

F R E N D X

*North American Short Wave Association*

**SWBC NEWS 8-74**



ONE OF A SERIES OF HCJB QSL CARDS SHOWING  
PICTURES OF MOUNTAIN SCENES FROM ECUADOR.

#### THE LOUDENBOOMER REPORT

Well, fellow freq-freaks, the dog days of summer soon will end and we'll be on the downhill run toward cooler weather and another DX season.

Every year about this time, an old timey editor in one of the other clubs trots forth his late summer tips for preparing for the listening season ahead. You know the sort of thing, tighten the antenna connections, check the antenna insulators for cracks, replace the weak tubes in your receiver.

Okay, it's all good advice--and important enough--but for old Charlie these few simple tips are unnecessary. Now really, that's all pretty elementary, isn't it?

But it is important to get things ready for the DX season and, over the years, I've come up with my own list of "get ready" tips. And to help out some of you younger fellas, I'll now clue you in on what Loudenboomer does to get set for the DX season.

(1) Check over your last six months' worth of bills from the electric power company. Then--and this is very important--make a careful month-by-month comparison with your check stubs. Make sure that you have paid each and every one of your light bills. If you don't take this elementary precaution now you may well find that in the midst of a hot DX session a month or two from now some burly power company lineman may snip the wires leading to your home. And, you'll find it is difficult to DX when your receiver is "juiceless" for non-payment of your bills.

(2) Clean out your headphones! Self-styled know-it-alls, even experienced listeners who should know better, may hoot at this suggestion. But you'd be amazed at the collection of dust, dirt and yes, even cobwebs, that can accumulate in the earpieces of your headphones during the summer hiatus from DXing. After unsuccessful attempts to clean them with pipe-cleaners, old toothbrushes, assorted rags and the like, I found a simple solution. Yes, solution is the precise word..simply soak them overnight in a pail containing a mixture of four parts water, two parts alum and two parts lemon juice. IMPORTANT: after soaking for at least eight hours, be sure to rinse them in clear water and dry carefully. If you forget to do this..well.. have you ever seen puckered ears?

(3) One of the most neglected pieces of equipment in any DX shack is the lightning arrester. This is strange too, since it is such a simple and inexpensive device that is worth its weight in gold in protection your expensive radio gear from the potentially destructive effects of donder and blitzen. Electrically-speaking, it is a simple little gadget that shunts lightning strikes to the ground, should one of those bolts from the blue blast your antenna. The key to trouble-free performance from your lightning arrester is to make sure it has a good ground system. A three foot copper pipe driven in the earth makes a fine electrical ground. Don't make the mistake of grounding it to a cold water pipe, particularly one serving your bathroom. A friend of mine did that once. In one particularly bad storm a lightning bolt struck his antenna and the Tidy-Bowl Man hasn't been seen since.

(4) Now is a good time to replace your antenna wire. Chances are that the elements have weakened it over the years; it's probably well corroded by now. You don't want it coming down in the first sleet storm of winter. Climbing on a roof to make repairs in mid-December is definitely no fun. Here's a special Loudenboomer tip..construct your new antenna of nichrome wire..you know the kind they used to use for the heating elements of electric ranges. The beauty part of nichrome antenna wire is that when the ice and snow builds up, threatening to bring down your skywire, you just disconnect the lead-in from your set, plug it into 110 volts, heat up the wire and melt the ice build-up. A word of caution, though, don't try this defrosting trick on December 25. Take it from me, and I've had my problems with him, you definitely do not want a scorched Santa on your hands!

So there you are! Remember an ounce of prevention is worth a pound of cure. Try these tips now...you'll thank me for it later!



# SHORTWAVE CENTER



Edward C. Shaw  
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by Neal Perdue

"Dear Sir: 20 April 1974

We wish to thank you for your reception report. We have found it correct and hereby acknowledge with this verification letter."

Those opening words greeted my eyes when I opened the letter received from HCGM's Jim Hedlund, station engineer for Missionary radio in Ecuador's Macuma district.

A personal postscript was penned at the bottom and on the reverse side of my QSL letter. It gave me quite an insight into the workings of missionary radio.

Radio Rio Amazonas, the voice of Macuma went to 5 kilowatts around Christmas of 1972, and since then many more reports have come to the station. The transmitter is a product of missionary engineering, using a 4 element, colinear restricted (trapped dipole) antenna which is similar to two H shapes lying on a horizontal plane. The station is run on diesel fuel at a cost of \$15.00 per day.

Work of the station is to minister to the Jivaro indians of Macuma's jungles far inland. The town of Shell in the Pastaza district, where the station is found lies east of the ridge of the Andes Mountains forming a near triangle with the larger cities of Riobamba and Cuenca. The inhabitants were once headhunting, warring tribes now pacified by the efforts of the missionaries at HCGM and others.

Members of the facility, Frank and Marie Drown, have written a book of the beginnings of the work there in Macuma. It tells much of the Jivaro indians in a way that only persons living among them could relate. Several of the natives also participate in operation of the station, all brothers - and sons of a now deceased witch doctor.

Jim Hedlund's wife Norma also serves a secretary to the station, and assisting in recording programs of Jivaro singing.

As with all private endeavors, particularly charitable missionary services, the expenses of maintaining the station are an effort. News services and national announcer support run nearly \$200 per month.

All reception reports are given proper attention, and correct ones will receive a verification letter in return. Mint stamps are a boon to them since postal services are far away.

Give them a try: HCGM, La Voz de Macuma, or Radio Rio Amazonas, can be heard on 4,870 kHz until 2330 GMT evenings, or after 1045 GMT sign-on in the mornings. Broadcasting is mostly in Quechua or Jivaro indian dialects, with only a short two hour program of Spanish in the early evening.

## IN ADDITION

by Morgan Monroe

The March FRENEX article concerning WWV geomagnetic alerts, etc. and forecasts omitted one important fact: The WWV 14th minute spoken code is really two things. The letter component deals solely with geomagnetic conditions at the time of info preparation only. The numeral component is the only six-hour prediction. Further, though mentioned in the article, such forecasts are effective six hours only from a certain time. For example, a forecast heard at 1714 GMT is already 4 hours old since the last forecast preparation was made at 1314. A new forecast would be made at 1914.

Right you are, Morgan! Many thanks. A point that should have been made, Ed.

A LITTLE STRAIGHT TALK ON SELECTIVITY!

by Harry Helms, WA4EOX

Back in the days when the transmitter powers of stations were measured in terms of watts as opposed to kilowatts, receiver manufacturers boasted about sensitivity in their ads. After all, there were many fewer stations, so trying to select the desired signal wasn't that much of a problem. But, with a high powered station being one that had 500 watts, hearing the thing was very much of a problem. Hence, receivers for both home and amateur use boasted their high sensitivity. Even tube manufacturers got in on the act by boasting of various DX feats performed by users of their particular brand of tubes in their receivers.

But technology advanced, and now we have reached the point where just about all shortwave receivers above the "cheapie" imports have more than adequate sensitivity, especially for reception of broadcasts aimed for us in North America. And, in case more sensitivity is needed, there are newer preamplifiers using the latest in solid-state circuitry. Today's DXers have a new problem, opposite from that of earlier listeners -- namely, to keep the myriad of signals they hear separate!

Today's manufacturers and distributors are not ignorant of the problems. SWLs are not alone in their QRM miseries. The 75 thru 10 meter amateur bands are crowded beyond belief. The utility bands are bursting. True selectivity is a magic word for receiver manufacturers, and it's a word that has caught the fancy of many DXers, both SWBC and BCB. Take a look at today's radio ads and you can see how this mania for selectivity is catered to. Many receivers proudly list their selectivity features -- crystal lattice filters, mechanical filters, ceramic filters, etc. -- and many of these have begun to appear on very reasonably priced equipment. Even a very moderately priced DX-160 or Lafayette HA-600A comes equipped with a mechanical filter - quite a shock when one realizes that Collins mechanical filters once listed for almost the price of some of these receivers!

We are also seeing signs of the increasing attention to selectivity in the accessory field. Of particular note is the proliferation recently of audio filters, even one of which promises a bandwidth of 30 cycles! And, when DXers talk over equipment, the talk has shifted from how sensitive a particular model is to how well the model can reject adjacent QRM. We have seen recent reviews for receivers that have selectivity options down to 200 Hz, and which was usable for phone reception.

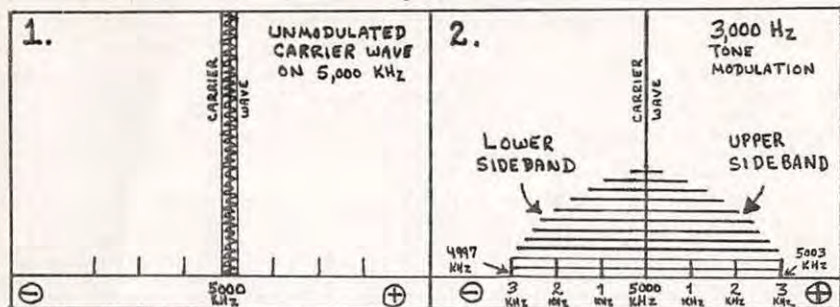
However, many problems confront the SWL in correctly evaluating the selectivity of a given receiver or accessory. When one speaks of a 30 Hz bandwidth, does the 30 Hz refer to a bandwidth of radio or audio frequencies? Just what standards are applied when one determines selectivity, and what do they mean? What, if anything, does a specification such as "2 kHz at -6 db down" tell us?

Sadly, many receivers and accessories have their selectivity grossly overrate. The hard and fast laws of physics set limits on how wide a filter must be to pass signals - and for most phone reception, the filter must be at least 2 kHz wide. Many DXers report using filters with bandwidths in the hundreds of cycles for phone reception. Are they putting us on? No indeed! No doubt the receiver specs say that the filter is only a few hundred cycles wide, but its effective selectivity is far, far wider. To understand why a filter for a given mode must have a minimum bandwidth, let's look at the physics of radio signals.

Take a look a figure one on the next page. This illustration represents an unmodulated carrier, such as a CW signal, from a radio transmitter at a frequency of 5000 kHz. We have drawn a black line extending upward to represent this unmodulated carrier, but for all practical purposes we must remember that an unmodulated carrier has no bandwidth to speak of. It is on a specified frequency -- in this case, 5000 kHz -- and no other. Even the width of the line is misleading, as the signal itself has no width! Thus it is impossible to have "splash" or spillover from a CW station. Theoretically, one could make a CW filter with as narrow a bandwidth as desired. (Ed. note: the author is correct in stating that exact carrier frequencies have no bandwidth with modulation, but in actual practice such carrier seem to have width on receivers as detected by the S-meter deflection, or by injection of the receiver's BFO signal.) However, other considerations dictate that a CW filter must have some bandwidth. These considerations, such as keying speed and the abruptness with which each character is formed, give a CW signal a little more space to occupy than just its frequency. This bandwidth is usually on the order of 100 Hz, and good CW filters typically have

bandwidths of 500 Hz. "Super-selective" CW filters are available in bandwidths of 250 and 350 Hz for really heavy QRM.

We SWLs are not all that interested in problems of CW reception, since we like our stations with voices and music instead of dits and dahs. We listen to modulated signals, and the modulation process adds a new set of considerations to determine the proper bandwidth.



Most SWLs are quite familiar with the fact that when a signal is amplitude modulated, a set of sidebands is set up on either side of the carrier frequency. Let's ponder a bit what the modulation process means. In figure 2 above, we have a 5000kHz signal and, let us assume, we are modulating it with a steady 3000 Hz audio tone. Note that amplitude modulation sets up sidebands above and below the carrier frequency, and each sideband occupies as much space as the audio tone frequency. Thus, our 3000 Hz audio tone will result in two sidebands, each 3000 Hz wide, for a total channel width of 6000 Hz, or 6 kHz, as our diagram shows.

Now, it just so happens that all the intelligence of a phone signal (AM) is carried in the sidebands, both of which should be "mirror" images of each other. People eventually caught onto this and so single sideband (SSB) transmissions were born. The important thing for us to remember is that if we hope to receive voice transmissions, we must be able to receive at least one of the sidebands. Several articles have appeared in DX publications telling how reception of just one sideband can be used to receive signals that otherwise would be useless. A good, definitive article on how to do this is "Exalted Carrier AM Reception," by Al Niblack, April 1972 FRENDX.

If we are receiving an AM signal and wish to receive both sidebands, we must have a bandwidth that is sufficient to pass both sidebands in order to retain natural-sounding voices and music. A too-narrow bandwidth will "cut" the sidebands, resulting in a bassy, muffled audio. If we do not care too much for the sound of the audio, we can reduce the bandwidth further. However, there usually comes a point beyond which the audio impairment is too severe, and then it is best to cease trying to receive both sidebands and then start tuning for a single sideband of an AM signal.

By referring back to Figure 2, we can see that a single sideband of our 3000 Hz modulated signal is 3000 Hz wide, or 3 kHz. Thus, a bandwidth of 3 kHz is required. Even here, we can afford to narrow the bandwidth a bit if we do not mind sacrificing fidelity for intelligibility. A typical SSB filter has a bandwidth of 2.5 kHz; the minimum usable bandwidth being 2.0 to 2.1 kHz.

#### HOW EMISSION BANDWIDTH AFFECTS SELECTIVITY

By now, the reader is probably wondering how an emission that occupies at least 2 kHz of frequency space, such as SSB, could possibly be passed by a filter with a claimed width of a few hundred Hertz. When such filters are claimed to be suitable for AM operations, they may begin to smell a rat. He will be right. Radio signals are not elastic. They cannot be squeezed into filters that will pass less than their minimum bandwidth without severe impairment of the signal. Various filters can be rated at the same bandwidth, say 500 Hz, and give widely varying results. An excellent crystal filter for CW reception, such as the Heath 500 Hz model, will not pass even a SSB signal with intelligible audio, much less an AM signal.

Yet another filter, rated at the same 500 Hz bandwidth, will pass SSB and AM signals. Why? A specification such as "2 kHz at -6 db down" tells you very little. It is entirely possible, and often so happens, that a filter could be rated at 3 kHz wide and have better effective selectivity than a filter 2 kHz wide - or even one rated at a few hundred Hertz! To understand why two filters, both rated at the same selectivity, can have widely different reception characteristics requires a knowledge of how selectivity is measured, the selectivity curve and skirts, and the shape factor. We will cover these topics in our next installment.

The important thing to remember is that many receivers and accessories are making claims in selectivity that are simply impossible. The laws of physics are still valid, and no manufacturer can change them. He can, however, make up specifications that look nice on paper, but are impossible in the real world. Some claims seen today may not be violations of the letter of the law, but they are certainly deceptive.

Be awake when you're buying. Putting a filter of a given bandwidth on the audio output of your receiver is not the same thing as putting a crystal or mechanical filter of the same bandwidth in your receiver's i.f. section - and the results won't be the same. Some \$20 box is not going to give your DX-150 the selectivity of an R390. The mechanical filters in the more moderately priced receivers have vastly difference performance characteristics than those that come in receivers by Collins or National. Before you buy, remember that Santa Claus comes but once a year! Until next month, 73 and gud DX.

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About the Author: Harry Helms, WA4EOX, resides at 115 West Le Roy St., Port Mill, SC 29715. Harry is 21, a graduate of the University of North Carolina at Chapel Hill, and has been DXing for about ten years. His primary interests are with ECB, FM and TV and formerly was writer of a column for IRCA. Harry enjoys listening to SWBC and has 62 countries verified to date, mostly the larger ones.

NASWA members are welcomed to write Harry for specific answers to questions about this article. Please enclose a self-addressed and stamped envelope for his use.

Ed. Note: Harry Helms' article this month touches on many of the current interests and problems of the day in regard to receiver selectivity. In all fairness to the NASWA membership, we should emphasize that some points of Helms' article with regard to narrow pass band filters are an opinion of the author and not necessarily an observation of applied fact. Specifically, there are a good number of DXers who will argue Helm's point that narrow filters are not useable for AM. Helm's example in Figure 2 is for a 3,000 Hz tone and would indeed require a filter of 3,000 Hz to hear - but this frequency is considerably above the normal human voice response. A much narrower filter - say, 1 kHz for instance - would still permit human voice frequencies to be heard, but would greatly attenuate the aforementioned 3,000 Hz tone if not eliminate it entirely. The basic point to emphasize here is that diligent DX digging often requires severely narrow filtering to reveal only lowest voice tones. It is admitted that Helm's 3,000 Hz example tone would not likely be received with much success under these stringent filtering methods. The laws of physics do indeed apply here.

#### NIBLACK NAMED A.N.A.R.C. MAN OF THE YEAR

The A.N.A.R.C. AWARDS COMMITTEE announced its selection of A. R. NIBLACK, NASWA FLASHSHEET EDITOR, as 1974 A.N.A.R.C. "MAN OF THE YEAR", at the A.N.A.R.C. Convention held July 5-7 in Bronxville. The Committee chose Niblack for the award after consideration of his many contributions to the hobby of DXing, including his filling of editorial positions over the years, his willingness to help novice DXers, and his regular reports to numerous clubs and other publications. NASWA joins with the A.N.A.R.C. Awards Committee, and the many in the hobby who have received Al's gracious assistance, in extending sincere thanks to Al for his years of devotion to the DX hobby. And we look forward to many more years of activity on the part of this very fine DXer.

SUBTERRANEAN DX AND THE CEREBRAL FILTER

By Al Sizer

One morning last winter I was DXing the 49 meter band when I settled on 5965 kHz. A Brazilian, Radio Guaiba, dominated the channel, but underneath it I could plainly hear a Spanish speaker. The Portuguese announcer paused momentarily at 0957 GMT and like magic the Spanish words became audible long enough for a clear ID... "Radio Nacional de Huanuni." I had logged a rare Bolivian!

That logging was pure luck. I have heard dozens of stations "under" stronger ones, and never have been able to identify them in the past. But, once in awhile, fortune smiles.

I guess there is no more difficult aspect of DXing than trying to log a station that is under another. You see loggings like this occasionally in FRENDX and other DX bulletins, but not too often. Usually they are made by DXers with some experience and a lot of patience.

In fact, patience is all you have to fall back on after you have exhausted the usual mechanical techniques -- notch filter, USB, LSB, etc., and have established that nothing you can do technically is going to separate the QRMing stations. I mean REAL patience. The kind that involves not only staying on the frequency as long as the stations are audible, but returning on another day, and maybe many following days as well, just waiting for the miracle.

The miracle may just be a change in scheduling...the dominant station no longer on at that time. Or maybe an act of God may occur...power outs, revolution, who knows what. Perhaps unusual propagation conditions will favor the underdog station and put it on top some day.

But, more often it is patience which must be relied on. If you listen long enough then maybe some day you will have that lucky occurrence



that happened to me with Bolivia - one station will be silent just seconds long enough for the other to identify themselves.

It is more difficult to ID a station underneath than to compile a reception report on it. Usually, if you listen long enough, you can follow the format easy...news, music, etc. to complete a report. I did this earlier last winter when Radio Nepal could be heard underneath WWV's time ticks and voice announcements. Ironically, after I had received my QSL by hard work, Nepal moved to an unobstructed 3425 kHz and became a relatively easy catch.

"Subterranean DX", as I like to call it, has inspired a wild theory at our shack that I almost hesitate to broach lest my contemporary DXers figure I have finally come unwired. I call my theory the use of the ..'Cerebral Filter'. From time to time, I have read about--and seen--experiments where people with the use of mind control have been able to do unusual things, even manipulate physical objects, and influence course of action. This set me thinking. An experience with the OL clinched it one day.

"Did you get the bread?" She asked. "What bread?", I answered. She continued, "I plainly told you. You only hear what you want to hear!"

And with that I yelled, "By George! I think you've got it!"

Why wouldn't it be possible for the human mind to reject what it did not want to hear, and hear only what it wanted to? Why couldn't the brain act as a cerebral filter in DXing? By concentrating on the target, an effort of will should shut out the QRM.

Since that day I have made a conscious mental effort when listening to more than one station to try to shut out the unwanted source and understand only the wanted one. I try to establish the tone of voice, or the language, that is desired and hear only that, (Continued next page)

ALLIED RADIO SHACK ASTRONAUT-8

by Elton Hewitt

The Astronaut-8 is in the Radio Shack tradition of good looking radios with lots of controls. It is an 8-band portable which runs on AC house current when plugged in, or on DC battery power otherwise. In the event of house power failure, the radio will automatically switch to DC.

The coverages are AM, FM, SW on 3 bands from 1.6 to 22 MHz, VHF on three bands covering the three popular "Public Service Bands.", so nearly everything is covered except longwave and the 11 meter SW bands and CB channels. I have used every band except the 1.6-4 MHz marine band, and have heard everything from police and railroad service to hospital paging and aircraft, etc, all in addition to short wave broadcasting.

Band switching is done by pushbutton, but after having the radio for only a month, it appeared that dirt was worked into the pushbutton rack, and I sometimes have to push a button down several times to make a good contact. I have used the radio in a rather dusty atmosphere at times, and that no doubt has contributed to the problem.

There are two tuning controls; a main tuning dial and a rudimentary fine tuning bandspread capacitor having no visual indications. It is next to impossible to estimate frequencies, even to the nearest 100 kHz. It does have a logging scale, however, and with my Heathkit crystal calibrator, I can read frequencies to the nearest 100 kHz on the upper bands and to within 25 kHz on lower bands.

Other controls include volume, tone, squelch (for VHF), AFC (for FM), and a switchable BFO. I have tried the BFO a couple of times on SSB and it does a fair job. There is also a momentary contact dial light for night use, a tape jack for recording, and an auxiliary jack for plugging a phone or tape recorder in, etc. An external antenna jack is provided on the back.

