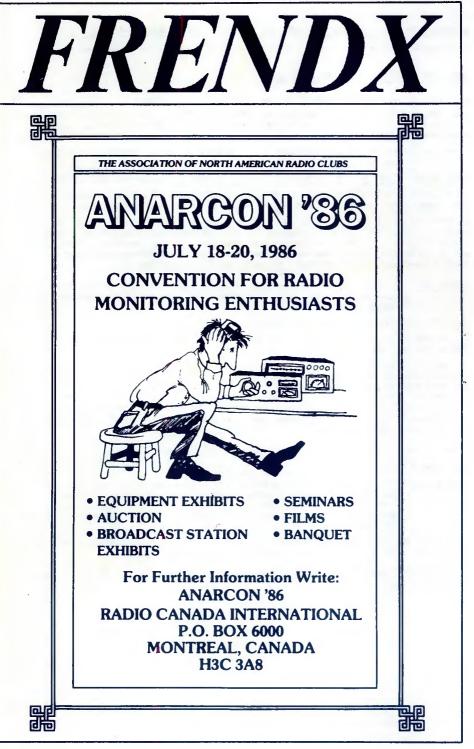
ISSN 0160 - 1989



ANARCON - 86 GENERAL INFORMATION SHEET PLEASE READ CAREFULLY

HOTEL ACCOMODATION & CONVENTION SESSIONS

The official convention hotel is the HOLIDAY INN - PLACE DUPUIS, in Montreal's east end. The hotel is reasily accessible by public transport: the central bus terminus is across the street from the hotel, and a major station in the subway system is immediately below the hotel.

A special convention rate of \$ 65 per night, single or double occupancy, has been obtained for the convention. The triple & quad rates are \$70 & \$75.

HOTEL RESERVATIONS MUST BE MADE DIRECTLY WITH THE HOTEL, using the yellow card which

is enclosed with your registration kit. <u>PLEASE NOTE</u> that a one night deposit or your credit card number must be enclosed with your hotel reservation card.

In order to guarantee your hotel reservation your card must be received by the hotel by JUNE 25/86. If this deadline is met, the hotel will confirm your reservation by mail. You should allow at least ten days for your reservation card to get to the hotel. Hotel reservations cannot be guaranteed if received after the June 25 deadline. AVOID PROBLEMS AND GET YOUR RESERVATION IN EARLY.

PLEASE NOTE: The convention rate for accomodation applies to your entire booking, should you wish to stay for several days before or after the actual dates of the convention.

THE HOTEL ACCEPTS ALL MAJOR CREDIT CARDS.

If you should have to make a cancellation of your hotel accomodation at the last minute you can contact them at - (514) 842 - 4881 .

IF YOU ARE ATTENDING THE CONVENTION WITH A PARTY OF PEOPLE WITH WHOM YOU WILL BE SHARING HOTEL ACCOMODATIONS, ALL RESERVATION CARDS SHOULD BE SENT TO THE HOTEL AT THE SAME TIME TO AVOID CONFUSION.

If you would like to share accomodations, but do not have a prearranged partner to share with, PLEASE STATE PREFERRED AGE RANGE, AND NUMBER OF PEOPLE YOU WOULD LIKE TO SHARE WITH(Maximum of 3).

I would like to share with _____ other people, on nights of July ____, ___, ___,

Age Range Preferred:

<u>PLEASE NOTE</u>: The convention organizers will try to arrange shared accomodation, but this cannot be guaranteed. If it is not possible to arrange shared accomodation as requested, then single accomodation will be booked for you. The deadline for requests for such shared accomodation is June 1/86.

IF YOU ARE REQUESTING SHARED ACCOMODATION AS PER THE ABOVE, PLEASE FORWARD YOUR HOTEL RESERVATION CARD TO THE ANARCON-86 ADDRESS, AND NOT TO THE HOTEL.

PLEASE DO NOT FORGET TO ENCLOSE THE FIRST NIGHT'S DEPOSIT (\$ 65) WITH YOUR HOTEL RESERVATION CARD



We're going to start this month with a letter from the originator of the 'give-atransmitter' idea, <u>Gerry Bishop</u> (Clark Air Force Base, the Philippines). It will be interesting to see what his reactions are to the response thus far:

Hl! Greetings once again from the Philippines

My bizarre idea seems to be taking form. While it wasn't clear in the original proposal, I never intended to force a transmitter on someone or some organization that didn't want it. Though undoubtedly exotic, the utility of SWBC just doesn't apply to some places such as Pitcairn, or even Easter Island. On the other hand, the situation (geographically) of much of the Pacific almost dictates SWBC, and the gift would be welcome.

The concept of a QSL bureau for a fledgling SW broadcaster is a good one, and might ease the sting of SWBC. During the first year of operation, this bureau may receive over 12,000 reports -- over 40 a day. That could become a full time job for someone simply checking the reports and mailing QSLs. Obviously that much time must somehow be compensated. I have no ideas on how to achieve that painlessly.

On the subject of selecting the recipient, and before we go any farther with this, there are several points that we need to settle.

 If we have more than one candidate, shall the membership at large vote on a winner? The loser might have some hard feelings, leading to future repercussions.

2) Will this be a ['one shot deal'] or shall we make it a habit? this r could ease the pain of the previous problem. Could cost a lot more money, too.

3) Can we, legally, retain ownership of the transmitter if a station ceases operation? How long do we attach a string like this? The developingnations are dynamic, and media sometimes get caught on the wrong side of revolutions. A cancelled license could break a lot of hearts.

4) Can we remain apolitical? Donating a transmitter to a revolutionary government might be smart by DX standards, but not so bright in the long run.

As I wrote at the outset, this is a bizarre idea that might just work. We have to make sure we do it right, or we'd be better off not doing it at all.

I'm sure that in the overall view of the world, this donation will neither improve nor degrade it much. Still, let's all work for improvement if there's any to be had.

We have seen some very creative thinking about this idea. What we need now, if this is ever to become a reality, is a consideration of the practical problem areas (fund raising is the chief one that comes to mind) that need to be tackled. It is also not too soon to hear from people who would like to volunteer in putting this together.

As there was only one letter this month, this gives me a chance to make good on my promise to examine some of the reference materials available to the SWL -- with an emphasis on those that are issued more frequently than once a year. The principal annual reference, of course, is the World Radio TV Handbook. <u>Everybody</u> should have a copy of this very and comprehensive reference. Why? In addition to containing the largest available listing of time and frequency, it also is an excellent source of names and addresses of radio stations and their principal employees. The problem, however, with a work that is revised only once a year is that SW broadcasting schedules are revised anywhere from two to *six* times a year. The problem is how to keep up with these changes.

An obvious answer is to apply directly to the stations in which you are interested for copies of their program schedules. This works in several ways depending upon the broadcaster. The BBC, for instance, issues a monthly program guide (London Calling) to which you can subscribe for about £12 a year. Other broadcasters issue frequency and program guides at various times of the year -- usually March. May, September, and November; Radio Moscow changes its frequency schedule as much as six times a year. Depending upon the broadcaster, these schedules may be free of charge, they may cost a small amount, or the schedules may be sent in return for a reception report. You will have to ascertain if the station in question will provide you with schedules for a year, or if you must ask for *each* new schedule as it becomes available. If you are interested in a large number of stations, this could get to be a very demanding, expensive, and time consuming project. There is a further disadvantage in that stations are in no way bound to their schedules: they can, and do, change them as the need arises. Schedules provided by the station can thus become useless.

The answer is to let **somebody else** do all that work. The problem can be approached in two ways. First, information from the stations themselves can be made the basis of a listing. Ideally, the compilers would also keep a check on the broadcasters to ensure that they are in fact broadcasting on the frequencies that they say they are; i.e., schedule information from the broadcasters ought to be confirmed by monitoring research. The second approach is represented by those listings that are the result <u>solely</u> of monitoring, thus bypassing completely the broadcasters as a source of information. There are strengths and weaknesses in both approaches: information from broadcasters is certainly not guaranteed to be accurate/up-to-date, while the monitoring-only approach requires a large number of skilled monitors who have access to a large, stable and flexible database.

The first approach is used by the International Listening Guide [Merianstrasse 2, D-3588 Homberg, West Germany] which lists world-wide broadcasts in English. International broadcasters are asked to submit schedules of their frequency use, and these schedules form the basis of a database. Monitoring of frequency use is done to check on the accuracy of the stations' information. The ILG is issued four times a year, timed to coincide with the schedule changes instituted by the great majority of international broadcasters. The format of this work (which has changed with the March 1986 issue) is of particular interest. Briefly, there are two major sections. The first is a listing by time, in blocks of three hours each. Included (among other things) is information about frequencies, target areas, transmitter locations and program content. A fascinating and useful feature of this section is a listing of all the DX/SWL programs available in that three-hour block of time. Also listed in this section are major general (or world) services, as well as news/commentary programs. The second section is a listing by frequency (in March and September this is in tabular form; in May and November this section is presented in graphic form--very clear and easy to use) starting with (roughly) the 49mb; selected future editions will include the tropical bands as well. I have used this work for about two months and I find it accurate and easy to consult -- highly recommended. The cost is US\$14 (or 26 IRCs worldwide) for four issues. A sample copy can be obtained for 6 IRCs.

<u>Radio Database International</u> (INTERNATIONAL BROADCASTING SERVICES LTD, P.O. Box 300, Penn's Park, Pennsylvania 18943) uses the results of a team of monitors as the source of its database. It was indicated in this column some time ago, when we were all anxiously awaiting the appearance of <u>RDI</u>, that it would appear in revisions about twice a year. A recent conversation with Larry Magne (Editor, <u>RDI</u>) has revealed, however, that revised editions will be issued *annually*. The reason for this change of proceedure lies essentially in the accuracy of the information that makes up the database, and the accuracy of the prediction proceedures which indicate which broadcasters are most likely to use which frequencies and when. The work is issued in two parts: part one covers the international SW bands -- 5.73 - 26.1 MHz (US\$9.95 + 1.85 s/h); part two covers the tropical bands -- 2.247 - 5.72 MHz (US\$4.95 + 1.00 s/h). Buy both volumes together for \$12.95 + 1.95 s/h. I think that, as long as only annual revisions are planned, that the international and the tropical volumes could be published as one volume; it would be very convenient to have this treasure of information complete between only two covers. As it is, this is a superb reference work and very highly recommended.

Another source of constantly up-dated information that is easily available to all of us are the DX/SWL programs broadcast by a number of stations. It is a good habit to get into listening to these programs. Shortwave Listeners' Digest from Radio Canada International and Media Network from Radio Netherlands International are two excellent and long established sources of information. There are a number of others, though and you might want to 'shop around' for one that appeals to you. A source like the <u>ILG</u> (or the <u>WRTH</u> which also lists DX/SWL programs, but not in so convenient a form as the <u>ILG</u>) is very useful in a case like this.

Last, and most certainly not least, comes a very current and useful source of SWBC information. You are holding it in your hands -- FRENDX with UPDATE and LOG REPORTS. These are purely the results of monitoring/listening and are thus up-to-the-minute and true reflections of the state of SWBC at any given time. Clearly, though, they can only be as useful as the extent to which the membership supports them: without your loggings. UPDATE and LOG REPORTS become less useful to all of us. The point is this: SUPPORT UPDATE AND LOG REPORTS -- <u>CONTRIBUTE YOUR LOGS!</u> 'Nuf said.

S S CONTACT NOTES S S

I hope that I will not be trying anybody's patience beyond reasonable limits when I say that it will be a few more weeks before my MUF tome will be ready. The wait, I think, will be worth while. In addition to an expanded bibliography, I am also working on programs for the Hewlett-Packard 41CV (or 41CX). By the way, I have translated the MICROMUF (this is the predictive algorithm from Radio Netherlands International) program to the HP-41CV, and have obtained some interesting results from it; I will send a copy to anyone who is interested. In any case, I am awaiting some information from West Germany to complete my work -- things should be ready for mailing in the middle of May. Please be patient.

I just received from Larry Magne two excellent pieces of literature -- the first in a series of papers entitled: <u>A Radio Database International White Paper</u>. These works go into somewhat greater detail about their subjects than is usually found. The first two titles are: <u>HOW</u> TO INTERPRET SPECIFICATIONS AND LAB TESTS WHEN CHOOSING A RECEIVER OR TRANSCEIVER (EXCELLENT! -- sgm) and <u>RDI EVALUATES THE JAPAN RADIO NRD-525 RECEIVER</u>. The first title forms a fine introduction to the second. Both works are superb and worth the \$4 [EACH] (in North America, elsewhere \$6 by air). (Send to address given above for RDI.)

My thanks, as always, to readers and writers. Let's hear from _____ 73--

NEW COUNTRY LIST/AWARDS PROGRAM BOOKLET AVAILABLE

The new issue of NASWA's Country List/Awards Program booklet is now available. The price is \$2.00 in North America and \$3.00 overseas. For further information please check John Kapinos' column on page 10.

NOTICE, PLEASE

The question of paid advertising appearing in FRENDX has come up again from companies wishing to advertise. NASWA/FRENDX does not accept paid advertising of any type, but will print ads from companies free of charge when space is available providing that the advertising company or somebody therewith connected is a member of NASWA and the material advertised is SW related. We follow this policy in order to give NASWA members the latest possible information on the SW Market Place. Fliers, brochures, and new releases printed on one side only are preferred.



Editor: Alex Batman, 4636 Alvin Dark, Apt. 2, Baton Rouge, LA 70820

SUNDAY

- 1300-1330: "Norway Today" (Radio Norway International). This is Radio Norway's only English broadcast to North America, and it's usually quite good. The program always begins with fifteen minutes of Norwegian news, followed by one of several revolving features, including "Tasty or Not, It's Norwegian," "Letter from Norway," "Trends and Traditions," "Pop Inn," "Made in Norway," and "Listeners' Corner". Just which fifteen minute feature follows the news on any given Sunday remains somewhat of a mystery. I'm sure there's a logival order; I just haven't been able to figure it out yet. Adds the spice of suspense to Sunday morning listening. (15.305. Repeated at 1400 and 1700 on the same frequency and at 0000 on 9.605).
- 0050-0125: "Music Box" (BRT). Most Sundays this program begins with a selection of hits from the Top 30 in Belgium, giving their current and previous rankings on the chart and sometimes a bit of background information about the performers. The last twenty minutes of the program features Belgian tunes that haven't made it yet to the Top 30. The fourth Sunday of the month, however, features traditional Flemish music rather than current pop songs. Unlike other BRT programs, this one is not repeated the following day. (5.910/9.925)

MONDAY

- 0125-0130v: "Myths and Legends" (RAE, Argentina). The program featur Argentine Indian myths and rural folklore, including the history and legends behind many religious festivals in the Argentine provinces. The problem with this program is predictability. Sometimes it's on later in the one hour transmission, sometimes it's not on at all, and sometimes it shows up on Tuesday night (or even some other night). It's a rather interesting program, and it may be worth waiting for if you don't mind listening to an awful lot of tangos in between. (9.690/11.710).
 - 0225-0235: "Tourism" (Radiobras, Brazil). The program reviews the most popular tourist attractions in Brazil, describes the scenery (including the most notable points of interest), and gives some idea of things to do once you're there. One of the most useful features of this program is that it not only gives you an idea of the available accommodations (including the relative prices), but it also tells you how you can get there--trains, and boats, and planes--and what highways lead in and out of the area. (11.74 Every other week).

TUESDAY

1320-1330: "Sports Review" (BRT). The program usually begins with a review and description of one or two of the most important soccer matches in Belgium over the weekend, followed by the league standings in Division I and Division II. Next are the Belgian basketball results and league standings, and finally other sports of interest, like Grand Prix racing, motorcross, cycling, boxing, etc. (15.590. Broadcast earlier on Monday night at 0050 on 5910/9925) 0120-0125v: "Our Personalities" (RAE, Argentina). The program is a brief biography of notable Argentine historical, political, and cultural figures from the founding of Argentina to the present. Like "Myths and Legends" (and it seems, all RAE programs), the problem is predicting just when it will be aired. Nine times out of ten, it's on Tuesday (although not necessarily always at 0120 or so), but that's apparently no guarantee that it will be all the time. I think RAE is purposely out to make life difficult for me. (9.690/11.710)

WEDNESDAY

- 2240--2250: "Balkan Panorama" (Radio Sofia). This program takes the place of the usual daily editorial review "Events and Developments" on Wednesdays. Like "Events and Developments," it, too, is a series of editorials, but these are strictly confined to stories pertaining to the Balkans:Greece, Yugoslavia, Albania, Romania, Bulgaria, and Turkey (Cyprus included). (9700/11720. Repeated at 0010 on the same frequencies and at 0410 on 7115).
- 0200-0230: "Unshackled" (HCJB). These are the dramatized true life stories of people who have had severe life problems and have been helped by the Pacific Garden Mission in Chicago (which interrupts the program with an advetisement half-way through). Sometimes there are even interviews with the people themselves. Even though the stories can sometimes be quite interesting, the acting is amateurish, and the background music is a throwback to radio melodramas of the Forties and Fifties. (6.230/9.870. Repeated at 0500. Also different episodes on Monday and Fridays at the same times and frequencies).

THURSDAY

- 0045--0055: "Culture and Current Events" (Radio Portugal). This program was titled "History and Culture" up until around February, and the only change is that current events are now occasionally included in the program (especially during the recent Portuguese elections). Past programs have featured a biography of Henry the Navigator, a river frigate that has been converted into an art museum, a special on the Ritz Hotel in Lisbon, and the donations of the relics of Maderos de Almados (a Portuguese millionaire) to the national museum. (9.680. Repeated at 0300 on 9.565--and a few times I've heard them on unannounced 6.070).
- 0140-0150: "Science and Engineering" (Radio Moscow). A science magazine program of pretty fair quality (though sometimes used as a springboard for political ideas as well). Past programs have featured medical developments in the USSR, the Russian space probe to Halley's comet, research on nuclear fusion, and even Reagan's SDI program (with predictable political commentary about it). (7.115/9.700 and other N.Am. Service frequencies.)

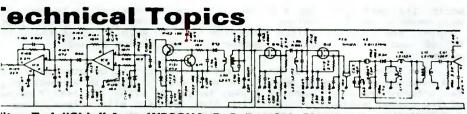
FRIDAY

- 2320--2335: "Newsreel of the Socialist World" (Radio Berlin International). The program usually has two or three major stories--recent co-operation between the GDR and USSR in health services, economic co-operation between other socialist countries, etc--and ends with "Information in Brief", the only true "newsreel" part of the program, which features short items of interest, like a new planetarium, railway construction, drop in the prices of electricity, etc. (6.125/6.165/6.070. Repeated at 0020, 0105, and 0150 on 6.980/9.730 and at 0250 on 6.080/9.730, 0350 on 6.010/6.080/9.560 and 0650 on 6.010/6.080. All the transmission to Eastern North America have been moved up fifteen minutes since around early March, but I believe those to Western North America, beginning at 0230, remain the same).
- 0225-0235: "Cultural Happenings" (Radiobras, Brazil). A short review of the most important cultural events in Brazil. Recent shows have deatured a new play by a director who has been absent from Brazil for ten years, a new art museum planned for Brazil, and, of course, the success of the Brazilian film, <u>The Kiss</u> of the Spider Woman. (11.745. Every other week).

SATURDAY

- 1115-1120: "Clippings from the Chinese Press" (Radio Beijing). A brief revie of items of interest in the most important Chinese newspapers, like Peoples' Daily, Beijing Evening News, Economic Daily, and China Youth News, (9,535. Repeated at 1220 on 9.535/9.6 and at 0020 on 15.445/11.685. Also, now that they have their RFI relay, 0220 on 9.635/6.015 and at 0520 on 9.565).
- O100-0115: "What in the World?" (HCJB). A news show that features a number of items that would otherwise be overlooked by most international broadcasters, expecially items of interest to those doing missionary work--the confiscation of Bibles in the Peoples' Republic of China, attacks on missionaries in South America, Africa, Asia, etc., and court rulings on such controversial issues as abortion, pornography, and prayer in public schools. Also includes five minutes of major international news items and a reflection on the events. (9.870/15.155. Repeated at C530 on 9.870/6.230).

Oh, yes, by the way, "Let's Speak Latin" in last month's column was an April Fool's joke. As a matter of fact, the program on Vatican Radio at 0050 on Fridays. is "The Church Today", and Vatican Radio offers no language course that I know of. Before I even sent the column in, I wrote to Vatican Radio telling them what I was going to do and asked them to forgive me, as I also now ask the readers of "Easy Listening" to do, Now that I've gone to confession, I hope the penance will not be too severe.



litor: T. J. "Skip" Arey, WB2GHA, P. O. Box C-4, Cinnaminson, NJ 08077

MAY DAZE

Tech Topics Enters the 21st Century

Well troops, it finally happened. Your humble editor is now issisted in his task of bringing you the latest radio drivel with the sid of his trusty Commodore SX-64. My Sears/Smith Corona is now relegated to lesser tasks. Besides, this dingus can help with the spelling (and you all know I need that).For you hacker heads, I am using Omniwriter 64 and Paperclip, reasonable Word Processing programs. Please let me know if the new format makes the column more readable. Also the printer is the Star SG-10C on Near Letter Quality node. For those of you who think all this computer stuff is Greek, hang in there.These miracles if modern man are becoming so easy to use that even I can fly one. Heck, we even have hopes for Bill Oliver.

This month we feature Paul Lannuier as Guest Editor with his words of wisdom on the venerable Radio Shack DX-160. There once was a time when the Log Reporters section of FRENDX listed many users of this receiver. A poll of all subscribers might have shown that the DX series (the 150,150A, and 160)were the most used rigs on the block. The DX-160 gave fair-to-middlin performance at a paper-route and borrowed allowance price. Many would say the passing of the DX-160 sounded the death knell for good entry level radios. But I can jabber later. Take it away Paul.

The Radio Shack DX-160 by Paul Lannuier

My DX-160 was purchased in late 1976. I saved something like 6 weeks worth of paper route earnings to come up with the cash, which I believe was \$159. My original intentions for the receiver was to use it for amateur radio activities. Unfortunately, I never did get my ham ticket; but with its help, I did become an active SWL in both the amateur and international broadcasting idioms.

The front panel controls include a main tuning dial, AF gain/OFF knob, an RF gain knob, an antenna trimming knob, BFO pitch, band switch, and bandspread dial. Also there are 4 two-way switches for the Automatic Noise Limiter (on/off), Mode (AM/SSB & CW), Automatic Volume Control (fast/slow), and Operate (receive/standby). Frequency readout is done by a large, colorful analog display, with a separate rotating display for band spread. The band spread itself is divided into 6 scales: 80-, 40-, 20-, 15-, and 10- meter ham bands (10 meters also includes 11 meter Citizen Band), along with a log scale. With the main tuning set at certain red markers, an accurate frequency readout is supposed to be obtained. Other markers, with the use of a conversion chart included in the owners manual. Needless to say, this hardly

works. The rear panel had a screw-type antenna terminal, attached 120 volt power cord, fuse holder (0.5A), speaker jack, 12 volt power jack (3-pin), and stand by switch connector for use with a transmitter. Th DX-160 came with an external speaker (SP-150), and a 12 volt connector.

The owners manual is very complete, with plenty of operating tip and many explanations of electrical and radio related terms necessary for a total newcomer (such as I was) to get by with. The last 7 pages of the manual explain antenna principles, SW band allocations, time and frequency conversion, operating notes for each band, Morse code, codes, and a country log.

The manual gave the following specifications: FREQUENCY COVERAGE: 150 to 400 khz (1w), plus .535 to 30 mhz in four bands. SENSITIVITY: (on SW bands): approx. 4uv at 10 dB S/N. SELECTIVITY: Band A -48 dB; band B -65 dB; band C -45 dB; band D -35 dB; band E -20 dB. FREQUENCY RESPONSE: 300 to 3000 Hz, -6 dB. AUDIO OUTPUT: 700 milliwatts at less then 10% distortion. SPEAKER/HEADPHONE IMPEDENCE: B ohms. SEMICONDUCTOR COMPLEMENT: 1 Integrated Circuit, 5 Field Effect Transistors (FET's), 6 Transistors, 15 Diodes. POWER REQUIREMENTS: AC: 120 volts, 60 Hz, 3-6 watts; DC: 12 volts negative ground, 30-180 mA. How accurate these measurements are is a mystery to me, as I do

not have the proper test equipment to do my own analysis.

