID, //21655 also hrd (Johnston KY 4/3)
 21465 EAST GERMANY R Berlin Int in EG 1145, "Give Peace a Chance" (Prath FL 3/31)
 In HD 0725, IS, p, //11970 also hrd (Johnston KY 3/25)
 21470 CYPRUS BBC relay in EG 0754, tlk on UK textile export mkt, ID, nx (Royston 3/10)
 21495 PORTUGAL RPI in PT 2014, soccer match (Howell CA 3/14) in PT 1935, pop & rock mx
 spot & full ID's, xmsn targets, futbol match, exc (Jordan PA 3/31)
 21500nf SWEDEN R Sweden in EG 1530 after pgm in FR, nx, IS, ID (Treibel WA 4/19)
 21505 CZECHOSLOVAKIA R Prague in EG 1805, "Made in Czechoslovakia", CZ mx (Prath 3/10)
 21525 AUSTRALIA RA in EG 0542, "Art Rounabout", ID 0545, f (Royston HI 3/24)
 21560 SRI LANKA D Welle relay in GM 1800, IS, ID, freqs, nx, //17860 (Prath FL 3/10)
 21605 UNITED ARAB EMIRATES UAER Dubai in EG/AR 1629, mx, ID, nx, g (Carson OK 4/1)
 25740 WEST GERMANY D Welle in GM 1220, polit tlk re unrest in Haiti (Prath FL 3/10)
 25870nf UNITED KINGDOM BBC Daventry in FR *1200-1245*, nx, features, ID's, p (Jordan PA)

CLANDESTINES AND OVERSEAS PIRATES

62145 HONDURAS R 15 de Septiembre in SP 1202, political tlk, ID (Johnston KY 3/8)
 62396 EURO PIRATE Rainbow Radio in EG/SP/GM 0542, loop tape w/ID's & address in several
 langs, 25 watts; p (D'Angelo PA 3/11) in EG 0354, ID, p (Kohlbrener 3/18)
 7340 COSTA RICA La Voz del Cid in SP 0729, ID, tlks, //6304, p (Royston HI 3/21)
 9700 ANGOLA A Voz so Resistencia do Galo Negro in PT *0455, IS of cock crow alter-
 nating w/string instruments, ID's, NA, QRM D Welle & VOA (Alexander PA 3/17)
 11635 COSTA RICA LV del Cid in SP 1425, tlks, patriotic vocals, polemics, ID (Jordan)
 12085 SYRIA Saul-Al-Iraq in AR 0420, polemics, martial mx, ID (Jordan PA, Johnson MD)
 15050 EURO PIRATE Pirate Freaks Bcting Svce in EG 0002, loop tape w/"We Will Rock You"
 mx, ID annoy test xmen to NA, Australia, & NZ, address in Holland (D'Angelo 4/1)
 15685 EGYPT V of Unity to Iran in Farsi(p) 1200, pips, prayer recitations, AR mx,
 speech monolog, no ID hrd, vp (Jordan PA 4/3) Pashto or Dari 0147 (Johnson 3/18)
 17540 EGYPT V of Unity to Iran in lang 0119-0224*, flute IS 0119, chants, also hrd
 77's on 12230, 15685, s/off w/flute IS and test tone (Alexander PA 4/1)

 No room for US pirate loggings. For those interested in these stations, a Pirate Radio
 Directory is available from Tiare Publications, PO Box 493, Lake Geneva, WI 53147. It
 costs \$7.95 plus \$2.00 s/h (\$3 overseas).

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WANTED: National HRO-500 general coverage receiver. Panasonic RF-2200 or RF-2900 or Sony ICF-5900W portable receiver. Justin W. McCarthy, 591 Beausoleil, Dieppe, N.B. Canada E1A 1C3.

FOR SALE: Alpha Delta DX SWL Sloper with over 30' of co-ax included. Used six months. Price \$45.00. Postal money order, please. Jerry Klinck, 43 Lein Road, West Seneca, NY 14224. Phone (716) 675-7509 mornings.

FOR SALE: National HRO-500 solid state general coverage receiver (0 to 30 MHz) with matching National LF-10 preselector with "built-in" speaker. Also available is the Palomar Engineers LF-1 Loop Amplifier with medium wave coil. Both units are electronically perfect. Price for the National HRO-500 with LF -10, \$495.00. Price for the Palomar Engineers Loop, \$55.00. or both units for \$500.00. I pay shipping. Jon E. Fimmel, Principal Hellgate High School, 900 South Higgins Avenue, Missoula, MT 59801. Phone work days (406) 728-2402. Home (406) 721-5551.

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ALSO AVAILABLE: Steve Whitt, a well-know English MW and SW enthusiast, has written a book titled "Get the Best From Your Sony ICF-2001D (or its North American equivalent the Sony ICF-2010). The book covers all aspects of operation, modification, and repair of the receiver and also addresses in detail all its weaknesses and offers practical tried and tested improvements. Some are achieved through internal modification, while others are realized through external accessories, but all are low-cost and offer considerable performance benefits. Also included is a general introduction to communications receivers and chapters on Hotrodding the 2010, Hints & Tips, and Questions & Answers. The book is 32 pages illustrated. Price for a single copy is £5.00 or 13 IRCs for Surface Mailing and £6.00 or 15 IRCs for Airmail. (Please note that all payments must be in £ sterling.) Send all orders to: Steve Whitt, 21 Cauldwell Avenue, Ipswich IPW 4EB, England.

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The Journal of the
North American Shortwave Association

ISSN 0160-1989

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

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