I am quite pleased with the performance of the Astronaut-8. I have not gone to the trouble of calibrating the bandspread knob, so most of my short wave listening has been confined to the more powerful stations, and adjacent stations next to these which can be tuned somewhat easier on the bandspread knob.

Sensitivity of the Astronaut-8 was very surprisingly good, compared to most other portables I tried, and also compared to my DX-150B, using the same antenna. Of course, the latter was much easier to tune with its wider bandspread control, even if the selectivity of the Astro-8 was just a little less than the DX-150. I had no trouble separating equal signal level stations 10 kHz apart. This might be the limit, though.

Using an external low impedance antenna on the Astro-8 seems to be ineffective, as I have not found that anything comes in better than on the existing telescoping antenna provided.

The Astro-8 is nice to take along on picnics or on camp-outs. It is somewhat larger than most portables, being nearly as big as the DX-150. The price is nominally \$120, but I got mine on sale for \$80. For that price, I believe you cannot find anything with the same coverage and good sensitivity. Actually, I believe I'd be tempted to invest the additional money to get a DX-160 if I didn't want it for the additional extended coverages provided.

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CEREBRAL FILTER (Cont'd from preceding page) by Al Sizer

shutting out the undesired, no matter how strong in volume. On the whole I can't say I've succeeded. There have been moments when I felt I was getting the hang of it for a little while, and then--the unwanted signal becomes dominant in my mind again.

Perhaps I just need more practice. Perhaps I just don't have the mind for it. But, I'm not prepared to say at this time that the cerebral filter cannot be sharpened and honed to become an effective DX listening aid. There are more than one or two of our hobby's top, experienced hands that have conceded that my premise just may have something of worthwhile substance to it. What do you think?

## FREQUENCY INTERPOLATION

or

by Serge Neumann

## How to Calibrate Your Receiver

In the days of direct frequency readout receivers, the art of frequency interpolation is quickly disappearing. For the majority of SWLs who do not have direct frequency readout capability, this article can serve to keep you "on frequency."

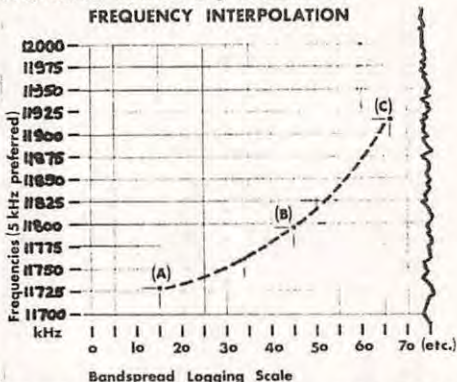
Finding a given frequency one day and being able to return to it the next is probably one of the most important factors in successful SWling. Most receivers such as Hallicrafters, Hammarlunds, Realistics, and the Lafayettes, feature two controls - one for main tuning, and the other for bandsread tuning. The bandsread usually includes calibration for the amateur bands, but little more than a 0 to 100 logging scale for the SWL. While this scale is important in frequency interpolation, it alone fails to provide the DXer with the needed calibrations. This is where the process of interpolation comes in. It is really simple (though somewhat time consuming), and once established, serves to provide the user with reasonably accurate frequency readouts, sometimes within 2-3 kilohertz.

The process begins by choosing a certain range of freqs. The 25 meter band is a good place to start, mainly because the stations found there are usually on exact frequencies and are well-known. Since you should already know if your main tuning "holds true" (is generally accurate) when the band spread log scale reads 0 or 100, you must pick an arbitrary point on the main turning dial. Let's use 11.7 mHz. Set your main tuning to this point, and your band spread at 0 (some receivers might start at 100). Now note carefully the spot where you first tuned in 11.7 so you can return to it time and dime again. As you begin to tune the bandsread from zero, you come across the familiar Radio Nederland. We know the freq to be 11.73 kHz. At this point we note the log scale and jot down the reading (let's say it is 15 for the moment). Radio Nederland will be our marker station - one that we can use to reset on when we want to do it again other days. How do we do this? Well, you steady up on the signal of Radio Nederland, (using you BFO zero beat, if you have one) so that it appears exactly on the log scale 15 when we reset our main tuning again to the first noted 11.7 spot. Having done this, the next step is to plot this setting on graph paper. (Figure A in the chart) Now tune the bandsread again until you find another recognizable station. For our example, we chose Deutsche Welle on 11795 kHz. We'll say that it appears on the log scale at 45. Plot this on the graph at the intersection of the frequency and log scale number. Tuning again several times, you might log HCJB on 11915 kHz at (example) log scale 67. Repeat the process of plotting this on your graph paper. (Fig. C)

Using a french-curve template (available at any office supply), connect the points to make a line. The line may or may not be straight, depending on the design of the bandsread tuning capacitor. If the lines curves, it will curve gently in only one direction - not back and forth, unless you've plotted something wrong)

Now, if you find a station you are not sure about, determine the logging scale number when you tune it in - then consult your graph, following the curved line to the point where the log scale number intersects it. See how Deutsche Welle's frequency intersects the curved line at log scale 45 (Figure B on graph). In the same manner, you can determine an unknown station's frequency.

It should be explained that the freq scale should be made a finite as physically possible - instead of 25 kHz markings used on the example graph, a 5 kHz separation is preferred, using an entire sheet of graph paper. If you have space, make it even smaller separations. Good tuning! Serge.





by Victor Goonetilleke, Sri Lanka

Indonesia is a beautiful country where that mysteriousness of the Orient still lingers on. Indeed, it is a mysterious and romantic challenge for the serious DXer. If you hear that haunting melody - the song of the Coconut Islands, affectionately called "Love Ambon" by us DXers - I am sure you will travel again and again through the air waves to capture a few bars of that beautiful Hawaiian guitar tune. Such is the romance that embraces those 1,000 islands, washed by the blue waters of the mighty Pacific Ocean.

Until the 1970's, not too many DXer's knew much about Indonesian stations other than of the many Radio Republik Indonesia network (RRI) stations and the air force station, Radio Angkatan Udara in Jakarta. However, recent years have seen a great awareness of these stations, and DXing Indonesia enjoys a unique status in that it is recognized as several separate countries according to NASWA Country List. (25c from HDQ) Although this is so, not too many average DXers have been able to take advantage of the situation due to poor information available. Detailed observations have revealed that there are seven types of stations - and we will discuss these here:

Radio Republik Indonesia (RRI) stations. These are all listed rather accurately in the current WRTH. They are situated in major cities throughout Indonesia with their headquarters at Jakarta. The regional stations have their own programs, but make extensive use of Jakarta relays, especially news. They all ID with the RRI and studio name, e.g. "Inilah, Radio Republik Indonesia, studio Sibolga." All these RRI stations sign-off with the "Love Ambon" theme mentioned above. At the end of the day's broadcast, the theme will play a few bars, and then fade down while the announcer gives a very long sign-off announcement which includes, date, times, frequencies, names of announcer, studio, transmitter operator, and then will finally say, "Selamat malam, selamat tidur - tetup merdeka. Inilah, Radio Republik Indonesia, studio....." So, when you hear the "Selamats" meaning wishes for a good night and good sleep, etc., be ready for the ID just at hand. Always, the last sentence is the ID and the tune continues. This same sign-off style has been adopted by all stations in Indonesia, the only difference being that the "Love Ambon" tune itself is used only by RRI stations while others use a different tune. RRI Programa Nasional, a second exception, will use the national anthem instead of "Love Ambon."

Radio Pemerintah Daerah stations. These are special stations operated by regional government authorities. There are three of these types at the moment: (1) Provincial government, which ID as "R...P...D...., propinci....." (2) District government, which ID as "R...P...D... Kabupaten.....", and (3) City or town councils which ID as "R...P...D... Kotamadya....." Until recently, these went largely unknown and unaided, but they are gradually being pinned down. Some of these stations are called special stations, thus you may hear the words, "Khusus Pemerintah Daerah" in the ID. All these have a sign-off tune and follow the usual sign-off procedure.

University stations. These have their university name and carry lessons.

Government agencies. One station so far has been IDed by Robert Yeo as operated by the Agriculture Department in Surabaya.

Private Stations. These have exotic names and ID often. They play a lot of music, but they too adhere to the same sign-off format as the others. Since March 1974, all these have left short wave and operate on MW only.

DXING INDONESIA (Cont'd from preceding page)

The Forces Radio Stations (Force = Angkatan) At the moment, Radio Angkatan Udara (Air Force) has a station in Jakarta, listed as widely heard, but I have also heard two more; one of them is Radio Angkatan Udara in Medan on 3367 kHz, and the other is Radio Angkatan .....in Jehobarat on 3144 kHz. This latter one was not an Udara, so it may be Army, Navy, or Police. Lately, Radio Angkatan Udara has been IDing as "R. Angkatan an Bersigata," which means it is run by the Army now.

Pirate Stations. During Ramadan season, there is a station on almost every five kHz below 3900 kHz, and usually outside the 75, 90, and 120 mb. They are very weak, badly modulated, and have non-stop music. Most of them have chatter now and then, but are virtually devoid of any ID.

How To Identify The Indonesians

Much has been written about learning to ID languages, so I shall not deal with it. All Indonesians have more or less the same type of program. The music is the country and western type we are used to. Some of them are Indonesian versions of English songs, while others are very much like Tom Jones, Jim Reeves, and other top artists. The modern electronic guitar and organ music are widely used. The other type is the pure Indonesian type with the Gamalans. These are rather monotonous in rhythm and have a gong beater very often. The word 'Indonesia' is very frequently used, and so you will soon realize you are in tune with an Indonesian station. However, the difficulty is the station ID. I have already touched on the ID slogans, but a few words of caution: all RRIs and most non-RRIs relay Jakarta news on the hour. Some relay it without warning just a minute before the hour, so one may hear a Jakarta ID. Therefore, never take an ID on the hour, especially mentioning Jakarta, as 100% sure local ID. Also remember that there are three Nusantara networks: (Insular services) (1) Satu, which is in Ujungpandang, (2) Dua, which is in Java, and (3) Tiga Medan, which is in Sumatra. So view Jakarta and Nusantara IDs carefully. There are some cases where smaller regional stations relay another station. For instance, Merauke may relay Jayapura. The best time to ID is at sign-off or sign-on. However, just after the news relays one may hear a local ID, but again it might be only relaying more than then news. A useful guide to location ID is the time announcements. Indonesia is divided into three time zones:

- Western: Waktu Indonesia Bagian Barat. Includes all islands west of Bali (Bali, Java, Sumatra, and off-shore islands)
- Central: Waktu Indonesia Bagian Tengah. Includes Kalimantan, the Sulawesi islands, and lesser Sundas east of Bali)
- Eastern: Waktu Indonesia Bagian Timor. For Timor and the Mollucas.

So, the moment you hear the time check, you know the area: which in turn may help you sort out the RRIs often on same frequencies, but in different time zones.

Indonesia is a moslem state, especially Western and Central. If we hear Koran chanting from Indonesian stations, we should remember not to dismiss it as a middle east station. The islands of Bali and Lombok have a Hindi or Buddhist culture and religion, so stations here very often play Indian sub-continental type music. I have heard many instances where Indonesian stations have been listed as Indian sub-continental stations. A good instance is the RRI Mataram station being mistaken for AIR Simla, not to mention RRI Denpasar and Sirharaja often taken for Azad Kashmir, etc.

We all know that it is sometimes easy to ID a relay program by the tell tale, "relay rush" sound, but try this with Indonesian stations and you will fail badly as very often station equipment is plagued with hum, crackle, and poor modulation. Indeed, there are instances when the Jakarta relay is clearer than their own programs. So again, be careful.

Where To Find The Indonesians

They operate on 120 up through 31 meters with a few outlets on 25 and 19 meters too, but I am sure you will soon find you get most on 60 meters and below. The RII network stations stick to the SWBC bands with only a very few outside the band, e.g. Sibolga on 5260 kHz and Ujungpandang on 4719 kHz, etc. R.P.D. stations almost 99% operate outside the SWBC bands. If one hears a station outside the bands, it is likely to be an R.P.D., or a pirate; and remember this - since this is a moslem country, it is worth looking around during Ramadan when they operate on extended schedules.

DXing INDONESIAI (Conclusion)

In passing, I must add that Malaysian stations will not confuse you due to their frequent IDs and mentions of Malaysia. And, they are fewer in number, sticking to advertised frequencies, and do not drift like the Indonesians. Although Malaysia and Indonesia share a near identical language, it should be no problem if you listen carefully.

In this article, I tried to tell you something about a specialized aspect of DXing. I hope it will be useful and interesting to all who love Indonesian DXing. There is more that I could say, but space does not permit it. Before I close, I would like to thank Craig Tyson and Robert Yeo of Australia, both of whom supplied invaluable information to me. We share with you the little we know and have gathered by listening to this mysterious DX area. No list of the WRTH, FBIS, BBCMS, or even our own discoveries are anywhere near complete. Why not try and solve or track the location of these transmitters? It is a country which offers a big challenge and great rewards. It is worth chasing Indonesians - if not for anything else but to hear a few bars of that beautiful island melody, and to feel the closeness of the gently swaying coconut palms on those golden beaches washed by the clear blue waters of the Pacific Ocean.

\* \* \* \* \*

(Ed note: The preceding article was constructed by considerable updating of an earlier work which Victor wrote last year and which appeared in a European bulletin. Reproduction of this article is not authorized without the prior consent of the author.)

ALL-WAVE ANAGRAM

Hello again! Thanks to Ed Richezza we are happy to offer another puzzler for this month. As always the object is to unscramble the letters to make a real word; and then to use the circled letters to form a word to fit the clue.

DODIE

THWICS

AMCIRCE

SOSTERRI

GLEANNINT

O I O D E

S W I T C H

C E R A M I C

P E S I S T O R

O \_ \_ \_ \_ O \_ \_ \_

Clue: An Ode To Cathy

□ □ □ □ □ □

Step 1: Remove the top and bottom of your receiver, and turn it bottom side up with front toward you. Step 2: Carefully unscrew and remove the HF OUT plug from the rear panel of the receiver - do not snip any wires. Wrap the loose plug in a small piece of folded Saran-wrap and secure with a rubber band. This plug may lie loose within the interior of the receiver with the plastic bag protecting it from any short circuiting. Step 3: Remove the front panel retaining ring from the headphone jack, then remove the jack from that hole and reposition it in the vacated hole on the rear of the receiver. You will need a larger diameter washer to hold it in place before replacing the retaining ring screw. Step 4: In the front panel hole you may install your variable capacitor. Some variable capacitors have a threaded shank to push through the hole like the phone plug did, others may have to be cemented into place. Step 5: Solder the varicaps ground connection to the common ground shared by all crystal capacitors. Solder the fixed plate connection to the crystal selector wafer switch inner contact ring. Step 6: If you succeeded in finding a true 900 pf variable capacitor, all individual crystal capacitors may be removed. If you were not able to find a 900 pf, you will need to install individual capacitors on the lowest few crystal positions in values sufficient to total 900 pf when added to the value of your variable capacitor. In practice, I found that a 365 pf varicap may be used, leaving a 600 pf fixed capacitor on the lowest blank option, and 300 pf capacitor on the 3.5 crystal position.

SX-190 WORK SHOP PROJECT

The last workshop articles for the SX-190 receiver were well liked and we thought that a few additional items would be appreciated, too. I am sure many of you feel unqualified to monkey around inside your receiver, but once the following alteration is somehow accomplished, there will be no more need to change capacitors whenever you decide to install another or change to different crystals for additional coverage on your SX-190.

The only part you will need is a variable capacitor capable of tuning up to approximately 900 pf. If this seems difficult to locate, there is a way around it - and, I'll tell you how later. But for now let's assume you do have the variable capacitor in hand,



**DRAKE**  
SPR-4

by Jerry Lineback

The Drake SPR-4 is an all solid state receiver with a potential of covering all frequencies between 150 kHz and 30 MHz. The receiver is dual conversion and is tuned by means of crystal controlled VFO with a range of 500 kHz. Therefore a crystal is needed for each 500 kHz wide portion of the frequency spectrum. There are spaces for 23 crystals for use above 500 kHz, for a coverage of about one-third of the entire high frequency spectrum. I believe one could devise accessory switches and crystal holders to five continuous coverage. The receiver comes equipped with 150-500 kHz and 500 kHz wide bands beginning with 0.5, 1.0, 6.0, 7.0, 9.5, 11.5, 15.0, 17.5, and 21.5 MHz, covering broadcast and international SWBC. A DXer may want to add, as I have done, crystals to provide continuous coverage between 1.5 and 6.0 MHz, and others to suit individual interests. Crystals are available individually or in special groups such as for amateur, tropical bands, etc. There is ample crystal space for most SWBC interests.

The receiver is tuned by selecting a crystal with the frequency selector. Little stick-on tags are provided with each crystal and are placed on the selector dial. They tell the low end frequency, and the suggested preselector and range settings. For example, the 7.0 MHz frequency crystal suggests setting the range switch on E and the preselector on 5.5. These settings pretune the circuits for peak performance on this band. In practice, the preselector will have to be adjusted slightly for peak performance and its position changed slightly while tuning across the band to keep peak performance. This pretuning of the circuits for each band permits the SPR-4 to provide peak performance across the entire SW spectrum. Final tuning is accomplished by the main tuning knob which is attached by gears to the VFO and to two rotating dials. Calibration is 0-500 kHz in 1 kHz increments. Backlash is nil. The frequency is read directly, but you will have to add 500 to readings for bands beginning with half MHz (7.5, 8.5, etc) Overtravel on the VFO is suggested as 50 kHz on each end, but I find that I can obtain closer to 100 kHz on each end, for a total range of 700 kHz.

The receiver has AF and RF gain, AM-CW-LSB-USB modes, and notch filter switches. The dials and S-meter are large, well lighted, and easy to use. The receiver may be powered from 120 or 220 VAC or 12 VDC with an accessory power cord. In actual use, band selection, pretuning, and final tuning are relatively slow. The generous gearing of the main tuning dial (25 kHz per revolution) means much wear on the fingertips, but the results are worth it. An accessory finger-saver on the knob is used by many Drake owners. Selectivity is listed as 4.8 kHz at 6 db and 10 kHz at 60 db, and in practice the receiver seems to perform at these standards. Weak stations as close as 3 kHz can be resolved on AM. Side band axalted carrier reception on weak stations is possible, and I have clearly picked out Turks and Caicos on 4788 kHz from under much stronger signals of SABC on 4790 kHz. SSB selectivity is listed as 2.4 kHz at 6 db and 7.2 at 60 db. Sensitivity is listed as  $\frac{1}{4}$  microvolt on side bands and  $\frac{1}{2}$  microvolt on AM for 10 db S/N ratio. I use a 25 meter wire and a SW-7 antenna with my receiver, in conjunction with an A-20 preselector. The preselector has little effect on the SPR-4 when using outdoor antennas, but the SPR-4 does perform very well with a hunk of wire thrown across the floor, particularly when the A-20 is used. CCB DXers will like the selectivity and sensitivity, and the accessory rotating loop antenna. Drift is less than 100 Hz, and is undetectable. With the tuning knob adjusted for a standard frequency in each band, accuracy on other frequencies is 1 kHz or better, and can be read easily to within 200 Hz, although we are probably not justified in reporting frequencies closer than the nearest kHz.

An unamplified AF output jack is included for connecting to an amplifier or tape recorder. A small, but adequate, speaker is built in to the receiver, but headphones give best results.

The receiver is prone to receiver spurs and a slight misadjustment of the preselector will bring the spurs into existence. In practice, I tune the preselector on a known station near the desired frequency before looking for DX. This insures maximum attenuation of the spurs. The reader is referred to the OCT 73 FRENEX for information about using settings other than those suggested by Drake. (Cont'd on next page)

DRAKE SPR-4 (Cont'd)

Because of the nature of the receiver, there are several settings of the range and preselector switches that will bring in a particular frequency. Generally, the lower the preselector setting, the greater the sensitivity. The effect is greatest below 6.0 MHz. For the 60 m band, a range of E and preselector setting of 2-3 gives increased signals over the suggested settings. But spurs are also enhanced, so beware! I have been burned before I was aware of the problem. Some settings will bring in a frequency at other than its normal position and the direct readout no longer works. It is not necessary to do this for good DX, so I stick to settings that will permit use of the direct frequency readout.

Accessories which I do not have include a crystal calibrator and a noise blander. The receiver is sensitive to RF noise and needs quiet conditions for best performance. The receiver is of the caliber of the HQ-180 receiver by Hammarlund, in my opinion, at the similar price of about \$600. I would recommend it to anyone who wanted a very good receiver without spending more than \$1,000.00.

THE FIRST MAJOR SPORTS BROADCAST

by John Tuchscherer

It was hailed as the "Battle of the Century." The date was July 2, 1921. The occasion was the Dempsey-Carpentier fight. 91,162 people were there in a gigantic wooden stadium that Tex Rickard had specially built at a spot known as Montgomery Oval, or "Boyles Acres" in Jersey City.

The first 30 rows of seats, known traditionally as "ringside" sold for \$50. Others sold for \$15-\$30. Least expensive were seats at the outer rim of the amphitheatre for \$10. So many additional fans were standing that the safety of the whole structure was threatened.

Millions more were anxious to see the fight. What a golden opportunity for a radio broadcast. As early as 1915, young David Sarnoff, then ass't traffic mgr for the American Marconi Co. had suggested sending information and entertainment over the air. Sarnoff's enthusiastic dream never waned. At the time of the bout he was Gen'l Manager at RCA. He authorized an expenditure, not to exceed \$1500 to broadcast the fights. Station WJY was temporarily installed by RCA at Hoboken. Theaters in the middle Atlantic states were equipped to receive the broadcast.

On the day of the fight, the announcer was Major J. Andrew White, then editor of the RCA publication "Wireless Age." At his side was David Sarnoff, to assist if needed.