After 10 years of owning this dinosaur of a radio, I still have it in my shack with all my other gear. It is mainly used for emateur reception, as was originally intended; once it warms up, it is a bit more stable on SSB than my SONY ICF 6500W. The audio quality is also more pleasant than the tinny sound of the SONY, so it also gets use when listening to programs from stronger stations. As a DX machine...well, lets just say it ain't no ICOM! To get around the problem of poor frequency readout, I devised my own graphs on which is marked frequencies and names of regular stations (such as BBC/6175) (charts calibrated identically to the log scale on the radio's bandspread dial. After logging a handful of stations on each band, I could compare new stations to the chart to determine an approximate frequency; this worked pretty well. I never did any modification to this receiver, but would be interested in hearing from anyone who has I am particularly interested in improving CW/SSB selectivity.

Thanks Paul. I modified quite a few of these radios for people 1 replacing the emitter bypass capacitors with tiny ceramic filters. This was about all I could swing in terms of selectivity although I recall once seeing a DX-160 with a Collins mechanical filter installed. My book says you can't get the impedences right to make i a successful swap but, if memory serves, this rig sounded just fine me. If anyone has any knowledge of this modification, drop us a line I am really curious to see how this modification was done even thoug my DX-160 is about six owners past me at this point.

There were a few modifications published for this rig in previoissues of FRENDX. If I can find my old copies under the mildew I'll a review. Of course you folks could always put pen to paper (or fingers to keyboard) and come up with some new ideas for this fine o receiver.

I think one of the neatest features of the DX-160 was its optional 12 volt power. This made it a great standby rig when the lights went dim. I woundn't trade my SONY in for one, but I still min my DX-160.

Well then, who else out there wants to take us all on a trip do memory lane with a reveiw of their favorite old radio?

CATALOG CORNER: This month we have two catalogs from parts supply houses.

Circuit Specialist Co. P.O. Box 3047 Scottsdale, A2 85257 1-800-528-1477 and Digi-Xey Corp. 701 Brooks Ave. South P.O.Box 677 Thief River Falls, MN 56701 1-800-344-4539

Both of these places stock a wide range of semiconductor and other components. They both offer fine cataloges with competitive prices. While they tend to deal more with professionals and computer types I have always found them to be willing to supply the hobbyist.

Well that brings us to the end of another exciting adventure of Technical Topics. Next Month we will discuss how to take full advantage of those Flea Markets and Radio Conventions. Stay tuned folks, and keep those cards and letters coming. 73,

Ship WOZGHA

Tiare Publications

FOR IMMEDIATE RELEASE

P.O. Box 493 • Lake Geneva, WI 53147

The winning name has been drawn in the Radio Botswana QSL Contest Attempt.

The lucky DX'er is Nelson M. George of Fayetteville, North Carolina. George has been a DX'er since 1981 and uses an ICOM R71A reciever.

Gerry L. Dexter will now go to work in an attempt to get a verification from Radio Botswana for Mr. George.

The Botswana contest was held to introduce Dexter's newest book - SECRETS OF SUCCESSFUL QSL'ing - The Complete Guide to Reception Reporting and QSL Collecting.

The 128 page book - illustrated with QSLs and with foreword by Ian Mc Farland of Radio Canada International is available for \$9.95 plus \$1 postage and handling (\$2 on foreign orders - U.S. funds only) - from Tiare Publications, P.O. Box 493, Lake Geneva, WI 53147.

NASWA Awards Program

Awards Chairman: John M. Kapinos, 86 S. Quinsigamond Ave., Shrewsbury, MA 01545

Congratulations to the following folks who received NASWA Awards during the month of March 1986:

Rev. John C. ECKERT, Norristown, PA: World Wide DXer Ray FORSGREN, Chippewa Falls, WI: Senior Nigerian DXer Steve FORST, Clifton Heights, PA: World Wide DXer Kenneth R. HILL, Somerville, PA: All Continent QRP DXer (50 KW) Sheryl PASZKIEWICZ, Manitowoc, WI: Arab World DXPert John WILKINS, Wheat Ridge, CO: All Voice of America DXer

** KAP'S KOMMENTS **

We are pleased to announce the availability of the all new 1986 edition of the NASWA Radio Country List and Awards Program booklet. Due to increased producttion costs, we have been forced to increase the price to \$2.00 via First Class Mail in North America, \$3.00 U.S. Airmail to the rest of the world. IRC are acceptable at U.S. 50¢ each. This new booklet includes all of the new Awards that have been announced in the past few years and also a very comprehensive country listing, thanks to our Country List Committee Chairman, Don Jensen. Kindly place your orders directly with me at the address above.

Over the past few years we have accumulated a large selection of West German 1.60 DM stamps (the air mail rate from there to the U.S.). We'd like to move some of them out, so a special price of 50° U.S. until they are gone. That's quite a bit under face value at today's rate of exchange. An SASE or IRC would be appreciated also.

If anyone would like a photo of ye olde Kap just drop us an SASE. Your photo would also be welcome. If nothing else mine make great dartboard targets.

.NASWA Publisher Bill Oliver tells me that he has a new stock of Foreign Language Reporting guides in stock. Available are French, Spanish and Portuguese. 75¢ each, please order these directly from NASWA HQ in Levittown, PA.

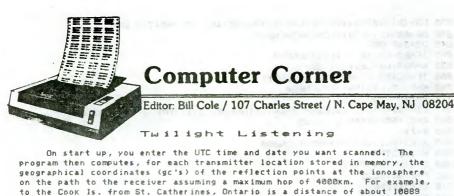
We've still had no response to our request for Radio Moscow Portuguese and French report forms. We would like to have these to distribute to our readers. Any replies will be greatly appreciated.

Every now and then we louse up an Award, usually by misspelling the receipient' name. Should this happen to your Award, just return it to me and a replacement certificate will be sent to you. We can also supply duplicate Award certificates if your's have become damaged over the years. The regular price applies here, kindly furnish me with the Serial number of the Award or at least approximately when it was issued.

It's not too early to start planning for the ANARC Convention this July in beautiful Montreal. Full information is available from the Convention Committee at: RCI, PO Box 6000, Montreal, PQ H3C 3A8. With the U.S. Dollar at a record favorable rate against the Canadian "lucky buck", costs will be very reasonable and I can assure that a good time will be had by all. If you are planning to fly up, make your airline reservations early to take advantage of "Super Saver" type rates, which are often less than 50% of the regular ones.

Till next month,

SEST. 6 4/21/86



Km, requiring 3 hops. The program finds the gc's of these hop points. Of course other paths are possible, but for long distances, this is probably dominant, and in any event, the only one for which the hop points can easily be computed. Next, the program determines for each hop point the times of sunrise, sunset, onset and end of twilight (accurate to a few minutes) the equation of time and declination of the sun are computed from the date entered). Then, it determines whether each hop point is in darKness, twilight or light. It then prints out the darKness paths with at least one hop in twilight or through a polar darK region, on the assumption that these hops might enhance the signal.

```
10 SCNCLR: INPUT "ENTER GMT: HOURS, MINUTES"; T1, T2: OPEN2,4
15 L1=-79.25:L2=43.25:REM CHANGE TO YOUR LON L1 & YOUR LAT L2 (DEG.MIN)
20 REM USE A MINUS SIGN (-) WITH WEST LON AND/OR SOUTH LAT
25 PRINT#2, "THE GMT IS ";T1;" HOURS ";T2;" MINUTES.":U=T1+T2/60:P=4*ATN(1) ...
30 INPUT"ENTER GMT DATE: DD,MM,YY";D1,D2,D3:F=28
35 FAST: REM FOR COMMODORE 128 ONLY - OTHER COMPUTERS DELETE THIS LINE
40 PRINT#2, "THE GMT DATE = ";D1; "/";D2; "/";D3: IFD3()88THEN55
45 IED3()88THEN55
50 F=29;GOTD65
55 IFD3<>92THEN65
60 GOT050
65 IFD2<>1THEN75
70 D=D1:GOT0180
75 IFD2<>2THEN85
80 D=31+D1:GOT0180
85
  IFD2()3THEN95
90 D=31+F+D1:G0T0180
95 IED2()4THEN105
100 D=62+F+D1:G0T0180
105 IFD2()5THEN115
110 D=92+F+D1:G0T0180
115 IFD2()6THEN125
120 D=123+E+D1:00T0180
125 IFD2<>7THEN135
130 D=153+F+D1:G0T0180
135 IFD2<>BTHEN145
140 D=184+F+D1:GOT0180
145 IFD2<>9THEN155
150 D=215+F+D1:GOT0180
155 IFD2()10THEN165
160 D=245+F+D1:GOT0180
165 IFD2<>11THEN175
170 D=276+F+D1:GOT0180
175 D=306+F+D1
180 S=23.44*SIN(6.28318/365*(D-80)):S1=S*P/180
185 PRINT#2, "THE DECLINATION OF THE SUN IS ";S;" DEGS. ":L1=L1*P/180
190 L2=L2*P/180:K=279.367+0.985647*D:K1=K*P/180
195 E1=-105.4*SIN(K1)+596.2*SIN(2*K1)+4.3*SIN(3*K1)
200 E2=-12.7*SIN(4*K1)-429.2*COS(K1)-2.1*COS(2*K1):E3=E1+E2+19.3*COS(3*K1)
205 E=E3/3600
210 PRINT#2, "THE EQUATION OF TIME IS ":60*E;" MINUTES. ":PRINT#2,"
215 PRINT#2, DARKNESS PATHS WITH AT LEAST ONE TWILIGHT/POLAR HOP: "PRINT#2,
220 PRINT#2, "TRANSMITTER LOCATION"SPC(15) "DISTANCE";
225 PRINT#2,SPC(7) *#HOPS*SPC(7) *#TWI*SPC(7) *#POLAR*:PRINT#2,
```

```
230 READR5$,R1,R2,R3,R4: IFR5$="END OF FILE "THEN695
```

235 L3=(R1+R2/60)#P/180:L4=(R3+R4/60)#P/180:N=0:T=0;W=0 240 D9=ABS(L1-L3); IFD9(=PTHEN250 245 D9=2*P-D9 250 IFABS(D9) 0.01*P/4THENP60 255 R=ABS(L4-L2);GOT0290 260 IFABS(09-P))0.01*P/4THEN275 265 R=P-1.2-1.4: IFR(=PTHEND9A 270 R=2*P-R: GOTO290 275 C1=COS(P/2-L2)*COS(P/2-L4)+SIN(P/2-L2)*SIN(P/2-L4)*COS(D9) 280 Z=C1:GOSUB445:GOT0285 285 R=71 290 X=6378.16#R:1FX>4000THEN300 295 H=1:60T0335 300 IFX 3000THEN310 305 H=2:GOT0335 310 IEX) 12000THEN320 315 H=3:GOT0335 320 IFX)16000THEN330 325 H=4:60T0335 330 H=5 335 FORJ=1TOH:R6=0.5*R/H+(J-1)*R/H:IFABS(D9)>0.01*P/4THEN360 340 IEL4)L2THEN350 345 L6=L4+R6:60T0355 350 L6=L4-R6 355 L5=L1:GOT0440 360 IFABS(09-P))0.01*P/4THEN395 365 IF(L2+L4)(0THEN375 370 L6=L4+R6:G0T0380 375 L6=L4-R6 380 IFABS(L6) (=P/2THEN390 385 L5=L1:L6=SGN(L6)*P-L6:G0T0440 390 L5=L3: GOTO440 395 C2=COS(P/2-L4)*COS(R6)*C3=SIN(R6)*(COS(P/2-L2)-COS(P/2-L4)*COS(R))/SIN(400 C4=C2+C3:7=C4 405 GOSUB445:R7=Z1:L6=P/2-R7 410 C5=(COS(R6)-COS(P/2-L4)*C4)/(SIN(P/2-L4)*SIN(R7));Z=C5:GOSUB445 415 R8=Z1: IFL3>L1THEN435 420 L5=L3+SGN(P-ABS(L1-L3)+0.00001)*R8 425 IFABS(L5) (=PTHEN440 430 L5=L5-SGN(L5)#2#P:GOT0440 435 L5=L3-SGN(P-ABS(L1-L3)+0.00001)*R8:GOT0425 440 GOSUB475:NEXT: GOTO665 445 IFZ<>0THEN455 450 Z1=P/2:GOT0470 455 IFZ (OTHEN465 460 Z1=ATN((SQR(1-Z#Z))/Z):GOT0470 465 Z1=P-ABS(ATN((SQR(1-Z#Z))/Z)) 470 RETURN 475 V1=COS((90.83333)*P/180)/(COS(L6)*COS(S1))-TAN(L6)*TAN(S1) 480 V4=COS((108)*P/180)/(COS(L6)*COS(S1))-TAN(L6)*TAN(S1): IFABS(V1))1THEN49 485 Z=V1:GOSUB445:V2=Z1:V3=V2+180/(15+P) 490 IFABS(V4))1THEN500 495 Z=V4:GOSUB445:V5=Z1:V6=V5+180/(15+P) 500 L9=L5+180/(15+P): IFL9>=0THEN510 505 L9=24+L9 510 IFABS(V1))1THEN560 515 U1=0.99727*(12-E-L9+V3):U2=0.99727*(12-E-L9-V3):U(1)=U1:U(2)=U2:FORK=1T 520 IFU(K))24THEN535 525 IFU(K)(0THEN540 530 GOT0545 535 U(K)=U(K)-24:GOT0545 540 U(K)=24+U(K) 545 NEXT: U1=U(1): U2=U(2) 550 U3=INT(ABS(U1))#SGN(U1):U4=(U1-U3)#60:U5=INT(ABS(U2))#SGN(U2) 555 UG=(U2-U5) #60:G0T0575 560 IFL6*S1>=0THEN570

```
565 W=W+1:GOT0600
570 GOT0660
575 IFU1<=U2THEN585
580 U2=24+U2
585 IFSGN((U-U1)*(U2-U))()1THEN595
590 GOTO600
595 IFSGN((U+24-U1)*(U2-U-24))()1THEN660
600 N=N+1: IFABS(V4))1THEN655
605 U7=0.99727*(12-E-L9+V6):U8=0.99727*(12-E-L9-V6):U(7)=U7:U(8)=U8:FORK=7TO8
610 TELL(K))24THEN625
615 IFU(K)(0THEN630
620 GOT0635
625 U(K)=U(K)-24;G0T0635
630 U(K)=24+U(K)
635 NEXT:U7=U(7):U8=U(8):IFU7(=U8THEN645
640 U8=U8+24
645 IFSGN((U-U7)*(U8-U))=1THEN660
650 IFSGN((U+24-U7)*(U8-24-U))=1THEN660
655 T=T+1
660 RETURN
665 IENCHTHEN690
670 IFT>=1THEN680
675 IFW(1THEN690
680 PRINT#2,R5$;SPC(35-(LEN(R5$)));INT(X);SPC(15-(LEN(STR$(INT(X))));H;
685 PRINT#2,SPC(B);T;SPC(9)W
690 GOT0230
695 PRINT#2, PRINT#2, SEARCH COMPLETED*
700 SLOW: REM FOR COMMODORE 128 ONLY - OTHER COMPUTERS DELETE THIS LINE
705 END
800 DATA ANTIGUA, -61, -30, 17,0
810 DATA ANGUILLA, 50,27,0
820 DATA ANTIGUA,-61,-30,17,0
840 DATA COSTA RICA-SAN JOSE, -84,0,10,0
850 DATA COOK ISLANDS, -159, -48, -21, -11
860 DATA USSR-MOSCOW, 37,0,56,0
870 DATA ANGOLA-LUANDA, 13, 20, -08, -53
880 DATA PAPUA N GUINEA-P MORESBY, 148,0,-10,0
890 DATA UK-LONDON,0,-07,51,3
9999 DATA END OF FILE,0,0,0,0:REM DO NOT CHANGE THIS LINE
                                  John Auer
```

5 Vergorde Circle St. Catherines, Ontario L2T 2P1

ED's Note: NASWA member John Auer is a mathemetician at Brock University in St. Catherines, Ontario. He wrote Twilight Listening on a Burroughs 7900 mainframe, however, the program will run on any micro with at least 5k of memory. The program DATA statements contain the following 5 items in this order: transmitter location, longitude degrees, longitude minutes, latitude degrees, latitude minutes. You must use a minus [-] sign with west longitude degrees and minutes as well as south latitude degrees and minutes.

To check the program after typing it: enter only the data statements printed here and run the program. Enter 0,0 for time and 25,1,86 for the date. The listings for Belize and Costa Rica will be printed out. If you get other results, there is an error. If the program is oK, you can then enter your own data.

by Lawrence Magne

The good old days? You remember them. No crime, no drugs, the trains ran on time, and grandpa's automobile was crafted to last a lifetime. Shortwave radio was at its peak, too, with excellent sets providing pleasant audio.

Of course, as with grandpa's automobile, hazy nostalgia comingles with the truth. Shortwave <u>did</u> sound better 40-50 years ago...but not because of the receivers. It was because there were so few stations on the air that interference was a relatively minor problem. With stations spread liberally throughout the shortwave spectrum, receivers utilized wide bandwidths to let in all those lovely high audio frequencies. With decent fidelity assured from the transmitter through the receiver's bandwidth filtering, manufacturers often went the last step to assure pleasant audio by designing high-quality audio stages and loudspeakers. True, these old sets needed periodic realignment and new tubes, plus their resistors fried and wax-coated paper capacitors dripped and shorted. But when they worked they did sound oh-so-good.

Obviously, one alternative in your quest for a suitable shortwave receiver is to consider one of the better tube-type veterans from the 'Golden Age' of radio. Among the lesser-known assets at International Broadcasting Services, Ltd., is a pre-WU II Hammarlund Super Pro 400, formerly (and briefly) owned by none other than NASWA's wagonmaster, Bill Oliver. This receiver, which has been overhauled and aligned to near-perfection by vintage receiver boffin Steve Bohac, features mellow audio and a platoon of tubes to keep the office warm even during a January 'Siberian Express'. Its frequency readout is surprisingly precise, once you do some jiggling and twiddling, and with its massive hulk and beefy controls it has the feel and appearance of Authority.

Trouble is, the world of shortwave broadcasting isn't what it used to be. What was once a relative handful of selections has since mushroomed into a smorgesbord of choices. Stations are crammed alongside each other more tightly than ANARC conventioneers at a new receiver display. So while our SP-400 museum piece continues to provide wideband reception, our ears vote to turn the thing off. Sure, it sounds great when tuned to Spain on 9360 or Vietnam on 15010; these are so far out-of-band that the only interference is from passing seagulls. But when you're trying to hear Luxembourg on 15350 -- or nearly any other station in-band -that wideband receiver not only lets in the channel you want to hear, but also its gabby neighbors. The result is a wideband cacaphony, and no amount of knob twiddling helps.

Still, not all tube-type receivers fare this badly. Some of the veterans from the 1955-1975 period were designed to cope with conditions of high adjacent-channel interference. When they are priced right and are in good operating condition, they can continue to provide very enjoyable results, provided you are able to keep them properly maintained. In this regard, certain makes are preferable to others. The R.L. Drake Company continues to provide service and parts even for its earliest models, which go back a quarter century. At the other extreme, Hammarlund folded up years ago. But if you're prowling around hamfests or the classifieds for one of these 80-pound heavyweights, models to consider include any of the R-4 series made by Drake; many of the R-390 and related series made for the U.S. Government by Collins, Hammarlund, and Motorola; The HQ-180 series made by Hammarlund; The Super Pro 600, also by Hammarlund; the SX-62, SX-100 and certain other larger Hallicrafters models; and the British-made Racal RA17 series.

In practice, you almost certainly will prefer to live with a new receiver. Although solid-state shortwave receivers got off to a rough start, what with such dismal models as the 1962 Heathkit Mohican, they have in the past few years made up for lost time. Inexpensive ceramic filters are now capable of providing superb selectivity. Hit-and-miss tuning has been replaced by all manner of tuning aids from precise digital frequency readouts to keypad frequency entry to fully automated computerized tuning. Reliability is up, but price, size, and cost are down. And the dismal audio quality of many recent models is gradually being supplanted by advanced-technology reception systems that improve audio guality while further reducing interference. So while AM and FM radio sound pretty much as they did fifteen years ago, and TV looks the same, shortwave reception today is much improved over what it was fifteen -- or even ten -- years back.

Provided you purchase the right shortwave radio, and that's the rub. Most people know more about particle physics than they do shortwave radio, so as the word has leaked out that something wonderful is happening to shortwave, all manner of hucksters and fast-buck artists have moved in for the kill.

One of the worst problem is the marketing of old-technology shortwave radios by credit card companies, airline and magazine direct-marketing operations, along with some retail radio outlets. Most of these abominations use technology from the 1960's and come with frequency guides that may be years out of date. The results for the hapless buyer are predictable: dreadful, noisy reception with no indication of where or what one is tuning. The sharper makes his fast buck, and the buyer -- stung and disappointed -abandons shortwave listening, perhaps for life.

* * *

What should you look for in a shortwave receiver?

First, price and portability. At present, the careful shopper can obtain a decent double-conversion travel portable for as little as \$65. At the other extreme, exotic professional communications receivers sell for upwards of \$2,000. But, for most serious shortwave listeners and DXers, the optimum mating of price and performance is in the \$100-300 range for portables and \$300-950 range for communications receivers. For a first set, it makes little sense to spend great sums, as you may find that shortwave is not your cup of tea. On the other hand, if you don't choose something that performs reasonably well you will not experience the fidelity potential of the medium. As a NASWA member, you are almost by definition a veteran of the medium, but the point is still well taken: to define what you seek and can afford, then to study the marketplace for a suitable selection.

Do you travel? If so, will you want a portable to take along? And, if so, would you rather have a single high-caliber portable for use both at home and on trips, or would two sets -- a small, inexpensive portable and a more sophisticated communications receiver -- be more appropriate?

In general, the answer will be determined by your degree of interest in the medium. If shortwave listening is one of your passions, you're not likely to be satisfied with a \$150 portable as your sole receiver. In this instance, the best bet would be to obtain a reasonably priced portable, then supplement it with a worthy communications receiver for use at home.

Once you have resolved the questions of price and portability, the more complex issues of features and performance have to be resolved. Unfortunately, there is little assurance that specifications and descriptions found in sales literature will mean that a given model will perform the way you might be led to believe. For one thing, specifications are often given selectively. Measurements that might reflect ill on a model may be omitted altogether or replaced by meaningless data (a classic diversionary tactic is to omit dynamic range or some other meaningful measurement, but to wax eloquently about the loudspeaker, e.g., its size, or that it has a genuine Alnico permanent magnet). However, there are a number of clues as to what separates an acceptable model from a squawk box.

Who Do You Trust?

From a manufacturer's viewpoint, features can be a low-cost means to entrap the gullible. From the buyer's standpoint, better alternatives than relying on sales literature include reading unbiased published reviews, asking others about their experiences, talking with salespeople, and trying out various models.

Published Reviews

Anybody can publish for ego or enrichment, so you need to review the reviewers' to your own satisfaction before commiting yourself to a purchase made on the basis of a published review. Is the review done systematically, or does it represent one listener's subjective impressions (subjective individual impressions can be useful, but belong in the category of 'asking others about their experiences')? Is the review gushy and one-sided, like a sales talk or your neighbor talking about his favorite sports team, or does it appear that the reviewer's aim is to call the shots ---warts and all -- straight? Does the review focus on what is important, or does it skirt controversial points by dwelling on secondary matters? Is the reviewer or publisher employed by or otherwise beholden to the manufacturer whose equipment he is testing? The optimum review is a mix of quality laboratory tests and experienced user evaluation performed in concert. Nothing equals good lab tests in determining the details of performance. On the other hand, lab tests in isolation can be misleading, especially if the tests are not tailored to the specific requirements of shortwave broadcast listening. An experienced engineering-oriented listener, armed with worthy lab reports, can lace through the plusses and minuses of a given model with surprising accuracy.

Confering with Others

Confering with others can be a useful way of finding a given model's plusses and minuses, especially if you contact a large number of users, such as NASWA club members. Especially helpful are those 1) whom you trust, and 2) whose receiving environment and objectives are comparable to yours. If cousin Charlie has always given you good advice over the years and -- like you -- likes to hear Radio Blotto evenings and lives in a garden apartment, then his thoughts will almost certainly be valuable.

At the other end of the scale is the sales person. Surprisingly, perhaps, the chief problem with salespeople is not bias, but lack of experience with shortwave. The local Electronics Heaven may know computers or hi-fi or amateur radio, but is not likely to be authoritative about shortwave listening. For this reason, among others, shortwave specialty stores have sprung up. These tend to be much more knowledgable. Of course, if you are interested in a Glatzenpopper 635 and they don't carry it, don't be naive and expect the salesperson to heap praise on it.

Trying Out Receivers

With cars, you usually take a test drive before sealing the purchase. Why not do the same with a shortwave radio?

If you can compare several models side-by-side at various times of the day, when propagation varies, and with comparable antennas hooked up -- and you are experienced enough in shortwave listening to know what to look for -- this can be a very effective procedure. Problem is, shortwave receivers are almost never sold this way. Various shortwave-oriented firms have tried this, but usually have given it up because most of their sales are by mail and the bother and cost of such a showroom are not worth the few extra sales generated. Two exceptions in the US are Electronic Equipment Bank near Washington, DC, and Universal Shortwave radio showrooms with outdoor antennas. If you're in Japan, many stores in Tokyo's Akihabara shopping district are similarly equipped.

What to Look for in A Receiver

Once you have decided on how to find out whether a receiver is suitable, you then have to poke through the various performance and feature charactistics to see whether they apply to your situation.

Accurate Frequency Readout

Will you be able to find a station easily? If it takes a flick of the wrist to find TV channel 3, why should you have to hunt and peck about the radio wilderness to find 15125 kHz?

One of the world's finest radio monitors, Tony Jones of International Broadcasting Services in Paraguay, answers in the negative. He feels that one of the best ways to become a first-rate monitor or DXer -- as opposed to a shortwave listener -is to bandscan using a receiver <u>without</u> precise frequency readout. This forces the operator to rely on programming and other aural clues to ascertain a station's identity, and in so doing imparts skills that are invaluable if one is to be truly expert.

Nowadays, most advanced shortwave radios provide digital frequency readout to the nearest kilohertz or better to tell you precisely where you are tuning. A low-cost compromise involves "bandspreaded" analog frequency readout, but this technique is dying out as digital electronics circuitry comes down in cost.

Other tuning aids include programmable channel memories, up/down pushbutton or scan frequency slewing, and keypad frequency entry. Whether these are of interest is a matter of taste. Remember to look for a tuning knob or high-tech alternative, not simply a pair of one- or two-speed slew ('up'/'down') buttons.

With a digital frequency readout, you can use an accurate shortwave reference to set your radio immediately to what you wish to hear. You also can have a good idea of what you're hearing should you be tuning about and come across a station you can't immediately identify. But in order to do so, you need some sort of 'roadmap' to let you know what's on the shortwave spectrum. There are literally thousands of signals on the air, so sorting them out is no mean feat.

This need for suitable shortwave references was the genesis of <u>Radio Database International</u> and the <u>World</u> <u>Radio IV Handbook</u>. The <u>RDI</u> is a two-volume guide for daily use, whereas the <u>WRTH</u> is a reference tome, so active shortwave listeners tend to keep both on hand.

A radio should cover the complete shortwave spectrum from 2.3-30.0 -- or at least 3.2-26.1 -- MHz if it is to be of use night and day, year after year.

"Multiple conversion" -- usually double conversion -- helps reduce the presence of 'images' that create unnecessary interference to what you're trying to hear. Demand it if you value your hearing and sanity.

The shortwave broadcasting bands are crammed, often viciously so. The ability of a radio to separate what you're trying to hear from competing signals is probably the most important feature to look for in a shortwave receiver. This vital ability is termed 'selectivity'. Selectivity consists of three main variables: 'bandwidth', 'ultimate rejection', and 'shape factor'. Ideally, the desired signal is completely boxed off from competing signals on adjacent frequencies. Thanks to enormous advances in ceramic filtertechnology, this ideal is being approached in the best of the newer models.

'Bandwidth' refers to the amount of signal that will be let in when the station you want to hear is of comparable strength or stronger than competing stations on adjacent channels. With the 5 kHz channel spacing norm in effect for shortwave broadcasts, bandwidths of between 4-6 kHz are common on shortwave receivers. But reception conditions vary from situation-to-situation and day-to-day, so better shortwave radios include one or more narrower bandwidths.

'Ultimate rejection' refers to the maximum signal depth at which a receiver can isolate a desired signal from a relatively powerful signal alongside.

'Shape factor' -- a very important figure -- refers to the ratio between the bandwidth when adjacent stations are of comparable strength (within 6 dB of each other) and when the competing signal is far greater (usually 60 dB stronger) than the signal you're trying to hear. If the difference in bandwidths is 1:2 or less, the shape factor is excellent.

Dynamic range' refers to the receiver's ability to pick up weak signals in the presence of strong signals in the vicinity. This ability is best measured in the lab, using stringent measuring norms suited to shortwave broadcast listening. However, the end result is that a set with mediocre dynamic range will produce a mishmash called overloading, which then has to be cured by desensitizing the receiver (e.g., switching in an attenuator).

Sensitivity was prized years ago, when weak stations were the norm. It continues to be an important variable, but in reality few communications receivers suffer from inadequate sensitivity. However, portables tend to be relatively insensitive when used with their telescopic antennas and batteries, so a measurement of 'field sensitivity', using the built-in antenna and a nearby test transmitter, is particularly useful for portables.

With modern synthesized receivers, stability is usually good, often excellent. Still, there are exceptions, which testing flushes out.

High-Tech Detection Reduces Interference, Fading & Distortion

An important use for a receiver with first-rate single-sideband reception qualities is in receiving ordinary double-sideband broadcasting signals as though they were SSB. This technique, known as exalted-carrier selectable sideband (ECSS), allows the listener to choose the quieter of the broadcaster's two sidebands. For example, if Canada on 17820 kHz is interfered with by jamming splatter from 17815 kHz, Canada's lower sideband is likely to be seriously degraded, whereas its upper sideband may be sufficiently clear of the jamming that it comes in free from interference. Not only is ECSS capable of reducing or eliminating interference, it also replaces the fade-prone transmitted carrier with the fade-free carrier synthesized within the receiver. This results in reduced distortion -- not only on shortwave, but also on mediumwave AM.

Problem is, ECSS is tricky to tune, and even when carefully adjusted is not quite what it could be. So manufacturers are now producing receivers with automatic phase-locked exalted-carrier selectable sideband (ECSS-s). When these models perform properly, they provide substantial and audible advantages over conventional receivers.

Should Receivers Be Modified?

Should your receiver be modified?

In the past, receivers were often marketed with selectivity shortcomings that could be remedied by clever technicians. As a result, some shortwave specialty firms began offering selectivity enhancements, sometimes supplemented by other modifications. Sometimes these modifications have been helpful in improving receiver performance. However, in other cases improvements have been minor relative to the cost and untoward side effects resulting from tampering with the receiver's circuit design. With the passage of time the proportion of receivers with mediocre selectivity has been reduced, so modifications are becoming progressively less necessary.

At International Broadcasting Services, we examine and test modified receivers separately from 'stock' factory models, then publish our findings in <u>Radio Database International</u> and the <u>World Radio IV Handbook</u>. Only thus have we found it possible to ascertain with accuracy whether a given modification or series of modifications is worthwhile.

With common sense and careful research, you can obtain a state-of-the-art shortwave receiver that provides surprisingly good results under reception conditions worse than those which formerly stumped the then-available shortwave models. Unlike the pleasant old sets of the 1930's, today's models tend to be compact and reliable, while allowing you to know exactly where you're tuned. Thanks to digital chip technology, these advanced sets are affordable and can provide surprisingly pleasant fidelity, given the trying conditions found within the congested shortwave spectrum. Radio Database International can be reached at: -Radio Database International International Broadcasting Services, Ltd. P.O. Box 300 Penn's Park; PA 18943 USA Tel: (215) 794-8252

The <u>World Radio TV Handbook</u> can be reached at: World Radio TV Handbook Billboard Publications, Inc. 1515 Broadway New York NY 10036 USA Tel.: (212) 764-7300

Lawrence Magne, who edited FRENDX's 'Log Report' and 'Clandestine Bulletin' in the early 1970's, has been an annual contributor to <u>World Radio TV Handbook</u> publications since 1972 and is Managing Editor of the <u>Radio Database</u> <u>International</u> series of publications. He is also a regular voice over Radio Canada International's 'Shortwave Listener's Digest' and maintains <u>Radio Database</u> <u>International's</u> monthly presentation for shortwave listeners over Swiss Radio International and Radio Canada International.

Larry, who was awarded an M.B.A. in 1964, has participated in computer database design and management since the mid-1960's. He currently is President of International Broadcasting Services, Ltd., with headquarters in Penn's Park, Pennsylvania. In addition to radio and television guest appearances, he finds time to contribute articles to such varied publications as <u>High</u> <u>Technology</u> and American Express' <u>Expression!</u>, along with a variety of specialized radio magazines and books. In 1980 he was chosen "Man of the Year" by the Association of North American Radio Clubs in recognition of his achievements in the fields of international broadcasting and shortwave listening.

His wife, Jane, is a molecular biologist at the University City Science Center in Philadelphia. When not busy working, they may be found tilling the fields at their colonial farm in rural Bucks County.



isteners Notebook

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<u>A F G H A N I S T A N</u> R Afgh reported 21/3 that a new stn called "Afghan Ghag" -- Afghan Voice -- started bcing 21/3 1430, daily exc Suns 1430-17 on Mw 936, repeated 0230-05, on the people's heroic struggle, etc., etc.; confirmed on 936 w/nx 0330 & 1530 (WBI 3/4) Addn of this svc brings total daily output 80 hours, and xmtr capacity exists for 150 (TASS 5/4 via WBI 10/4)

<u>A U S T R A L I A</u> RA's Lyndhurst site being phased out-10 kW imn't enough for intl avc--and final one is being xfrd to Shepparton. Lynd'll continue for inland svc and VNG for time being, but those too will go, probably to Shep. Now's the time to QSL VLH and VLR if you haven't yet (Mike Bird, RA, on RNMN 13/3 via WBI 27/3)

Rcvd RA's latest fq update, noting that Lyndhurst no longer used-5995 is now Shep w/100 kW, also fq is new for EG to Pac at 07-08; other new ones are EG to As 9710 11-1230, 9645 11-12, both from Darwin. Also rcvd QSL for Chinese svc on 7120 at 13-14 ex-7135 via Darwin (John R Meyer, Kellnersville WI)

20/2 at 0415 saw opening of the Alice Springs domestic SW svc. Continental Electronics of Dallas provided 100 kW xmtrs, operated at half-power; TCI antennas (TCI is Technology for Communications International, Mountain View CA, w/sales offices in Eu). Sked 1930-2230 on 2310, 2230-0730 on 4835, 0730-1430 on 2310, but Fridays 24h w/1430-1930 on 2310. Other two xmtrs to come on line later, dates not given (Talkback, via Jim Conrad, Waterloo IA, 18/3) Meanwhile Katherine started in early April, and Tennant Creek was to start testing in late Apr, per Talkback 19/4 (gh)

<u>BANGLADESH</u> R Bang ES, complete: 0630-08 BG to Eu & 08-0830 EG V of Islam on 12030 11645. 1230-1300 EG Eu 17653 15525. 1315-1345 Nepalese 9775 7105; 14-15 Urdu & 1515-1545 Hindi 7105 6005. 16-1630 Arabic & 1630-18 BG to ME 13670 9945. 1815-1900 EG & 1900-1915 EG dictation speed nx Eu 7295 6240 (WBI 27/3)

<u>B E L G I U M</u> BRT ES, complete: 00-0030 SP & 0030-0125 EG Am 9925 9830. 05-0555 erc Sun DT Eu/Af 11980 9860. 06-0655 DT Eu/Af & 07-0755 &Sat/Sun 08-0855 all 15510 6035. M-F 08-0855 EG As/Am 21810 9880. M-F 09-0955 DT Eu/ As 21810 11695. Sun 09-0955 DT Eu/Af 17595 11695. Sat 0910-0930 EG As/Am on 21810 9880. Sun 10-1055 DT Eu/Af 17595 11695. 11-1155 DT Af 17595 11695. 12-1255 DT Af/As 17595 17590. Mon-Sat 13-1355 EG As/Am 17590 15590. Sun 13-1555 DT Eu/Af 17590 11695. Sat/Sun 16-1655 DT Eu/Af 17590 1512. 1700-1755 DT Eu/Af 17590 5910 1512. Mon-Sat 18-1820 DT Af 15510. Sun 18-1820 EG Eu/Af 15515 5910 1512. Mon-Sat 18-1855 EG Eu 5910 1512. Mon-Sat 1820-1915 DT Af 15510. Sun 1820-1915 DT Eu/Af 15510 5910 1512. Mon-Sat 19-1915 CM Eu from BRF w/domestic nx on 5910 1512. 1915-2025 DT Eu/Af 15510 5910 1512. 2030-2100 SP Eu/Am 11980 5910 1512, 21-2155 EG Eu/Af 11980 5910 1512. 23-2355 DT Am 9925 9830. The Dutch pgm 'Media Chronicle' includes broadcasting fq sked: Thu 2330-2345, Fri 0730-0745, 0930-0945, 1115-1130, 1745-1755. During summer time xmsns to Eu & Af one hour earlier than shown (WBI 10/4) On the contrary, above sked already takes into account DST; should have said one hour later after summer time (gh)

<u>B O L I V I A</u> Noted on 19/3, Radio Santa Ana from early 2245 f/in to an apx 0400*. Best 2330 to beyond 0100 when clear of SSB tfc; sig a solid fair. Readout of 4749 kHz. SSB QRMing intermittent, but severe when present. Much of mx the very romantic serenade variety so typical of the Beni region. On several occasions hrd a song by cute-voiced girls singing "O Mi Papa"--almost thought it was their theme song, but apparently not-just a very popular song at Santa Ana. Primary ID noted as "Esta es Santa Ana, La Radio!" Checked again 25/3 2430 & was present at P level to VP; suspect 19/3 reception was on a VG evening. Thanks to Codina & Nuzzi reports in Play-DX via Dec LN, ID of this made easy (Maxfield Greenwood, Sedgwick ME)

<u>B R A Z I L</u> R Verdes Mares, Fortaleza, 4924.6, 19/3 & 20/3 2350-2435, G-VG (Dario Monferini, Italy and Juan Carlos Codina, Switzerland, Play-DX) That name belongs to a Mw stn on 810; R Dragão do Mar was on 4925 since 1975; both are in Fortaleza, Ceará. R Globo, 11805, vy strong 30/3 from 0100 w/PT nx & mx; also hrd two Globo spurs on 11783.3 and 11826.6; don't confuse these w/R Guaíba or something else (Ernie Behr, Kenora Ont)

R Dif de Amazonas, 4805, 0236-0244* 2/4, SIO 444, Braz pops to ID & sudden off (Richard A D'Angelo, Wyomissing PA)

<u>C A M B O D I A</u> V of the People of Kampuchea reported 29/3 that from 1/4 it 'd add 45 mins to midday pgm daily (WBI 3/4)

<u>C A N A D A</u> RCI's sked from 30/3 shows reorganisation in xmsns to Eu, moving them so that local time in reception area remains same summer and winter. This summer, bcs in Czech/Slovak, CM & HG are simply one hour earlier by UTC than in winter, bat pgms in Polish, Russian and Ukrainian reorganised and increased—now two half hour pgms in PL at 1500 & 1800 instead of one 45-min xmsn. Now four half-hour bcs in RS at 0215, 1330, 1530, 1930 and two in UK, 1400 & 1600. Output in both langs has increased by 1:45 a week to 14 & 7 h resp. EG & FR slightly reorganised and reduced (WEI 27/3)

SWL Digest sked w/J86 fqs: Sat 2035 on 17875 17820 15325 11945, D9555 & D7130. Sat 2135 on 17820 15150 11945. Sun 2305 on 11710 9755 M930. Mon 0306 on 9755 5960 (gh)

<u>C H I N A</u> On 15/4, R Beijing began relays via RFI, French Guiana; 0200 EG Nam 6015 9635, 0300 SP Mex/Cam 9565 9635, 0400 Std CH Nam 9565, 0500 EG NAm on 9565 (RB via George J Poppin & gh) 9565 is excellent after the QRM clears before 0500; 9635 fair, and 6015 co+channel Nicaragua; overall, quite an improvement in ENAm over the direct mmsns (gh)

<u>C O L O M B I A</u> LV del Llano, 6116, hrd 6/4 at 0604 w/EG anmt & ID: "International Voice of the Llano...25 years of service...welcome to SW listeners," pgm of Col mx, vy strong (Ernie Behr, Kenora Ont)

DPA nx agey, Hamburg, reported from Bogotá 29/3 that the Colombian Emisoras CARACOL net, grouping more than 50 stns, and the most important in the country, has been on strike for 25 days. The problem, unprecedented in Col comml radio, originated from disputes betw owners and the workers' union over job stability and wage increases. Since CARACOL execs have rejected Labour Minister Jorge Carrillo Rojas, alleging that he was assuming a position contrary to their interests and favourable to those of the workers' union, pres Belisario Betancur appointed Educ Minister Lilian Suárez Melo, legal specialist, to try to secure an agreement between the two parties (WBI 3/4)

<u>COSTA RICA</u> No sign of R Lira/AWR on 15460; other fqs mentd in Dec 85 were 11870 & 15210 w/2.5 or 5 kW (Ernie Behr, Kenora Ont)

/Cf March LN-23/ The planned 500 kW relay for REE/SFR here is another example of extreme overkill and shows incredible ignorance about propagation and actual reception conditions in the western hemisphere. To get an idea what 250 kW from the Caribbean sounds like, just check Habana on 6100 or Antigua on 6085. A 250 or 100 kW relay would be more than sufficient to cover the Americas, and SWLs should urge SFR to change their plan before it's too late. Another solution would be a common relay site for SFR and R Japan in Panamá, as proposed last year. (Ernie Behr, Kenora Ont)

Meanwhile, another new CR SW stn is planned, but this one is low power, probably too low-2.5 or 10 kW w/yagis on 19 and 49m-Radio For Peace, in cooperation with World Peace University in Portland OR. Currently raising funds and hope to be on in about 6 months, producing pgming in Oregon for automation system. Covered in detail on WORLD OF RADIO weekend of 18/4 and in REVIEW OF INTERNATIONAL BROADCASTING 108 (gh)

<u>C U B A</u> Cuban TV reported 29/3 on planned improvements in broadcasting there. Last year, 40 projects were started and they're expected to be completed during the first half of this year. R Hebelde and R Progress'll cover the entire natl terr and each prov stn'll cover all its municipalities. Old towers as well as mutre and TV relay towers'll be replaced and others'll be installed in required areas. A lot of this eqp'll be manufactured locally. Lowpowered relay towers'll run on solar batteries, thus saving energy. Work is being done to create a channel w/spl pgming for Guantánamo and the Isle of Youth and a third channel is being considered for the capital and Havana province. There are not the technical possibilities for other provinces. BCing TV pgms via satellite'll be the greatest contribution in this field during the 5-year period (WBI 10/4)

Since 22/3 0242 I've been hearing the relay of Russian svc on 4745 instead of 4765; still 4745 on 25/3 (Christos Rigas, Chicago IL) CYPRUS see MOROCCO

<u>DOMINICAN REPUBLIC</u> R Netherlands reported 3/4: R Discovery, the V of the Caribbean in English, and R Descubrimiento, LV del Caribe in SP, has been testing a SW mutr from Santo Domingo since 31/3. Daily tests incl Carib mx, annts in EG & SP for N&SAm between 18 & 20 GMT on 15045 and 01-03 on 6220; currently 50 watts but should be at full power of 1 kW soon. This is a full-fledged SW stn not connected w/R Earth, which is a pgm via other mutrs from somewhere else. Addr for R Discov is: Box 25454, Tampa FL 33622. The R Earth people are going ahead w/plans to build a 50-kW SW mutr on Curacao (WBI 10/4) Jeff White also revealed that the name came both from the DR being /one place/ where Columbus discovered the New World, and having been the name of a shop run by one of the stn's Florida owners. And Mike Poulos of R Earth in Evanston reveals that White has resigned from RE, in order to pursue RD and other business interests (gh) /cf Apr LN/

<u>F I N L A N D</u> R Finland reported 19/3: MinCom has granted Yleisradio—FBCjust under 25 megafinnmarx in assistance for bldg the Pori bc stn. Govt'll pay 2/3 of the finance of 102 MFM meeded; Pori to be completed by end of next year... This report is practically identical to one bc 28/8/85 (WBI 27 /3)

<u>G E R M A N Y W E S T</u> For those who'd like to draw a distinction between DW and pgms produced by DLF & carried on DW SW xmtrs, the latter are sked: 0430-05 CS & 05-0530 PL 11905 9650. 1030-1120 CS 7150 7130 6020 5995. 1130-12 HG 7130 6065 6020. 1215-1250 PL 7130 6065 6020. 18-1830 PL 11865 9615, 1830-1930 CS same, 1930-2030 HG same (WBI 10/4)

<u>G U A M</u> Per Andrea Steele, talking on RA's Talkback pgm, AWR is to use four TCI 611 curtain array ants, along w/two Thomsen CSF xmtrs from France. It is expected that this stn will get on air no earlier than Aug or Sept 1986 (Jim Conrad, Waterloo IA)

<u>GUATEMALA</u> R Maya on 3325 at 1050-1107 2/4 w/Latin mx, light conversation by M; nice "Radio Maya" ID by W at 1105, SIO 343 (H A D'Angelop, PA)

<u>GUIANA FRENCH</u> Cayenne on 3385 at 0006-0110 6/4 w/FR pop vocals, MDJ, //5055 noted u/CR. 0100 nx; SIO 443 (Richard A D'Angelo, Wyomissing PA) see also CHINA! <u>I C E L A N D</u> ISBS now on 9775 USB, up from 9774, at *2300-2345*v; 23/3 opened w/IS for 5 min, 2305 IC pgm to 2336*, other days no IS (Ernie Behr, Ont) <u>I N D O N E S I A</u> Monitoring research 1-7 Apr shows the VOI, ES of RRI, introed its promised Spanish svc 1/4, daily 17-1730 on 15150 & 11790; no change in other VOI xmsns (WBI 10/4).

<u>I R A N</u> VOIRI on 15084 2/4 *1112-1122 w/IS and "Dear listeners, our program in EG will go on the air in the next few minutes." S/on ID - "Coming to you from our Tehran, Iran studios, this is the VOIRI". Anthem followed by test xmsn anmt and ancd //7230--unhrd, and 11790--vy poor. Into recitations prior to nx, SIO 3+53+ (Richard A D'Angelo, Wyomissing PA) Really neat IS (gh)

<u>I R A Q</u> R Baghdad on new 9565 w/EG *0300-0450*v; strong 21/3 but QRM from Dubai & Montserrat; //11750 vy weak; 24/3 to 0453*. On 9525, after VOA s/off 13/3, hrd Farsi talk & songs at 1401-1429*, then OC until *1501 Farsi pgm to 1555*; same sked as cland R Iran & Free V of Iran hrd in 1980 via Iraq; do these still exist? (Ernie Behr, Kenora Ont)

I T A L Y AWR EG 18-1830 on 6205, 06-0630 on 6215 via Forll; Apr/May "Current" lists 7300 alternate for 6215, and 6215 as alt for 6205. Also, Forll is producing a "Profile" pgm that covers a variety of topics of interest to listeners---interviews, letters and mx, Thu 0600 on 6215, 1800 on 6205 (Richard A D'Angelo, Wyomissing PA)

<u>I V O R Y C O A S T</u> R Côte d'Ivoire hrd on new 15350, vy strong from 2150 local mx, 2200 ID & FR nx to 2204* abrupt s/off, probably due to xmtr fault; obviously 500 kW, 19/3 only, not hrd since; weaker stn on 15350 in FR 1400-2100 is R Luxembourg (Ernie Behr, Kenora Ont, 8/4)

<u>J A P A N</u> R Japan sked taking effect 7/4 shows partial reorganisation of svcs. EG & JP Genl Svc in 0400-0830 period'll be beamed also to Au/NZ. & ceases using Sines, Portugal relay for GS in JP to Eu/ME; but now adds 2-h xmsn in JP & EG 2200-2400 on 9645 via Moyabi, Gabon. As for regional svcs, some early morn bcs to Eu one hour later; EG, GM, RS reduced slightly. Overall effect is decrease in total bcing output from 287 to 273 h per week; however, beaming pgms to AuAs increases from seven to 38;30 a week. To ME has also increased but only three hours 30 minutes a weeks /sic/. Pgms to Eu & Ams has decreased (WEI 27/3)

Ceneral Svc in EG: 01-0130 As 17835 17810 9675 7140. 03-0330 As same. 05-06 As/Au/Am 17835 17810 9735. 07-08 Eu/ME/As/Au/Am 17810 15235 15230-G 11955 9735. 09-10 Eu/As 17810 11955 9675. 11-12 As 11815 9675. 14-1430 As/ Am 11815 9695 9675 7140 5990. 15-16 Eu/ME/As/Am 15310-G 11815 5990. 17-1730 11815 5990 As/Am. 19-1930 Am 9505. 21-2130 As 11815 9675 7140. 23-24 Eu/ME /As/Am 15235 11815 9675 9645-G 7140.