It was a torrid day. "Ain't it a bully fight!" cried the announcer's water boy, and the nearly 400,000 lucky owners of crystal detector sets and one tube receivers who heard in their earphones the blow by blow descriptions agreed with him. Seated in distant theatres, ballrooms, and barns, they had a better idea of what was happening in the ring than the crowd that had made the hot and dusty trip to Jersey City to witness the event.

Dempsey retained his heavyweight title, of course. As a dramatic ending to the fight, at the very instant that White announced "Dempsey is still the Champion of the World", his transmitter went dead. Still, the first great step in the development of radio broadcasting had been taken. The broadcast was a sensation and radio was on its way.

An Editorial To End All

by Ed Shaw, SWC Edit.

Letters are always welcome. Whether they are praiseworthy or critical of Short Wave Center, or of the club in general - they are counted as a needed part of making a successful bulletin. I am bountifully grateful for the many letters received which assure me that SWC has been managed successfully these past eight months. Only once have I received directly a discordant letter, and one which I really did not understand. I would like to remind any member who feels critical of SWC, that they should inform me of their desires. Incidentally, isn't it funny that those who complain loudest are the ones who contribute least? Thanks, and please write. Ed Shaw



# CLANDESTINE

# BULLETIN

## FLASH!

NEW ADDRESS! NEW ADDRESS! NEW ADDRESS! NEW ADDRESS!

15 Central Avenue, Philadelphia PA 19111 USA.

When we moved into our former home, one of the first things we discovered was a cache of former tenants' mail stored in the basement. We turned the pile of unforwarded mail over to the postal authorities, but there is nothing to indicate our mail inadvertently delivered to the old address would fare any better.

Therefore, please amend your address files to reflect the new address.

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### NEWS ITEMS

RADIO COURIER OF IRAN: This pro-Communist, anti-Shah clandestine, operating via the facilities of Radio Sofia, Bulgaria, has been noted with what is believed to be a newly-inaugurated buzz-type jammer underneath its 11695 kHz channel. In the past, anti-Shah clandestine stations were jammed by "Savak", the Iranian secret police, using transmitters playing nonstop music. However, all jamming by Savak appears to have ceased around September, 1973, and the new-style jammer has only been noted since early July, 1974.

One day the jammer noise noted on 11695 was detected softly on the Radio Iran 15084 channel; only one carrier could be traced, so it is presumed this may have been crosstalk originating at the studio. In that case, the jamming facilities very likely are part of the Radio Iran complex.

Radio Courier of Iran operates from 1430-1620 on 9560 and from 1430-1810 on 11415, 11695 kHz. 9560 kHz uses Radio Sofia transmitter C4 (120 kw), 11415 kHz uses transmitter K3 (50 kw), and 11695 kHz uses transmitters K1 & K2 in parallel (50 kw each, for a total of 100 kw).

Complete information on anti-Shah clandestine radio activity can be found in the September issue of CB, with update information in subsequent issues.

RADIO INDEPENDENT SPAIN: This clandestine Spanish-language radio broadcasting to Spain has announced that as from 1st July its 1300 transmission will be at 1200 so as not to clash with the Spanish television news programme, "Telediario". (BBC MS, copyright) Radio Free Portugal is believed to share technical facilities with Radio Independent Spain; it has a broadcast from 1200-1230 Sundays only on 12005, 14440, 14955 and 15483. Presumably this will either be adjusted to another time slot or else the Spanish broadcast will be on weekdays only or at a different time. (Ed.)

FIGHTING ANGOLA: The former "Voice of Fighting Angola", now simply announcing as "Fighting Angola", has indicated it will probably expand its broadcasts via Radio Brazzaville to include 0500-0515 and 1130-1145, in addition to the present 1808v-1830v. (BBC MS) The easiest-heard channel at 1808v is 15190 kHz; for further details, consult the April 74 CB.

RADIO FREE AMERICA: An unconfirmed report suggests the RFA ship, "Columbus", has long since been sold. The same source indicated the original 10 kw transmitter is stashed away at a convenient site for possible reactivation on 1608 kHz.

As most of you will recall, RFA came to life as a result of differences between Rev. Carl McIntire and his WXUR radio station on one hand, and the FCC on the other, with the specific dispute being over the FCC's "Fairness Doctrine".

Since the famous one day when RFA came on the air to fulminate against the Fairness Doctrine, the once-sacred doctrine has been more and more questioned by both industry spokesmen (notably CBS's Paley) and Government officials and representatives. The major blow against the doctrine came not from these quarters, however -- but from the print media in the Miami Herald case recently decided by the Supreme Court. Read on...

Lifted from Broadcasting, July 1, 1974

## Broadcast Journalism

## High court rules against access law; what's in it for broadcasters?

Some see in 'Miami Herald' case implications of eventual relief from broadcasting fairness doctrine

The *Miami Herald* last week won a U.S. Supreme Court victory that was primarily one for newspapers to celebrate. But the language of the court's opinion said something to broadcast journalists who continue to chafe under the federal fairness doctrine and equal-time law.

Public access to the media—at least to newspapers—was rejected as a right. The supremacy of the editors' authority to edit was affirmed. And governmental action to enforce public access to the printed press was held to be a violation of the First Amendment.

It was, in short, a dark day for the advocates of public access, an encouraging one for journalists worried about being overruled on their editorial judgment by the government or the courts.

At issue was a 1913 Florida law affording political candidates who have been attacked by a newspaper a right of reply in that newspaper—in effect, a fairness-doctrine, personal-attack rule. If it had been upheld by the Supreme Court, Senator John L. McClellan (D-Ark.) was expected to introduce legislation providing candidates for federal office a right to reply to newspaper attacks. The Nixon administration was also interested in such legislation.

But Chief Justice Warren E. Burger, writing for a unanimous court, said the Florida statute violated the First Amendment guarantee of a free press. Any "compulsion" to publish anything that reason tells editors not to publish "is unconstitutional," he said. "A responsible press is an undoubtedly desirable goal, but press responsibility is not mandated by the Constitution, and, like many other virtues, it cannot be legislated."

The case originated in a Florida political campaign in 1972. Pat Tornillo Jr., leader of a teachers union in Miami and a candidate for the state house of representatives, sought to reply to two editorials the *Miami Herald* had run denouncing him. When the newspaper refused to publish his letter, Mr. Tornillo decided to invoke the 1913 statute, which provides that if a newspaper attacks a candidate's character or record, the candidate has the right to demand that the newspaper print, at no charge to the candidate, any reply the candidate wishes to make. The law, which also provides for the payment of damages by the newspaper, had been invoked only once before, and then unsuccessfully.

The Dade County court ruled the law unconstitutional. And the Florida attorney general agreed with that judgment.

But the state supreme court, by a 6-to-1 decision, upheld the statute, declaring that the law promotes the free flow of information that the First Amendment was intended to achieve.

Thus, for advocates of the view that the First Amendment implied the public's right of access to the media, the case came to embody the hope that newspapers, like broadcasters, could be legally obligated to be fair. And it was the foremost advocate of that proposition, Professor Jerome Barron of the George Washington University Law School, who argued the case for Mr. Tornillo in the Supreme Court.

But the court did not read the Constitution as Professor Barron and his colleagues did. Chief Justice Burger dealt at some length with the contentions of access proponents, and found them wanting.

For broadcasters, his opinion was as welcome for what it did not say as for what it did. The National Association of Broadcasters, in a friend of the court brief, had urged the court to declare the state law unconstitutional but, in the process, not to reaffirm the 1969 Red Lion decision upholding the constitutionality of the fairness doctrine.

The NAB sees a trend in legal and political thinking away from Red Lion, and wants the court to look at that issue again, if at all, only in a broadcasting case. NAB was fearful that the court might simply rule that restraints were unconstitutional on the printed press but, since broadcasters use a limited physical resource, the spectrum, restraints on them were constitutionally permissible. "That would have set Red Lion in concrete," John Summers, NAB general counsel, said last week.

But the court barely mentioned broadcasting and said nothing about Red Lion, and for that, Mr. Summers said, the NAB was grateful. "The decision did not disturb the present trend of thinking away from Red Lion and toward an absolute First Amendment right in broadcasting," he said.

As for what the opinion did say, CBS News President Richard Salant, said, "We agree totally." He also said it seems that the principle enunciated applies to broadcasting as well as to the printed press. And indeed, rather than distinguishing between newspapers and broadcast journalism, the Burger opinion seems to blur their distinctions by accepting the premise of access proponents that there is a limit on the number of newspapers to carry divergent views.

The chief justice noted the argument that there is a growing concentration of control of mass media as a result of the elimination of competing newspapers in individual markets and that the obvious solution to abuses resulting from such control—establishment of additional newspapers—is not available because of the same economic factors that have caused the disappearance of many newspapers from metropolitan markets.

But he disagreed with the alternative solution that access proponents have urged as a means of assuring fairness

and accuracy in the surviving newspapers—government action. "The implementation of a remedy such as an enforceable right of access necessarily calls for some such mechanism, either governmental or consensual," he said. "If it is governmental coercion, this at once brings about a confrontation with the express provisions of the First Amendment and the judicial gloss on that amendment developed over the years."

There is much else in the opinion that broadcasters might feel is applicable to them in their opposition to the fairness doctrine and equal-time law. For instance, the argument that the Florida law does not violate the First Amendment because it does not restrict a newspaper's right to publish what it pleases—the kind of argument used successfully in defense of the fairness doctrine as applied to broadcasters—"begs the core question," Chief Justice Burger said, "Compelling editors and publishers to publish that which reason tells them should not be published is what is at issue in this case," he said, adding: "The Florida statute operates a command in the same sense as a statute or regulation forbidding [the *Miami Herald*] from publishing specified matter."

And as a broadcaster might complain about the cost involved in making time available for a reply under the fairness doctrine, Chief Justice Burger said that the Florida law imposes a penalty on newspapers in terms of the time, effort and money they devote to printing a reply that takes up space editors would rather devote to other material.

In that connection, the chief justice appeared to hand broadcasters another argument with which to oppose the fairness doctrine. For he acknowledged that newspapers have more space and flexibility than the broadcast media—before going on to assert, "It is not correct to say that a newspaper, as an economic reality, can proceed to an infinite expansion of its column space to accommodate the replies that a government agency determines of a statute commands the readers should have available."

He also made the kind of point that broadcasters made in opposing the fairness doctrine and that the Supreme Court rejected: Considering the penalties a newspaper could incur by publishing material that might be covered by the Florida statute, a newspaper "might well conclude that the safe course is to avoid controversy."

The final point the chief justice made seemed to be an echo of the perorations of the countless speeches broadcast industry representatives have made denouncing the fairness doctrine. Even if the costs of printing a reply or the exclusion of material displaced by the mandated reply were not a factor, he said, the statute "fails to clear the barriers of the First Amendment because of its intrusion into the function of editors."

"A newspaper is more than a passive receptacle or conduit for news, comment, and advertising," he added. "The choice of material to go into a newspaper and the decisions made as to limitations on

the size of the paper, and content; and treatment of public issues and public officials—whether fair or unfair—constitutes an exercise of editorial control and judgment. It has yet to be demonstrated how governmental regulation of this crucial process can be exercised consistent with the First Amendment guarantees of a free press as they have evolved to this time."

(con'd.)

Justice Byron R. White, who wrote the Red Lion decision, issued a concurring opinion asserting the First Amendment stands as a virtually insurmountable

barrier between the government and "the print media so far as government tampering, in advance of publication, with news and editorial content is concerned. . . . A newspaper or magazine," he added, "is not a public utility subject to 'reasonable' governmental regulation in matters affecting the exercise of journalistic judgment as to what shall be printed."

Like the chief justice, Justice White did not mention broadcasting in his opinion.

# LISTENER'S



The SPOTLIGHT will be left out this month because of the quantity of material on hand this month. It will be resumed next month. Now on to this month's info.

Dan Jamison  
310 Roanoke Street  
Apartment 21  
Richmond, VA 23225

DEADLINE: 15th

BANGLADESH Ken Earhart, PA and Charlie Wootten, MD rpt the GOS of R. Bangladesh in EE at 0445-0515 on 17690, 15455 1815-1900 on 11640, 9550 1230-1300 15520 1900-1915 " " 1645-1815 11640, 9550 (in lang)

BELGIUM RTB is soon to start building a new ant at Wayne directed to the USA and will then be able to handle the new 250 KW xmtr's of RTB. (Charlie Wootten, MD)

BRAZIL When searching for afternoon 31 m.b. Brazilians, watch out for DW xmms in Portuguese, such as the one on 9610//9695 at 2230, (Mike Agner, NJ)

CHINA PLA FUKIEN FRONT STATIONS: The PLA sta's may be hrd between 2005-0530 and fm 1000-2000 on a combination of the following freq's:  
8195 6765 5240 4380 3535 2800 Also be aware that PEKING b/c's 7280 5900 5170 4140 3400 2600 to Taiwan fm 2000-0610 (0700- Su's) and 0830-1810 on the following freq's. Also, watch 7025 5870 4840 3900 3200 2430

out for the PLA relays of these same pgms. 15880, 15710, 11100, 9170, 6790, 5125. (by permission, BBCMS)

COLOMBIA The BBCMS has compiled the following sked for a host of Colombian b/c'ers:

4775	Emis Kennedy	Bogota	1100-0400
6040	LV del Tolima	Ibaque	1130-1200
6095	LV del Centro	El Espinal	0945-0530
6115	LV de Llano	Villavicencio	1000-0400
6125	R. Continental	Bogota	24 hrs
6150	LV del Huila	Neiva	24 hrs
6170	LV del la Selva	Florencia	24 hrs

(by permission, BBCMS)  
COMORO ISLANDS South African DX'er Richard Ginby rpts that ORTF Moroni has been hrd well past the nominal 0430 closedown on 7260, w/no breaks between 0430 and 0900. (via Charlie Wootten, MD)

CLANDESTINE The Voice of the Arabian Peninsula People has dropped the 1800-1900 xmsm and replaced it w/ a b/c fm 0400-0500. The 1200-1300 xmsm is still in effect. Freq's are 11950, 9570, 9525, 7195. (by permission, BBCMS)

ECUADOR HCJB has been repairing its hydroelectric plants, but is now back in full operation. While on standby power, some freq's and b/c's had to be dropped or changed. (HCJB DX Party Line via Brandon Lovett, OH)

The following list of Ecuadorian stations was compiled by the BBCMS.

3315	R. Pastaza	El Puyo	1100-0400
3335	R. Genit	Bahia de Carquez	1230-0500
3391	R. Zaracay	Santo Dom de l Col.	1000-0500
4680	R. Nac. Espejo	Quito	24 hrs
4765	Compania Rdf del Ecuador	Guayaguil	1030-0400
4780	R. Atahualpa	Quito	1045-0445
4792	Voz de los Caras	Bahia de Carquez	1100-0500
4912	Emis. Gran Colombia	Quito	1100-0600
4923	R. Quito	Quito	1045-0430

(by permission, BBCMS)  
IRAN The Voice of Iran, the external svc has EE at 2000-2030 on 9022. R. Iran's First Pgm may be hrd on 15084 fm 0430-2030 & on 9022 fm 0430-1730. (George Rabone, NY)

ISRAEL Israel is now on Daylight Savings Time so the IBA has now moved back all xmsm's one hr. For EE, this means b/c's are now at 0400-0415 on 17690, 15100, 15490, 11700, 12025, 10250, 9495, 9009, 7395; fm 1030-1100 on 17690, 15100, 15130, 15490, 12000, 10250, 9450, 9785, 9009, and fm 1900-1945 on 15100, 15490, 11700, 12025, 9815, 9495, 9009, 7395. (Larry Magne, PA; Chuck Gooden, MN)

## JAPAN

### RADIO JAPAN

North American Sec (日本語放送)	2345-0045	15445 15270	English(60')
North & Latin American & Hawaiian Sec (中米東・北米西語・ハワイ向け)	0100-0300	17825 17725 15445 15235	Japanese(30') English(60') Spanish(30')

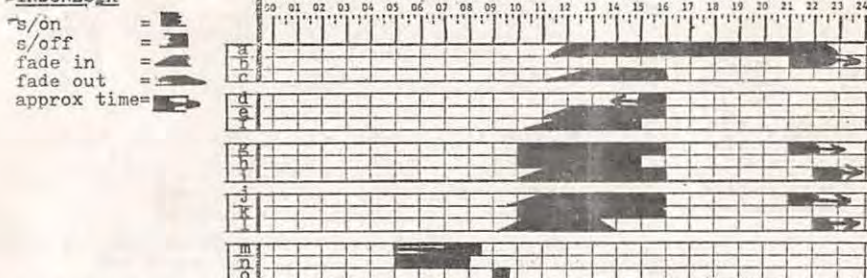
(GUS MILLER, CA)

LEBANON Check 11965 at 0230-0300 for English. (via Charlie Wootten, MD)

MALI Richard Ginby rpts Mali on new 11960 fm 0600-0800. (via C. Wootten, MD)

MONGOLIA Radio Ulan Bator has been rpt'ed by various overseas sources on 11810 and 11860 fm 2200-2230. (many thanks Charlie...Charlie Wootten, MD)

**INDONESIA**



- a. R.Lokawicesa, Jakarta
- b. RRI, Medan
- c. R. Pemerintah Daerah Kabupaten Bima, Sum.
- d. R. Khusus Pem. D.D. Jombang (E,Java)
- e. R. K.P.D.K. Pamekasan, Madura Islands
- f. R. K.P.D.K. Situbondo
- g. R. K.P.D.K. Kupang
- h. R. K.P.D.K. Sumbawa
- i. R. K.P.D.K. Jember
- j. R. P.D.K. Situharto
- k. R. P.D.K. Pusat Malaya
- l. RRI, Ujung Pandang
- m. RRI, Ujung Pandang
- n. RRI, Jakarta
- o. RRI, Jakarta

(OUTSTANDING Craig!! ...Craig Tyson, Australia via C. Wootten, MD)

**KOREA, SOUTH** R. Korea is now rpt'ed to be xmt'ing on 11955 // 9640 to the US at 0300. The 25 m.b. outlet is currently covered by RNE. The ANARC Freq-Recommendation Committee is currently bogged down on other projects. If anyone would like to help R. Korea find a clear freq to NA, write the FRC chairman, Charlie Wootten, 4911 Battery LN, Bethesda, MD 20014. (CW)

**KOREA, NORTH** The current EE sked fm Pyongyang reads as follows:

0500-0600	to ME & Afr	on 9777, 9415, 3560
0600-0800	SEA	12070, 9820, 3560
1000-1100	the Amer's	9895, 7405, 3560
1200-1400	SEA	15630, 9372, 7589, 3560
1800-2000	ME & AFR	9777, 6338, 3560
2000-2200	EUR	9415, 6576, 3695
2300-2400	SEA	1560, 11535, 3560

(by permission, BBCMS)

**NETHERLANDS** You can save postage and write for your R. Ned. QSL or pgm sked by using their Canadian address. Try RN, P.O. Box 1121, Station C, Scarborough, Ont. Canada. (B. Lovett)

**MALTA** Test xnsms are to start soon fm the Duetsche Welle Malta Relay. The sked is ...

German	0120-0400	9745	1800-1850	7160, 9590
	0120-0510	11865	2140-2230	5955
	0440-0515	6065	2140-2240	11865
	1600-1750	17875	2300-0110	11865, 15225

Arabic	0520-0650	6025, 9680
	1910-2100	9625, 11850
Magh.	2105-2130	9625, 11795

(DW Monitor Bill Paschke, WI) Charlie Wootten says to listen for EE to Central and North America fm 0200-0615 on 11865.

**MOZAMBIQUE** R.Clube de Mocambique lists its latest sked for five different sites in Mozambique.

Lourenco Marques:	0600-1530	15295
	0400-1600	11820
	0400-1800	6115
	0400-0515	4855
	0400-1615	6050
	0300-0700	4925
Beira:	0415-0615	6140, 6090

QUELIMANE:	0400-0700	4890
	0400-0700	(wk dz) 7145, 4902, 3320
" "	Sa's	7145, 4902
NAMPULA	0400-0700	4958, 7253
	0600-1500	7140, 4946
PTO AMELIA	0430-0530	(W,F,SA) 7175, 4936
	0600-0930	7175

(very interesting Andy! Andy Robins, MI)

**MOZAMBIQUE** - RC Mocambique has said that Radio University in Lourenco - Marques is to resume b/c'ing on June 24 after having been closed down for two yrs by the political police. It will b/c on M,W,F at 2000-2200 via the "D" Channel of RC Mocambique. (by permission, BBCMS)

**NORWAY** via Dan Ferguson, WVA

**PORTUGAL** Adventist World Radio now has a new address; try P.O. Box 2590, Lisbon 2, Portugal. (C.Wootten, MD)

	Far East ... → 9650
	West Europe, South America ... → 11850
	Eastern North America, West Indies ... → 16175
	Eastern North America, West Indies ... → 9645
	Europe, South America ... → 11850
	Eastern North America, West Indies ... → 11860
	Scandinavia, North Sea ... → 1578
	Eastern North America, West Indies ... → 6180
	Eastern North America, West Indies ... → 9645
	South America ... → 11850
	Scandinavia, North Sea ... → 1578

**RAMANDAN** starts on September 18, this year. (Voice of Turkey via Brandon Lovett, OH)



## TURKEY

## THE VOICE OF TURKEY BROADCASTS

Language	Time G.M.T.	Turkish Time*	Frequency kHz	Wave length m.	Geographical zones
Turkish	03.55-22.00	05.55-24.00	9.515	31.53	27-27
"	06.00-14.30	09.00-17.20	11.880	25.25	27-28
"	16.30-20.45	19.30-23.45	11.880	25.25	27-28
Arabic	05.00-06.00	08.00-09.00	11.880	25.25	38-39
Rumanian	14.30-15.00	17.30-18.00	11.880	25.25	28
Greek	15.00-15.30	18.00-18.30	11.880	25.25	28
Bulgarian	15.30-16.00	18.30-19.00	11.880	25.25	28
Serbo-Croatian	16.00-16.30	19.00-19.30	11.880	25.25	28
German	21.00-21.30	24.00-00.30	11.880	25.25	27-28
French	21.30-22.00	00.30-01.00	11.880	25.25	27-28
English	22.00-22.30	01.00-01.30	11.880	25.25	27-28



GEOGRAPHICAL BROADCASTING ZONES

VIET NAM, NORTH The Voice of Viet Nam

b/c's in Eng to:

SEA at 0100-0200 on 12035, 10040

0900-0930 " " "

1000-1030 " " "

1300-1330 " " "

Eur 1800-1900 15012, 10040

(by permission, BBCMS)

USSR: UPDATE, FAR EASTERN SOVIET -

STATIONS TO NORTH AMERICA

Soviet DX'pert Bill Davis lists the

following updates to his Soviet Far -

East Summer Sked which appeared in July's LISTENER'S NOTEBOOK.

A....15240 has now settled on 15245

B....the 0300-0330 Yerevan Arminian transmission is now on 15180,15405, 17880, 17900

C....the 0300-0330 Kiev Ukranian/EE is now on 11980,12050,15210,17720

D.... Add the following for the "Western North American" segment

15160 at 0530-0730 .....good in So. Calif.

15280 0430-0730 .....weak in So. Calif.

17880 0300-0730 .....strong in So. Calif.

(thanks for sharing your observations with us Bill ... Bill Davis)

USSR.....The following sked of Russian regional sta's was compiled by the BBCMS. Please refer to SWC, FRENDX, Jan.,1974, for a map of the Soviet Radio Countries which NASWA recognizes. Remember, you just

need to QSL 6 Soviet Countries to qualify for the SOVIET SPHERE DX'er Certificate under NASWA's Awards Pgm. Write Dan Henderson for details; be sure to enclose a SASE.

AZERBAIDJAN: Radio Baku in lang fm

1300-1530 on 9840, 6110

1530-1600 " " and 9665

1600-1630 " " "

1630-1700 " " and 6120

1700-1950 " " "

BYELORUSSIA: Radio Minsk in lang to Europe fm

1800-1830 on 9710, 9610, 7310

2130-2200 7340, 7160, 5960

ESTONIA Radio Tallinn in lang to Europe

0800-0915 (Su) on 6085

0915-1000 (not Su) 6085

1600-1630 (not Su) 6085

2105-2200 6085

EUROPEAN SSR Radio Leningrad

2230-2330 on Fri's to Russian Fishermen ... on 7250

GEORGIAN, SSR Radio Tbilisi in lang to Europe and the Middle East

1900-2100 on Tu,F,Su on 5930

## RUSSIAN REGIONAL SKED'S .....continuation

LATVIA Radio Riga in lang  
 0800-0915 on Su on 5935  
 1000-1100 on Su 5935  
 1930-2000 on W 5935  
 2020-2130 T,th,Sa 5935  
 2133-2145 on Su 5935  
 2130-2200 T,W,Th,Sa 5935

LITHUANIA Radio Vilnius with English at  
 2230-2300 on Sa & Su on 15370, 11980 to NA & Europe  
 0030-0100 on Su & M 11790,11770,9685 to NA

TADZHIK Radio Dushanbe in lang  
 1400-1500 on 7300  
 1530-1630 7300  
 1700-1730 7300  
 1800-1830 7300

UKRAINE Radio Kiev with English at  
 1930-2000 on M,Th,Sa on 7390,7205,6045 to Europe  
 2200-2230 to Eur 17900, 17775, 17220, 15455, 15210, 12050,  
 12040, 11980, 11870, 11800, 11735, 11720,  
 11690, 9690, 6020  
 0030-0130 to NA & SA ditto, all freq's of 2200 xnsn  
 0300-0330 on Su,Tu,F ditto, only underlined freq's of 2200 xnsn  
 to NA & SA ditto, only underlined freq's of 2200 xnsn

UZBEK Radio Tashkent with English to South East Asia at  
 1200-1230 on 15460, 15115, 11925, 11730  
 1400-1430 " "  
 (by permission, BBCMS)

LAST MINUTE INFO: - MONGOLIA A report in the Mongolian newspaper "Novosti-Mongolii" states that, in connection with the 50th anniversary of the MPR, the CPSU Central Committee and Soviet Government recently decided to give Mongolia non-refundable aid amounting to 60,000,000 roubles for the development of radio and television broadcasting. This aid will finance the construction by Soviet organizations of a number of radio transmission systems, primarily in remote regions of the country, the erection of a 1,900 km long radio relay line from Ulan Bator-Altay-Bayanolgiy and equipment for long-distance transmissions by land-line. (by permission, BBCMS)

.....YUGOSLAVIA The Yugoslav News Agency (Tanyug) has rpt'ed that Parliament is working on the final draft of a law to re-establish "Yugoslavia Radio" which was woud-up by government decree in 1954. The draft law provides for "Yugoslavia Radio" to b/c pgm's in a number of languages for listeners abroad covering socio-political and economic developments at home as well as foreign topics. The re-instated "Yugoslavia Radio" is to have its headquarters in Belgrade and will be financed by the Federal government. The Tanyug report says that since 1954, radio stations in Yugoslavia's Republican capitals have carried transmissions in a number of languages beamed to foreign countries.

(Note) In March 1954, it was noted that the presentation of b/c's for abroad had changed and the title "Radio Yugoslavia" dropped. The identification ancnt then became, "this is Yugoslavia, Radio Belgrade speaking". Since that time, "Radio Belgrade" has been the title used for the Yugoslav external svc. (by permission, BBCMS)

And that is about it for another LISTENER'S NOTEBOOK. A hardy word of thanks is extended to all of our contributors for their valuable and interesting contributions to LN. We are looking forward to receive some material from YOU! Schedules, observations, tid-bits, and general information are always welcome. Please, all times in GMT and use only one side of the paper. If you desire the return of your sked, please enclose a SASE and it will be returned to you promptly. See ya next month!

73 and Happy Listening!

*Ran*

### NASWA STATION COUNTING RULES

What constitutes an SWBC station? The NASWA Country List Committee has prepared the following guidelines for members' use. Like the country list itself, these rules are a combination of logic, tradition and "feel." In other words, the decisions are admittedly arbitrary, but the committee has attempted to apply reason and fairness in all cases. The guidelines have been drawn up to allow a uniform basis for listing stations heard and verified in the NASWA Frendx Scoreboard, as well as for personal operational use of members.

- (1) An SWBC station shall be a station whose fundamental frequency lies in the radio spectrum range between 1605 and 30,000 kHz whose broadcasts are intended for reception by the general public. This definition includes standard frequency and time stations with voice transmissions, satellite stations in space which transmit intelligible material and utility stations which periodically carry broadcast programming intended for general reception.

This definition excludes spurious and harmonic radiation of broadcast signals whose fundamental frequency lies outside the radio spectrum range between 1605 and 30,000 kHz, even though the frequency of the received spurious and/or harmonic signal lies within that range. Reception of harmonics of medium wave broadcast stations, heard within the defined shortwave frequency range shall not be considered SWBC stations. The definition also excludes satellite stations transmitting only telemetry data and/or CW Morse signals; utility stations transmitting voice mirrors, point-to-point relays and other utility type transmissions; aero, marine or public service stations carrying regular weather reports, ship-to-shore, military communications, etc.

- (2) Each transmitter site of a broadcasting organization shall constitute a separate station. Any move in transmitter site shall create a new station. When a broadcast organization uses multiple transmitter sites, unless the organization is widely known to use a specific transmitter site on a specific frequency at a specific time, verification should show transmitter site before credit is claimed. Although many broadcast organizations operate several transmitters at a given site, the near-impossibility of identification of the various transmitters at the given site rules out counting separate transmitters at that site as separate stations.
- (3) Different services of the same broadcast organization do not count as separate stations; i.e., the CBC Northern Service, Radio Peace and Progress, Radiostansya Atlantika, I.C.R.C., Norea Radio, CBC over BBC, etc. Of course these stations may be counted in themselves, but the organization owning and operating the transmitter used could not be recounted when using that site itself.
- (4) Point-to-point feeds of programs from an organization's main station to its relay station will not count as a separate station.
- (5) Transmissions of a single broadcast organization on various frequencies may only be counted once. The use of multiple frequencies does not create as many new stations as frequencies used.
- (6) A change of station ownership through sale, independence of the country or revolution will constitute a new station when coupled with changes in call or slogan.
- (7) In cases such as the Vatican and Monaco, where studios are in one country as announced on the air, but transmitters are located a few miles away in a different country, the studio location will count for country credit, providing no alternative exists to hearing the country in question. Similar cases which may occur in the future will be considered on a case-by-case basis by the NASWA Country List Committee.

NASWA SWEC COUNTRY CHECK LIST

The following check list may be used in keeping track of your SWEC countries heard and countries verified status, for use with the NASWA Awards Program, or for whatever use you see fit. For convenience in use, SWEC countries are arranged by continent, with the same numeration used in the last edition of the NASWA Country List, published April 1, 1973. The data below are updated to July 1, 1974. Two countries have been moved from the "FUTURE COUNTRIES" list to active status. In order to preserve the current numbering scheme, which is used for various research projects, these have been inserted with an "a" after the number. Thus, NEW IRELAND is listed in Oceania with the number "11a.", after New Hebrides. As in previous editions of the list, we continue with the listing of countries according to their names as of 1945. With the arrangement by continent, the difficulty in finding a particular country is minimized.

<u>HRD</u>	<u>VFD</u>	<u>AFRICA</u>			
—	—	1. Algeria	—	—	35. Kenya
—	—	2. Anglo-Egyptian Sudan(Sudan)	—	—	36. Liberia
—	—	3. Angola	—	—	37. Libya
—	—	4. Ascension Island	—	—	38. Madagagascar(Malagasy Rep)
—	—	5. Azores	—	—	39. Mauritius
—	—	6. Basutoland(Lesotho)	—	—	40. Mozambique
—	—	7. Bechuanaland(Botswana)	—	—	41. Nigeria
—	—	8. Belgian Congo(Rep. of the Congo)	—	—	42. Nigeria(Biafra)(Nigeria)
		(Zaire)	—	—	43. Northern Rhodesia(Zambia)
—	—	9. British Somaliland	—	—	44. Nyasaland(Malawi)
		(Somali Republic)	—	—	45. Portuguese Guinea
—	—	10. Canary Islands	—	—	46. Rio Muni(Equatorial Guinea)
—	—	11. Cape Verde Islands	—	—	47. Reunion Island
—	—	12. Comoro Islands	—	—	48. Ruanda-Urundi(Burundi)
—	—	13. Egypt	—	—	49. Ruanda Urundi(Rwanda)
		(United Arab Republic)	—	—	49a. St. Helena Island
—	—	14. Ethiopia	—	—	50. Sao Tome
—	—	15. Fernando Poo(Equatorial Guinea)	—	—	51. Seychelles Islands
—	—	16. French Cameroons(Cameroon)	—	—	52. Sierra Leone
—	—	17. French Equatorial Africa(Chad)	—	—	53. South Africa
—	—	18. French Equatorial Africa	—	—	54. Southern Rhodesia(Rhodesia)
		(Central African Republic)	—	—	55. Spanish Morocco(Morocco)
—	—	19. French Equatorial Africa	—	—	56. Spanish Sahara
		(Congo Republic)	—	—	57. Swaziland
—	—	20. French Equatorial Africa	—	—	58. Tanganyika(Tanzania)
		(Gabon)	—	—	59. Tangier(Morocco)
—	—	21. French Morocco(Morocco)	—	—	60. Tristan da Cunha
—	—	22. French Somaliland(Afars and Issa)	—	—	61. Tunisia
—	—	23. French Togoland (Togo)	—	—	62. Uganda
—	—	24. French West Africa(Dahomey)	—	—	63. Zanzibar(Tanzania)
—	—	25. French West Africa(Guinea)			
—	—	26. French West Africa(Ivory Coast)			
—	—	27. French West Africa( Mali)			
—	—	28. French West Africa(Mauritania)	<u>HRD</u>	<u>VFD</u>	<u>ASIA</u>
—	—	29. French West Africa(Niger)	—	—	1. Aden
—	—	30. French West Africa(Senegal)			(South Arabian Protectorate)
—	—	31. French West Africa(Upper Volta)			(Republic of South Yemen)
—	—	32. Gambia	—	—	2. Afghanistan
—	—	33. Gold Coast(Ghana)	—	—	3. Armonian S. S. R.
—	—	34. Italian Somaliland	—	—	4. Asiatic R. S. F. S. R.
		(Somali Republic)	—	—	5. Azerbaijan S. S. R.

<u>HRD</u>	<u>VFD</u>	<u>ASIA</u> (continued)	<u>HRD</u>	<u>VFD</u>	<u>ASIA</u> (continued)
—	—	6. Bali and Lesser Sunda Islands (Indonesia)	—	—	46. Philippines
—	—	7. Borneo(Kalimantan, Indonesia)	—	—	47. Portuguese Timor
—	—	8. British North Borneo (Sabah) (Malaysia)	—	—	48. Qatar
—	—	9. Brunei	—	—	49. Ryukyu Islands(Japan)
—	—	10. Burma	—	—	50. Sarawak (Malaysia)
—	—	11. Celebes(Sulawesi, Indonesia)	—	—	51. Saudi Arabia
—	—	12. Ceylon(Sri Lanka)	—	—	52. Singapore (Malaysia) (Singapore)
—	—	13. China(People's Republic of China)	—	—	53. Sumatra (Indonesia)
—	—	14. China(Taiwan)	—	—	54. Syria
—	—	15. Cyprus	—	—	55. Tadzhik S. S. R.
—	—	16. Dodecanese Islands	—	—	56. Thailand
—	—	17. French Indo China (Vietnam) (Democratic Republic of Vietnam)	—	—	57. Tibet (People's Republic of China)
—	—	18. French Indo China (Vietnam) (Republic of Vietnam)	—	—	58. Trans-Jordan(Jordan)
—	—	19. French Indo China (Cambodia) (Khmere Republic)	—	—	59. Trucial States (Union of Arab Emirates)
—	—	20. French Indo China(Laos)	—	—	60. Turkey
—	—	21. Georgian S. S. R.	—	—	61. Turkmen S. S. R.
—	—	22. Goa (India)	—	—	62. Uzbek S. S. R.
—	—	23. Hong Kong	—	—	63. Yemen
—	—	24. India	<u>HRD</u>	<u>VFD</u>	<u>EUROPE</u>
—	—	25. India(East Pakistan)(Bangladesh)	—	—	1. Albania
—	—	26. India(West Pakistan)	—	—	2. Andorra
—	—	27. Iran	—	—	3. Austria
—	—	28. Iraq	—	—	4. Balearic Islands
—	—	29. Japan	—	—	5. Belgium
—	—	30. Java (Indonesia)	—	—	6. Byelorussian S. S. R.
—	—	31. Kashmir(India)	—	—	7. Bulgaria
—	—	32. Kashmir (Azad Kashmir)	—	—	8. Channel Islands
—	—	33. Kazakh S. S. R.	—	—	9. Czechoslovakia
—	—	34. Kirghiz S. S. R.	—	—	10. Denmark
—	—	35. Korea (Democratic People's Republic of Korea)	—	—	11. England
—	—	36. Korea (Republic of Korea)	—	—	12. Estonian S. S. R.
—	—	37. Kuwait	—	—	13. European R. S. F. S. R.
—	—	38. Lebanon	—	—	14. Finland
—	—	39. Malaya(Malaysia)	—	—	15. France
—	—	40. Maldivo Islands	—	—	16. Germany (Demo. Rep. and E. Berlin)
—	—	41. Manchuria (People's Rep. of China)	—	—	17. Germany (Fed. Rep. of Germany)
—	—	42. Molucca Islands (Maluku, Indonesia)	—	—	18. Germany (West Berlin)
—	—	43. Mongolia	—	—	19. Greece
—	—	44. Nepal	—	—	20. Hungary
—	—	45. Palestine (Israel)	—	—	21. Iceland
			—	—	22. Ireland (Eire)
			—	—	23. Italy
			—	—	24. Karelo-Finnish S. S. R. (European R. S. F. S. R.)

HRD VFD Europe (Continued)

—	—	25. Latvian S. S. R.
—	—	26. Lithuanian S. S. R.
—	—	27. Luxembourg
—	—	28. Malta
—	—	29. Moldavian S. S. R.
—	—	30. Monaco
—	—	31. Netherlands
—	—	32. Norway
—	—	33. Poland
—	—	34. Portugal
—	—	35. Roumania
—	—	36. Sicily
—	—	37. Spain
—	—	38. Sweden
—	—	39. Switzerland
—	—	40. Ukrainian S. S. R.
—	—	41. Vatican
—	—	42. Yugoslavia

HRD VFD OCEANIA

—	—	1. Australia
—	—	2. Bougainville Is.
—	—	3. Cook Islands
—	—	4. Fiji Islands
—	—	5. Gilbert & Ellice Islands
—	—	6. Hawaii
—	—	7. Netherlands New Guinea (West Irian, Indonesia)
—	—	8. New Caledonia
—	—	9. New Britain
—	—	10. New Guinea, Territory of
—	—	11. New Hebrides
—	—	11a. New Ireland
—	—	12. New Zealand
—	—	13. Papua Territory
—	—	14. Solomon Islands
—	—	15. Tahiti
—	—	16. Western Samoa

HRD VFD NORTH AMERICA

—	—	1. Antigua
—	—	2. Barbados
—	—	3. British Honduras(Belize)
—	—	4. Canada
—	—	5. Canal Zone
—	—	6. Costa Rica
—	—	7. Cuba
—	—	8. Dominican Republic
—	—	9. El Salvador
—	—	10. Greenland
—	—	11. Grenada
—	—	12. Guadeloupe
—	—	13. Guatemala
—	—	14. Haiti
—	—	15. Honduras
—	—	16. Jamaica
—	—	17. Martinique
—	—	18. Mexico
—	—	19. Netherlands Antilles
—	—	20. Nicaragua
—	—	21. Panama
—	—	22. Swan Island
—	—	23. Trinidad
—	—	24. Turks & Caicos Islands
—	—	25. United States of America

HRD VFD SOUTH AMERICA

—	—	1. Argentina
—	—	2. Bolivia
—	—	3. Brazil
—	—	4. British Guiana (Guyana)
—	—	5. Chile
—	—	6. Colombia
—	—	7. Ecuador
—	—	8. Falkland Islands
—	—	9. French Guiana
—	—	10. Galapagos Islands
—	—	11. Paraguay
—	—	12. Peru
—	—	13. Surinam
—	—	14. Uruguay
—	—	15. Venezuela

FUTURE COUNTRIES To be added when planned stations become active.

HRD VFD OCEANIA

—	—	1.a. Admiralty Islands
—	—	5. a. Guam

TOTALS

EUROPE	Hrd	_____	Vfd	_____
AFRICA	Hrd	_____	Vfd	_____
ASIA	Hrd	_____	Vfd	_____
OCEANIA	Hrd	_____	Vfd	_____
NORTH AMERICA	Hrd	_____	Vfd	_____
SOUTH AMERICA	Hrd	_____	Vfd	_____
(ALL)	Hrd	_____	Vfd	_____

No. Stations Hrd \_\_\_\_\_

No. Stations Vfd \_\_\_\_\_

NASWA AWARDS PROGRAM GETS OFF OF THE GROUND

After almost a year of planning, design, and printing, the revamped awards program finally began paying some dividends for members in May, 1974. To date 63 certificates have been issued in the following categories: Maple Leaf DXer, World Wide DXer, DX Centurion, European Continental DXer, All Continent QRP DXer (50 kw, 10 kw, 5 kw, and 2 kw), South American Continental DXer, North American Continental DXer, Asian Continental DXer, Soviet Sphere DXer, Master Soviet DXer, Senior Indonesian DXer, and Master Indonesian DXer. Based upon printing delays, it is envisioned that all the certificates will be available within the next 3-5 months. Some DXers in submitting awards applications, have had their applications either rejected or delayed because all necessary information was not supplied. PLEASE, insure that in all forthcoming awards applications, that the following information is provided: Radio Country, Station Name, Frequency of verification, Date, Time of Reception, Type of Verification (Card or Letter, etc.). This will insure speedy return of the award. As the awards chairman, I will try to ensure return of the award within 1 week if at all possible. Remember, the awards are US\$0.50 each, with the QRP stickers for updating the QRP DXer certificate 10¢ each. (Overseas, 4 IRCs for each award, and 1 IRC for the QRP stickers.)

If any member has any suggestion for other awards, please let me know along with details, and I will definitely consider them. Also, if members have suggestions how the program can be improved, please also let me know. The program is only as good as the suggestions that are "fed-back" and used to improve it.