Regional Svc in EG: 02-03 Am 15420 15195 11870. 04-05 Am 9605 /sicmy copy of the sked shows 9505, but unhrd/. 09-10 Au 15235 11875. 1215-1245 As 15235 11875. 18-1830 Af/As 9645 7250. 19-1930 ME 7210 6080 (WBI 3/4)

<u>J O R D A N</u> Petra-JNA nx agcy, Amman, reported 5/4: an agreement betw the Jor govt & the Swiss Brown Boveri Co to set up an integrated radio stn was signed at the Jord Central Bank 5/4. Stn comprises radio xmsn eqp covering SW, MW, LW and'll cost 14.5 Jordanian megadinars. Project'll be implemented in 28 months. Signing the agmt were Info Min Muhammad al-Khatib, /appropriately surnamed -gh/, company reps, Finance Min Dr Hanna Awdah, and reps of the Swiss & Cerman banx which'll finance stn w/joint loan. Info Min said it'd provide complete and excellent radio coverage on local & Arab levels and that radio xmsns'll reach a number of regions w/complete clarity via SW (WBI 10/4)

MÉXICO R Universidad de Sonora hrd on 6115 at 1405 23/3 w/fqt IDs and local mx (Christos Rigas, Chicago IL)

MONACO see MOROCCO

<u>MOROCCO</u> R Médi-Un hrd on 9575 since 9/3, ex-9580 and 9577; strong 4/4 from 2130 pop mx, 2200 FR nx, more mx to 2250 REE s/on (Ernie Behr, Ont, 8/4) R Monte Carlo hrd on 9795 since 19/3 w/all-mx pgm 1800-2100*; 22/3 & 23/3

had AR & FR pgm, 24/3 only mx, not hrd since 30/3; vy strong sig & RNMN 3/4 said via Cyprus mtr, gave addr: SOMERA, 78 Ave Raymond Poincaré, 75016 Paris France (Ernie Behr, Kenora Ont, 8/4) /submitted as Cyprus?/

Monaco: Monitoring 19-25/3 shows R Monte Carlo testing since at least 19/ 3 on 9795 at 0500-0953 & from 1450, and 15465 between 1000 & 1450. On weekdays test xmans have consisted o'pop mx fotly interspersed w/stn ID jingle "RMC - Radio Monte Carlo". On the weekend of 22/3 & 23/3, these channels car ried RMC Arabic svc which is normally only available on MW 1233 from Cyprus. This svc also contains some nx in FR. Aerial bearings tend to indicate that 15465 and 9795 might possibly come from the same location as the Radio Mediterranean Int'l (Médi-1) xmsn on 9575 (WEI 27/3)

Monaco: RMC continue to xmit mainly on 9795, but partly on 15465. They have increasingly consisted of a relay of RMC Arabic svc rather than just pop mx interspersed with an RMC jingle. An anmt monitored from RMC-Arabic on 1233 from Cyprus said from 1/4 it'd start at 05 and end at 2030; until now it has been on the air at 04-07 & 11-21 (WBI 3/4)

Monaco: RNMN 3/4 had a translated phone interview w/a-French Fpeaking spoxeman from Sofirad: At the moment we're testing 9795 around 05-21. I'm an adviser for Sofirad. a holding co representing amongst others the interests of Radio Monte Carlo. And RMC has interests in turn in a group called SOMERA (Société Monégasque d'Exploitation et d'Études de Radiodiffusion) and it's SOMERA which is doing the tests. The tests are IDed as coming from RMC and not from SOMERA because that's the agreement that SOMERA has w/RMC as regards bes to ME. Now, RMC has powerful xmtr in Cyprus on MW 1233. at the moment for commercial pgms in FR & AR and that's been running for about a sesouidecade. But listemers in the ME have asked us to provide SW coverage as well. Now, the SW xmtr is also in Cyprus but I'm not sure of the power being used at the moment. We are interested in reception reports from listeners and we've already hrd from some in WAf.

Monitoring research 1-7 Apr: aerial bearings indicate that RMC on 9795 is coming not from Cyprus but from a site in Morocco, possibly from Nador where the matrs for Médi-1 are located (WBI 10/4)

In Australian DX News, Bob Padula says there is no evidence for any new HF facilities on Cyprus; and Morocco seems the likely site, but not via VOA Tangier, which has no spare mutr capacity for RMC or Médi-un (gh)

NETHERLANDS RN's Apr pgm notes issued in Mar says there is internal reorganisation. Many depts were reorganised, to be completed by mid-Apr and should help streamline present pgm production. Some lang sections, incl EC are being split up into World, Asia and Africa sections, working more closely w/otherlang colleagues serving similar target areas. These internal structural changes'll not suddenly mean we change our ID to R Neth WS. However, our Asian pgming in particular will be adpated to go live as much as possible. BBCMS ed note: since 10/3, RN "Afroscene" nx in EG at1630, 1830, 2030 has been be once a week only, on Fris, instead of also on Weds. This had happened while output to AF was being reviewed and plans being made to revise it (WBI 27/3)

PAKISTAN R Pak back on 9465, hrd 12/3 from *1642 IS & EG, 1744 UD pgm to 1900*, also in FR *1912-2015*. Was on 9545 for several weeks inFeb, as reported on SWL Digest 15/3 & Apr LN; not a mistake (Ernie Behr, Ont) On 9465 1713-1725 6/4 w/nx by W, 1715 ID "This is R Pakistan WS", then commentary and TC for 20 mins past 10, PST; into Pak mx; SIO 444 (D'Angelo)

PER D R Melodía on 6260 6/4 0520-0537 w/Py mx. long anmts. banco ad. TC. 0531 nice ID, SIO 333 (Richard A D'Angelo, Wyomissing PA)

Panamericana TV net, Lima, reported 2/4 that José Eduardo Cavero, owner of R Victoria, R Reloj anda radio net in the provs, 1/4 went to Govt House to thank Pres Alán García for return of these stns, which were confiscated a sesquidecade ago by mily admn. Cavero said, newspapers from Chicago, Miami, Argentina and Chile have reported this event as something out of the ordinary. We can now say that we do have freedom of expression in the country. In the past it was said that we lived with local freedom of expression, but this was not true because as long as 25 radio stns remaind under govt control, one could not say that there was FOE (WBI 10/4)

PHILIPPINES R Veritas Asia, the Roman Catholic stn, obs using one SW xmtr since gmt late evening 17/3, i.e. morn of 18/3 local time. Monitoring confirms this sked: 22-2225 Korean 9585. 2230-2325 Std CH 11725, 2330-2355 Karen 11725. 00-0030 Sinhalese & 0030-0055 Tamil 11730. 01-0125 Burmese, 0130-02 Telugu, 02-0230 EC, 0230-03 Viet all 15195. 1030-1125 Std CH on 11770. 1130-1155 Karen 9695. 12-1225 JP 9560. 1230-1255 Korean 11830. 13-1330 Burmese, 1330-14 Kachin, 14-1425 Tamil, 1430-1455 Viet, all on 9595. 15-1530 EC 9540. 1530-16 Bengali 9540. Nine svcs from the sked before Marcos' fall are no longer obs: 2330-2355 Indo, 2330-2355 Viet, 00-0025 JP, 0030-01 BC, 1130-1155 IN, 12-1255 VT, 13-1330 Std CH, 1330-14 Telugu, 1430-15 Sinhalese. RVA xmits two pgm blocks daily, 22-03 & 1030-16. Stn ammts continue to say RVA is on the 31, 25 and 19 mbs, but each pgm hrd on only one fq. 21/3, anmt at end of JP pgm: Our stn is now operating experimentally; still unk when normal opn'll begin, nor know we exact fqs to be used, but'll be ancd (WBI 27/3) & I hrd somehwere since that 2nd xmtr was back on the air (gh)

<u>Q A T A R</u> My unID on 9585 in Apr LN is possibly Qatar; hrd again 21/3 from *0243 w/IS & AR pgm, weak sig & mod; this is s/on time of Qatar per WRTH. AR stn on 11730 at 1530-1700 probably also Q, hrd 5/4 mixing w/Tunisia in AR. Q on 9905 not hrd since Mar; does anyone have their new sked? (Ernie Behr, Ont)

<u>R W A N D A</u>? Stn hrd u/CHU on 3330 at 0400 22/3 w/apparent nx in unID lang (Christos Rigas, Chicago IL)

SOUTH AFRICA RESA changed 17780 to 21590 for Eu 11-1556, //15220 & 11900 for EG & FR at 11 & 12 resp, //15220 & 7270 for EG from 1300 (WBI 27/3) SABC DS on SW: Radio South Africa /NOT the name of the external svc, as it is so often rendered!! -gh/ 0330 (Sun 0400)-0615 4835, 0615-1520 11790/9695 /presumably the "/" means either/or/, 1520-1930 4835. R Suid Afrika in Afrikaans: 0330(Sun 0400)-0550 4880 3320. 0550-1700 11885/9555 7285. 1700-1930 4880 3320. R Five, multilingual in Afrikaans/English /would you believe bi-lingual?/ 0400-2200 on 3250 /sic--seems unlikely they'd use 90m all day/. R Orion in EG & AK 2200-0400 on 3250. Market reports & meat prices in AK/EG Mon-Fri 1605-1655 on 4880 (WBI 27/3)

<u>S P A I N</u> REE and 31/3 that from 1/4 it'd begin being a morning sve to LAm in SP for 3 hours from 1000; inaugural be to include interviews w/bigwige. Confirmed on 17845; however, parts // REE to Eu/ME which also starts at 1000 on 17890 15125 11920 9570 7450 (WBI 10/4)

<u>S W E D E N</u> R Sweden hrd on 11950 via USB xmtr in SP 2230-2258* //11705, both strong 31/3; new svc via Varberg? (Ernie Behr, Kenora Ont) I suspect ST/ DST time change mixup (gh)

<u>T H A I L A N D</u> R Thailand ES, all on 11905 9655 927 and 97 MHz: 23-0430 EG, 0430-05 FR, 05-06 EG, Sat/Sun 0600-0800 music. 0915-1000 Laotian, 10-1030 Std CH, 1030-11 Thai, 11-1130 Viet, 1130-1230 EG, 1230-1310 Cambodian, 1310-14 Malay, 14-1430 JP, 1430-15 Burnese; all targeted as Eu/As/Au/Am/Dom. R Thailand first pgm on SW: 2230-07 7115 6070 4830, 07-10 7115 6070, 10-

16 7115 6070 4830 (WBI 27/3) Among the pgms is a preview of the week's news, Sat & Sun 1400-1420, a neat trick, or is all the nx managed in Thailand? (gh)

<u>T U N I S I A</u> RTVT on 11730 was clear from 1700 in AR to 1727 RN s/on, also in AR, 5/4; RTVT on 11750 same day w/diff AR pgm 1615-1849*, varies to 1852*; 11730 closes at 1753*v; also see QATAR (Ernie Behr, Kenora Ont)

<u>U A E</u> R Dubai on 11955 1724-1736 6/4 w/AR mx to 1730 ID, //9595=SIO 433. Into soft instl mx which was lead-in for a radio drama; 11955 was SIO 444 (Richard A D'Angelo, Wyomissing PA)

<u>USA</u> WHRI Indiana hrd on new 9690 at *0100-0257*, since 29/3 CST, on top of Argentina; no respect for other stns. 7400 was inaudible for months, but sud denly strong since 29/3 from 0300 w/bad audio & loud hum (Ernie Behr, Kenora Ont) see also DOMINICAN REPUBLIC. R Earth dissatisfied w/7400 and hoped to get it changed, but J86 sked shows it still in use; R Earth time of0300 UTC not expected to change this summer since Indiana disregards DST (gh)

WORLD OF RADIO on WRNO for J86: UTC Sat 0300 on 6185, 2330 on 98522, Sun 1300 on 9715. 18/4, KCBI started signing off at 2045* from 11735, due to FCC order to prevent QRM w/VOA new svc, obviously higher priority; VOA not hrd. KCBI kindly kept WORLD OF RADIO on the air Fridays, but moved it up to 2015-2045 and there could be no advance notice. I have no idea whether this will continue in J86, but'd expect pgm times to be one hour earlier by UTC, i.e. compared to original sked of Fri 2100 & Sun 1830, the new times would be Fri 2000 & Sun 1730. The fq 11735 could also change w/out notice; so far KCBI has always used the 25mb, so look around (gh)

On KCBI 30/3 & 4/4 Capital DXers of Sacramento reported "La Pantera," Hermosillo, Mexico on 11820 at 0100, which was probably BBC in SP; they also reported R Monibo (sic) on 6260 at 0100, obviously R Melodía; and, would you believe, R Bata on 5005 at 1300, instead of Sarawak or Nepal. This nonsense does not deserve any publicity & is repeated here only to warn listeners (Ernie Behr, Kenora Ont) The risks you run by putting on the air anybody who wants to do a DX report, and not having the experience necessary to recognise obvious mistakes. I trust Ernie also enjoyed hearing his 1940s HCJB sked in Feb LN being given as if it were current.... (gh) To make things absolutely clear: I have no problem at all with KCBI doing its own DX program; the more the merrier; but persistent dissemination of misinfo cannot go unnoticed (gh)

<u>USSR</u> Petropavlovsk — site presumed — on 4485 at 1046-1105 w/RS talk by M to 1054 classical piano mx. 1059 W mentd Moscow, 1100 6 time pips, possible nx; SIO 151, 6/4 (Richard A D'Angelo, Wyomissing PA)

An article in 'Soviet Uzbekistani' 18/2, R Tashkent receives more than 4000 letters annually from 70 countries on all continents. In their letters radio listeners attach great value to R Tashkent pgms; one fan is Babrak Karmal, Afghan leader. In some countries, RT fan clubs have been set up, about 70 of them, a strong blow against bourgeois ideology (WBI 27/3)

Monitoring 30/3 reveals R Stn Peace & Progress has doubled bcs in Creole for Haiti. Original xmsn at 00-0030, addl one at 02-0230, both on 9820 9745 and 7300. (WBI 3/4)

R Moscow NAm svc main fqs from 4/5 (in MHz, last digit dropped if .005): 22-23 15.42 13.66 12.06 12.05 12.03 11.85 11.77 9.88 9.86 9.76=from 2230 9.72 9.61 7.40 7.19 7.17 7.11. 23-24 15.42 13.66 12.06 12.05 12.03 11.77 9.86 9.76 9.72 9.61 7.40 7.33 7.19 7.18 7.17 7.11. 00-03 15.42 13.66 12.06 12.05 12.03 11.77 9.86 9.76 9.72=til 0200 9.70 9.60/Havana/ 7.40 7.17=til 0200 7.11.. WNAm: 03-04 15.42 13.60 12.03 11.79 11.77 9.75=from 0330 5.90=from 0330. 04-05 13.66 13.60 12.03 11.79 11.77 9.58. 05-07 13.60 12.03 11.79=til 0600 11.77 9.75 9.58 7.17=from 0530. There will be changes 1/8 and 7/9 (via Kraig W Krist, Falls Church VA)

V A N U A T U R Vanuatu, 3945, had fair sig 1/4, local talk& NA to 1105*, 3/4 until 1115* (Ernie Behr, Kenora Ont)

<u>YEMEN</u> <u>SOUTHEAST</u> Monitoring 3/4 showed that PDRY Radio in Aden has resumed being the V of Palestine pgm, hrd 1820-1900 on 7190 & 1188, first time hrd since coup d'état 13/1 (WBI 10/4)

CLANDESTINE CRANNY last year was via Israel or US xmtr. I hrd 7425 in May 85 at 0130-0255 w/yof Unity and <u>R Iran</u>, vy strong sig, but no doubtthis was due to excellent propagation from xmtr in Egypt; same site also used by V of Lib of Iran, V of Iran, and former <u>R Vatan</u> on 9027, 15315, 15555, etc (Ernie Behr, Kenora Ont)

V of the Communist Party of Iran (Persian: Seda-ye Hezb-e Komonist-e Iran), first monitored 26/8/84, but believed to have been in existence for some time. Now monitored at 1730-1900 daily in Persian, may also contain items in Azeri, and repeated 0315-0445 both on 4480v and 3870v. For listeners' letters it has ancd addrs in W Germany, Italy, UK (EM, Box 2123, London WClN 3XX). This stn is believed to be associated with the V of the Iranian Revolution (WEI 27/3)

<u>V of Afghanistan</u>, hostile to govt of Afgh and to Soviet involvement, and ancg addr in Peshawar, Pakistan, hrd 27/2 ancg that it includes items in Russian, in addn to Pashto, Dari, Uzbek, but not confirmed then due to reception diffi culties. Monitoring of 1130 xmsn 5/4, revealed not only RS but also nx & com mentary in <u>English</u>. The xman started on 5823 USB but by 1400 had switched to 5825; lang content approx: 1130-1230 Pashto/Dari, 1230-1245 UZ, 1245-1255 EG, 1255-1400 Pashto/Dari, 14-1410 RS, 1410-1420 EG, 1420-1425 Pashto. It is not yet known how fqtiy VoA xmsns are extended to apx 3h duration or how often in cludes RS & EC; addl monitoring 7/4 indicates 1130 xmsn on 5825 similarly extended but timing of various lang segments different than 5/4 (WBI 10/4) <u>V of the People of Malaysia</u>, reported raided by Thai troops at a location some 15 km N of Betong, Yala prov in Thailand 16/2, hrd again 20/3 w/regular pgms on normal fq 7050; last positively IDed 10/2. Stn anmts indicated sked unchanged from previously (WEI 27/3)

I.e., daily 1130 Cantonese, 1200 Std Chinese, 1230 Malay, 1300 Tamil, 1430 Cantonese, 1500 Std Chinese, to 1530. 2130 Cantonese, 2200 Malay, 2230 Std CH 2300-2330 Tamil. First hrd 4/5/76 as V of the People of Malaya; name changed 11/12/83 to V of the People of Malaysia (Malay: Suara Rakyat Malaysia) as result of merger of Marxist-Leninist CP of Malaya with the Rev'ly Wing of the CPM, into the Malaysian CP (WBI 3/4)

VOPM reported in Malay 22/3 that it was the 10th anniversary of stn founding... Establishment of VOPM is in accordance w/the people's wishes and the interests of the revolution. During initial stages, there was an impressive campaign to support the stn both in the border area and in the country. Our comrades and friends gave strong material and moral support for the stn. They donated money from their savings and bought radio eqp w/out thinking of any danger. They patiently listened to our bcs from various parts of the country and sent back invaluable data and constructive suggestions... VOPM is now so important that even someforeign nx agencies and domestic reaxionary forces have to monitor our xmans. Our radio has become a bright beacon enlightening the hearts of people of various nationalities in the (?gloomy) enemy-controlled area, where an atmosphere of white terror prevails, but it has become a thorn in the enemy's flesh. Over the past 10 years, our radio stn has developed itself as a strong, perfect and mature stn which continues to advance to achieve higher objectives. Initially, only 3 langs, Malay, Std Chinese and Cantonese, but added Tamil three years later... Aim is for VOPM to really become the most outspoken stn and reliable spoxeman for the people (WBI 3/4)

<u>Radio Darío</u> /ghb suggested name/ From an interview on RNMN 27/3 with Congress man Bill Livingston of Louisiana, who has introed a bill in Congress to set up an anti-Nicaraguan version of R Martí: There is not enough info going into Nic upon which Niccits can truly rely. VOA doesn't seem to get in there /baloney/ and it's not properly homed, it's not directed in that area. VOA says it's not within their charter so we're attempting to fill a void. We're encouraging committees and sub-committees here in Congress to hold hearings in order to develop the details, but they really haven't been formulated at this point. I don't think there's any indication it might be passed immediately. It's under study; right now we're attempting to gather info which'd bolster our case. We estimate the cost wouldn't be much more than roughly two to three megadollars initially (WBI 3/4)

<u>R 15 de Septiembre</u> on 6265, new? 0550-0610* 6/4 w/much of usual rhetoric to ID at s/off, fair (Richard A D'Angelo, Wyomissing PA)

<u>R Camilo Cienfuegos</u> on 9940 at 1104 6/4 w/ns, ID, into a Voz del CID pgm, fair (Richard A D'Angelo, Wyomissing PA) Noted on 9942 18/4 1325 (gn, OK)

<u>R Venceremos</u>, first hrd in Jan 1981, hostile to El Sal govt, claims to be from Morazán dept in El Sal; on spl occasions it linx ψ w/R Farabundo Martí. Ancs addr as P 0 Box 7-907, México DF. 75-min SP bes: daily 0000-0015 /sic, presumed typo for -0115/ and 0200 on 6557 3725 and 98 MHz; Mon-Sat 1215 on 6557 3725, 1830 on 6557; Sun 1400 on 6557 and 6557 /sic/, 2000 on 6557 (WBI 10/4)

<u>R Free Surinam</u> RNMN reported 20/3: A few years ago a group in Holland under the name of the Council for the Liberation of Surinam, CLS, hired airtime on a low-power mutr owned by the Miami-based 'Cuba Independiente y Democrática' organisation, CLD, which has for some time beamed pgms towards Cuba and Cuban troops in Angola from high-power mutrs believed to be in CAm. 12 months ago bos to Surinam were stopped, reception being so bad in Paramaribo that it made little sense to continue. On 15/3, tho, RFS, as the 30-min bos are called, started up again. Glenn Tjong-Akiet, president of the Rotter dam-based CLS, gives more details: the pgmme uses a 50 kW mutr w/an antenna directed towards Surinam. Up to now there have been good reception reports from the Carib area and from Sur. Tests'd been carried out on the xmtr before, but w/ant towards Cuba. Stn is carrying on where it left off. The CLS's objective is to eliminate press censorahip in Sur. Bos are on 9940; as of 18/3 at 5.30 am (as broadcast) (0830 gmt) each day for half anhour in DT as the offl lang; Sranan Tongo, a native lang; Surinami, a sort of Hindi; and Javanese. English and Spanish'll be introed later. The thrust of the bcs is against the regime. New addr is Eox 5517, 3088 AM, Rotterdam. Not even the CLS has been told by LV del CID exactly whence their bcs come. On Sat it held its congress and bc live thru a phone connexion. Otherwise material is taped and sent to the xmtr. This makes nx a problem but there is no other choice. Ed note: the above xmsn has so far not been obs on 9940 at time given (WBI 27/3) Found 8/4 on 9940 starting at apx 0720, until 0750. Before & after 9940 carried R Camilo Cienfuegos of CLD (WBI 10/4) Surinamese must be real early-risers; do they really think this is an ideal time? (gh)