As of the present time, the following awards have been issued:

Master Soviet Sphere DXer:	Don Jensen, Gerry Dexter
Maple Leaf DXer:	Gerry Dexter, Ed Shaw
World Wide DXer:	Steve Squires, Brian Lym, Gregory Danzker, Michael Wiseburg, Frank Orcutt, Robert Peritz, Rick Marchak, Henry Borska, Dennis Patrick Driscoll, Dennis Dean, David Ball, Myron Smith, Michael Hardester, Andrew Robins, Bill Trubee
DX Centurion:	Larry Marshall, Ken Schur, Charles A. Wootten, Larry Yamron, Myron Smith
All Continent QRP:	50 KW: Joey Nonnast, Charles Wootten, 10 KW: James Morris. 5 KW: Ed Shaw, Dan Henderson. 2 KW: Don Jensen, Gerry Dexter
South American Continental DXer:	Gerry Dexter, Don Jensen, Ed Shaw, Keith Martin, Myron Smith
North American Continental DXer:	Gerry Dexter, Don Jensen, Ed Shaw, Dan Henderson, Dennis Driscoll, Larry Yamron, Keith Martin
Asian Continental DXer:	Ed Shaw
Soviet Sphere DXer:	Dan Henderson, Ed Shaw
Master Indonesian DXer:	Dan Henderson
Senior Indonesian DXer:	Dan Henderson

We hope to see your name in the list from time to time. Remember, we hope to make this awards program the best in the world of SWEC DXing.

Dan Henderson  
 NASWA Awards Chairman  
 317 Brockbridge Road  
 Laurel, MD 30810

(Note: All applications for NASWA SWEC awards should be sent directly to Dan Henderson, not to South Charleston. The fee for the awards may be paid in cash, stamps, check or Money Order. If stamps are used, they must, of course, be unused US stamps totalling the proper amount. Overseas members may remit in IRCs....Since most applications are for only one or two awards at a time, we suggest the use of cash or stamps, as that avoids the cost of the money order or check.)

## LOG REPORT

NASWA LOG REPORT  
 M. R. LEONHARDT  
 P.O. BOX 13  
 LIBERTY, IND 47353  
 U. S. A.

HDQ NOTE: The "A" section of the Log Report has not arrived as of July 30 - we are, therefore, going ahead without it, since waiting will only further delay arrival of the rest of the material in this month's FRENDEX.

- 4900 VENEZUELA R.Juventud, \*0959 SS, NA, full IDs(Jones)0301-0319 IDs, US pops, LA mx (Weaver) Runs to 0400\*(DF)
- 4904.5 CHAD RNT, 0435-0450 in what app is vernacular; heavy RTTY; lcl mx(Earhart)
- 4905 BRAZIL R.Relogio, 0130 PP, pips, TC, mx; fair(Mayer) 0225 ID(Robins) This stq is often best heard mornings around \*0800-0900\*(DF)
- 4908 CANADA In recent past COTC has used this fgy, so RCI tx here might be COTC tx. (Robins) Ian McFarland confirmed that RCI was using COTC txers on these out of band fgy's; this question was raised at the NASWA meeting in Columbus recently, when Ian was the speaker at the Saturday night banquet.(DF)
- 4911 ECUADOR Em Gran Colombia, 0330 mx, ID(Mayer) 0445 LA mx, SS ID 0500(Burlew,Wallace)
- 4915 GHANA R.Ghana, 2230-2310+, lang, EE, emtry, rel mx, Af mx(Robins, Schwartz) 0543-0602, EE & lang, lcl mx, tlk; EE nx 0500 after ID(Earhart) Where is Kenya with 100 kw(Earhart) Long since faded.(DF)
- 4920 AUSTRALIA VLM, Brisbane, 1128-1147 t/o; relay ABC, Sydney px, good(Weaver)
- 4920 HONDURAS R.Progreso; 0440 exc, EE rock mx, ads(Robins)
- 4923 ECUADOR R.Quito, 0410 SS(Brookwell) 0417 SS ID, LA mx(Burlew, Wallace)
- 4926 EQ.GUINEA Bata, poor w/man in SS 0525(Collier)
- 4930 DOM.REP. R.Mil, 0920 mx, ads(Robins)
- 4935 COLOMBIA R. Cinco, 0350-0400 ID, SS mx, fair(Mayer)
- 4935 PERU R.Tropical, presumed, female voice, weak, ute QRM 0335, 6/13(Dexter)
- 4940 IVORY COAST Abidjan, talking in FF, 0600, into pop mx(Schnabel)
- 4940 VENEZUELA R. Yaraucy, 1013 SS, LA mx(Jones) Sked \*1000. (DF)
- 4945 COLOMBIA R.Colosal, 0508 SS, ID(Brookwell)
- 4950 VENEZUELA YVNN, R.Coro, 0215 anns, ID, mx ads, all at rather frenetic pace(Dexter)
- 4955 COLOMBIA R.Nac., 1045 mx, ID(Earhart) 0445 SS mx, martial mx(Brookwell)
- 4960 ECUADOR R.Federacion Sucua, several days w/HC mx, s/off, anthem 0258\*(Reeves)
- 4960T CHINA Tentatively R.Peking, listed, 1309-1315 OM in JJ, fair(Williams) Nice talking with you at Columbus, Dave. (DF)
- 4972.5 ECUADOR Rdif Tarqui, weak, bad het 0350 tune, 6/13(Dexter)
- 4972 CAMEROON R.Yaounde, 2259 s/off anmt, anthem, good(Robins)
- 4980 GHANA GEC, 2255 EE nx, aports; anmd as "GBC Two"; good(Robins)
- 4995 BRAZIL R. Brasil Central, 0911 M w/PP, ID, tango mx(Paschke)0212 PP, het(Earhart)
- 5005 SARAWAK RMS, Kuching; here at least from 6/8; 1130-1440+; Malay Svc; hi-pur tx. (Hill, Williams, Hamner-Australia, Tyson-Australia)
- 5010 PERU R.Eco, 0931 SS ads, mx(Jones)
- 5010 COLOMBIA R. Sur Colombiana, LA mx 0450-0501\*; SS ID w/M & SW fgy's, no NA @s/off. Hrd 6/28, off 6/29, hrd 7/1 @ 0410 recheck.(Burlew, Wallace) ?? Needs checks for skeds, etc(DF)
- 5010 CAMEROON R.Garoua, poor w/ OM in AA chant 0516(Collier)
- 5020 NIGER Niamey, \*0530-0615 chants, FF, poor(Hagen)
- 5030 ECUADOR Ondas Cañaris, Azogues, readable ID 0701, pop mx(Schnabel)
- 5038+ CENTRAL AFR. REP. RNC, 0505-0515 FF, lcl mx(Earhart)
- 5041v PERU R.Libertad de Junin, 0520-0830+, various days, app all night, rock & lcl mx, ID, ads, etc(Dexter, Earhart, Robins, Zilmer, Schnabel)
- 5055T BOLIVIA R.San Rafael, tentative, 0330-0340 SS, ment. Bol. 0331; lcl mx, poor(Mayer)
- 5058 ECUADOR R.Progreso, 0250-0310 t/o SS, Andean mx(Ruchscherer)
- 5095 COLOMBIA R.Sutatenza, 1032 SS, LA mx, //5075(! Jones)
- 5925 CANADA CBC No. Svc. EE nx, sports, 0610, //5960(Courtney)
- 5954 COSTA RICA R.Casino, 0750 YL in SS, IDs(Paschke)
- 5955 GUATEMALA TGNA, 0430 "Hear the Bible" px, 0435\*(Robins)
- 5970 PERU R. El Sol, \*1028, IS, IDs, mx(Jones)1147 IDs, nx, ads, mx(Weaver)
- 5970 DOM REP RTVD, SS 1339-1510 f/o, 9505 not hrd(Reeves)
- 5980v CANADA CFRX noted here 0540-0600+ w/EE, CFRE ID; nothing on 6070(J.Davis)
- 5980 EL SALVADOR YSS, R.Nacional, \*1100-1521+ SS, IDs, mx(Jones, Robins, Reeves, 0100 (Fox) 0430 SS, LA mx(Brookwell)
- 5985 ARGENTINA R.Splendid, 0902 SS, IDs, tlks(Paschke)
- 5987 INDONESIA RRI-Menado, 1515, 6/28(Reeves) Time right? For 6/28?(DF)
- 5995 AUSTRALIA RA, 1100RE(Earhart)
- 6000 BRAZIL R. Inconfidencia, 0920 tlk, mx, IDs(Paschke) PP2346 (Collier)
- 6005 CANADA CFCX, 1920 mx, TC, good(Robins)
- 6006 COSTA RICA R.Reloj, 1039 SS, tlk, mx, ID(lost the credit, sorry-DF) 1447-1515 SS nx, IDs(Reeves) 0410 mx, IDs(Wallace)
- 6010 CYPRUS BBC, 0043 BBC IS, into lang px, unlisted time(Robins)
- 6015 COLOMBIA R.Mira, 1049 SS ads, mx(Jones)
- 6019 VENEZUELA R.Anzoategui, 1015 anmts, mx, ID(Robins) 1036 SS, LA mx(Jones)
- 6030 COLOMBIA R.Nacional, 0322-0330 SS, ID, political talk. (Mayer)
- 6030 PHILIPPINES FBEC, Filipino rel px, 1340-1352 f/o. Nice sig if actually 2 kw. (Williams) ITU lists 15 kw. (DF)
- 6035 BRAZIL R. Globo, 1000 PP ads, tlk(Jones)
- 6040 COLOMBIA LV del Tolima, 1107 SS, nx, LA mx(Miller)0352 ID(Dexter) 0435 LA mx, IDs w/sookoo. TC. (Brookwell)
- 6045t BRAZIL RC Paranaense, PP anmts, light mx, fair 0030(Collier)
- 6045 MEXICO R.Universidad Nac. Potosina, 0100-0255+ SS, guitar mx, ID, US oldies & pops, definitely not 250 watts as listed. (J.Davis) ITU list 300 watts(DF)

- 6045 URUGUAY Rdf del Uruguay, mostly news features 0932 tune, mentions of "Banco de Londres", sound effects, etc. (Dexter)
- 6050 ENGLAND BBC(Davenport), 0440 World Svc (Jones)
- 6050 ECUADOR HCJB, 0340 SS, mx, rel tlk in SS(Fino)
- 6055 JAPAN NSB, good 0917-1030 w/JJ M&W, ads, jingles, mx(Reeves)
- 6060 ARGENTINA R.Nacional, \*0900 SS IDs(Jones)  
1007 ID, mx, anmts(Robins) 0355 ID, concert music(Robins)
- 6070 CANADA CFRX, EE racing results, 2317(Lovett)
- 6070 VENEZUELA R. San Sebastian completely dominating the channel at 0300, 6/5; no sign of CFRX at this time. (Dexter)
- 6075 ECUADOR HCJB LA svc now here, EE ID 1000 under Sutatenza, 6/30(Hanner-Australia)
- 6080 USSR Asian class. mx, Mayak IS, ID, RR mx 1430-1530(Reeves)
- 6075 ECUADOR HCJB(I should have grouped this with the above item from Robert Hanner - DF)..0901 lang, childrens choral group, 6/22(Earhart)
- 6085 ESTONIAN SSR Tallinn, Swedish pr w/headlines, piano, folk mx. Good some days with R.Ned. off ' 2120-2126, poor later. 2135 NA, into Estonian pr to 2200\*(Reeves)
- 6085nf NETH ANT. RN, \*0200-0320\* & \*0500-0620\* EE to NA(J.Davis) This is correction to the EEsto NA list that appeared last month (DF)
- 6090 ARGENTINA RAE, 0520-0530+ SS, Arg. mx, IDs, SS nx0530, so I left(Earhart)
- 6105 MEXICO XEQM, Merida, 0315-0430 when had clear ID; rock mx, not LA, pepsi ads; after 0430 clears up quite a bit(Brookwell) 0425 SS anmts US old rock, ads clustered at 15' min intervals, full ID mentioned SW & MW fqys(Robins)
- 6105 COSTA RICA R. Universitaria, 0230 ads, ID, US soul mx, fair(Mayer)
- 6115 COLOMBIA LV del Llano, 1015 SS, LA mx(Jones)  
0425 strong, but hashed up w/ QRM. Got clear ID (Brookwell) Perhaps another example of the nonsensical policy WRTH has of only listing "official" information? (DF)
- 6115 PERU R.Union, 0500 ID, cigarette ad, mx(Robins)
- 6120 HAITI R. 4VEH, piano mx 1450-1530, no ID or parallels noted(Reeves)
- 6125 COLOMBIA R. Continental, 0641-0700 LA mx, ads, M ancr, brief nx(Weaver)
- 6124 INDONESIA RRI-Samarinda, light orch mx 1145, 1st ID 1159, then relay Jakarta mx 1200; strong het from Seoul 6135. Appears to replace 3294. 5/22(Hanner-Australia)
- 6135 BRAZIL RTV Gaucha, 0820 PP tlk, mx, ads. (Zilmer)
- 6145 ALGERIA RTVA, 2340 M&W, AA & western mx. 2345 Koran(Robins)
- 6150 COLOMBIA LV de Huila, 0925 ID, tlk, mx(Zilmer) SS, mx, ads 0400-0445(Brookwell)
- 6155 JAPAN FEN, 0400 EE ID, mx in EE 0500(Creamer) Seems quite early(DF) 0955-1005 EE mx, mx, mx, mx(Jones)
- 6170 COLOMBIA LV de la Selva, exc 0910-1130(Reeves)
- 6175 COSTA RICA Faro del Caribe, TIFC, \*1003 SS IDs, rel w/pgn(Jones)
- 6179 VENEZUELA R. Turismo, \*0959-1015 w/Na past 1130(Reeves) \*1001 IDs ads, mx(Jones)
- 6180 ARGENTINA R. Nacional, Mendoza, \*0930 w/instr march, s/on anmt w/fqys, days sked, nonstop folk mx to 1000. Much different from R.Nac pr on 6060. (Reeves)
- 6185 MEXICO LV del Maestra presumed 0232 tune, mixed mx, short classical selections under talk, ID -308; familiar but uni d tune at 0309, off 0310.(Dexter)
- 6190 GERMANY(WEST) R. Bremen, GG pops & tlk 2141, IS 2159, ID & TC. Mix Morocco; Bucharest also there in GG on 6190 at 2200-2230, so don't confuse. Heard 7/1 (Hanner-Australia)
- 6196 MALAYSIA BBC WS w/mx 1524, //15070(Reeves)
- 6195 NIGERIA NBC Sokoto, nat. mx, anmts 0530 fair(Collier)

This section now edited by Dan Ferguson, as Fred Heutte is now involved in another editing project of his own.

DSWC TROPICAL BANDS SURVEY DSWCI has issued another Tropical Bands Survey, covering the frequency range 2200-5900 kHz. Stations are listed by frequency, with schedule and power given. This writer has found the survey to be generally accurate, and extremely useful. The survey is printed on 8 1/2 x 11-3/4 inch paper by the mimeograph method. Our only complaint is that the typist was too stingy with the paper, with the result that there is not sufficient space in the margin so that the survey can be inserted in a looseleaf notebook....This survey is a must for any serious DXer. Cost is \* IRCs for airmail delivery. Send your 8 IRCs to Danish Shortwave Club International, DK-8382, Hinnerup, Denmark. Dan Ferguson

This is a good place to note that there is, of late, a rather widespread misuse of abbreviations. One item received this month read something like this: " 1974 LOWER SLOBOVIA, Radio Ping Pong, 0745 M&W in lang, mx, tx, mx, fair(DXer)" The only reasonable interpretation of that is, "...language, news, transmission(or transmitter), music, fair..." "tx" has for years been used for "transmitter" and "transmission", the context determining which word was being abbreviated....It being a fact that abbreviations make FRENDX more difficult to read, even though they are necessary we should all attempt to avoid confusing abbreviations.... Readers are referred to the list of abbreviations which is at times included in FRENDX. (If space permits we will try to include one this month. (DF)

Other small things that can make an LR editors job easier: make sure frequency is given at the LEFT of the item, rather than at the middle, or on the right..Generally follow the LR format, and it will help to get FRENDX in the mail sooner.

- 6205 INTERNATIONAL WATERS RNI; 0030 British R & R mx, ID. Does anyone have the new mailing address for this one? (Agner)
- 6240 CLANDESTINE R.Libertacao; 2255 OM in Vern talks (Robins); 0735 PF talks by YL, PP ID (Burlew,Wallace)
- 6298.5 UNID. First noted 6/6 on 6281.5 AA chants 1345 past 1437, no talk. 6/9 QSY 6298.5 at 1332 w/chants, gone 1445 check. Neither freq hrd next day. 6/12 chanting 1335 on 6298.5 (Hill)
- 7065 ALBANIA R.Tirana; 0030 EE political talk; 0115 PP px (Fino)
- 7015.5 CLANDESTINE VoNUFK; 1255-1310 exotic songs,drama, no ID //9988, 10079 (Hill) Out of order - MRL
- 7120 ALBANIA R.Peking relay; 0030-0055 SS anmts,mx;0100 EE px(Fino); 0245 SS, mx (Brookwell) / (Burlew,Wallace)
- 7125t GUINEA LV du Revolution; 0725-0737 FF talks, low modulation
- 7135 LIBERIA VoA Monrovia; 2150 FF px, ID (Robins)
- 7137t CELEBES RRI Ambon; 1025 w/soft mx, YL ancr. Very poor.(Robins)
- 7139 CELEBES RRI Ambon; \*0800 w/full Indonesian ID (Tyson-Austl)
- 7150 GREECE VoA Kavala; 2230\* EE ID (Robins)
- 7160 ANGOLA RC do Huambo; 0545 OM w/PP talks, 0547 ID (Robins)
- 7170 NEW CALEDONIA R.Noumea; 0645-1059\* PF talks, ID, island mx (Earhart, Jone,Meehan,Paschke,Burlew,Wallace,Zilmer,Schwartz)
- 7175 LIBERIA VoA Monrovia; 0755 EE nx analysis (Robins) /Keating)
- 7190 YEMEN (PDR) DYBS; \*0258-0410 OM in AA,Koran. QRM VoA (Hagen,Robins)
- 7210 W.GERMANY DW; 2350\* off w/GG ID (Robins)
- 7210 ENGLAND BBC; 0335-0400 RR ID, musical interludes (Fino)
- 7215 ANGOLA R.Ecclesia; 0535 PP ID, rock mx (Robins)
- 7220 PHILIPPINES FEBC; 1145 EE drama, ID (Robins)
- 7225t IRAQ R.Baghdad; 2245 AA mx,anmts, abrupt off at 2307 (Robins)
- 7225 ENGLAND BBC; 0010 EE ID "Victor Sylvester" px (Fino)
- 7230 ENGLAND BBC; 0100 EE ID into Hindi px (Fino)
- 7235 AUSTRALIA RA; 1135-1152 nx in Indonesian, pop mx (Earhart)
- 7240 JAVA RRI Mataram; 0600 f/i w/Indonesian songs. 150 Watts(Tyson)
- 7245 ANGOLA Em Oficial; \*0500 IS,PP ID by YL, lite mx; 2330 lite and pop mx, PP nx at 2353, px sked (Robins)
- 7260 E.GERMANY Stimme der DDR; 0113-0150 GG px (Schwartz)
- 7260 INDIA AIR Madras; Via LP 6/25, IS 0123 thru three hams calling-CQ same time; 0125 OM ancr,Indian choral mx, into pattern of brief mx and brief anmts by YL, sig improving to 0145, in past 0220 (Hill)
- 7270 SOUTH AFRICA Radio RSA; 2140-2154 EE,nx,talks (Fino,T.Smith)
- 7275 NIGERIA VoN; 0554 Drum IS (Robins); 0605 EE ID, nx (Creamer)
- 7280 LIBERIA VoA Monrovia; 2325 EE nx, jazz px (Keating)
- 7285 SOUTH AFRICA SABC; 0545-0550 EE nx, Indian instrumental mx to 0600; pips, EE ID. This is my unid of last report around 1500 LP (Hill)
- 7295 ZAIRE R.Mbuji-Mayi; 0500-0545 f/o Vern talks, Arf mx,drums mixing with VoA (Hagen)
- 7300 ALBANIA R.Tirana; 2330 SS, nx,cmntry (Fino)
- 7325 ENGLAND BBC; 0150 EE cmntry on Nixon trip (Jones,Fino)
- 7340 USSR R.Moscow & R.P.&P.(Unknown far eastern site) \*1500-1600 to 1800 f/o. All CC, some polar flutter,never a strong signal(B.Davis)
- 7345 ESPIONAGE. Numbers station. \*0607-0612 SS, YL reciting 5-digit number groups (J.Davis)
- 7345 CZECHOSLOVAKIA R.Prague; 0335 EE, nx, talks (Fino,Brookwell)
- 7345nf USSR (Unknown far eastern site); t/i 1330-1430\* HS in RR, Mayak px signal poor to fair (B.Davis)
- 7390 USSR R.Moscow; 2220 EE message from Podgorny (Robins)
- 7405 N.KOREA R.Pyongyang; 1035 EE, Korean songs,cmntry (A.Miller)
- 7500 AUSTRALIA VNG Time station; 0815:0950 EE time info(Robins,H'stein)
- 8660 CHINA R.Peking; 1440 YL in CC, CC mx, ID 1454,Internationale, off. Strong but distorted, didn't seem SSB xmsn though. V of Pathet Lao also listed this freq. (Hill)
- 9022 IRAN R.Iran; 1758-1815 IS, ID, nx by YL in lang, ME mx(Tuchscherer); 2000-2030 EE nx,lcl mx(Ball,Baines); 2130 nx in lang (Cress)/(Hill)
- 9150 CHINA China Press Agency,Peking; 1640 CC dict nx by YL //9266,9330
- 9370 N.KOREA R.Pyongyang; 1400-1450 RR px. No // noted. Also 2200-2250 in Korean //12072 (B.Davis)
- 9410 ENGLAND BBC; 2315-0130 EE,nx,features (Fino,J.Davis,Baines,Jones)

- 9412 N.KOREA R.Pyongyang; 1700-1740 Korean px, no // noted(B.Davis)
- 9455 N.KOREA R.Pyongyang; 1000-1100 EE talks,mx (Ball)/Robins,T'scherer)
- 9455 EGYPT R.Cairo; 0200-0418 AA, chants,talks,mx(Jones,Brookwell,
- 9475 EGYPT R.Cairo; 0200-0330 EE px to NoAmr(Monroe,Overcamp,Brookwell,  
Ravenhorst,Fino,Brunner); 0445 AA, mx (Robins)
- 9480nf CANADA CBC; 0605 EE "News About Canada" (Hill)
- 9495 ISRAEL IBA; 2000-2045 EE,nx,talks //11700 (Zilmer,Earhart); 2100  
end of RR px (Schwartz)
- 9505 JAPAN NHK; 1820 JJ px (Robins)
- 9505 DOMINICAN REP RTV Dominicana; 0140-0145 EE nx, then SS 0145(Jones);  
0220-0230 SS, ads,mx (Brookwell)
- 9510 UNID. 6/15 only. Sporting event,Indian/Farsi typr lingo 1628-1700  
when YL ancd, but R.Japan s/on QRM; nil QRM by 1703. Seemed LP  
African. Algiers Kabyl network? (Hill)
- 9510 VENEZUELA R.Barquisimeto; 1128; 1750 SS, nx,pops(Robins,Jones)
- 9515 UNID. BCB nx at 2300. Super weak, just barely audible. Not Ascen-  
sion 9510. Who? (Hill)
- 9515 MEXICO XEWW; 1755-1800 SS, OM w/program preview, ID (Mayer)
- 9520 DENMARK R.Denmark; 2358 IS,EE ID into Danish (A.Miller)
- 9520 FRANCE ORTF; 2055 FF, pop mx px //9560 (Robins)
- 9520 PERU R.La Cronica; 0111 SS,World soccer talks (Collier); 0244  
boxing, Trujillo vs. Huacallo (Brookwell) Who won? - MRL
- 9525 CUBA R.Habana; 0757 end of EE px to NoAmr (Robins) / J.Davis)
- 9525 SOUTH AFRICA Radio RSA; 2030-2048 FF px; \*2100 EE nx,mx (Ricchezza)
- 9535 ANGOLA Em Oficial; 1910-1930 PP talks, ID (Schwartz)
- 9535 SWITZERLAND SBC; 0145-0215 EE "Dateline"(McGurn); 0345 II px(Fino)
- 9540 CZECHOSLOVAKIA R.Prague; 0300-0320 EE,nx,topics (Fino,Baines)
- 9540 NEW ZEALAND NZBC; 0800-0842\* EE,pop mx (Earhart,Zilmer)
- 9540 AUSTRALIA RA; 1840-1900 "Pacific Sunrise" mx px (Meehan)
- 9550 NORWAY R.Norway; 0230 EE closing anmts mixing w/Cuba (Estes)
- 9555 LIBERIA ELWA; 1905 FF rel px, rel mx (Robins)
- 9560 ECUADOR HCJB; 0100-0200 EE rel px (J.Davis, Baines)
- 9560 FRANCE ORTF; 1115-1135 FF, vocals,instrumental mx (Earhart)
- 9562-3v PERU R.Nacional; 1130 SS, lcl mx (Zilmer,A.Miller); 2218-2330  
SS drama, mx px (Collier,Mayer)
- 9570 NIGERIA RTV Kaduna; 2100 EE ID, nx to 2115 into Hausa (Mayer);  
Tentative 2150 Afr mx,2205 Koranic chants, Very poor (Robins)
- 9570 AUSTRALIA RA; 0600 EE "Listener's Club" (Ebrecht-Morocco); 1314  
EE nx to SoAsia (Robins)
- 9570 ROMANIA R.Bucharest; 0200-0228 EE talks, ID, mx (Brunner)
- 9575 INDIA AIR Delhi or Bombay; 1640-1703 vocal and instr mx, IS 1703  
anmts by OM & YL (Hill) / Brunner)
- 9575 ITALY RAI; \*0100-0120\* EE px to NoAmr(Robins,J.Davis,Jones,
- 9580 AUSTRALIA RA; 1100-1245 EE, 1200 DX news w/items quoted from  
FRENDX, ID //11710 (Brunner, Baines)
- 9580 PHILIPPINES VoP; 0945 EE ID by OM,px sked and anthem (Robins);  
1529 EE w/economic nx, ID (Nebron)
- 9580-82v NICARAGUA R.Mar; 1445-2215 SS talks,LA mx,no fade out (Reeves);  
1800-1815 ID, LA mx (Mayer)
- 9585 SOUTH AFRICA Radio RSA; 2105-2131 EE,"AfricanPanorama" (Brunner)
- 9590 NETH ANTILLES R.Nederland; 0205-0330 SS talks,mx (J.Davis,Fino)
- 9595 BRAZIL R.Cultura da Bahia; 2315-0025 PP,vocals,talks(Weaver,Z'mer)
- 9600 USSR R.Moscow; 0331 SS nx,cmntry, mx interlude, into R.P.&P. at  
0400 (Fino)
- 9605 VATICAN Vatican Radio; 0117 bells into FF px (Robins)
- 9615 MOROCCO RTM; 0255 Koran, 0300 AA ID, anthem and off (Robins)
- 9620 E.GERMANY RBI; 0215 SS,nx, ID's (Brookwell)
- 9625 CANADA CBC; 1730 EE/FF/Esk, talks,mx (Fino);2203-2235 EE to No  
Canada, nx,rock mx (Brewer,J.Davis)
- 9635 BRAZIL R.Aporecida; 0918-0930 PP, talks ID's, ads (Earhart)
- 9635 COLOMBIA R.Nacional; 1440-2215 SS, no fade (Reeves)
- 9640 S.KOREA R.Korea; 1100-1130 EE, nx,mx, flutter QSB. Poor (Ball)
- 9645 COSTA RICA TIFC; 1115 SS rel px (Ball)
- 9645 NORWAY R.Norway; 0300 EE ID into Norwegian px (Monroe)
- 9650 AUSTRALIA RA; 1120-1135 EE, sports, stock mkt reports. Good for  
10 kW (Earhart)

- 9655 CANADA RCI; 0505-0550 EE,nx,cmntry (Ebrecht-Morocco)
- 9655 BELGIUM RTB; 2300-2315 EE, "Belgium Speaking" (Weaver, Jones, Brunner, Ricchezza, Ravenhorst, Gooden)
- 9655 SYRIA R.Damascus; 2030-2055 EE, nx by YL, US/AA mx, OM w/ID (Mayer)
- 9660 VENEZUELA R.Rumbos; 1740 SS,mx,ads (Robins); 0230 SS talks (J.Davis)
- 9665 FRANCE ORTF; 1915 AA px, mx (Robins)
- 9675 JAPAN NHK; 1115 EE nx (Zilmer)
- 9675 POLAND Polish Radio; 0300 EE, freq sked, nx, mx (Zilmer); \*0200 EE nx, mx, ancd // 11815, 6095 and 6135 (Ricchezza)
- 9675 PERU R.del Pacifico; 1225-1500 SS rel px (Reeves)
- 9680 CUBA R.Habana; 2349 SS talks, mx (Meehan)
- 9685 BRAZIL R.Gazeta; 0134 PP sports. Good (Collier)
- 9685 USSR R.Moscow; 0310-0320 EE, Soviet nx, Marxist propaganda (Brewer)
- 9690 W.GERMANY DW; 0235-0250 EE, EE/GG lang lesson, nx, mx (Brunner)
- 9690 ARGENTINA RAE; \*0300-0400\* EE px (J.Davis); \*0600 EE ID, px about Peron's death // 11710 (Courtney)
- 9690 ROMANIA R.Bucharest; 2120-2130 orchestra mx (Ebrecht-Morocco)
- 9695 AUSTRALIA RA; 0930 nx in Indonesian (Robins); 1155-1208 Cantonese, mx, possible nx. Bad QRM (Earhart)
- 9695 BRAZIL R.Rio Mar; 1127 PP rel svc w/congregation singing (A.Miller); 1335-2215 all day, usually excellent by 1830 (Reeves)
- 9700 BULGARIA R.Sofia; 1930 EE DX tips (Baines); 0059 EE ID (Brookwell); \*0400-0430\* EE ID, nx, cmntry (Monroe, J.Davis)
- 9700 JAPAN NHK; 1830 EE nx to Europe (Robins, Meehan)
- 9705 MEXICO XERMX; 0015 SS, mx, spot nx. This txmsn contrary to sked supplied by Mexico DX Club (Brookwell)
- 9705 FRANCE ORTF; \*1100 SS talks (Ricchezza); 0120-0200\* SS talks and FF lang lesson, concert mx (Overcamp, Tuchscherer)
- 9705t BRAZIL R.Maua; 0140 PP sports (Collier)
- 9710 ITALY RAI; \*1935 EE to Eur, ID by YL, OM w/nx (Robins, Keating)
- 9715 CONGO, P.R. RTVC; 1930 FF, annts, Afr mx // 15190 (Robins)
- 9720 USSR (Unknown far eastern site); \*1400 Viet/CC svc // 11940, sometimes heard as late as 2200 (B.Davis)
- 9725 SWITZERLAND SBC; \*0430 EE ID, "Dateline" px (Monroe, Robins)
- 9730nf USSR (Unknown far eastern site); \*1530-1630 to 1830 f/o RR Mayak HS px. Usually weak, sometimes polar flutter (B.Davis)
- 9730 E.GERMANY RBI; 1830 EE px (Baines); 0120 EE cmntry on Chile (Robins)
- 9740 CZECHOSLOVAKIA R.Prague; 0130-0140 EE, Czech history px (Brewer); 0300-0325 EE, talks, cmntry (Robins, Baines, Gooden)
- 9740 MALAYSIA BBC relay; 2346 EE talk on music (Brookwell)
- 9745 IRAQ R.Baghdad; 1930-2020 EE, jazz mx, talks (Keating, Ball, Brunner)
- 9750 SWITZERLAND SBC; 0435 EE DX program (Lovett)
- 9755 CANADA RCI; \*0100-0157\* EE, DX px, features (Overcamp, J.Davis)
- 9760 ECUADOR HCJB; 0725 EE children's program (Ebrecht-Morocco)
- 9770 AUSTRIA ORF; 0029 GG talk and ID (Robins); 0153 EE (Ravenhorst); 0330 EE talk, ID (Monroe)
- 9770 HAITI 4VEH; 1311 EE rel px (Robins)
- 9780 ALBANIA R.Tirana; \*0005-0028\* EE talks on U.S. labor unrest (B'nnner)
- 9780 ALBANIA R.Peking relay; 0345 EE cmntry (J.Davis)
- 9785 ISRAEL IBA; \*0345-0355 IS, then OM in lang (Earhart)
- 9790 ALBANIA R.Tirana; 0300 EE ID, nx, mx (Monroe)
- 9805 EGYPT R.Cairo; 2200 EE nx, ID (Agner, Baines)
- 9815 ISRAEL IBA; EE nx, "Calling All Listener's" px (Zilmer, Keating)
- 9820 N.KOREA R.Pyongyang; 2300-2350 CC px, signal usually weak (B.Davis)
- 9825 ENGLAND BBC; 1945 AA px (Robins); 0315 EE/Persian ID into nx (Keating)
- 9833 HUNGARY R.Bucharest; 1605 GG px (Robins); 0100-0123; \*0415-0439\* EE talks, mx, cmntry (Monroe, Courtney, J.Davis, Overcamp, Earhart)
- 9850 EGYPT R.Cairo; 0217-0350 AA, chants, annts, ID (Robins, J.Davis)
- 9895 N.KOREA R.Pyongyang; 0900-0920; 1040 EE, nx, talks (Nebron, Robins)
- 9940t CHINA R.Peking; 2105 FF talks (Meehan)
- 10010 CLANDESTINE R.Liberation; 2320-2322 FF talks, oriental mx, 2330 EE, YL ancd "You are listening to the voice of (unclear) R.Liberation (J.Davis)
- 10040 N.VIETNAM VoV; 1530-1540 EE nx (Nebron)

- 10110 CLANDESTINE R.Esp.Ind.; 2100 barely making it through Arganda's noise w/SS talks by OM. Near useless signal, jamming much more effective than that against R.Euzkadi (Robins)
- 10246 CHINA R.Peking; 1415-1500 CC HS w/opera//11290; may be the one WRTH lists for 10260 (Hill)
- 11607 BANGLADESH RBD Dacca; 1515 subcontinental mx,1529 EE ID,1530 ID in lang,heard apst 1600,no// noted. Presumable nominal 11650(Hill)
- 11620 INDIA AIR; 2145-2200 EE, nx,mx (Zilmer,Robins)
- 11630 EGYPT R.Cairo; 1925-2225 AA,chants,mx,ID(Paschke,Robins,J.Davis)
- 11660t SAUDI ARABIA BSKSA: \*0500-0550 Koran,AA talks,mx (Hagen)
- 11662 UNID. 1225-1250 Low lever station, OM in ME lang,exotic chants, one day only. Poor w/gains all the way up, no flutter like Peking on 11650,11685 etc. (Reeves)
- 11685 CHINA R.Peking; 0335 SS talks (J.Davis)  
o o o (M.R.Leonhardt 7/19/74)

DX LIMERICKS

The old DXer was quite emphatic, That his radio shack be in the attic, He said "I know it's odd, But I'm closer to God, And up here there's lots less static" (Mac Leonhardt-Indiana)	Three cheers for Lorenzo Viana! Engineer for La Voz de Cabana, He adjusted his crystals, Up ten kilocyclos, Thus effectively jamming Tirana. (Jack Jones-Mississippi)
Shed tears for Gregori Zhiveria, Technician for Radio Latvia, By error one day, He plugged in VoA, Now, he earns his salt in Siberia. (Jack Jones-Mississippi)	An odd ball DXer named Montrose, Would dial his rx with his toes, He thought this quite unique, Fell in love with his feet, And christened them Myrtle & Rose. (Mac Leonhardt-Indiana)

HELPING HAND: For sale, SX 190 receiver w/matching speaker, & 60 meter band crystal. Excellent condition. Mark Duba, 148 Loomis St., Burlington, VT. 05401

FOR SALE, HQ180AC w/matching speaker & manual; good condition. \$175 plus shipping. Neal Kolb, Room 160, 1212 Florida Avenue, Tampa, Fla., 33602.

SUNSET/SUNRISE TIMES FOR OVER 200 COUNTRIES WORLDWIDE by Don Johnson....This little booklet should prove very useful for DXers working the darkness path. Eight pages of tables giving the period of darkness for over 200 locations, plus 2 pages of explanation. Available for \$1 from SPEEDX, BOX E, ELSINORE, CA 92330.

UNIQUE FM GUIDE NOW READY The FM ATLAS AND STATION DIRECTORY (2nd edition) will be of interest to all FM DXers. 80 pages, \$2.50 (\$3 for first class) from FM ATLAS PUBLISHING CO., P.O. BOX 24, ADOLPH, MINNESOTA 55701

FOR SALE HAMMARLUND HQ180AC, the newer "A" model w/built in timer. Best offer. Don Jensen, 5204 70th St., Kenosha, WIS. 53140

FOR SALE July, 1971 - July, 1974, complete file of SPEEDX first three years. \$15. Al Sizer, 22 Country Way, North Haven, CT 06473

FREE FOR LONG SASE Copy of Jan Tuner's article on modifying the SPR-4. Al Sizer, 22 Country Way, North Haven, CT 06473

FOR SALE: BC221, w/original calibration book & a/c power supply(housed in beautiful stained wood cabinet) for \$60 and you ship. Must sell immediately. Works like a charm. Can measure fq to decimal. Perfect for communications rx owner who is tired of charts and graphs and fq guessing. Ralph Perry, 201 E. Cook, Apt. 416, Libertyville, Ill 60048.

CIDX CONVENTION We almost failed to get this in on time...It's really an all club rally in the aid of HAP and CHAP(handicapped aid px). Saturday, Aug 31, 1974. Registration Fee is \$2.50. To be held at I.O.O.F. HALL, KINGSTON, ONTARIO, (times not stated). Send fee to CIDX HAP REP, HAROLD SELLERS, 122 GIROUX, #20, NORTH BAY, ONTARIO, CANADA P1B 7Y7.

Note from DF: All clubs are invited, so let's see a large turn out from NASWA members. We look forward to a report on the activities.

FULL REPORT ON THE NASWA MEETING IN COLUMBUS WILL APPEAR IN THE SEPTEMBER SHORTWAVE CENTER.

- 11700 GERMANY (DR) RBI; 0610-0615\* AA, poor (Bowlsby 6-24)
- 11700 ISRAEL IBA; 2030-2045\* EE, tlks, fair-good (Robins, Courtney 7-2)
- 11705 SWEDEN RS; \*2245 SS to SA, poor (Courtney 7-2)
- 11705 VATICAN VR; 2215 EE rel px, poor (Zilmer 6-29)
- 11710NF FRANCE ORTF; \*0515-0655 //11725, EE at \*0515, knocks out Noumea, also //15300, good (Hagen, Courtney 6-30)
- 11710 ARGENTINA RAE; 0631, 2323 EE, mx, ID, good (Meehan, T. Smith)
- 11710NF USA WYFR; 0300 SS px, ID, poor to fair (Robins)
- 11715 SWITZERLAND SBC; 0145, 0215\* EE, good (J. Davis, Baines)
- 11715 USSR RFGP; 0040-0128 FF/SS, political tlks, ID, IS at 0100, good (Fino 6-12)
- 11720 CANADA CBC; 0647 EE, tlk, mx, good-excellent (T. Smith 6-14)
- 11725 VATICAN VR; 0000-0010 SS, rel & Vat. mx, good (Brewer)
- 11725 CUBA RHC; 0205, 0410 EE, usual px, poor-good (J. Davis, Lovett 7-1)
- 11730 HOLLAND RN; 2130-2144 EE, tlk, cmntry, fair-poor (Baines, T. Smith 6-19)
- 11735 FRANCE ORTF; 0500 FF, 0515 EE, px to Africa, music only 6-8 during strike, fair-good (Ravenhorst, G. Miller)
- 11735 USSR RM; 0325 EE DX px, //11700, 11690, poor-good (Brockwell)
- 11740 USA UNR via Bethany; 0200\* EE, very good (J. Davis)
- 11740NF FRANCE ORTF; \*2030 IS, ID, FF nx, excellent (Estes)
- 11740 INDIA AIR; 2150-2200, local mx, ID at 2200, poor (Mayer 6/29)
- 11740 MALAGASY REP RN; 1400 EE, DX jukebox, good (G. Miller 6-4)
- 11745t USSR RM; 0315 lang, usual OM&YW tlks, no ID, (Brookwell)
- 11750RS VENEZUELA R Nac; 0015-0130 EE px re UN Sea Rights Conf., nx, mx, SS heard also, ID, over BBC, one day only?, //15390, good (Schnabel, Mayer 6-27)
- 11750 JAPAN FEN; 0638 r&r mx, 0730 travel in Japan, fair (Bowlsby 6-24)
- 11760 CUBA RHC; 0400, 0654 EE, nx, mx, excellent (T. Smith 6-14, Lovett 7-1)
- 11765 AUSTRALIA RA; 0645 EE, nx, good, (Creamer)
- 11770 INDONESIA RRI Jakarta; 0645 YW & soft mx, nx at 0700, poor (Bowlsby 6-24)
- 11770 LITHUANIAN SSR R Vilnius; 2240-2300 EE, tlks, good (Earhart 6-23)
- 11770NF NIGERIA VoN; 1610-1700 EE, then AA to 1800, (Hagen)
- 11775 SPAIN RNE; 1325 SS to Americas, very good (Robins)
- 11780 ENGLAND BBC; 0510-0524 Czech, EE ID, tlks, fair (Earhart 6-9)
- 11789-90v INDONESIA VoI Jakarta; 0113-0200+ Indon, pops, nx, ID, three fast chines 0121, QRM de TWR after 0133, long path (Hill 6-21); 1050 Indon, 1100 EE, 1300\* Indon, tlks, mx, theme mx at s/off, nx, poor-fair (Robins, Zilmer 6-30)
- 11790 AUSTRALIA RA; 1120-1210 EE, ID, nx, poor-fair (Earhart, Schwartz)
- 11790 USSR RM; 2330 EE, (Baines)
- 11795 GERMANY (FR) DW; 0030 SS to LA, good (Robins)
- 11800 SRI LANKA SLBC; 1345 Hindi tlk to SEA, (Monroe)
- 11800 CANARY IS RNE; 0031 SS, full ID, px to LA, very good (Robins)
- 11805 SWEDEN RS; 0000-0048 EE, DX px, poor-good (Ravenhorst, Zilmer 6-26, Baines)
- 11805 BRAZIL R Globo; 0145 PP, tlk, mx, electronic gimmick sound, fair (Zilmer 6-30)
- 11805 USA VoA Greenville; 2115 RR tlks, translations of EE statements, (Brookwell)
- 11810 ITALY RRI; 0100 EE px, (Baines)
- 11810 POLAND PR; 0300 EE, sched, mx, nx, poor (Zilmer 6-19)
- 11815 POLAND PR; 0300-0335\*EE, ID, tlk, nx, (Zilmer 6-19, Monroe)
- 11815 NETH ANT TWR; 0030-0043 EE, "mx & you" px, good (Lovett 6-25, Baines)
- 11820 ASCENSION IS BBC; 0305-0359 SS, nx, tlks, mx, very good (Fino 6-3)
- 11825 TAHITI RT; 2125, 0330-0345, 0530 FF/Tahitian, ID, mx, US pops, r&r, (many)
- 11825 PORTUGAL RFE; 0040 Bulgarian, IS, ID, good (Robins)
- 11830 USA VoA Bethany; 0035-0059 SS, cmntry, 0650 EE, tlk, F-G (Fino 6-7, T. Smith 6-14)
- 11835 HAITI R 4VEH; 1310, 1555 EE, rel px, poor-good (Robins, Ricchezza 6-30)
- 11835 SRI LANKA VoA; 1420 EE, ID, mx, nx, (Monroe) Weaver
- 11835 URUGUAY R El Espectador; 0044-0106, 0200 SS, nx, tlk, ads, QRM de Canada, (Robins/
- 11840 GERMANY (DR) RBI; 0345-0415\* EE tlks, mx, //11970, 9560, G (Mayer 6-23, Courtney)
- 11840 PHILIPPINES AFPRTS; 0708, //11805, fair (Bowlsby 6-24)
- 11840 PORTUGAL R Nac; 2135 PP, ID, pops, 0300 EE, ID, cmntry, mx, (Brookwell, Monroe)
- 11840 AUSTRALIA RA; 1800 EE nx to Pacific, fair (Robins)
- 11845 FRANCE ORTF; 0600-0608 FF, tlk, ID, fair (Earhart 6-9) Monroe
- 11845 VATICAN VR; 0100-0115 EE, to NA, Church nx, into FF at 0116, F-VG (Brewer, Robins/
- 11850 USA VoA Delano; \*1300 EE px, VG but w/het, (Robins)
- 11850 GHANA RG; 2019-2030 EE, nx by YW, fair, QRM de Canada (Mayer 6-15)
- 11855 CANADA RCI; 1908-1920 EE, DX px, noisy, QRM, poor (Brewer 6-8)
- 11860 ASCENSION IS BBC; 0730 African nx, good (Creamer)
- 11860 NORWAY RN; 0545-0555 NN, tlks, some mx, fair (Earhart 6-9)
- 11865NF ETHIOPIA ETLF; \*0525 IS, ID in Swahili/EE, EE nx, mx, excellent (Estes)
- 11870 USSR RM; 0000 Lang, ID, mx, nx, some QRM de VoA, (Brookwell 7-5)
- 11875 JAPAN NHK; 1115-1130 EE, nx, fair (Jones 6-9, Zilmer 6-21)
- 11876 ANGOLA Em Official, Luanda; 1430 PP, 1512 EE, ID "Voice of Angola", long path, not 11955, (Hill 6-18)
- 11880NF USA WYFR; 1430 EE px, (Baines)
- 11880 TURKEY RT; 2200-2230 EE, nx, cmntry, mx, poor-good (many)
- 11885 PORTUGAL RFE; 2158-2250 Czech, 2250 GG, ID, poor-fair in QRN, (Brockwell 6-26)
- 11890NF USSR Far East site unknown; \*1530-1730 f/o, CC/VV, weak, (B. Davis)
- 11890 NETH ANT TWR; 1915 AA px, mx, //17830, P-F (Robins); 0230 TWR EE nx, RM in lang