R Truth ZBC, Harare, Zimbabwe, reported 2/4: the US has come under heavy criticism from the Deputy Min of Info, Posts & Telecomms, comrade Naomi Nhiwatiwa, for supporting the racist and propaganda stn, R Truth, in South Africa. Comrade Nhiwatiwa told being chiefs and engrs from Kenya and the Southern African Development Co-ordination Conference /SADCC/ countries in Harare today that R Truth is being beamed to the frontline states by the Pretoria regime to foment trouble. DepMin said stn has drawn funds and personnel from the US to support UNITA bandits in Angola, MNR rebels in Mozambique and super -ZAPU dissidents in Zimbabwe. Com Nhiwatiwa urged govts to use being systems to promote peace, unity and development instead of using such facilities for propagandistic purposes. She called for coop among SADCC radio stns in exch of pgms and in standardisation of eqp w/final aim of manufacturing eqp themselves. Noting that 70% of region's population is illiterate, com Nhiwatiwa said one way of communicating w/them is thru radio. Bcing chiefs are looking at ways of improving planning, implementation and management of being systems in the SADCC region. The 7-day workshop is being sponsored by the ITU, the Friedrich Ebert Foundation of the Federal Rep of Germany, the Intl Pgmme for the Development of Communication /IPDC/ and the Zimbabwe Broadcasting Corp. Ed note: R Truth bc at 0430 & 1700 on 5015; pgms in EG, Ndebele, Shona hostile to PM Mugabe and the Zimb govt (WBI 10/4)

Spy Numbers on 6997 hrd 12/3 0305 GM 5-digit by W to 0312* w/"Ende"; strange accent: "ftinef", "dreh"; vy strong DSB. On 9958.4 from *0230 unusual 4-digit in SP by W to 0240*; 31/3 vy s trong USB, same level as LV del CID on 9940.6 (Ernie Behr, Kenora Ont)

REVIEW OF INTERNATIONAL BROADCASTING #108 is now PUBLICATIONS ry Preferences; Broadcasts in English Update and Last Minute Info; Pinning Down the Jammers, by R Horvitz, on a new document with lots of directionfinding results, including maps; Domestic Information and Associated Listening, edited by Kraig W Krist, including baseball nets, Portland OR formats; Horse Radio, by Loren Cox, on a Kentucky stn w/a unique format; another update by Benn Kobb on the Electronic Communications Privacy Act; Broadcasting in Fiji, by Bryan Clark, with map; Tuning Off, by Michael D'Souza, on the threat TV poses to radio in India; Listener Insights on Programming, country by country program reviews, program schedules, advance details, press clippings--especially R Australia's 24h pgm sked; CEC Ideas thru June; Radio for Peace plans in Costa Rica; BBC previews for May, and minute-by-minute sked thru June; the history of Radio Luxembourg; Satellite Watch column by Loren Cox; and demographics of the RIB survey. How can you afford not to read RIB? Samples are \$1.50 in North America, 6 IRCs elsewhere; 12-issue subscriptions \$18 in North America by first class; overseas airmail: \$22 to Caribbean, NW S America and C America; \$24 to rest of SAm, WEu, NAf; \$26 to rest of Af, USSR, Asia, Oceania. In US\$ on a US bank or by postal money order. Order from Glenn Hauser, Box 490756, Ft Lauderdale FL 33349 USA

<u>DX LISTENING DIGEST</u>, companion publication to RIE, and resembling LN, with country-by-country DX news, mostly unduplicated in either other publication, cross-referenced by frequency. Half of each issue is devoted to <u>Enjoying</u> <u>Radio</u>, a technical/philosophical forum edited by David Newkirk, including <u>Periodical of the Radio of China</u>. Samples as for RIE; subscriptions \$1 less in all cases, see above

So concludes this LN, shorter than usual, closed a week early due totravel plans. Until the next, 73 de Glenn

Sam Barto QSL Editor 47 Prospect Place Bristol, CT 06010

IRALTY ISLANDS; Radio Manus 3315 f/d person-al ltr. in 28 ds. for ms. v/s Raka Saini, Station manager. (Allen-OK). ADMTRA

ALASKA: KNLS 9535 f/d cd. in 12 ds. (Forsgren). f/d cd. in 18 ds. (McElvy-VA).

ANGOLA: Radio Nacional de Angola 9535 f/d cd. via registered mail in 33 ds.(Wood-NY). p/d ltr. in 66 ds. for 2 IRCs. v/s Nuno Fernan-(Levison-PA). des.(Allen-OK).

ARGENTINA: RAE 9690 f/d cd. w/ pennant in 31 ds. ASIATIC RUSSIA: Radio Moscow 6050 via Khabarovsk cd. in 46 ds.(Davis-NM). 12050 f/d cd. in 60

cd. in 46 ds. (Davis-NM). 12050 f/d cd. in 60 ds. (Schmitz-FRG). 15425 via <u>Petropavlosk-Kam-chatsky</u> f/d "Rowing" cd. in 45 ds. (Forsgren). <u>AUSTRALIA</u>, <u>VIM9</u> 9610 via <u>Perth</u> f/d cd. in 24 ds. for 1 IRC. (Forst). cd. in 60 ds. for 2 IRCs. (Renfrew-NY). <u>Radio Australia</u> 6060 f/d cd. in in 25 ds. (Forsgren).same cd. in 26 ds. (Levison). f/d "Fairy Penguins" cd. in 27 ds. (Kacir-MI). <u>VL8A</u> 2310 via <u>Alice Springs</u> n/d ltr. via Dar-win in 21 ds. for ms. v/s R.S. Gulson. (Sgrulletta-NY). form ltr. in 35 ds. for \$1.00(Forsgren). ds. for \$1.00(Forsgren).

ds. for \$1.00(Forsgren).
AUSTRIA: ORF 6155 f/d cd. in 49 ds.(Forst). 15320 cd. in 71 ds.(George-NC).
BELGIUM: ERT 15590/9905 f/d cd. in 33 ds.(Levison).5910 cds. in 104 ds.
(Levison). 17675 f/d cd. in 25 ds. for a FR rpt.(Renfrew).
BELIZE: Radio One Belize 3285 f/d cd. in 32 mo. for 2 IRCs.v/s Miss Esme
Anderson.(Talbot-ALB). same in 28 ds. for a SP rpt. and 1 IRC.(Schmitz).
BENNI: ORTB 4870 f/d cd. in 54 ds. for a cassette tape and 2 IRCs.(Hensc-BIAFRA: FRCN-Enugu 6025 p/d personal ltr. in 36 ds. for an 84 hen-IN).
reception and 2 IRCs. v/s D.A. Bassey, Assistant Director.(Allen).



BONAIRE, TWR f/d cd. in 75 ds. for 2 IRCs.(McElvy). 9535 f/d cd. in 30 ds. for 1 IRC.(Forst). BRASIL: RadioBras 11745. f/d cd. in 1 mo. (Bowden). f/d "Manaus-Teatro Amazonas" Paulo 6120 p/d ltr. in 26 ds. for a PT rpt. and ms.(Forth). <u>Radio Gaucha</u> 11915 p/d ltr. in 24 ds. for a PT rpt. and

atti.(Sgrulletta). <u>Radio Cultura do Para 5045 p/d form ltr. w/ sticker</u> in 45 ds. for a PT rpt. and 1 IRC.(Hardester-PA). same in 170 ds. for a In +5 us. for a FT rpt. and 1 1KC.(hardester-FA). same in 1/0 ds. for a PT rpt.v/s Francisco Cezar Nunes da Silva.(Forsgren). p/d form ltr. in 379 ds. for a PT rpt. and 3 IRCs.(Mann-IA).<u>Radio Aparecida</u> 9635 f/d cd. in 1 mo. for a PT rpt. and ms.(Forth). 11855 f/d "Studio" cd. in 18 ds. (Van Horn-FL). <u>Radio Copacebana</u> 5045 n/d ltr. for a PT rpt. on 8th try. v/s Edir Macedo Bezena.(Field). <u>Radio Borborema</u> 5025 n/d personal ltr. in 1 mo. for a PT rpt.(Field). <u>Radio Educadora Rural</u> 4755 p/d form ltr. in 1 mo. for a PT rpt. and 1 TPC v/c Ailtre Curat

20 00	VERNO DO ERTADO DO PARÁ
	rado CUITUTO do Firo
G	BINETE DO DIRETOR
	QSL
Emissora	: Rádio Cultura do Pará
Endereço	: Av. Almirante Barroso, 735 - Belém-Pa.
Vínculo	: Fundação de Telecomunicações do l'ará
Prefixo	: ZYG 360
O. Tropicai	s: 60 Metros
Potência	: 10 KWS
Frequência	: 5.045 KHZ
Herário	: Das 04:00 As 24:00 Horas
Objetivos	: Rádio Informativa, Educativa e, Musical

1 IRC. v/s Ailton Guerra, Gerente. (Hardester). Radio Anhanguera 4915 f/d form ltr. in 89 ds. for a PT rpt.(Burnell-NFLD). <u>Radio</u> Poti 4965 f/d cd. in 73 ds. v/s for a PT rpt. and ms. Maria Luiza Marques da Luz. (Foxx-VA). <u>Radiodifusora de</u> <u>Amazonas</u> 4805 p/d "Manaus Tropical Hotel" cd. in 108 ds. for a PT rpt. and 1 IRC. v/s Jose Joaquim Marinho. (Schmitz). same in 1 mo. for a PT rpt. and ms. (Rigas)

BULGARIA: Radio Sofia 9700 f/d cd. in 3 mo.(Kacir). f/d "Bachkovo RADIO OITO DE SETEMBRO LTDA. RUA JOSE BOHIFÁCIO. 785 - 1.+ ANDAR - FONE (0195) \$3-.462 Monastery" cd. in 5 mo.(Eckert) same in 79 ds.(Levison). CALES POSTAL N . OF DESCALVADO ENT. SÃO PAULO BURKINA FASO: Radio Burkina 4815 f/d ltr. in 65 ds. for a FR rpt. and ms. (Bryant). BYELORUSSIAN SSR: Radio Moscow 9820 via Orsha cd. in 2 mo. Descalvado, 26 de favareiro da 1983. (Palmersheim-MN). Time, Sr. CELEBES: RRI Ujung Pandang 4719 f/d cd. in 22 ds. for 2 IRCs. v/s H.A. Nyongki, BA.(Paszkie-CHRISTOPHER R. LORDELL Cains Postal, 146 STOREAN, Massachusetts wicz-WI). U. S. A. - 02180 <u>CHAD: Radiodiffusion Nationale</u> <u>Tchadienne</u> 4904.5 f/d cd. in 1 mo. for 2 IRCs.(Meyer-WI). f/d cd. in 233 ds. for a FR Presado Senhor. rpt.(Forsgren). CHILE: Radio Nacional 15140 f/d Con praser acusance o recebimento de s/carta de 20 último. cd. w/ sticker in 28 ds. for a Querence nesta opertunidade agradecer as informeções pros-SP rpt. v/s Carlos Toledo Vertadas, que para nos são de grande valor. dugo.(Klein-WI). cd. in 18 ds. for a SP rpt. and 2 IRCs. (Wood) Aproveitamos a opertunidade para informar a V.So que agora cd. in 40 ds. for a SP rpt. estance transmitindo en nova frequência - 2.490 Int. ous and ms.(Foxx). cd. in 15 ds. for a SP rpt.(Forst). un sistem irradiante mis eficiente, que dévers milhorar a recepção aí an ma cidade.

- NOTES: Wendel Craighead like the Radio Rebelde QSL card. He says that the card card is rather reminiscent of the style of cards used by the Latins in the 60s. I agree Wendel. <u>Rav Forsgren</u> has lots of time to DX since he received 18" of snow recently: Peter Dillon is finding time very precious since he is working two jobs. Only sent out 3 reports last month. <u>John Sprulletta</u> has a 1986 Amateur Foreign Callbook. If you need an address give John a call or drop him a line. <u>Bill Harms</u> wonders if anyone besides Radio Korea issues a different QSL each month? Does anyone know? Guess work leads me to think of HCIB and the NMK. Also received letters of work leads me to think of HCJB and the NHK. Also received letters of correspondence from Steve Lare, Bill Matthews, Jean Burnell and Mike France.
- CHINA. PEOPLES REP. OF: Radio Beijing 9550 cd. in 5 wks. (Bowden). 9820 cd. in 3t wks. (Kirkland-ONT). f/d cd. in 3 wks. (Eckert). "Toy" cd. in 28 ds. (Forsgren). 11980 f/d cd. in 1 mo. for a SP rpt. (Bowden). 9535 cd. in 1 mo. (Bowden). 9860 f/d cd. in 5 wks. (Bowden). 9730 f/d cd. in 1 mo. (Bow-den). CPES 6225.6665.6750 and 3220 cds. in 5 wks. (Barto). 4800,4905 and 5880 f/d "Child w/ Hen" cd. in 7 wks. (Barto).
 CLANDESTINE: Radio Monimbo 6230 f/d prepared cd. in 35 ds. for an EG rpt.
 * and ms. (Gavaras). Radio Iran 7425 f/d form ltr. in 1 mo. for an EG rpt. Addr:17 Bd. Rasparl, 75007 Faris. (Field).



COLOMBIA: Radio Super de Medellin 4875 f/d cd. in 132 ds. for a SP rpt. and 1 IRC. v/s Ismael Ochoa M., Gerente. (Schmitz). La Voz de los Centauros 5955 n/d cd. in 2 yrs. for a SP rpt. and ms. v/s Juan Carlos Torres Leyva, Gerencia.(For-th). same in 40 ds. for a SP rpt. and 1 IRC. (Schmitz). COOK ISLANDS: Radio Cook Islands 11760 f/d "Conch Blower" cd. in 1 mo. v/s Nooroa E. Tangaroa. Director. (George).

Swiss Broadcasting Corporation European and Overseas Services CH - 3000 Berne 15, Switzerland

40 years ago ...

on April 27th 1938, the Swiss Parliament voled a credit for the construction of Switzerland's first shortwave transmitting centre at Schwarzenburg, near Berne.

in 50 ds. for 3 IRCs. (Weber). 5038.9 f/d prepared cd. in 13 mo. for a SP rpt. (Palmersheim). <u>Radio Zar-</u> acay 3395 p/d personal ltr. in 11 mo. for a SP rpt. v/s Elssy Cun C. Pennant rcvd. (Palmersheim-MN). MW483M

ms.(Bryant-OK).

v/s Elssy Cun C. Pennant rcvd. (Palmersheim-NN). ENGLAND: MSF 5000 f/d cd. in 61 ds. for 2 IRCs. (George). ETHCPIA: Voice of Revolutionary Ethopia 9595 form ltr. in 141 ds. for 1 IRC. v/s Kaomo Vijanda Tjombe, Program Supervisor. (Schm-EUROPEAN RUSSIA: Radio Moscow 9875 via Kazan f/d cd. in 2 mo. itz). (Palmersheim). 17820 cd. in 45 ds. (George). 5980 via Rvazan f/d "Dzer-zhinsky Square" cd. in 60 ds. (Weber). 6090 via Kenga cd. in 1 mo. (Field) FRANCE: RFI 7135 f/d cd. in 24 ds. (Forst). FRENCH GUIANA: RFI 9800 f/d cd. in 14 ds. (Paszkiewicz). GAMBIA: Radio Gambia 4820 p/d ltr. w/ sked. on my 10th try for a 76 rpt.

GABON: AFI 11/05 p/d cd. in c0 ds.(Renfrew).
 GAMBIA: Radio Gambia 4820 p/d ltr. w/ sked. on my 10th try for a 76 rpt.
 * Very pleased w/ this one: (Bishop-FHIL).
 GERMAN DEMOCRATIC REP: RBI 6125 f/d "Berlin-Rathaus" cd. w/ stickers in 6
 wks.(Eckert). 17880 f/d cd. in 63 ds.(Levison).
 GHANA: GBC 4915 f/d cd. in 107 ds. for ms. v/s Nick Tetteh.(Allen).
 GREECE: Voice of Greece 17565 f/d cd. in 28
 ds.(Forst).

GUAM: KTWR 9585 f/d cd. in 6 wks.(Bowden). GUATEMALA: TGNA 3300 f/d cd. w/ personal ltr. in 41 ds. for a SP rpt. and 1 IRC. v/s Mariella Posadas, Secretaria and Robert

Rice. (Schmitz). cd. in 24 ds. for 1 IRC. (Forst). cd. in 6 mo.(France). "Quetzal" cd. in 44 ds. for a SP rpt. and ms.(Davis) cd. w/ltr. in 17 ds. for a SP rpt. and ms.(Van Horn). <u>Radio Mam</u> 4825 p/d form ltr. in 66 ds. for a.

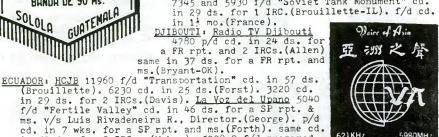
+SBC

SP rpt. and ms. v/s Virgilio Ramirez E., Director. (Henschen-IN).

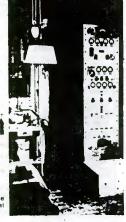


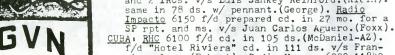
cisco Luna.(Eckert). <u>Radio Moscow</u> 6000,11840 via <u>Habana</u> cd. in 25 ds.(Forst).

<u>COSTA RICA</u>: <u>TIFC</u> 5055 p/d cd. w/ pennant in 29 ds. for a cassette tape.(Eckert). f/d cd. in 1 mo. for 2 IRCs.(Wood). <u>Radio Casino</u> 5954 f/d cd. w/ pennant in 81 ds. for a SP rpt. and 2 IRCs. v/s Luis Sankey Reinford. (Klein).



621KHz 5980MH2 SW50M



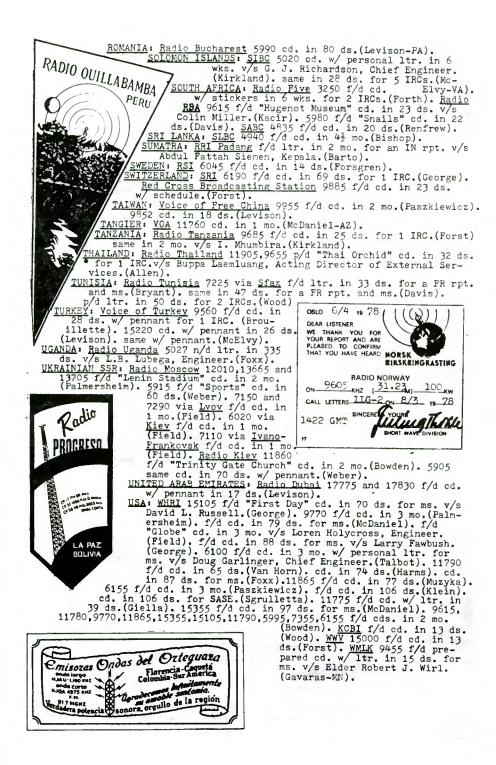


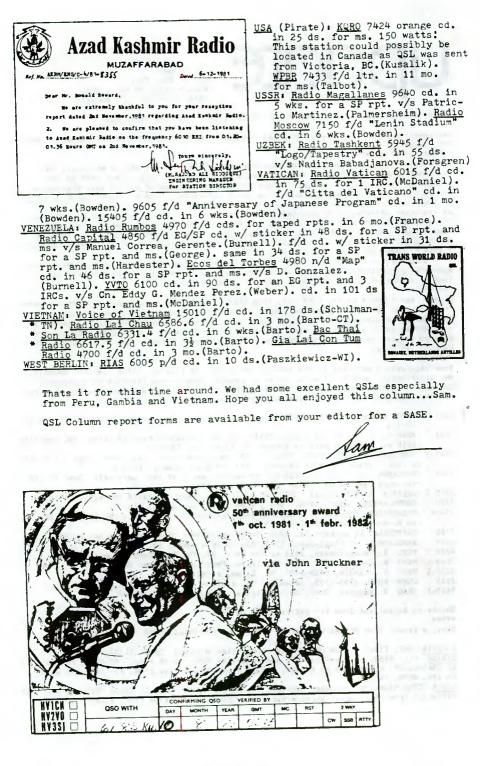


NEDITERRANEAN RADIO de Barillas 3325 f/d cd. w/ pennant in 66 ds. for a SP rpt. v/s Francisco Juan Pedro.(Forsgren). same in 42 ds. for a SP rpt. and ms. (Bryant). <u>Union Radio</u> 5982 f/d cd. in 26 ds. for a SP rpt. and ms. v/s Juan Francisco Lopez, Sub Gerente. (Allen-OK). HAITI: <u>4VEH</u> 4930 cd. in 5 wks.(Eckert). f/d folder cd. in 68 ds. for 2 IRCs.(Forst). <u>HAWAII: WWYH</u> 15000 f/d cd. in 26 ds.(Forst). f/d cd. in 22 ds.(McElvy). HOLLAND: Radio Nederland 15560 f/d cd. in 21 ds. (Forst). HONDURAS: HRVC 4820 f/d cd. w/ pennant in 18 ds. * for a SP rpt. and 1 IRC.(Wood). La Voz de Mosq-uitia 4910 f/d personal ltr. w/ pennant via Tupelo, MS. in 9 ds. (Porsgren-WI). <u>HUNGARY: Radio Budapest</u> 6025 f/d cd. in 45 ds. (Kacir). 9835 f/d cd. in 6¹/₂ mo. (France). INDIA: AIR 9545 f/d cd. in 7 wks.(Bowden).same in 5 wks.(Field). 4920 via Madras f/d "Taj Hotel" cd. in 117 ds. v/s H.O. Agrawal. (Schmitz). 4920 and V/S H.U. Agrawal (Schmitz). 4920 and 9525 f/d cd. in 3 mo.(Bishop). IRELAND: Radio Dublin 6910 f/d "Map" cd. in 4 mo. for 2 IRCs.(Van Horn). ISRAEL: IBA 5885 f/d cd. in 6 wks.(Bow-den). 7410 cd. in 45 ds.(Bowden). ITALY: RAI 9575 f/d "Bernini" cd. in 7 mod (Echever) same in 86 ds.(George). UN Radio via RAI f/d cd. in 22 ds. for 2 IRCs. (Sgrulletta). JAPAN: Radio Japan 15420 f/d "Buddha" cd. in 1 mo. w/ sticker(Eckert). 5990 f/d "Winter Festival" cd. in 6 wks. n п (Bowden).
JAVA: RRI Yogyakarta 5046 f/d ltr. in EG in 55 ds. for an IN rpt. v/s Erwina Ristianni. Public Relations.(Forsgren).
JORDAN: Radio Amman 9530 f/d "Logo" cd. in 111 ds.(Forsgren). same in 90 ds. for 2 IRCs.(George-NC).
KAMPUCHEA: Voice of the People of Kampuchea 11938 f/d ltr. for an EG rpt. Stamps rovd.(Field).
KENYA: Voice of Kenya 9725 via Koma Rock f/d ltr. in 39 ds.(Bryant). same in 41 ds. for 3 IRCs. v/s Anthony K. Mwenja, Engineer in Charge.(Davis).
KOREA. REPUBLIC OF. Radio Korea 7275 f/d cd. in 6 wks.(Bowden). 15575 via Kimchae f/d "Children Flying Kites" cd. in 46 ds.(Harms).
LEBANON: Voice of Hope 6280 f/d cd. w/ ltr. and stickers in 75 ds. for ms. v/s David Lawrence.(Bishop). (Bowden). v/s David Lawrence. (Bishop). LIBERIA: VOA 17870 cd. in 35 ds. RADIO ILLIMANI Emisora del Estado (Forst). MALI: Radio Mali 4783 p/d "Map" RAD .- Of. No. 106/62 cd. in 42 ds. for a FR rpt. and ms.(Allen). same in 49 ds. La Pas, Bolivia, 28 de Julio de 1962 for a FR rpt. and ms.(Bryant). MALTA: Radio Mediterranean 6110 large "World" f/d cd. w/ sticklarge "world" f/d cd. w/ stick-er in 5 wks. for 2 IRCs.(Eck-ert). same in 38 ds.(Forsgren).
MALAGASY REP: Radio Nederland 9715 f/d cd. in 27 ds.(George).
9540 cd. in 20 ds.(Renfrew).
MONACO: TWR 7160 f/d cd. in 40 ds. (Lavison-Pa) Sefor Perjorie E. Witte 5028 Merrill Street Terrance, CALIFERNIA 90504 U.S.A. Estimado señor oyente: Ref: SU INPORME DE RECEPCION Le agradecemos su Reporte de Recepción de fecha 20 de Mayo de 1962 , tenemos el gusto de confirmar su con-trolle muestras emisiones por Onda Corta en la banda de (Levison-PA). MOROCCO: Radio TV Morocaine 15335 f/d cd. in 37 ds. for a FR rpt. 6025 Mhz. and ms. v/s J. Tanane. (Bryant). Le agradecemos su fina deferencia y nos permitimos remitir le un recuerdo de nuestro país. Con este especial motivo, le ofresco las seguridades de mi consideración más distinguida.