- and VoA Greenville s/off were all heard at once at 0230 on 6-17, Babel, (Lineback)
- 11900 NIGERIA VoN; 0620-0640 EE, ID, 1cl mx, tkl, (McColman)
- 11900 USA AFRTS Bethany; CBS rel nx px, Excellent, (Brewer). Time??
- 11900 S AFRICA RSA; 1320-1403 EE, mx px, childrens show, F-P (G. Miller, Robins)
- 11904.2 BRAZIL Unid; 0155, usual Brazilian px, but too much QRM to copy, (Hill 6-19)
- 11910 ALGERIA RTVA; 1000-1019 AA, tkl, chants, fair (Earhart 6-16)
- 11910 HUNGARY RB; 0112-0115, 0245-0330 EE, nx, mx, DX px, cmntry, F-G (many)
- 11915 ECUADOR HCJB; 0230 EE, asked for reports, (Baines)
- 11920 USSR RM; 0545 EE, //12020, 15120, very good (J. Davis)
- 11920 IVORY COAST RTVI 2100, 2230 FF, ID, Afro mx, QRM-het, fair (Robins, Creamer)
- 11920 PHILIPPINES FEBC; 1112, pitch for program sheet, poor (Robins)
- 11925 S KOREA RK; 0500, 1900 EE //9640, 0925-0950 EE, mx, tkl, P (Hill, Earhart 6-22)
- 11925 RWANDA DW Kigali; FF ID after GG nx, fair (Agnier). Time please.
- 11925 SPAIN RNE; \*0200-0238, 0103 EE, nx, mx, features, F-G (many)
- 11930 CUBA RHC; \*0430 EE, //11725, 11760, very good (J. Davis)
- 11935 PORTUGAL R Nac; 0200-0245 EE, nx, cmntry, mx, good (McGurn)
- 11935NF BELGIUM RTB; IS 1544, FF ID 1545, to Africa, not 11930, (Hill, 6-22)
- 11940 LIBERIA ELWA; 2055 EE nx by OM, 1917 Afro mx, EE tkl, F-P (Miller, Robins)
- 11940NF PORTUGAL R Nac; 0213-0229 EE, nx, Port. mx, bad QRM, poor (Brewer)
- 11940 ROMANIA RB; 0215 EE tlks, ID, 0246 Yiddish, tlks mx, F-G (Paschke 6-14, Courtney)
- 11940NF USSR Far East site unknown; 1330-2230 f/o, CC/VV svce, weak but steady, (B. Davis)
- 11945 GERMANY (FR) DW; 0220 EE ID, tkl on World Cup, poor-fair (Courtney 6-20)
- 11950 USSR RM; 0000 SS nx, refs to Cuba, class mx, to 0430, some jamming, (Brookwell)
- 11955 LEBANON RL; 0225-0255 EE, AA mx, jazz, fair (Fino 6-10)
- 11955 SWEDEN RS; \*0230-0300\* EE, features, QRM de BBC, fair (many) well
- 11955 CYPRUS BBC; 0230, 0330-0348 EE, class mx, WS, QRM Sweden, F (Courtney 7-3, Brook-)
- 11960NF CUBA RHC; 1555-1605 SS, mx, nx, ex 11970, fair (Earhart 7-9)
- 11960 USSR RM; 1830 EE, 2230-0019 SS/PP/Quechua, ID, tlks abt. Chile, F-G (Baines, Fino)
- 11960NF JAPAN NHK; 1848 EE, ID 1858, 1900 RR, EE to Eu 1800-1900//9700 per anmt, (Hill 6-17)
- 11965 FRANCE ORTF 0102 SS to LA, ID, good (Robins)
- 11965 ALGERIA RTVA; 0528-0535 AA, tkl, nx, good (Earhart 6-9)
- 11965 LEBANON RL; \*0230-0300 EE, 0300 SS, nx, mx, fair-good (many)
- 11965 UNID; at 0345, after Lebanon 0330\*, YL s/on with "Mah Sidon" then eastern mx and AA like wailing chants, tlks at 0423 in lang, no ID, (Brookwell 6-23)
- 11965 GERMANY (FR) DW; 2130-2200 GG, some FF/EE tkl also, waltz and other mx, G (Fino)
- 11970 TUNISIA RTVT; 2235-2245, 1930, 0512-0530 AA, ID, chants, tkl, (Earhart 6-7, Keating, Brookwell)
- 11975 LITHUANIAN SSR R Vilnius; 0100\* EE, (Gooden)
- 11980 LITHUANIAN SSR R Vilnius; 0030-0058 EE, tlks, strong but fluttery and hard to read. Actual location unknown (Hill, Baines)
- 11980 UNID; 0710 SS, gave address of Cassilla 3236 Guayaquil, Ecuador, NA at s/off, (McColman 7-8). ???
- 11990 CZECHOSLOVAKIA RP; 2300 SS, 0145 EE, 0300 EE, trumpet IS, nx, tkl, mx, F-G (many)
- 11995 USSR RM; 0125-0202 SS, ID, tlks, noise and QRM by Czech., F (Fino 6-9)
- 12000 USSR RM; 0210 EE, ute QRM, very poor (J. Davis)
- 12000 ISRAEL IBA; \*2000-2010 EE, YW w/nx, f/o, fair (J. Davis)
- 12005 EGYPT RC; 2220 AA tlks, ME mx, poor (Courtney 7-2)
- 12010 USSR RP&P?; 2117 lang, tlks, QRM, off or f/o by 2134, (Brookwell)
- 12020 USSR RM; 0325 SS, 0520 EE, F-VG (Robins, J. Davis)
- 12025 ISRAEL IBA; 2030-2045 EE, poor-good, (Robins, Zilmer 6-22, Schwartz 6-20)
- 12040 ENGLAND VoA Wooterton; 0600 EE, VoA ID, fair (J. Davis). Unlisted, relay?
- 12050 USSR RM; 0155, 0315 EE, tlks, good-poor (J. Davis, Lineback)
- 12060 USSR RM; 0315 EE, nx, tkl, poor (Lineback 7-10)
- 12070 USSR RM; 0315 EE cmntry, poor (Lineback 7-10) (Robins)
- 12080 CLAND (VENEZ) R Euzkadi; 2030 IS, 2033 Euz, EE, FF, SS ID, tlks in SS/Euz, G /
- 12095 ENGLAND BBC; 0014 IS, UTE QRM, fair (Robins)
- 12140 CLAND R Espania Indep.; 2030-2050, 2105 SS, ID, mx, jammed, //10110, fair-poor, (Robins, Mayer 6-29)
- 12240 ASIATIC RSPSR Magadan (listed); 0154-0620 RR, Moscow ID, RR vocals, instrumentals, a few nights good, others poor (J. Davis)
- 14489 CLAND (ROMANIA) R Espania Indep.; 2159 SS ID, moved here from 14482, jammed, but readable, poor (Robins)
- 14490 N VIETNAM Liberation R; 2030-2055\* EE, nx, mx, poor (Zilmer 6-23)
- 15045 CHINA RP; 0300 IS, ID in SS or PP, poor-fair with polar flutter (Cress 6-19)
- 15060 CHINA RP; 2000, 0100-0115 EE, nx, cmntry, fair (Ebrecht-Morocco, McGurn)
- 15070 ENGLAND BBC; 1945, 2223 EE, cmntry, good-poor (Ebrecht-Morocco, Brookwell)
- 15075NF CHINA RP; 0400-0408 EE, barely audible (Brewer) Brewer
- 15080 INDIA AIR; 1850 EE, tlks, mx, poor with QRT, 1930 EE, sitar mx, nx, weak, (Estes, /
- 15084 IRAN Tehran; 2214-2230, local mx, farsi and possibly GC, ID, (Brookwell 6-15)
- 15095 CHINA RP; \*1400-1455\* EE, signal variable, strong one day weak the next, (B. Davis)
- 15100 ISRAEL IBA; \*2000-2030 EE, 1130 EE, nx, IS, time pips, //15490, F-P (Jones 6-9, Zilmer, Courtney 7-2, Schwartz 6-20)
- 15100 USSR RM; 2238 FF, tlks, mx, QRM, (Brookwell 6-25)
- 15105 JAPAN NHK; 1900, 2000 EE, ID, JJ at 2015, fair (Ball, Creamer)
- 15105 GRENADA RG; 2115 EE, ID, Beach-boys concert, poor (Mayer 6-23)

- 15105 ASCENSION IS BEC; 1813 IS, 1815 FF px to Africa, fair (Robins)  
 15110 N ZEALAND RNZ; 0200-0420 EE, nx, national px, fair-good (many)  
 15115 ECUADOR HCJB; 1530 EE, "Call of the Andes", (Gooden)  
 15120 POLAND PR; 0230 EE/Pol., 0300 EE, nx, mx, fair (Jones 6-23, Robins, Zilmer 6-23)  
 15120 NIGERIA VoN; 1927 drums, 1928 FF ID, not listed (Hill)  
 15120 FRANCE ORTF; 1452 FF, tlks, to Africa, QRMs HCJB, (Brookwell 6-23)  
 15120 SRI LANKA SLBC; 0225 EE, promo for rel px, rock mx, used R Ceylon name, (?)  
 15125 MEXICO R Mex; \*2300, 0030, 0200 SS, ID, mx, good (J. Davis, Robins, Creamer)  
 15125 TAIWAN VoF; 2130-2145 JJ, nx, fair, //17720 poor, (Mayer 6-23)  
 15130 SPAIN RNE; 1240 IS, 1305 SS to LA, very good (Robins)  
 15130 SPAIN R Liberty; 1445 SS tlks, flamenco mx, poor in QRN, (Brookwell 6-23)  
 15130 ISRAEL IBA; 1130 EE, nx, fair (Zilmer 6-22)  
 15135NF USA WYFR; 2330, listed on 15130, (?)  
 15140 SWITZERLAND SBC; 1315 EE, 1405-1415\* GG, fair (Baines, Schwartz 6-22, Zilmer 6-30)  
 15145 SPAIN RNE; 2330, 0045-0100, 0359\* SS, mx, ID, fair (Robins, Baines, Tuchscherer)  
 15145 PORTUGAL RFE; 0829 Polish ID, pop mx, //15215, good, (Robins)  
 15150 UNID; 1900-2130\* SS, mx, good, who? (Creamer). Chile, HCJB??  
 15150 CHILE VoC; 2212, 0030, EE, 0050, 0100 SS, 0255 FF, ID, nx, poor-good (Robins, Schwartz 6-23, Zilmer 6-22)  
 15150 SPAIN RNE; 0210-0245 SS, tlks, mx, opera, nx, very good (Brewer)  
 15155 FRANCE ORTF; 1050 EE, 1110-1115 EE, 1147-1203 FF, to Africa, tlk, sports nx, letter box, fair to good (Earhart 6-27, Zilmer 7-2, Robins)  
 15155 CUBA RHC; \*1900 FF, good (J. Davis) Earhart 6-26)  
 15155 BRAZIL R Tupi; 0006, 0245, 0400 PP, ID, soccer, pops, F (Jones, Brookwell 6-27/  
 15160 AUSTRALIA RA; 0239, 0325, 0322 EE, mx, markets, also 2300, 0400, F (many)  
 15165 USA WYFR; 1700 ID, UPI nx, good (Robins)  
 15165 SYRIA Damascus; 2248 SS nx, ID, mx, 2315-2330 AA nx, mx, 2345-0000 AA, s/o?, poor to fair (Earhart 6-6, Mayer 6-22 //17865)  
 15165 DENMARK RD; 1600 EE ID, Danish px, 2225 Danish, good-poor (Ravenhorst, Monroe Wallace, Earhart 6-6)  
 15170 TAHITI RT; \*0240-0520, 1900, 2030, FF/Tahitian, local and pop mx, //11825, 9750, EE nx changed from 1745 to 1900, poor-good, (Many)  
 15170 USSR Far East site unknown; 1330-1400\*CC, often good, (B. Davis). CC px also hrd. here 0200-2030 when xed by Tahiti carrier, (Brookwell 6-25)  
 15175 USA KGEI; 2100 SS nx, mx, fair (Estes)  
 15175 NORWAY RN; \*1600-1630\*, 0000-0030 EE, 1525 NN, 1500 EE ID, into NN, F-G (many)  
 15180 USSR RM; 0420-0430 EE, nx, //15405, P-E (Jones, Brewer); R Yerevan 0328\* EE, good (Meehan)  
 15180 UNID; 1720, Mid-East type mx, tlk in AA or similar lang, poor, (Wallace)  
 15185 FINLAND RF; 1240-1255 Finnish/Swedish, 1400-1430 EE, \*1800-1830 EE, 1500 Finnish, 2300 EE QRM de VoA, "Letterbox", mx, fair-excellent, (many)  
 15185 NIGERIA VoN; 0615 EE ID, mx, fair (Courtney 7-3)  
 15185 USA WINB; 2030 EE, 2245\* EE, tlks, very good (Courtney 7-2, Baines)  
 15190 ETHIOPIA ETLF; 1555-1600, class mx, IS, EE ID, into Turkish, fair (Burlew 6-10)  
 15190t BRAZIL R Inconfidencia; 2153-2210 PP, nx, no ID but mentions of Sao Paulo, (E-hart)  
 15190 CONGO RTVC; 2015-2020 FF, ID, tlk, drums, fair (Earhart 6-27); 2100 FF, Afro mx, good (Robins)  
 15200 AUSTRIA ORF; 1745 GG ID, -1800, //15335, fair (Schwartz 6-22)  
 15205 PAKISTAN RP; 0230-0240 EE slow speed nx, poor, //17830 fair, (Mayer 7-2)  
 15210 LEBANON RL; 1830-1900 EE, mx, nx, ID, F-G (Estes, Schwartz 6-20)  
 15210 USSR RM; 0530 EE, fair (J. Davis)  
 15215 USA WYFR; 0300-0310 SS, rel px, mx, good (Brewer) Earhart 6-7)  
 15225 UNID; 0001-0006\* SS, no ID understood, Uruguay Voz de Melo possible, fair (/ )  
 15225 UNID; 2225-2305 AA?, AA or Turkish mx, good, QRMed by VoA at 2300, (Earhart 7-3)  
 15225 SAUDI ARABIA BSKSA; 2000-2100 AA, AA mx, good over VoA, (Mayer 6-16). Above?  
 15240 SWEDEN RS; 1845 EE cmtry, fair (Ebrecht-Morocco)  
 15240 AUSTRALIA RA; 0315, 0405 EE, nx, markets, poor-fair (Robins, Zilmer 6-21)  
 15240 USA VoA Greenville; 1933-1940 Czech, nx, excellent, (Brewer). Listed on 15235-ed.  
 15245 BRAZIL R Nac; 2100, 2150-2200 EE, tlk, mx, ID, //17120, 9665, 6055, 15445, fair (Courtney 6-19, Baines)  
 15245NF ETHIOPIA ETLF; 1320 EE, rel tlk, mx, ID at 1330, into Hindi, good (Miller 6-23)  
 15245 ZAIRE L'Vdu Zaire; 0020 FF, OM & Afro mx, poor (Robins)  
 15250t ETHIOPIA ETLF; 0445-0510 AA, tlks, mx, no ID, fair (Earhart 6-17) Earhart 6-23)  
 15250NFt GERMANY (DR) RBI; 2115-2130 FF, tlk, a few songs, believe RBI IS at s/off, (/ )  
 15250 ROMANIA RB; \*1500, 1516 EE, ID, nx, weak (Ricchezza 6-10, Brookwell 6-23)  
 15255 GERMANY (DR) RBI; 1530 Czech, tlks, mx, nx at 1600, very poor, QRN, (Brookwell)  
 15260 ASCENSION IS BBC; 2145-2220 EE, sports nx, pops, ID, good (Earhart, Ebrecht-M)  
 15260 JAPAN FEN; 1257 PS amnt re saving gas, weak, again at 0615 rock mx, few amnts, fair, //11750 has QRM, 1 kw, (Hill 6-12,13)  
 15265t BRAZIL R Enxelsior; PP futbol at 1540, not readable by 1635 recheck, VP (Brookwell)  
 15275 POLAND PR; 2015 EE, cmtry good (Ebrecht-Morocco)  
 15275 UNID; (Cland. R Libertacao reported previously here); 2206 OM tlk, songs, Afro? lang., 2216\* (Brookwell 7-6)  
 15300 PHILIPPINES FEBC; 0055 hymn, 0057 amnt in SEA lang, then QRM by NHK s/on, (Hill)  
 15300NF JAPAN NHK; 1711-1715 EE, cmtry, poor (Meehan)