GUATEMALA: La Voz de Nahuala 3360 f/d cd. in 78 ds. for a SP rpt. and 1 IRC. v/s Juan Fidel Lepe Juarez. (Schmitz). Radio Maya

TERRY L. KRUEGER MCZAMBIQUE: Radio Mocambique 4734 f/d "Globe" cd. in 78 ds. for a PT rpt. and 2 IRCs.(George). 9620 p/d cd. in 9 wks. for 2 κίε εύχαρίστηση έπιθεδακώνομε την άναφορά σας λήψεως της έκπομπής μας, ή όποία συμφωνεί με το πρόγραμμά We are very pleased to confirm your reception report of our transmission, which is in accordance IRCs. (Talbot). with our schedule. Hac. NAMIBIA: Radio SWA 3295 f/d cd. in 45 ds. for 3 IRCs.(Renfrew). 3270 f/d "Mountain Fire" cd. in 77 ds. Luxvottic / Frequency 15050 15040 KHZ Dpa / Time ____ 19.25 - 21.13 ----GMT for 2 IRCs. (Brouillette). <u>NEPAL: Radio Nepal</u> 9590 f/d "Pokhara" cd. for a 1980_rpt. v/s R.S. Нисроипула / Date _____ 21 Мау 1982. Σός εύχαριστούμε και θά We Thank you for your report, we will be pleased Karki, Studio Engineer.(Meyer). NEW BRITAIN: Radio East New Britain 3385 f/d cd. in 37 ds. for ms. χαρο πάλι ούμε αν μας ακούσετε to hear from you again. With best wishes from Μέ τις καλλίτερες εύχες άπο την Έλλάδα. Greece. AND THY EMODEL Decaded and the west pr 15040 KC 17.00-21 A 210 CHEK RADIO YELEVISION 5 50 KC DIRECTION OF TECHNICAL SERVICES IS MOURDOUTST. ATHEN STA RAD. STAT. MAKEDONIAS RAD. STAT. MAKEDONIAS v/s A.L. Rumina, Station Manager. (Bryant). same in 27 ds. for ms. (Wilkins-CO). NEW ZEALAND: RNZ 11780 f/d cd. w/ pennant in 17 ds. for 3 IRCs. VENIZELOU 4 THESSALONIKI HELLAS (Forst). NICARAGUA: Radio Zinica 6120 p/d form ltr. in 60 ds. for an EG rpt. and ms.(Bryant). same in 32 mo. v/s Arturo J. Veldez, Director.(Forth). n/d ltr. in 49 ds. for a SP rpt. and 2 IRCs.(Paszkiewicz). NIGER: ORTN Voix du Sahel 5020 p/d ltr. in 45 ds. for a FR rpt. and 3 IRCs. v/s Yacouba Alwali.(Davis). f/d From Radio Oman personal ltr. in 1 mo. for a FR rpt. and ms.(Bryant).same for 2 SULTANATE OF OMAN IRCs and a FR rpt. (Wood). NORWAY: Radio Norway International 11860 f/d "Agder" cd. in 30 ds. (Forsgren). 11850 and 15305 f/d cd. for a taped rpt.(France). OMAN: BBC 11955 n/d cd. in 72 ds. for 2 IRCs. (George). Dear An Karra L Howard, Thank you for your reception report and we are pleased to confir PAPUA NEW GUINEA: NBC 4890 f/d cd. in 34 ds. for 2 IRCs. v/s Pomsie the transmission of Radio Oman balifornia, U.S.A. Pomat.(Wood). same in 2 mo.(Bow-den). cd. w/ personal ltr. in 5 wks.(Kirkland). p/d ltr. in 27 ds. (McElvy). <u>Radio Eastern Highlands</u> 3395 f/d "Map" cd. in 3 wks.(Pal-1714 to 1743 Wrs (GMT) on 12.K. March, 1982 transmissed from Muscal Station of Kadib. A 3395 f/d "Map" cd. in 3 wKs.(Pal-mersheim). <u>Radio Western</u> 3305 f/d ltr. in 26 ds. for ms. (Bryant). <u>Radio East Sepik</u> 3335 f/d cd. in 55 ds. for 2 IRCs.(Allen). <u>Radio</u> <u>Southern Hirhlands</u> 3275 f/d ltr. in 36 ds. v/s Simon Muraga, Stat-ion Manager.(Forsgren). p/d ltr. in 43 ds. for ms.(Davis).p/d ltr. will be much appreciated. With best wishes from Radio Oman. Sincerely yo alhowthe ANE in 112 ds. (Bishop). <u>PERU: Radio del Pacifico</u> 9675 f/d ltr. in 22 ds. for a SP rpt. and ms. v/s J. Petronio Allauca.(Bryant). <u>Radio Union</u> 6115 f/d cd. in 1 mo. for a SP rpt. and ms.(Forth). <u>Radio Atlantida</u> 4790 p/d ltr. in 41 ds. * for a SP rpt. and ms. v/s Ivan Tenorio Matute. (George). <u>Radio Rioja</u> 5045 f/d cd. w/ ltr. in 1 mo. for a SP rpt. Pennant rcvd. (Field). <u>Radio Tacna</u> 6565 f/d form ltr. in 80 ds. for a SP racio Sweden international rpt. and 2 IRCs. v/s Alfonso Cacrpt. and 2 IRGS. V/S Allonso Cac-* eres C.(Schmitz). Radio Madre de Dios 4950 f/d "Map" cd. in 167 ds. for a SP rpt. v/S F.J. Aniz.(Fors-PHILIPPINES: VOA 9775,15580 gren). f/d cd. in 21 ds.(Forsgren-WI). i 6.772 Strail G PORTUGAL: Radio Portugal 9680 f/d cd. in 1 mo. for a cassette tape. (Eckert-PA). RHODES: VOA 7205 cd. in 18 ds.(Harms) ROMANIA: Radio Bucharest 11940 f/d 84 cd. in 2 mo. (Bowden).





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update

May 1986***Number 209

Tom Alleman 636 E. 74th Terr. Kansas City, MO 64131 USA (816) 523-7292 7-10 pm only

UPCOMING DEADLINES: 10 May (Mid-May) 20 May (June) 10 June (Mid-June)

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For those of you still waiting for your mid-month Update, there was no mid-April UD. There was no mid-April Update for one reason and one reason only: there were no contributions to UD for that period. I hope that I need not remind you of what that means, but it does not speak well for any of us. Each and every column in Frendx survives onvy so long as you support it. UD has no paid staff of monitors, and certainly I, live all of the other editors, am a volunteer. There is no one , in short, to do the work for you. There is no one who will contribute if you don't, no one who will reach out to other club members, no one to make the club go if WE don't do it. Let me emphasize that. In NASWA we get what we give. If we give nothing, we get nothing. No UD, no FRENDX, nothing. Please remember that, and support your club.

I understand that HQ will make appropriate arrangements concerning adjustments for mid-month subscribers, but there is neither rhyme nor reason in having an indefinitely long subscription if you get empty pages. Please contribute. ********

MONACO Radio Monte Carlo, 15465 nf, t/in 1228 to past 1330, continuous test transmission consisting of orchestral pops and jingle ID every two minutes, "RMC, Radio Monte Carlo." This format continued to 1335 t/out. While this is reminiscent of RMC Arabic feeders to be heard at least a few years ago, this seems to be different. It is much stronger and full AM modulation. Perhaps new service? Only problem is Moscow splatter off 15475. (Dave Walcutt, NY 3-26) ****

Some interesting material in the special contributions section. First via John Henault, our distribution editor, comes a series of reports from Roland Schultze in Stuttgart, Germany. I have taken the liberty of using them as a report of some interesting Euro DX, here because they arrived too late for the LR sections.

- TOGO Radio Kara, 1852-1900 FR, African folk mx, la press at 1900, early fade in. 3222 (3-25)
- 3229.1 PERU R. El Sol de los Andes, 2355-0035, SP, political reports, clear ID, Peruvian folk mx. This one rare in Europe. My first log. (3-26)
- 3249.5 HONDURAS R. Luz y Vida, 0018-33, SP. Religious prgms, religious songs. Clear ID w/ call, freqs, "musica la hora." Also rare in Germany. (3-27)
 3305.7 ZIMBABWE ZBC Radio 2, 1835-45, tentative, music at 1845 male talk. Best in LSB, too much QRM overall, high nois floor. (3-22)
- 3310.3 BOLIVIA R. San Miguel, 0103, SP, religious prgms, "Noticia Christo." (3-28) 3320
- SOUTH AFRICA SABC, 1850, verns, slow instr. mx, ID, nx. (3-18) MOZAMBIQUE RMozambique, Emissao Inté provencial, 1745, PT, high life mx, ID 3335v as R. Mocambique," 1800, nx. (3-21)
- 3360 CUATEMALA LV de Nahuala, 0240, in SP, religious prgms, marimba mx. (3-28)
- 4895 BANGLADESH R. Bangladesh, 1540, EG, nx by a woman, ID. (3-23)
- 4910.2 PERU R. Tawantinsuyo, 2315 active here. SP, ID, fine Peruvian mx. (3-26) 5199.1
- PERU R. Imagen, 0508-0620, SP, LA mx, Peruvian mx, clear ID. (3-23) 6260.1 PERU R. Melodia, 0428-0700, SP, LA mx, a lot of talks. (3-23)
- 7115 GUAM KTWR, 1355-1359, Japanese, ID, s/off w/ one IS. (3-23)
- 9615nf IRAQ R. Baghdad, 2040, GM, not listed, reports, nx, local mx. (3-20)

Thanks to Roland and John for getting this to you. *****

Next, a report from Dr. Richard Wood, one of our two Hawaiian DX connections:

AUSTRIA ORF, 11945, in GM 0810. Talk on Austrian organist. Good. (4-3) GANADA RCI, 6150, // Daventry 7295 and Sackville 9760, in FR *0500. EG 0515, FR 0530, EG 0545-0600*. Morning nx to Europe, Middle East, Africa, new time. Ex-0600-0700 sked in 1986 WRTH. (4-3)

CHINA CPBS Minority Lanugages Service, 17635//15670, at *0528 IS (from "East is Red" but different from RB external service version). "East is Red" s/on 0530, Tibetan ID, nx,

NASWA UPDATE/May 1986---mx, 0555*. 0558 IS, 0600 into Uighur, ID: "Merkazi Khalik Radiostansi" (=CPBS), mx and nx, 0625*, 0628 IS, 0630, Kazakh ID, nx ("khabarlar"), mx, 0655 ID, s/off. Both good. (4-1 and nightly) Clandestine to Kampuchea via R. Beijing, 17680 // 15400, at *0400-0457* in Khmer, similar to RBijing in prgogram style, modulation, tone, timing and all else, but no Beijing ID at s/on or s/off melodies. Supports Norodom Sihanouk and attacks Vietnamese presence in Kampuchea. Both good. (4-5 and nightly) DENMARK RD, 11785, in Danish to Greenland 1800. Nx, remote reports. Good. (4-2) <u>TINIAND</u> RF, 11755, in Finnish, "uitiset" (nx) 1800, fair. QRM RBeijing in RS. (4-2) <u>Also on 6120 in Finnish, economic nx 0445, 0453 nx of funeral of Olav Palme, to Europe. Good.</u> (3-16)GERMANY (FED REP) SDR, Stuttgart, 6030, *0452, repeated electronic mx IS, 0455 ID, s/on on a Sunday. Quite good. QRM VoA. (3-16) VoIRI, 11975, in AR 0400. ID: "Huna Tahran, Sawt ul Jumhuriyat ul Islamiya a Fi'l IRAN VoIRI, 11975, in AR 0400. ID: "Huna Tahran, Sawt ul Jumnurlyat ul isamiya" in Iraniya". Iran." Note the subtle change in ID text from that listed in 1986 WRTH. Ending "el Iraniya" (of Iran, belonging to Iran). The new title suggests the Islamic republic does not belong to Iran but is only (at the moment) located there, whereas in the future it could equally well be located elsewhere, e.g., in Iraq or bhanon. New freq. Good (3-16)***Interesting. tba KY, 15615, 0635, Hebrew cultural discussion, good. (4-2) ISRAEL. KOREA (N) RP, 21450, *0500-0650* in Chinese, announced sked in Beijing time. Highest freq ever noted for R/ Pyongyang; highest freq listed in 1986 WRTH, where RP sked seems incomplete and outdated, is 15415. (4-3) RP, 13650, *0500-0550* KR, *0600-0650* EG, mailbag answering Ethiopian listener. This freq well established but unlisted in 1986 WRTH, which tends to ignore the now-booming 21 (or 22?0 meter band. Good. (3-16 and 4-3) RP, 9570, *0600 in RS, "Govorit Pkhengyang," into nx, fair QRM BBC. (4-1) LUXEMBOURG RTL, 6090, going into CM 0600, gospel transcription, from a W German evangelist. Good. (3-16) MEXICO XEWW, 6165, in SP 0653, spot for "Mexico 86 en Panamex," ID for XEW. Good. (3-16) N. MARIANA IS. KFBS, 9535, 1545 in Ukranian accented RS (g pronounced as h), gospel, ID 1600, good. (4-1) OMAN RO, 17735, in Ar 0500, time signal, listed freqs, beamed to Egypt, Middle East, Europe and the Americas. In distinctive Comani Arabic which shares hard g (not j) with Egyptian but is like Saudi AR in most other ways. New freq. Oman appears to be in Ar only on SW, has dropped EG. Beware Iraq and other AR speakers around this freq. Good. (4-5) PAKISTAN RP, 17760, 0630 in UR, ID, film mx. Good. (4-2) RP 17692, 0600 in UR, ID, azan; good but hummy modulation, probable drift here. (4-9) PHILIPPINES FEBC, 15350//11850 in EG 0730, world and Filipino nx, interesting listening at this time when Ferdinand Marcos lives only 300 miles from me. 11850 replaces 11890 sked in 1986 WRTH. Good. (4-3) POLAND RP, 6095//7145, 9525 in PL 0440. Talk on increased food prices. All good. (3-16) SOUTH AFRICA R. Suid Afrika, 9555, in AK 0600. "Hier is die nuus" (=nx). Good. WRTH 1986 says may use 9555 or 11885; 9555 is used. Good. (4-1) SYRIA SRTO, 12085, 0700 in AR, inspriational mx, talk of Damascus, unscheduled this time in WRTH 1986. Good. (4-2) UAE R. Dubai, 21695, in AR 0655, mx. 0700 time signal, ID, high freqs are open late here these evenings. Good. (4-2) VATICAN RV, 6250//7250, 9750, 11715, Esperanto talk on family life, declaration by Patriarchate of Moscow 0512, at 0515 11715 went into Irish accented EG to Africa. All Good. (4-3) ******** Thanks to Richard Wood, and to Roland and John for special reports and to Dave, who also reported. ***************** Next time reports from Dale Parks, the other half of our Hawaiian connection. We simply ran out of space this time around. Please take a second and reread the comments at the front of this column. UD and all other NASWA departments are what you make them, no more and no less.



Editor: Mike Harris, P.O. Box 264, Grove City, OH 43123

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AUSTRALIA. ABC Alice Springs. 1225. EE. Big Band style music(23/3 Meyer); @ 1345 2310 w/ "Stairway to Heavan" mx and ID(12/3 Moman); • 1103 w/ pop music(no date-Sellers) CHINA. Fujian PBS. 1350. CC. Drama programme, instrumental music(26/3 Sharpe) 2340 BRASIL. R. Trans-Amazonia. 0042. PT. Musical pgm. (26/3 Slagt) 2410 AUSTRALIA. ABC Katherine. 1110. EE. Discussion about life of Christ, partial ID v/ time given(18/3 Allen)(18/3 Hardester) 2485 COLOMBIA. R. Recuerdor. 0050. SS. "Mexican" music. (26/3 Slagt) 2620 MKICO.IEHI. 1056. SS. Choral anthem, rooster crov's. (25/3 Allen) NORTH KOREA. KGBS. 1436. KK. Revolutionary talk. (23/3 Sharpe) 2940 3150 NORTH KONEA. KGGS. 1430. AN. REVOLUTIONARY TALK.(2)/3 SHAFPE/ TOGO. R. ..Kara. 22/4. FF. U.S. Pop's, brief news at 2300. off @ 2302.(7/2 Burnell) <u>VENEZUELA</u>. R. Occidente. 0310. ID at 0315. LA mx.(2/3 Stanley) IMCONESIA. RRI Tanjung Pinang. II. 1355. Pop vocals, time, ID(25/3 Sharpe) <u>PERU</u>. R. Sol de Los Andes. 0941. SS. Rapido talk de OM at 1001. Weak.(23/3 Giella) 3222 3225 3229 REP. SOUTH AFRICA. R. Five. 0410. EE. Nx, cigarette ad, jingle. (18/3 Hill) VENEZUELA. LV de El Tigre. 0810. SS. LA Pop vocals, ID's. (26/3 Bobb) 3250 3253 3265 INDONESIA. RRI Gorontale. 1113. II. Choral music followed by ID & talk. (20/3 Allen) INDONESIA, RRI Gorontale. 1113. II. Choral music followed by ID & talk. (20/3 Allen) <u>ECUADOR</u>. LV del Napo. 0201. SS. Extended talk by OM, reference to Guatemala.(28/3 Jordan) <u>SOUTHWEST AFRICA</u>. SWABC. 0400. AF. Ezl music, pop songs, possible nx.(28/3 Stanley) <u>GUATEMALA</u>. R. Gultural. 1050. SS. ID, rel. pgm, freq sked given.(14/2 Gurley) <u>GUATEMALA</u>. R. Maya de Barillas. 1125. SS. Religious programme.(26/3 Meyer) <u>RWANDA</u>. RW. 0400. Under CHU w/ apparent mewisin FF. (22/3 Rigas) DADMA MEU CUTURA. P. Post South 1002. PD. Barbat show (20/2 Rigas) 3280 3295 3300 3325 3330 PAPUA NEW CUINEA, R. East Sepik. 1202. PD. Request show.(20/3 Rigas)
 INDONESIA. RRI Ternate. 1143. II. Jakerta news on hour. lel ID. (25/3 Allen)
 NEW CALEDONIA. RFO Noumea. 1027. EE/FF. Traffic report in EE, FF annts.(11/3 Allen)
 PAPUA NEW CUINEA. R. Wilne Bay. 1013. PD. Pop music programme w/ Lionel Ritchie 3335 3344.8 3355 3360 tumes. (20/3 Allen) 3380 GUATEMALA. R. Chortis Jocotan. 0140. SS. "Eye of the Tiger" by "Survivor" tune and other pop's.(17/3 Klein) ECUADOR. R. Iris. 0345. SS. Pop songs in EE. freq ID's given. (1/3 Hill) FR. GUYANA. 0237. FF. OM w/ FF songs and talk pgm. (9/3 Bobb) 3381 3385 INDONESIA. RRI Kupang. 1146. II. Children's pgm, relay of Jakarta nx at 1200, poor v/ heavy QRN. (18/3 Allen) PERU. LV del Valla de Mantaro. 0048. SS. ID heard but extreme QRM. (23/3 Slagt)-what 3386 were the details of ID, etc(ed) 3607.5 JAPAN. NHK Tokyo. 1015. JJ. Presumed NHK here in SSB mode. JJ talk. (23/3 Allen) CLANDESTINE. R. Venceremos. 0035. SS. Martial music, ID. (16/3 Alexander) 3724 INDONESIA. RRI Banda Aceh. 1100. II. ID and talk. (7/3 Slagt)-again...details!! 3905 HONG KONG. RTVHK. 1055. EE. Tones to ID every 30 sec. 6 pips at 1100.(28/3 Paszkiewicz); * 3940 (27/3 Meyer) VANUATU. RV. 1010. PD. ID & Freq annt, then religious pgm. (28/3 Slagt), (20/3 Meyer) ENGLAND. BBC. 0427. EE. Press Review of FF Elections. (17/3 Klein) 3945 3955 PGLAND. BBC. 0427. EE. Press Review of FF Elections. (17/3 Klein) FALKLAND ISLANDS. 0430. EE. Rapid talking British-sounding DJ.(21/3 Park)(26/3 Bobb) LIBERIA. VOA. 0349. EE. "Daybreak Africa" w/ Paul Blair. (21/3 Seller's) GAMERAON. R. Bafoussam. 225. FF. Messages & requests, S/off at 2304.(16/2 Burnell) BOLIVIA. R. Riberalta. 0223. SS. LA music, clear ID's by OM.(31/3 Giella) BULTVIA. R. Riberalta. 0223. SS. LA music, clear ID's by OM.(31/3 Giella) BULTVIA. R. Riberalta. 0223. SJ. LA music, clear ID's by OM.(31/3 Giella) BURMA. BBS Rangoon. 1428. "Gong" chime music, OM v. talks. (27/3 Sharpe) GELEBES. RRI Ujung Pandang. 1257. II. Talk by VL, IS at 1300. (2/3 Paszkiewicz) MIGERIA. FRON Kaduna. 0511. EE. News for "a quarter past six". (8/3 D'Angelo) FERU. R. Atlantida. 1004. Lively LA pop's. (15/2 Gurley) © 0300.(16/3 Alexander) FCUADOR. LV de los Caras. 0158. SS. Romantic songs/vocals. (21/3 D'Angelo) 3958. 3990 4000 4694 +4725 4753 4770 4790 ECUADOR: LV de los Caras. 0158. SS. Romantic songs/vocals. (21/3 D'Angelo) TESOTHO.RL. 0325. Sethoso. African songs.(25/3 Stanley) & others...... RRASIL. RD de Amazonas. 0905. FT. World news, talk about Carnival. (17/2 Gurley), 4795 4800 4805 (25/3 Thunberg) 4810 BOLIVIA. R. Libertad. 0203. SS. Romantic ballad's, ID. (27/3 Howard) GALAPAGOS. LV de los Galapagos. 0100. Local annts, sports pgm. (17/2 Burnell),(28/3 Rigas) PERU. RD San Martin. 0912. SS. ID and music. (7/3 Bobb) BURKINA FASO. RDF Burkina. 0041. FF. Tribal music. (28/3 Klein), @ 2240(16/3 Meyer), @ 4815 2359 w/ short annt, anthem, then off.(12/3 Moman) — THANKS DONI 4820. <u>BOTSWANA</u>, RB. 2025. Pop music. (22/2 Burnell), • 0510 w/ nx in EE. (26/3 Field) <u>ECUADOR</u>, R. Paz y Bien. 0855. SS. Chopin piano music, vocal solo. (8/3 Bobb)

HONDURAS. LV Evangelica. 0203. SS. HRV: D and religious discussion. (16/3 Dillon) PERU. LV del Zanda. 1000. SS. Andina music, QRM de Paz y Bien. (16/3 Slagt)

4824.7 <u>BRASIL</u>. R. Ed.Braganca. 0250. PT. LA ballans, NA. (16/3 Tuchscherer) 4825 <u>USSR</u>. Vladivostok. 1210. RR. Talk by OM & YL w/ mention of Moskow and other Soviet areas. (16/3 D'Angelo) 4830 COSTA RICA. R. Reloj. (BIHV). 1112-1130. SS. Frequent TC's, music, ad's, birthday greetings. (14/2 Gurley) GABON. AF#1. 2034. FF. News in FF, pgm on "Twareg" people w/ mx interludes.(9/2 Burnell) VENEZUELA. T. Tachira. 0205-0240. SS. ID by OM w/ brassy LA pop's.(22/3 Dillon) GUATEMALA. R. Tuzulatlan. 0110. SS. Marimba music past 0200. (4/2 Field) 4835 MALI. RTVM. 2033. FF. FF news at 2031, mx after 2033. (9/2 Burnell); @ 2307 w/ talk and into hilife music, discussion followed, then phone-calls // 4783. (11/3 D'Angelo) REP. SOUTH AFRICA. SABC. 0430. EE. Feature on first official vx forcast 125 years ago in London. (31/3 Park) VENEZUELA. R. Valera. 0034. SS. Madonna song followed by excited "Valero-Numero Uno" ID's. (15/3 Klein)(17/2 Gurley)(22/3 Dillon) 4840 4845 COLOMBIA. R. Bucaramanga. 0335. SS. Instrumentals and LA vocals, ID including EE annt "Radio Bucaramanga, the World listens", more EE w/ "the music of Colombia" @ 0349, S/off, address, and anthem at 0356. (5/3 D-Angelo) 4850 CAMERCON. R. Yaounde. 2312. FF. Hilife music. (19/3 Klein)@ 2249 best ever heard w/ variety of music. (25/3 Tuchscherer)&(26/3 Field) VENEZUELA. R. Capital. 1001. SS. Music, frantic ID's. (17/2 Gurley) 4860 PERU. R. Chinchaycocha. 0038. SS. EE pop songs, several ID's, € 0105 world news, fair signal. (25/3 Howard) 4865t CHINA. Gansu PBS. 2303. CC. Presumed news read in CC. (29/3 Rigas) 4875 <u>BRASIL</u>. RN Boa Vista. 0315. PT. Fair w/ Bras vocals and ID's. (28/3 Rigas)(9/3 D'Angelo) <u>4876</u>t <u>BOLIVIA</u>. R. La Cruz del Sur. 1035-1100. Andean vocals w/ flutes, choral anthems, reverb effects. (27/3 Bobb) 4880 REP. SOUTH AFRICA. SABC. 0412. AFK. Accordian music "Tie a Yellow Ribbon", ID "Radio Suid Afrika". (22/3 Dillon) 4890 ECUADOR. R. Centinela del Sur. 0030. SS. Sports commentary. (28/3 Slagt) SENEGAL. ORTS. 2355. FF. Single chima, ID and World news. (22/3 Bobb) **FAPUA NEW GUINEA. NBC Port Moresby. 1107-1136. EE. Religious talk about christain living in PNG, later focused on freedoms in PNG including freedom of press role in fighting corruption in society, ID by YL at 1134. into soft EZL music. (16/3 D-Angelo)-best detail: given in any report this month, the rest of you should take notes! 1-ed. BRASIL. R. Bare. 0112. PT. Jazz & instrumentals. (29/3 Paszkiewicz) (25/3 Bobb) 4895 0030 4890 ECUADOR R. Cent. del Sur R. Valera 0855 4820 ECUADOR R. Paz y Bien 0034 4840 VENEZUELA 0905 4805 BRASIL R.D. de Amazonas 0035 3724 CLANDEST. R. Venceremos 0912 4810 PERU R. San Martin 0038 4860 PERU R. Chinchaycocha 0941 3229 PERU R. Sol de los Andes 4815 BURKINA 2410 BRASIL 4820 PERU 4850 VENEZUELA 4790 PERU 0041 LV del Zanda RDFB 1000 0042 R. Trans Amazon. 1001 R. Capital 3386 PERU LV de V. Mantaro R. Atlantida 1004 0048 1010 3945 VANUATU 1013 3360 PAPUA N.G. 0050 2620 COLOMBIA R. Recuerdor R.V. R. Milne Bay 0100 4810 GALAPAGOS LV de Galapagos 1015 3607 JAPAN 1027 3355 NEW CALED 1035 4876 BOLIVIA 4835 GUATEMALA R. Tuzulutlan NHK Tokyo 0110 BRASIL R. Bare NEW CALEDON. RFO Noumes 0112 4895 0140 3380 GUATEMALA R. La Cruz del Sur R. Chortis Joc. ECUADOR RTVHK 0158 4795 LV de los Caras 1055 3940 HONG KONG 0201 3280 ECUADOR LV del Napo 1056 2940 MEXICO XEHI RRI Banda Aoeh R. Libertad 1100 3905 INDONESIA 4810 BOLIVIA 0203 4820 0203 HONDURAS LV Evangelica 1107 4890 PAPUA N.G. NBC Port Moresby 1110 2485 AUSTRALIA ABC-Katherine 0205 4830 VENEZUELA R. Tachira 3265 INDONESIA RRI Gorontale 4694 BOLIVIA R. Riberalta 1113 0223 0237 3385 FR. GUIANA RFO 1143 3344 INDONESIA RRI Ternate 1146 3385 INDONESIA RRI Kupang 0250 4824 3225 BRASIL R. Ed. Bragan. 0310 VENEZ UELA R. Occidente RN Boa Vista 1225 2310 AUSTRALIA ABC-Alice Springs 0315 4875 BRASIL 1257 4753 CELEBES RRI Ujung Pandang 4800 LESOTHO 1355 3225 INDONESIA RRI Tanjung Pinang R.L. 0325 1436 3150 N. KOREA 0335 4845 COLOMBIA R. Bucaraman. KCBS 1428 4725 BURMA 2033 4835 MALI BBS Rangoon 0345 3381 ECUADOR R. Iris 3990 LIBERIA 0349 VOA RTVM R. Bafoussam 2225 4000 CAMEROON 0400 3330 RWANDA R.W. S.W. AFRICA SWABC 2244 3222 TOGO R. Kara 0400 3295 2303 4865 CHINA Gansu PBS 0410 3250 RSA R. Five

> Not much room left. Let me know how you like the FRCN Kaduna time order format and perhaps I'll continue with it. 73's & CUN 30111 LV de el Tigre mule

R. Yaounde

ORTS

2312 4850 CAMEROON

2355 4890 SENEGAL

RSA

FALKLAND

NIGERIA

U.K.

RSA

3253 VENEZUELA

SABC

BBC

FIBS

SABC

0412

0427

0430

0430

0511

0810

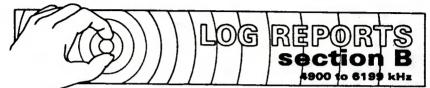
4880

3955

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4770



Editor: Jerry Berg. 38 Eastern Avenue. Lexington, MA 02173

An oldie is back, R. Antillas, Dominican Republic . . . see 5955 . . .

- GUINEA Conakry, easy instr.mx at 2341 on 3-11, ID and anmts 2359, then orchestral NA 0001 to 0003*, poor overall (D'Angelo-PA); 3-26 2345 with FR Afr mx, MAW talking, balafon IS, ID, NA to 0001*, noisy reception (Bobb-MN). 4900 GUINEA
- 4905 BRAZIL R. Araguaia, good with US pops at 0120 3-29, big ID at 0130 (Rigas-IL); 0130 on 3-26, pops, echo ID, annt string 0142, novelty tune, fair sig (Jordan); Beatles at 0153 3-20, PT vocals, ID, good sig (Forth-IL); Br.pops and rock mx 0245 on 3-18, man anner, fair-good sig, wx noise (Dickson).
- 4910 HONDURAS LV de la Mosquitia, relig.prgmng 0100-0200 3-19, ID 0133 by man, fair sig in moderate unM (Giella); folksy LA mx 0305 on 3-11, armts, relig.mx, good sig (Dickson); relig.prgm, man talking, 1143 on 3-26 (Field-MI).
- 4910 PERU R. Tawantinauyo, frequent IDs 0926 3-13, ads, vocals; poor, better by 1100(Allen-Cl ZAMBIA Lusaka, weak with eagle IS 0345 3-29, anthem, vernac.talk 0353 (Alexander-PA). 4910
- 4915 4920
- ZAPBIA LUBAKA, Weak With eagle 15 0/49)=49, minteen, vernac.taik 0/07 (Alexander-Fa). <u>COLOMEIA</u> Armonias del Caqueta, 1001 3-7 with NA in progress, chimes, man with ID, pipe organ intro, song, F-C in QRM (Bobb-HN); 1004 3-4, s/on, relig.prgmng (Slagt-ARUBA). <u>AUSTRALIA</u> ABC-Brisbane, 0810 with nx, ID, US mx, heavy QRM; also 1010 on 3-4 with nx, off suddenly at 1012 (Slagt-ARUBA); poor-fair at 1119 3-24, literary reading and discussion (Sellers); 1120 on 3-16, clas.mr, //9680-Lyndhurst; ABC ID prior to 1200 4920
- 4930
- 4935
- discussion (Sellers); 1120 on 3-16, clas.mx, //9680-Lyndhurst; ABC ID prior to 1200
 nx, TC, nx from Victoria, fair signal (D'Angelo-PA).
 ECUADOR R. Quito, soccer game 0232 3-25, emotions, ID, beer ads (Slagt-ARUBA).
 EAITI 4VEH, in FR 0035 2-28, EC lesson, Haitian pops, ID 0055 (Slagt-ARUBA).
 PERCU R. Tropical, 0230-0250 on 3-29, poor with het, man talking, light SP mx, ID at
 0249 (Alexander-PA); poor at 0230 on 3-28, talk, several IDs, romantic ballads, echo
 IDs, fqy and anmt 0250 (Jordan); ads, R. Tropical D at 1101 on 3-25 (Field-MI).
 ERAZIL R. Nacional Forto Velho, 0325 3-28, talk by man, finally gave R. Nacional ID at
 0340 (Rigas-IL); 4950, this one at 1000 on 3-5, ID, nx, "Jornal do Noticias," local
 nv (Slagt-ARUBA) 4945 nx (Slagt-ARUBA).
- CLANDESTINE Voz de Verdade, 0306-0348*, talk in PT, ID, pops, drum rolls, etc. 4946 4950
- (Jordan); 0318-0341 3-4, IDs, local mx with some dead air, very weak, btr in USB(Gavaras) INDONESIA Probably RRI-Banda Aceh, IS 1259 3-21, into Djakarta nx, too weak to read, 4955 most likely this as it was a good Java/Sumatra morning (Wilkins-CO). 4970
- SABAH Kota Kinabalu, Islamic prgm 1315 on 3-19, nx 1330, into AR prgm 1340 (Wilkins-00). 4980 VENEZUELA Ecos del Torbes, 0233-0308 on 3-16, ads, ID, man DJ, lively LA mx, TCs, stn promo, mention of Tachira, good signal (Dillon-MD).
- MIGERIA Lagos, 2246 3-11, jasz to 2300, pips, TC, nx, TC again, ID, NA, 2305*(D'Angelo-PERU R. Ancash, Andean flute mx at 0930 on 3-5, no ads, ID at 1000 (Slagt-ARUBA). PA) 4990
- 4990 PA). 4990
- SOUTH AFRICA R. RSA, 0300 3-22, IS, ID, nr, bible reading, EG, poor sig (Stanley-AZ). 4991
- SOUTH AFRICA R. R5A, 0000 7-24, 15, 10, nx, 01010 reading, 50, poor mig (staniey-AL). ECUADOR R. Baha'i, 0436 3-12 with moft instrumt, talking, Baha'i ID, into mofoff routine at 0452, fqy, NA, to 04574; poor overall (D'Angelo-PA). PERU R. Andina, 0215-0245 3-24, typical 0A-style mx, TCs, fair-good, ID 0221 (Dickson). SURINAM Tent. R. Apintie, but no ID or talking, non-stop mx; 0256-0315 3-20, uncertain of language, modern jazz prgm, semi-clas. piano, EZL mx, weak but clr (Dickson). DEGU D. For 0245 3-20. 4996 5005
- 5010
- PERU R. Eco, 0245 3-20, pop and rock, several IDs, ads, promos, good in wx QRN (Dickson) BRAZIL R. Cultura, romantic Br.mx 0240 3-25, ads, male DJ, Nat King Cole (Slagt-ARUBA). GLANDESTINE R. Truth, #0430 3-29 with usual anti-Zimbabwe pol.cmtry, bird IS at s/on and 5015 5015
- a/off; weak but readable in USE ECSS (Hill-MA); 0435 3-31 with usual propagands (Field-MI); 0442-0500* in EC, nc, cmtry, guitar bridges, ID, trumpets, bird IS, off(Passkiewicz) ECTADOR Rfonicas Escuelas Populares, 0A mx 1000 3-7 (Slagt-ARUBA). PERU R. Moyobamba, mx romantica 0216 3-21, ads after each selection, NA 0300 by kids 5015
- 5015 choir and off; fair with QRM (Wilkins-CO).
- 5020 NIGER Niamey at 2219 on 3-8, FR, Afr mx, talk, NA to 2302* (Tuchscherer-WI). <u>NIGER</u> Niamey at 2219 on 5-8, FR, Afr mx, talk, NA to 2502^e (Tuchscherer-w1). <u>SOLOMON IS</u>. Honiara, 1127 5-16 with mx requests, rock, casual chatter, notes from letters, nice ID 1201 but poor by then and starting to fade (D'Angelo-PA). <u>BRAZIL</u> R. Jornal Transamazonica, 0820 5-26, mx with much talking, ID (Field-MI); 0840 on 3-20, vocal mx, man with mentions of Altanira, ID, poor sig (Bobb-MN, who rpts on 5025). <u>CUBA</u> R. Rebelde, LA mx 0510 3-23, many American tunes, a spoof of Reagan (Jones). <u>TANDA</u> Kennels with Fr my sold(0, 3-29 beauty solor ad year with bits bet (Hill_WA). 5020
- 5027
- 5025 5026
- UCANDA Kampala with EG nx +0400 3-29, beauty salon ad, weak with big het (Hill-MA). PERU R. Los Andes, NA at *0913 3-11, full ID, fqys, beautiful OA folk and instr.mx; "la 5030 senal mas importante" (Allen-OK); nice flute mx 0959 3-9, ad string, "Buenos Dias Peru y America" program, good signal (Forth-IL).
- SUDAN Omdurman, NA 0358 3-2, s/on anmts, ID, Koran, flutes, talk, time pip, nx 0430 5039 (Paszkiewicz); 5040, maybe them or Tbilisi, 0401 3-23, M&W talking, very weak (Field-MI).

- 5039 CLANDESTINE New one here, LV de la UNC (Unidad Nicaraguense Opositora), political talk 0156-0259 4-6, full IDs 0224, 0230, strong with moderate het (Giella); #0207 on 3-23, anti-Nic, ID, MA, talk, also gives skeds for Miskut, 15 de Sept (Rigas-IL); many IDs, ments.of Nic, SP vocals, good 0239-0307* 4-6 (Gavaras); 1109 4-5, "combatiendo la disinformacion Sandinista" (Brouillette); 1120 4-3, strong, annes sked as 1100, 2000 and 0200; hrd till 1157* (Wilkins-CO).
- VENEZUELA R. Maturin, 0345 3-23 with Rumbos net nr, ID 0350, off with NA (Field-MI); 5040 0910 on 3-19 with man giving ID, greetings, mx, fading out, fair with GSB (Bobb-MN). 5043.6 ANCOLA ER de Benguela, armts by M&W 0402 on 3-6, then NA, ID 0406 (Tuchscherer-WI).
- BRAZIL R. Culturs do Para, 0246 with Br.vocals to s/off anmts, ID, foy, into choral 5045 NA at 0300; carrier stayed on for 4 minutes to 0305*; fair sig (D'Angelo-PA).
- 5046 5050
- 5055
- NA at 0,000; carrier stayed on for 4 minutes to 0,005*; fair sig (D'Angelo-PA). INDONESTA RRI-Jogjakarta, Everly Bros. 1314 J-21, xylophone 1359, into talk(Wilkins-00) OUCMENTA LV de Topal, ID 0115 3-15, then s/off after NA (Slagt-ARUBA). OOSTA RICA TIFC, SP relig.prgm 0116 3-15, ID 0120, QRM from the HC (Slagt-ARUBA). ECUADOR R. Catolica Nacl, SP relig.prgm at 0030 3-7, ID hrd, but hvy TIFC QRM (Slagt-ARUBA); 1057 on 3-7, KA, flute mx 1101, s/on ID with fqys, fair sig (Sellers); *1100 on 3-16, instr.mx, choral NA, then s/on ID, fqys, fair signal (D'Angelo-PA). FRENCH GUIANA Cayenne, *0400 3-22 (Field-MI)(time correct on that one, Marlin? JB); OG01 3-24, and of NA ED 2000; talt and the rest (Sellers) 5055
- 5055 0901 3-24, end of NA, FR anmts, mx 0903, talk and mx prgm 0904, fair to good (Sellers).
- COLOMBIA R. Sutatenza, very good with ads, ID at 0057 3-26 (Slagt-ARUBA). 5095 PERU R. Imagen, 0126 3-23, man talking, mx 0142, long wait for ID at 0158 (Tuchscherer-WT); 0334 3-23 with EC rock mx, some DJ talk, mx bridges between tunes, ID, TC 0356. 5199 fair sig (D'Angelo-PA); tent. them 0730-0815 4-6, weak, 0A mx, a few anmts, couldn't get ID (Alexander-PA); 1047-1110 3-8 with local anmts, ads, fair sig (Forth-IL).
- CHINA Urumqi, Kazakh 1525 3-13, singing, mandolin, xylo-like mx, //4330 (Park-HI). PERU Tent. R. Cutervo, 0210 3-4 with Andean mx, flutes, man annor, weak sig (Dickson). 5440 5661
- 5860
- 5885
- <u>FERU</u> TERT, R. CUTETVO, V210 3-4 WITA Andean mX, flutes, man anner, weak sig (Dickson) CHINA CPBS, 1522 3-13 in CH, Beijing opera mX, fair sig, //5880 (Park-HI). <u>ISRAEL</u> KI in EC 0210 on 3-22, talk about ancient Israel (Slagt-ARUBA). <u>USSR</u> RM WS, 1400-1435 on 3-22 with nx, views, folk mX, poor sig (Brann); fair from Petro-Kamch, 1717 3-7, "The Way We See It" on Pacific nuclear weapons (Park-HI). <u>BELGIUM</u> BRT, 0102 3-3 with "MX Box," Belgian pop tunes (Swaringen-NC); 0120-0125" on 3-28, Euro mX, sked, address, poor signal overall (Jordan). USRAEL2 Tent, HI MS TH MY MOR 0428 3-10 in 4R encondion are for marks marks marks. 5900
- 5910
- ISRAEL-? Tent. KI ES "D", poor 0428 3-10 in AR, accordion mx, 5+1 pips, maybe nx(Park-5915 USSR RM WS, Khabarovsk, in HG, nx, 1825 on 3-19, poor, //5900,5950 (Park-HI). HI 5920 CZECHOSLAVAKIA: Prague, 0059-0125, s/on, nx, mx, good sig on 3-15 (Brann); 0132 on 3-11 with sports catry in EG, talk on unions, peace (Levison);)300 3-13 with IS, pips, ID, 5925
- nx, "Editorial," "Mx for Your Tape Recorder," fair sig (Stanley-AZ); EG 0300 3-15, Palme funeral (Dickson); 0325 on 3-11 with ID, mx, prgm about books, "Sports Roundup," talk on trade unions (Nelson-ND); 0355-0355* on 3-21, Euro version of "Fame" theme, discussion prgm, fair-poor signal (Jordan).
- BRAZIL R. Cazeta, 0600 3-22 with MAW anners, relig.prgm, ID 0830, fair-good (Forth-IL). 5955 5955.5 DOMINICAN REPUBLIC R. Antillas, economic prgm, political talk 1022 3-8, IDs are quick and hard to catch; ads, poor-fair (Allen-OK); "Noticiero Antillas" hrd 1000 past 1115 3-21, many ads, plugs for Pres. Jorge Blanco, GTT-4 TCs, very good to 1130 fadeout; used to be on 4960 yrs ago (Wilkins-CO); #0900 with NA, ID annog 1120 MW and 4960, then mx, "LV de la Agricultor" prgm 0930-0955, "Noticiero Antillas" 1000, fades out soon after here; beware big Ruancayo, then Centauros, sigs on 5955 (JB).
- CANADA RCI, 0100 3-9, world nx, sports, ID, "Can a la Carte," "Searching for Atlantis" (Dillon-MD); 0410 3-10 with SWLD, prgm preview (Nelson-ND). 5960
- NICERIA Flateau B/C Corp. Jos, ads 0550 3-21, gal talking in EC, talking drums IS 0559, 0600 R. Nigeria nz, good sig but slop from Cuba-5970 (Wilkins-CO). 5965
- CUBA Havana, in FR, SP, EC 0340-0420 on 3-21, much mx, poor sig; //6090, 6100, 6100 5970
- (<u>UDA</u> Havana, in FK, SP, EL 0340-0420 on 5-21, much mt, poor sig //6090, 5000, 5000, (grood-vy good), 6190 (QRMed), 9740 (poor); to Americas and the Caribbean (Jordan). <u>COLOMBIA</u> R. Macarena, 0923 3-7, EJ mx, TC, reverb ads, fair-good sig (Bobb-HN). <u>SOUTH AFRICA</u> R. RSA, 0200 on 3-20, IS, TC, ID, nx, cmtry, fair sig (Stanley-AZ); 0411 3-2 "Good Morn Afr" with pops, "This Day in History, "//4990, 5985 (Park-HI). TAIWAN VoFC, poor at 1125 in EC with current US hits, //1285 (Park-HI). 5975 5975
- 5980
- 5980
- USA VoFC over WYFR, EG interview 0233 3-18, "Beyond Sorrow" (Levison). 5985
- JAPAN R. Japan at *1100-1115 3-16, IS, ID, nx, cmtry, all EG, fair sig (Trotto-FL); *1200 3-24, EG ID, possible nx (Slagt-ARUBA); 1700 on 3-15 with IS, ID, EC nx(Stanley-AZ) ROUMANIA Bucharest, EG world nx 0202 4-1, cmtry, fair (Cobb-ME); 0249 3-30, poor with rpt on public mx performances, ID, in EC (McElvy). 5990 5990
- AUSTRALIA RA, nx 0840 3-8, ID, to PNG (Slagt-ARUBA); 1315 intl rpt, Aussie nx,exc(Brann) CUBA RM, over Havana, 0009 3-7, nx, Radio Bridge, fair sig (Brann); 0235 4-8, talk about 5995 6000
- spaceflight, ID as N.Am Svc (Swaringen-NC); EC "Outlook" 0300, //150, 3-23(Dillon-MD). ASCENSION IS. BEC WS relay, "Waveguide" 0437 3-12, "Books and Publing," //5975 (Park-HI) W. BERLIN RIAS, live GM vocals 2313 3-10, TC, ID, nx 2330, cmtry about space shuttle, 6005 6005 BBC s/on at 0015 recheck (Paszkiewicz-WI).
- 6010 SOUTH AFRICA R. RSA, EC 0200, nx, IDs, econ. rvw, //5980, 9615 (Stanley-AZ, Dillon-MD). NICARAGUA Voice of Nic, 0105 3-9, anti-US/contra talk, good but jammed (Brann); EC 0105. 6015
- anti-US talk (Dickson); EG 0415 3-2, US pops, local quality (Dickson again). 6020 MADAGASCAR RN relay, EC love songs 1900 3-10, vy poor-unusable, //9540 (Park-HI).