- 15300 ECUADOR HCJB; 2105-2125 EE/FF/GG, rel px to Eu, good (Fino 6-12)
- 15300 CUBA RHC; 1455 SS, mx, tlk, fair, (Ricchezza 6-10)
- 15305 SWITZERLAND SBC; 0030-0055 II, nx, mx, pops, rept on soccer, QSB, G (Fino 6-21)
- 15310 BULGARIA R Sofia; 2110 EE, nx read by YW, (Mayer 6-15)
- 15320 AUSTRALIA RA; 0128-0339 EE, nx, pops, features, good (many); 0430-0630 FF to Africa excellent, (Ball)
- 15325 CANADA RCI; 2115 EE cmtry, good (Ebrecht-Morocco)
- 15325 PAKISTAN RP; 0200 lang, IS, tlks, mx, fair (Zilmer 6-24)
- 15335 EGYPT RC; 0000 AA, bells followed by IS prior to nx, fair (Robins)
- 15345 PHILIPPINES VoA; 1220-1240, chamber mx, fading, off at 1301, (Earhart 7-4)
- 15355 AUSTRALIA RA; 0255 EE pops to Asia and Pacific, poor (Meehan)
- 15355NF VATICAN VR; IS, weak, poor (Brewer). Time please.
- 15365 CANARY IS RNE; usually good after VoA s/of at 0000 until 0500\*, //11800, (B. Davis)
- 15370 TAIWAN VoFC; 0430 CC, mx, tlk, poor (Ball)
- 15385 CHINA RP; 0308 YW w/nx, CC mx, weak (Weaver)
- 15390NF VENEZUELA R Nac; 2200-2300 EE, 0056-0059\* SS, EE/SS IDs, special px for Sea Law Conf, //11750, QRMd by VoA and RN, (Gallas 6-25, Schnabel, Jones 7-8). Reported to be transmitting for 10 weeks only. (also reported by Robins)
- 15390 ENGLAND BBC; 1940 Romanian, ID at 1957 and into RR, super-strong. (Hill 6-17). BBC is now using Sackville for some tx, but I doubt they use it for this type.-ed.
- 15395 GERMANY (DR) RBI; 2010 EE to Africa, fair (Ebrecht-Morocco)
- 15395 PHILIPPINES VoA; 0033 EE nx, mx, poor (Brookwell 6-27)
- 15400 ASCENSION IS BBC; 0830 EE WS, good (Robins)
- 15410 USA VoA Greenville; 1730 EE to Africa QRMing Kuwait on 15415, good (Courtney 6-23)
- 15410 RWANDA DW; 1255-1335 FF, tlk, fair (Earhart 7-10) Robins 7-4)
- 15415 KUWAIT RK; 1747-1840 EE, ID, pops, nx, wx, F-G (Schwartz 6-23, Lovett 6-24, /
- 15415v BRAZIL RC Ribeirao Preto; 0010-0030, 0305 PP, futbol, mx, ads, P-G (Robins, Earhart, Miller, and ?)
- 15420 UNID; 2343-0000\* FF, heard no ID, tlk, mx, sudden off, fair (Earhart 6-9)
- 15420 CYPRUS BBC; 0400 EE nx, WS, fair (Courtney 6-24)
- 15240c ALGERIA RTVA; 2130-0000\* FF, jazz, mx, poor (Zilmer 6-26). See Unid. above.
- 15425 AUSTRALIA ABC VLM15; 0330-0900 EE, pops, sports event, poor-good (Hagen, Meehan, Robins, Brookwell 6-25)
- 15435 GERMANY (DR) RBI; 2335-0000 PP tlks by OM, to LA, good w/QRN, (Brookwell 6-21)
- 15440 USA WYFR; 1930 EE to Eu, rel px, nx at 2000, good (Ball)
- 15440 USSR RM HS; RR amnts, chimes suddenly cut off at 1859, then RM ID in RR, (Agnor)
- 15440 PHILIPPINES FEBG; 2315 CC?, tlks, mx, very poor (Brookwell 7-5)
- 15455 USSR RM HS; (Simferopol list.) 1850, melancholy mx, RR amnts, P-F (Robins)
- 15490 ISRAEL IBA; \*2000-2045\* EE, ID, usual px, fair-excellent, (many)
- 17670 EGYPT RC; 1620-1631 AA, chants, chimes at 1630, YW w/nx, fair, (Jones 6-9)
- 17673 CHINA RP; 0010, nx by YW, poor to fair, (Robins). Lang?
- 17690NF CUBA RHC; 2103 EE nx, fair (Gress 7-2)
- 17695 ENGLAND BBC; 1444 Swahili17, fair, (Jones 6-9); 1345 Lang, IS, P-G (Robins)
- 17700 GERMANY (DR) RBI; 1415 EE px, (Baines) Ricchezza, Jones)
- 17710 SWEDEN RS; \*1400-1410 EE, nx, Swedish lang lesson, panorama, fair (Robins, Baines, /
- 17715 AUSTRALIA RA; 0315, 0523-0555 EE, markets, pops, fair-poor (Zilmer 6-21, Meehan)
- 17720 USA WINB; 1930 EE, ID, rel px, good (Courtney 7-2)
- 17720 TAIWAN VoFC; 0210 EE, nx by OM&YW, good, (Robins)
- 17730 MALAGASY REP RTM; 1500-1600\*, ID in EE 1530, pops, FF/EE tlks, some days over ORTF, (Hagen)
- 17765 RWANDA DW Kigali; 1238 EE, tlk abt World Cup soccer, fair (Miller 7-1)
- 17770 N ZEALAND RNZ; 0030-0100, 0234-0300, weak to fair, EE, ID, (Hagen, Schwartz )
- 17790 TAIWAN VoFC; 0210 EE nx by OM, rapid fade, no // hrd., (Keating)
- 17790 ALGERIA RTVA; 2000, 2340-0000\* AA chants, good (Ball, Robins)
- 17795 AUSTRALIA RA; 0215 EE DXers calling, 0430-0630 FF to Africa, F-G (Zilmer 6-24, Ball)
- 17800 NORWAY RN; \*1300 NN, EE ID, 1400 EE, signal sometimes unstable, very poor-good, tlks, mx, (Robins, Ricchezza 6-17, Baines)
- 17810 MALAGASY REP RN; 0900 DD soccer cmtry, Holland vs Brazil, good (Robins)
- 17815 BRAZIL R Cultura de Sao Paulo; 2135, 2155-2215, 0030-0100 PP, IDs, class mx, lite mx, nx, poor-good, some deep fades, (Dexter, Robins, Tuchscherer 6-12)
- 17815 LIBERIA VoA Monrovia; \*2300, IS, ID in EE, into SS, 2345-0015 SS nx, tlks, over Brazil, poor (Robins, Brookwell 6-30)
- 17815 ITALY RAI; 1719 II, nx, fair (Miller)
- 17830 SWITZERLAND SBC; 1530 px to ME and Africa, very good (Baines). Lang?
- 17830 PAKISTAN RP; \*0300 IS, ID, Urdu px, Koran chants, fair (Robins)
- 17830 GERMANY (FR) DW; 1414 GG, off at 1420, good (Robins)
- 17845 PAKISTAN RP; 1300 EE, nx, //9690, poor (Zilmer 6-23) Earhart 6-30)
- 17865 UNID; 0635-0645, sounded like Mass with choir, in Latin, maybe Vatican, poor (/
- 17870 AUSTRALIA RA; 0530, 0300 EE, mx, features, //21550, 21655, poor-good, (Zilmer 6-21, Meehan, Robins)
- 17880 ECUADOR HCJB; 1425-1430 EE, good, (Baines, Robins)
- 17900 USSR RM; 0005 EE nx by YW, very poor (Robins)
- 17900 VATICAN VR; 1615 EE, heavy QRM from USA, (Baines)
- 17920 EGYPT RC; 1400 EE, (Baines)
- 21480 MALAGASY REP RN; IS 0758 into Indonesian, very weak, fluttery, (Hill 6-8)

21530 USA WYFR; 1830 EE, ID, good (Robins)  
 21550 AUSTRALIA RA; EE SEA/Pacific px, unusual conditions 6-13 fair (Robins)  
 21655NF AUSTRALIA RA; //21550, poor (Robins). Time please. 0115, 0245 EE, first noted  
 6-8, location unknown, pops, fair (Hill)  
 21680 AUSTRALIA RA; 0330 EE, pops, freq and px amts, poor to fair (Cress)  
 21730 NORWAY RN; 1515 lang, // 21655, poor, (Ricchezza)  
 21740 AUSTRALIA RA; 0200 EE to NA, excellent, (Robins 6-13)  
 25000 USA WWV; 2230, good level (Robins)

Thanks to our reporters this month. I would like to remind everyone that if it is worth reporting, it is worth reporting well. We would like every report to contain frequency, country, station, time (GMT), language(s), brief program details, reception quality, your name and date heard. It would be best if you could use NASWA abbreviations. Details on new frequencies, stations, etc., are very much appreciated and we will but in as much as space permits.

You will notice that several reporters left out time or language in some of the reports in this LR. We also ask at least one space between reports so that we may cut them up with greater ease, domestic mailers should avoid onion-skin paper as it is difficult to cut with a dull paper cutter. We do appreciate your reports and LR is really only as good as YOU make it.

73

Jerry A. Lineback



Parts Unknown  
 2 March 1974

M. Ernie Behr

Dear M. Behr,

*Congratulations on your reception of Wild Turkey Radio, "Voice of the Pilgrim Underground" on December 10 1973 on 5037 kilocycles in the 60 metreband. We are delighted indeed that in North America too, people are to our station listening. We hope that you found our programming to be of entertainment to you, and make many apologies for the delay in contacting you.*

*Wishing you many hours of fruitful listening on shortwave bands, we are pleased to remain*

Sincerely yours,

"Pullet" and "Gobbler"  
 for WILD TURKEY RADIO

FLASHSHEET

The Flashsheet is published twice monthly by NASWA, Box 8542, S.Charleston, W.Va. 25303

AUGUST 1974

Freq: KCS

Time: GMT

AL NIBLACK, Editor, 420 Shelby St., Vincennes, Ind. 47591 DECEASED 10th & 20th Month  
\*\*\*\*\*

ANGOLA 7215 R. Ecclesia, fair lvl 0545 with pops music and PP ads, on 7/12th. (Ernie Behr, CANADA)

ALGERIA 15420 RA noted 2330-2400\* in FF and music, though signal leaves something to be desired, rechecked 7/15th; this my previous unidentified. (Bob Zilmer, Wisc.)

AUSTRALIA RA, Shepparton, 10kW, S/en at 0700, ABC news 0830, to Papua/NG, paralleling 11885, 9760. (August Balbi, Calif.)...11945 Darwin Relay noted at 1227 with IS, then into Mandarin and music. (Bob Zilmer)

BANGLADESH 11635 RB observed on this new freq in language at 1300. (August Balbi)...RB, Dacca, that I reported earlier on 11607, is new up to this freq; vocal dust of sub-continental music noted at 1545, 7/7th. (Bob Hill, Calif.)

BOLIVIA 3440 CP103, R. 27 de Diciembre, Villa Montes—Believed the one heard past 0300 in LA program; weak, in noise, too early here...4730 R. Abarea, Riberalta, believed the one heard in SS, seemingly sports event, still at it 0306, heavy QRN, weak lvl. (Credit both to Bob Hill)

BRAZIL (See previous FS concerning this one) 11904.2 Radio Gaucha, 0130-0300, music, PP ID, 7/6135, both fair lvl 6/21st; among new ZY-calls; most PR calls have been changed to ZY... 6165 R. Cultura de Sao Paulo, 7/9745/17815, all good lvl from 0130 with orchestra music, and PP IDs...15329V A Brazilian heard irregularly at 0200 could be Radio Gazeta, they have drifted up to 15332, in the past...15245 Radio Brasilia's International Svc is no longer on the air; ceased operation in mid-June; (Credit all the foregoing to Ernie Behr) ...11904 Unidentified continues heard 0000A till 0300 w/out by EGSI; still no clue to ID. (Bob Hill) (Bob, Ernie has cracked this one, note his above item, Editor)...15330 Unidentified noted at 0010 with PP and music, though QRM de AFRTS, some sports, and a fair signal on 7/16th. (Bob Zilmer)(Bob Z, note Behr's remarks above concerning station on 15329V, Editor)

CHINA(PR) 8754.5 Dnhai(?) — Down to this freq 6/26th at 1158, man and woman in CC 1200; going by 1210, downhill. Seemingly 4/4915, but much stronger. (Bob Hill)...4526 Blinhot, Inner Mongolia—Drama in Mongolian-type lingo 1240, at fair to good lvl. (Bob Hill)...4915 This outlet continues to be well heard, usually vj well; ID 1159, pipe 1200, man and woman in CC (news?) till 1229V; is not Harbin which has been holding around 4925. (Bob Hill) ...11895 RP at 1200 in EE news, fair signals. (Bob Zilmer)...5030 RP with IS at 1201, anmt by woman, "East Is Red", though covered by Kuching. (Bob Hill)

COLOMBIA R. Mira, 6015, noted 1055 with SS, music, and ads, though poor lvl. (Bob Zilmer) ...6170 LV de la Selva heard at 1100 with SS news and music. (Bob Zilmer)...4955 Radio Nacional noted with prog of good music, and a good signal, SS anmt by man. (Grady Ferguson, BVPF)(AR) 15210 R. Cairo, 2100-2147\*, Yoruba prog, on new freq. (Ernie Behr) / S. Caz.

ETHIOPIA ERLP, VOG, 15250, S/en 0430, strong lvl, EE ID, then FF, AA, daily. (August Balbi)

FINLAND 15185 Fori, in EE, tuned at 1400, heard to 1428 for 9555 at 1800, 15185 at 2300. (Grady Ferguson)

GUYANA 5950 GBS noted 0852 in EE, pops and oriental music, greetings to listeners, for "Action Radio". (Jimmie Jones, Miss.)...3290 GBS, Georgetown, with bouncy guitar IS 0750 past 0800. Must S/en well before WRTH-listed time. (Bob Hill)

HONDURAS 4820 HRVC noted with anmt for the Billy Graham prog in EE, asked for letters, organ music, 0330, an ID for the outlet. (Grady Ferguson)

INDIA 9615 AIR, Delhi, with subcontinental music 1628, anmt in Russian by woman; at 1655, ID, "Govorit Delhi", into news. WRTH shows no RR boats from AIR. (Bob Hill)

INDONESIA 11790 VOI at 1100 with EE local and national news, 7/13. (Bob Zilmer)...RHI, VOI, moved to 11788, EE news 0900, from previous 11790. (August Balbi)...3433 Vocal 1123, II 1128, blocked 1130 by carrier and line noise. R. Pemerintah Daerah Kabupaten (PKK), Kediri, has been reported on 3431...3484 R. PKK, Pamekasan, instrumental music 1310, no ID heard, strictly a "list" logging...3524 Music 1136, man in II; undoubtedly another PKK outlet, though no listing here—a sensational morning for Indonesians, 6/11th...3528 Yet another PKK station with music 1140, woman anmt in II...3578 Man in emphatic II 1145. PKK's reported at Pangkajene and Sibundone...3463.5 Soft speech by man 1235, music 1242. R. PKK's reported at Pasuruan and Mmor, on 3462. 7/6th...3800 R. Khusus PKK, Jember, assumed the one here 1310 in II vj weak, poorly modulated...3895 R. PKK, Surakarta with pops vocals to 1159; anmt in II, 4 pipe, ID assumed, as this listed 3895...4089 R. PKK, West Irian, discusion 1220, man and woman in II. Another "list" logging, naturally...4951 RHI, Ujung Padang from 0725, pops, occasional ID anmt by woman; Off 0826...7048 Another PKK outlet; man and woman in II, 1505...15346 RHI, Jayapura, with light pop vocals 0110, II 0122, possible ID 0131, carrier continued past 0135. (Credit all these goodies to Bob Hill)

ISRAEL 15108 IBA at 1900 with EE news...15490 IBA noted 1940-1945 with EE news and summary; Israel is now on Daylight Savings Time, all EE transmissions 1 hour earlier. (Bob Zilmer)

JAPAN 7140 NHK, Tokyo, with carrier and test tone 0855, IS 0856, ID in JJ and KK. (Bob Hill)

KOREA(N) Woman in KK, 1125, freq does vary from 2600...2765 Pyongang or Kaesong, man and woman in strident KK, 1115...9894.5 R. Pyongang with tremendous signal at 0830 in KK...4708.5 Chosen Yonghe Hesan Pangoeng S11 —S/en 1200 at powerful lvl but bad distortion; is a weather station according to Japanese monitors. (Credit all to Bob Hill)

( continued )

**KORSA(N)** (Continued) 11535 1113-1150 Radio Pyongyang tuned with march, continued in language, 1122 music and woman announcer, language announcer, more music. (Grady Ferguson)...9695 R. Pyongyang strong lvl in language 0830, into Spanish 0900. (August Balbi)

**MALTA DW** announced test transmissions from their Malta Relay as follows: (FLASH-FLASH) -0120-0400, 9745; 0129-0510, 11865; 0440-0515, 6065; 1600-1750, 11705 and 17875; 1800-1850, 7160 and 9590; 2140-2230, 5955; 2140-2240, 11865; 2300-0110, 11865 and 15225 (all preceding transmissions in the German language. Arabic Prags (test): 0520-0650, 6025 and 9680; 1910-2100, 9625 and 11850. Magrebi Arabic Prags (test): 2105-2130, 9625 and 11795. DW is very interested in receiving reports on these special transmissions from Nigeria, MALTA; to, Deutsche Welle, Postfach 100 444, 5 Köln 1, FEDERAL REPUBLIC OF GERMANY. (This FLASH from Scott Sigal, Iowa)...DW Relay is to go into operation about 7/15th, from Malta, according to the word direct from DW. (August Balbi FLASHES)

**MOZAMBIQUE** 7208.5 BCM, L. Marques with EE smct/ID 1400, S/off 1401; squeezed and splattered. LP logging. (Bob Hill)

**MEXICO** 6005A Radio Mil noted in SS, US and LA pops, frequent ID, now easily loggable since Radio Redo gone from the vicinity. (Jimie Jones)...11818/75 XBER, Hermosillo, 0345 music and SS ad, fair 6/27th, just below HBC, causing het. (Ernie Behr)

**PAPUA/NG** 2340 R. West New Britain, Kimbe in EE 1147; checked again 1234, S/off with GSTQ... 2376 R. Chimbu, Kumbiana, vocal music 1237, native talk, another vocal...2420 R. Goroka with South Seas type vocal 1210, Pidgin, 6/29th...2428 R. New Ireland, Kaviang with children's chorus 1212, woman in Pidgin, and a great signal...2450 R. Western Highlands, Mount Hagen with country and western 1215, Pidgin; not as good as other 2 MHz signals...Northern District, Popondetta, 2468, chorus, drums 1218, Pidgin 1219, country and western song 1220... 3305 R. Western District, Daru with Islands music 1258, ID and S/off anncts 1300 in EE and native, GSTQ 1302 and off...9575 R. Central, Konedobu with news in EE 0526, when finally audible, though in the mud earlier. Logged again 7/9th, from about 0520... (Credit these DX-pertites to Bob Hill)...3385 Radio Rabaul at 1300 in language, into EE, fade out at 1330, says August Balbi.

**PERU** 4825 LV de la Selva, sked to 0500\* with lkW; received vario letter from Apartado 207, Iquitos; is a French-Canadian Missionary operation. (Ernie Behr)...3240 OREAU, Radio Amexica, Lima, SS 0245, U.S. pops 0251; at 0300 annct, "Es la hora de la felicidad, las 10 de la noche". (Bob Hill)

**PHILIPPINES** 11920 FBEC at 1115 with EE religious prog and fair signals, 7/16th...15440 FBEC also noted at 2330 with EE news, through lvl rather poor. (Credit both to Bob Zilmer)... 9615 DUSA, FBS, Manila, assumed ID 0840-0900 S/off. Only occasional bits of music audible; perfectly adequate carrier but about 5% modulation. Some slow fade pattern as noted on other signals from that part of the world. (Bob Hill)...11890 FBEC, Manila-18 0615, S/on in FF. (Bob Hill)

**SAURAVI** 9604.5 RMS, Kuching, from 0710, vocals, talk, easy listening pops; woman announcer and then man at 0715 (in EE). S/off 0730. (Bob Hill)

**SEI LANKA** 11835 1045-1100, Radio Sri Lanka heard in EE on 7/5th, with ID, 1051 review of news, at 1100 to be back tomorrow same time, commercial. (Grady Ferguson) (Grady VOA uses this sig from Colombo, does the Cn Svc of Radio Ceylon, Colombo, do likewise, Editor)

**SWEDEN** 11735 EE on new sig with EE news; this is beamed to ECNA-replaces 11805, which has way too much QRM. Fair signal on 7/16th. (Bob Zilmer)

**TAIWAN** The BBC S/on at 0900 on 15125, 11825, 11860, 8685? (I think August means 2685, Editor), and 7130, all sigs good in language. (August Balbi)

**TROMB(P)** 3668 KEPT, Mill, observed showing with woman in PP, pop song 1325, at very good lvl on 6/29; SINPO 44454. (Bob Hill, WAAR/6)

**VENEZUELA** (See MN-FS, Editor) 11750 E. Nacional de Venezuela found at 0025 with EE sig sked, features and local music, in a new International Svc; is parallel with 15390. (Bob Zilmer)...15390 (more) Radio Nacional de Venezuela at \*2200-2300 in EE, ID, IS, news, music, commentary, featuring report on UN Conference, on Moss through Frias. (Bob Zilmer)

**ZAMBIA** (FLASH) QSL in from Tshilumba Mubwika Maleswadi, Le Chef de Bureau Charge de la Technique, Radio Mbujiwayi. Lists Zaire outlets, and QSLed my logging of Mbujiwayi, 7295, listing power of 10kW. Much joy for me (Gerry Dexter, Wisc. via NU and Don Jensen)

**UNIDENTIFIED** 4720 Station with LA music to 0400\*, no anncts, heard 7/12th only, very good signal. Callegos' testing? (not noted on 4810 for some time). (Ernie Behr)...9608.5 Perhaps RTVC, Brassaville, Congo Rep., with sporting event in FF, around 1625, 6/29th. Also noted 7/6, 1630 recheck, guns 1700. (Bob Hill)

**GLANBRESVILLE** 7470 Liberation Radio-EE 1118, native music 1122, ID 1128; into guttural South East Asian tongue 1130. Noted 6/26th; (Bob Hill)

**LAST MINUTE ITEM LEBANON** R. Beirut heard on new 15210 (from 15200) in their African Svc July 8th, from 1830 tune, with EE newscast, much instrumental music, closing EE at 1900, into AA. HIC 107. (Editor Dave Clark, CANADA)

**JUNE 1974: SUNSPOT COUNT AS FURNISHED BY THE ZWISCH OBSERVATORY.** 7-8-74 1-38, 2-49, 3-55, 4-80, 5-62, 6-78, 7-70, 8-59, 9-64, 10-61, 11-38, 12-38, 13-48, 14-46, 15-34, 14-46, 15-34, 16-25, 17-24, 18-29, 19-32, 20-23, 21-20, 22-11, 23-11, 24-16, 25-15, 26-8, 27-8, 28-18, 29-30, 30-52 MEAN-38.7 PREDICTED: JUL-89 AUG-26 SEP-25 OCT-24 NOV-23 DEC-22 (Friend Grady)

**ACKNOWLEDGEMENT:** A very special thanks to all those who helped with this issue, (Ferguson) while the DX season is in the doldrums! Come next September, we can all get back to our mutual hobby of DXing! Thanks again, to the faithful Flash items may be called to 882-3976, before 2000 GMT...In re DX's Relay on MALTA, 7/19th check 1955-2000 check, I noted paging in Arabic and German on 11795, I think (v) tentatively that woman announcer gave an ID for, "Malta". Needs more checks...And, I have just received notice that I have been named R.W.A.R.C. "Man of the Year" for 1974. I have received a beautiful brass and walnut wall plaque, and a kind letter advising me of the decision and award. I must say that I got a little misty eyed, and all I can say is, Thank you. The hobby has been good to me. Vy 73, AL



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