NETHERLANDS RN, EC 0140-0225 3-31, "Happy Stn," Easter mx, //9895, fair (Dillon-MD). 6020 HUNCARY Budapest, #0130 3-25, IS, possible Hung ID, maybe nx, possible EG 0200, poor 6025 (Jordan); poor in EG 0200 3-14, IS, ID, nx (Stanley-AZ); good 3-2 at 0200, nx, Palme funeral (Dickson); EG ID 0300 3-12, fqys, nx about contras, poor sig (Nelson-ND); 0300 3-9, fair with ID, Hung nx, DX prgm, 6020 splash, deteriorating by 0318(Dillon-MD) USA AFRTS, basketball 0223, exc (Brann); ditto 0356 4-1, poor sig (Park-HI). 6030 USA AFRTS, basketball 0223, ezc (Brann); ditto 0356 4-1, poor sig (Park-H1). <u>LIBERIA</u> VOA relay, EG "Nxline" 0408 on 3-24, "VOA Mon Morn," fair sig (Park-H1). <u>ANTIGUA</u> DW relay, 0108-0110 3-9, nx, focus on Bonn, good sig (Brann); 0100 3-14 in EG, with IS, ID, nx, "Microphone on Europw," "Germany Today," exc sig (Stanley-AZ). <u>FRANCE</u> RFI, EG 0315 3-14, ID, man with nx, into FR at 0330, good sig (Stanley-AZ). <u>SPAIN</u> Span For Radio, EG 0000 3-15, IS, ID, gal with nx, "Sp Hit Parade," VG(Stanley-AZ). 6035 6040 6055 6055 6060 ARCENTINA R. Nacl, SP nx at 1000, memorial prgm (Slagt-ARUBA); 0952 3-14 with mentions AUGRATING R. NaCI, SP nx at 1000, memorial prgm (Slagt-ANUBA); 0972)-14 with mentions of Argentina, vocal mx, fair in heavy static crashes (Bobb-RN). CUBA Havana in Creole 1155 3-29, ID, IS, 1200*, poor, hvy RA QRM (Dillon-MD). <u>AUSTRALIA</u> RA, good at 1200-1230 3-20, world nx, novelty mx (Bonnet-IN); 1232 3-21 with talk on education, "Austr Tonight," mx, exc sig (Brann); poor at 1555 3-22 with "Weekend 6060 6060 Soundabout," ID and fqys, nx, "Talkback," //5995. 7205. 9580 (Park-HI). USA WYFR, EG "Family Radio Mailbag" 0705 4-5, fair, //6185 (Park-HI). 6065 6070 USSR RM. N.Am Svc 0300-0340 3-17, nx, bridge, Soviet comet research, poor sig (Brann). AUSTRALIA RA 1214 3-9, talk on ethnics, guitar mx, TC, //9580 (Dillon-MD). <u>CHILE</u> R. Patagonia Chilena, poor 3-21, clear ID 0130, mx, 0150* (Howard-CA). <u>BOLIVIA</u> R. 21 de Diciembre, 0100-0120* 3-21, fair-poor, mx, ID 0117 anncy 854 MW and 6080 6080.2 6081 <u>BOLIVIA</u> R. 21 de Diclemote, 0100-0100 j-21; fair-por, un; 10 011; miney 0,4 nº mine <u>6080</u>, bell rung slowly (Howard-CA); reactivated, man shouting "contacto" to audience 0100 3-21, pops to 0117*, fair-poor with DW-6085 slop (Wilkins-CO). <u>W.GERMANY</u> DW, EG 0100 3-17, IS, ID, nx, "Germ Today," "Science Mag," fair (Stanley-AZ). <u>LUXEMBOURG</u> R. Lux, 2357 3-10 with nx, contests, pops (Paszkiewicz-WI); 0000 3-30 with 6085 6090 world nx, ads, fair sig overall (McElvy-VA). POLAND Warsaw, EG *0300 3-12, IS, ID, prgm rvw, nx, good, //7270 (Trotto-FL). <u>CUBA</u> Havana, EG 0230 3-5, tourism talk, mx, exc sig (Dickson); 0300 3-17 with ID, M&W with EG nx, Cuban songs, fair sig (Stanley-AZ); EG 0430, fqys, talk and mx (Nelson-ND). <u>VENEZUELA</u> YVTO time sig stn. 0706 3-29 with pips, ID, fair signal (McELvy-VA). 6095 6100 6100 PHILIPPINES VOA-Tinang, 1126 3-24 with EG to Indo, "Nxline," sports, fair (Sellers). 6110 6115 OLOMBIA LV del Llano, soccer 0130 3-19 (Slagt-ARUBA); Mexican-type vocals at 0950 on 3-21 (Wilkins-CO); "Super Noticias" at 1118 on 4-1 (Field-MI). on 3-21 (Wilkins-CO); "Super Noticias" at 1118 on 4-7 (reid-fil). <u>MEXICO</u> R. Universidad, weak 1405 3-23, XE mx, frequent IDm as RU de Sonora (Rigas-IL). <u>ANTICUA</u> DW relay, EC 0500-0550; IS 0450, nx, "Mike on Europe," fair-good (Jordan). <u>MICARAGUA</u> R. Zinica, SF 0352-0407, vocals, formal ID 0400, fgy, fair sig (D'Angelo-PA) <u>E.CERMANY</u> RBI, EC *2145-2230* with billboard, nx, good signal (Jordan). <u>SWITZERLAND</u> SRI, 0200 3-9 with world nx, ID, Swise nx, "Swiss SW Merry-Co-Round," 6115 6120 6120 6125 6135 good sig (Dillon-MD); 0200 3-31 with nx (Dickson); vocal mx 0210 3-16, food questions (Bonnet-IN); 0400 3-12, IS, ID, EC nz, fair signal (Stanley-AZ). (AUSTRALIA ABC-Perth, wx 0950 3-9, mx, ABC nx at 1000 (Johnson). (UEA Havana, EG "Jasz Place" 0325 3-23, salsa mx, fair sig (Dillon-MD); 0300 3-21 with 6140 6140 IS, EC ID, nx, fair eignal (Stanley-AZ). 6145 W.GERMANY DW, EC at 0100-0150 on 3-30, ID, nx, mx by Hayden, very good sig (Dillon-MD) EG at 0100 on 3-18 with IS, ID, man giving nr, press rvw, fair sig (Stanley-AZ). AUSTRALLA ABC-Melbourne, relay of MW 0928 3-9, temp 28° (Johnson). 6150 6155 AUSTRIA Vienna, 0330 3-12 in EG with ID, nx, rpt on Austria and un (Mersultan). BOLIVIA R. Fides, local nx 1040 on 3-22, several IDs, under FEN, //4845 (Howard-CA). 6155 LIBYA R. Jamahiriyah, *2115 in AR, EG 2200 with Koran, sked, address, Green Book quote 6155 (Thunberg-PA); hrd during end of EG at 2328 3-8, ID, gave fqy as 11815, then AR (Rigas-IL); Brecht-AL rpts this in EG 0300-0330 3-31, nx, poor-fair, annong 11815, but not sure of exact 49 mb fqy; might be 6155, Tom (JE). CANADA CRZN-St. Johns, interview 1120 4-2, wx, "Morn Show," CBC/CBN ID, TC, P-F(Bobb-MN INDIA AIR ES, EG nx 1535 3-31, poor, //3905, 3925, 7160; not in WRTH/RDBI (Park-HI). USA KGEI, RS at 1130 3-24, ID 1130, into kids prgm, good sig, listed 6085 (Sellers). NICARACUA R. Sandino, 0135 3-9, much stronger 0852 with SP/EG pops, ID (Alexander-PA). 6160 6160 6160 6162 6165 MEXICO XEWW, 1027 4-5, ads, listener mail prgm, exc sig, IDs with XEW call(Brouillette 6165 NETH.ANTILLES RN-Bonaire, EG 0230 3-13, IS, TC, ID, "Nxline," RNMN, good (Stanley-AZ); ANTIGUA DZ45 3-7, good with same prgmng (Brann). <u>ANTIGUA</u> BBC WS relay, world nx 0000 3-10, "Nx Abt Britain," "R Nxreel," VG (Dillon-MD) <u>USA</u> WRNO, "World of Radio" 0400 3-8, ads, "Entertainment Coast-to-Coast" (Nelson-ND); 6175 6185 0450 3-9 with ads, listener interviews, heavy ute GPM (Slagt-ARUBA). <u>PERU</u> R. Oriente, *1007 3-29, mx, NA at 1008, ID by M&W 1010, OA mx 1017(Alexander-PA). 6189 6190 LESOTHO BBC WS relay, fair in EG 1550 3-31, sports, //6195 until 1600 (Park-HI).

+++ If your items didn't appear this month it was probably because they were out of date Please submit loggings only from the month before the deadline date, i.e. loggings submitted by May 12 should not be older than April 1, loggings submitted by June 12 should not be older than Kay 1, etc. +++ Thanks, as usual, to the monthly regulars who make LR possible. +++ And remember to <u>not</u> give up on the low bands during the summer. Static makes things more difficult, of course, but there's always something interesting happening on these fays. 73--)



ON THE WAVE: An interesting letter received from Douglas W. Johnson, in Issaquah, WA:

The April issue contained LRC comments about RM's transmission on 9490 and referred to Roger Legge's UHN, issues 40 & 44. I authored both UHN issues and would like to comment on the RM site question as follows:

Subsequent to publication of UHN issue 44, November 1982, additional data has been collected regarding the Nikolayev/Yevpatoria site question. On page 108 of Jeffrey T. Richelson's fine book <u>Sword and Shield</u> (Ballinger Publ., Cambridge 1986) is this reference to Yevpatoriya:

"Soviet space surveilance assets including ground stations (both foreign and domestic), radars, and specially equipped surface ships and other sensors. Thus, there is a network of at least twelve sites within the Soviet Union equipped with receivers to measure the Doppler shifts in radio signals, tracking radars, and photo theodolites and which transmit data to a central computational center. The network includes stations at Yevpatoria, Tbilisi, Bear Lake, Dzuhsaly, Izopashevo, Novosibirsk, Ulan-Ude, Irkutsk, Ussuriysk, Simferopol, Tomsk, Novokazalmsk, and Petropavlovsk-Kamachatka."

The current US Government TACTICAL PILOTAGE CHART (1:500,000) for Nikolayev and Yevpatoria shows the following vertical obstructions:

Nikolayev (Posad-Pokrovskoye, G.C. 46°48'N, 32°13'E): 395 ft. multiple 525 " " 230 " " 590 " single Yevpatoriya (G.C. 45°11'N, 33°13'E): 215 ft. single 235 " " 240 " "

After I observed, in person, in 1984 the RM sites south of China and NE of Novosibirsk, I realized how little could actually be discerned from an examination of Landsat satellite photos. The Nikolayev/Yevpatoriya site question remains open, but the latest map data favors Nikolayev.

The April 1986 Frendx suggested confusion between Nikolayev and Nikolayevsk-na-Amure (see entry for 9780). RM persists in listing Nikolayev-na-Amure, a small town at the mouth of the Amur River on the north end of the Tatar Strait, but the more likely site location is south of Komsomolsk-na-Amure, near the village of El'ban. The specific 9780 kHz transmission mentioned in the April issue was likely from this FE site, not from the one in the Ukraine, and was beamed to Australia.

... Many thanks to Douglas Johnson for his insight. Okay, class dismissed. Here are May's reports:

 6200.9
 PERU R. LV de Huamanga 0945-0954 SP,anmts,IDs (Alexander-PA 3/29)

 6215
 DOMINICAN REP. R.Discovery 0305 EG/SP, Test xmsn by Jeff White; msly LAm mx, occ IDs, Later on 6290; next nite 6215,6240 (Jones 3/22)

 6215
 ITALY Adventist Wld.R. 0535-0604 EG, rel.mx,ID (Giella 3/13)

 6220
 DOMINICAN REP. R.Discovery 0231-0256* EG/SP, travelog type show, spotlite o/diff. Carib. Isles in betw. Carib.mx; "test xmsn." Adr: R.Disc. POB 25454, Tampa, FL 33622 (Cobb-ME 4/7)

 6242
 DERMU R. Writer 2015

 6243
 DERMU R. Writer 2015

Auf:Au

much better later (Gavaras 3/7) 0304-0343 SP, US & LAm pops (Tuchscherer 3/19) 0524 SP, Comedy betw.songs from 0655;f (Allen-OK 3/9) 0630 SP, Cumbias & pops, "Entre Amigos, Gallos, y Medianoche" pgm--interesting name! Anc'd 24 hours, and seems to be the case. Hrd daily here, ex-5995 (Wilkins-CO 3/15) 0815-0830 SP, LAm mx, anmts; a consistently good signal (Alexander-PJ 4/6) 0840-0930 SP, mx, TCs every min, anmts, ads (Forth-IL 3/8)

6281.4	PERU R.Huayabamba 0155-0228 SP, OA flute mx, SP ballads, ID
	(Alexander-PA 3/23) 0325 mx pgm, weak, no ID; not listed w/
	Peruvian stns in WRTH 86 altho adr is there (Field-MI 4/3)
	(note: stn listed on p.368 of WRTH 86 @ 6182v where also ments
C 205	n6270ed.)
6305	CLAND. LV de CID 0620 SP, many IDs, "Roads of the World" travel
6550	pgm, some mx, fol'd by "Today's Woman"; g (Gurley-DE 2/19) CLAND. R.Venceremos 0245 SP, Political cmtry, ID (Jones 3/23)
6555	UNID. 0242-0330, good, strong sig w/cnthous EZL instr mx. 3 min
0000	of silence at 0255 then back to more mx. Not R. Venceremos as
	they were up on 6564.6 & 3716.4 at this time (Alexander-PA 3/9)
6564.6	PERU R.Tacha 0300-0325 SP, w/sevl IDs, anmts, SP pops + Jackson's
000110	"Billy Jean"; better @ 9485.9 // (Alexander-PA 3/23)
6565v	EL SALVADOR R.Venceremos 0230 SP, March mx (in March?ed.);
	anti-Reagan remarks (Dickson 3/2) 0350-0357* SP, IDs, tx &
	closing remarks & marchlike theme song (you mean springlike,
	of course, right?ed.) F-G (Bobb-MN 3/9)
6691	PERU R.Cutevro 0038 SP, OA flutes, pasacalles, etc; songs, 0107
	NA & off; p/f (Wilkins-CO 3/19) 0038-0105* SP, PR mx, IDs,s/off
6705	anmts (D'Angelo-PA 3/20) 0019-0110* SP, mx variety (Tuchscherer 3/13)
6725	PERU R.Satelite 0205 SP, wedding anmts, mx (Slagt 3/24) 0250-
6890	0318* SP, folksy mx, ancmts, NA; good (Dickson 3/2) USSR R.Stantsiya Rodina 2330 RS, IS,ID, nx to 2337 into feature
	pgmg, site unknown; strong sig hrd past 0200 (Thunberg-PA 3/19)
7090.8	PAKISTAN R.Pk 1605 EG, Barely audible man w/dictation speed mx
	(dictation speed mx? what's that?ed.); p (Park-HI 3/22)
7125	GUINEA REP. R.Diff.Nationale-Conakry 0640 lang, tx,mx til 0700
	then FR, very weak (Johnson 3/3) 0845 Vern, Afr.pops, poss.ID
	at 0848, ment Conakry twice (Slagt 3/8)
7135	CLAND. R.Miskut 0130 SP, ID 0134;gd sigpoor mod. (Jones 3/17)
7145	(Program details, please?ed.)
7155	POLAND RPol. 0458 PL, Mazurka mx; horns & ID,nx (Park-HI 3/10) JAPAN RJ *1145-1150 CH, IS,ID(inEG), anmts,nx;f (Trotto-FL 3/12)
7165	LITHUANIA R.Vilnius 2305-2329 nx desk, intvw, musical panorama;
	poor (Brann 3/19)
7165	Ukr.SSR R.Kiev 0030-0100 EG, critical of US nuke policy, Ukr.
	festivals, sports, world nx, contest, "Ukraine Presents" feature
	f-g (Jordan 3/29) 0314 EG, tx on nuclear confrontations
7170	(McElvy-VA 3/30) NEW_CALEDONIA RFO-Noumea 0744-0804 FR, pops pgm, wld nx (Bobb-MN
/1/0	3/26) 0850 FR, Stevie Wonder song, ID 0855 (Slagt 3/8) 0924-
	1020 FR, mostly US pop/rock; lots of listeners greetings; never
	a real ID but ment o/Noumea (Broillette 4/5)
7190	W.GERMANY R.Liberty 0100 RS, ID, tx abt Sacharov, Yelena Bonner
	and Gorbachev (Slagt 3/19)
7200	SOMALIA R.Mogadishu 0315 lang? tx,mx, some Afr-sounding singing,
	nx @ 0330 in AR, p-f (Johnson-TX 3/19) 0318-0347 Somali,
7215	continous Somali mx til 0330 nx, back to mx 0345 (D'Angelo-PA 3/16)
7215	IRAN VOIRI? 0007-0012 chants & txs in Farsi; f (Brann 3/21) IVORY COAST R.Diff.TV-Iviorienne 2340-0003* FR, Afr.pop, IDs,
	nx 2356, NA, then s/off, heavy QRM (Broillette 3/29) 0645-0710
	FR, cmtry re X-pres Duvalier, 0700 ID, Afr.mx;pgm sched, weak
	signal, very difficult; first logging (Gurley-DE 2/19)
7230nf	NETHERLANDS RN 0552-0555*SP, hrd Tom Meyer tx, NA (Trotto-FL 4/5)
7240	YUGOSLAVIA RY 2217-2228* EG, nx, ID, ann'd://9620,6100 (D'Angelo 3/11)
7245	LYBIA LJB 0338 AR, Sounded like speech by that venerable friend of our beloved republic, the colonel himselfvery impassioned
	w/much applause. Wonder who this tirade was directed against?
	(J.R.Ewing? David Letterman? I give upwho?ed.) (Johnson 3/29)
7255	BOTSWANA R.Bts 0450 Setswana, cow bells & farm animals int.sig
	to 0500 s/on w/NA fol'd by pop mx; f-g (Johnson-TX 3/16)
7255	INDIA AIR-Aligarh 1228-1256 Tibetian, IS, OM w/probable nx to
7260t	1241, oriental mx, not readable by 1255;QRM'd (Dillon-MD 3/16) VANUATU R.Vanuatu 0900-0904 lang, Ww/poss ID, flute IS,tx (slow
1200L	trill), tx, vp (Bobb-MN 3/13)
7282.5	ALBANIA R.Tirana 0100-0115 SP, IS, ID, tx (Swaringen-NC 3/3)
7295	MALAYSIA Voml 1200 EG, Lively NAm mx, ID, nx 1215 (Slagt 3/1)
7300	SWAZILAND TWR 0358 GM, IS, theme mx, ID, annmts, rel.pgm //5955;
	poor reception (Park-HI 3/2)
7320	UK BBS WS 1939 EG, "The Star Wars History"; g (Sellers 3/16)
7355	CANADA CHU-Ottawa 0345 EG/FR TCs in EG & FR, ID,g (Nelson-ND 3/24)

- CZECHOSLOVAKIA R.Prg. 0100 EG, nx, "Nx Reel", "Mx for your tape 7345 recorder", Health & Medical Report, Socialism Today & Tomorrow; (Trevor-AZ 3/19) 0305, nx by Helena (Dickson 3/23) f
- USA WId.Harvest R. 0935-0950 EG/lang, Bible reading in EG & also in lang(?), mx, adr o/stn given; p-f (Bobb-MN 3/7) 7355
- USA WRNO 0130-0235 EG, "Entertainment Coast-to-Coast", but 1/2-way 7355 thru at 0200, announced that WRNO was abt to relay the Easter Seals Telethon from WGNO-TV 38. But the tv stn instead went into "Elvira's Movie Macabre"w/"Tombs of the Blind Dead". WRNO cut off from the simulcast at 0230, back into rock mx (I am not making this up; it really happened!!), vg-exc sig (McLemore 3/9) CLAND. LV del CID 0920 SP, March mx & much tx abt Cuba. Severely distorted audio (Brouillette 4/5) 7389.8

7400

- UKRAINE R.Kiev 0030-0100 nx, DX club, Ukr.mx;f (Brann 3/17)
- USA WHRI 0300 EG, IS, ID (WHRI), adr, report requests, 0302 R.Earth's 7400 "The World"; p (Sellers 3/8) 0342 RE/mx, ads, listeners letters, p (Brann 3/23)
- ISRAEL KI 0000 EG, IS, ID, nx; f (Trevor-AZ 3/17) 0215-0225 EG, 7410 "DX Corner", letters read & gtns answered (Swaringen-NC 3/3)
- USA-PIRATE Secret Mountain Laboratory 0234 EG, Ment.they were 7434.5v b-castg to NAm,CAm,MX & Carib; g (Gavaras 4/6) 0238-0301 EG, blugrass mx, REAL PSA for IRS, Fake ad for Idi Amin Hot Dogs (McLemore-FL 4/6) 0315-0329 EG, Soft R&R mx, Hilo adr at 0327 before 0329 s/off; good signal (Giella 4/6)
- 7438
- USA-PIRATE Pig Boy Radio, WPBR 0240-0252* EG, banjo mx, "Marxism for the Beginning" pgm, s/off w/"Old MacDonald.." (Alexander 3/16) CLAND. R.Caiman 2315-2330 SP, LAm mx, anti-Cuba, anti-Sandanista (Brouillette 3/30) 0008-0030 SP, EZL instr.mx pgm; g (Bobb-MN 3/23) *0100 SP, opening anmts, SP mx, EZL mx, tx; noted s/off at 0318 (Alexander DP 3/16) 0115 CP. Num rock are talking. TP 7470 at 0318 (Alexander-PA 3/16) 0145 SP, NAm rock, no talking, ID at 0200 (Slagt 3/23)
- CHINA RB FS 1330 JP, ID, then tx; fr (Park-HI 3/20) 7480
- USSR(LSB) RMWS-Birobidzhan (per RDI) 1830 EG, NxBrief, "Russian by Radio" (ute & 1cl QRM): poor (Park-HI 4/5) PERU R.Continente 0120-0159* SP, mx pgm; not hrd in next 2 weeks 7492.7
- 8930 (Field-MI 3/21)
- 8967.5
- SPAIN REE 0205 (lang?-ed.), nx & ID (Field-MI 4/4) N.KOREA RP FS 1700 KR, IS, ID & NA; angry-sounding W w/sched & 9345
- pgm guide; long nx; fair (Park-H1 4/2) ISRAEL Resshet Bet/IBA HS 1955-2105 Hebrew?, sports to 2003 (live?) then jazz pgm 2003-2052 w/ancr & audience; W ancr 2052-2100; 9388 time pips; //11585; sio 454 (Hardester-CA 3/18)
- USA WMLK 1831-1847 EG, ID, biblical readings, and 9525 fqcy, but not heard; f (Bobb-MN 3/21) 1845-1932* EG, many IDs, scripture readings. Adr: POBox C, Bethel, PA 19507. Also, ment their pgmg is aired on R.Caroline & R.Afr.; good (Gavaras 3/17) 2015-2020* 9455
- is aired on R.Caroline & R.Afr.; good (GaVaras 3/17) EG, scripture reading, ID at s/off (Rigas 3/7) PAKISTAN R.Pk 1700-1730 EG, nx,sports,cmtry;weak (Hill-MA 3/11, also Rigas-IL 4/6) 1718-1737 EG, PK mx pgm; tx abt PK working abroad;//11635 covered by LV del CID (D'Angelo-PA 3/15) USSR R.Magallanes 0159 SP, ID, tx: Chile, Nicarg;g (Gavaras 3/5) 9465
- 9490 NORWAY NR 2340 NR, Romantic mx; hvy QRM (Slagt 2/28) 9525
- CUBA RHC 1112 SP, ID fol'd by nx pgm; f (Park-HI 3/14) 2330 SP. 9550
- ntl & int'nt! nx, anti-Am cmntry, ID (Slagt 3/23) N.KOREA RP FS 1102 EG, NA, sched, pgm guide, nx; EG cut back to 50 mins.; good (Park-HI 4/3) 9555
- PORTUGAL 0300 EG, IS, ID, nx, Culture & Current Events pgm; f (Trevor-AZ 4/4) 0305-0325 EG, nx, then PT mx pgm (Cobb-ME 3/12) 9565 9565
 - IRAQ VoM 0045-0055 AR?, patriotic choral chants and rapid txs (Jordan 3/24) R.Bg. 0300 EG,nx,Eastern mx & songs; f (Trevor-AZ 3/15) R.Bgd. 0358-0415 EG, ID, AR mx (Swaringen-NC 3/12)
- ITALY RAI *0100-0120* EG, wid & ntl nx, US R&R 0115;p (Jordan 3/30) 9575 SAUDI ARABIA BSKSA 1810-1830 EG, clasc.mx,//9720 (Hill-MA 4/5) 9580 AUSTRIA ORF 1502-1511 EG, nx (Tuchscherer 3/7) 9600nf
- MEXICO R.Universidad de MX, 1650 SP, semi-clasc. vocals, piano 9602.1 mx, very few anmts; same format past 2000 heard (Wilkins-CO 3/8)
- SPAIN SFR 1900-2000 EG, nx, mx, sports round-up, events in SP last week, Radio Club America--pgm for Hams & DX'ers (Chattos 9630 NJ W who won lottery twice; exc (Gurley-DE 2/17) 2358-0059 EG, IS, ID, TC, wld & SP nx, sports, SP mx, X-Mas Preparations! Wrong tape? (Early planning...-ed.), "SP Hit Parade" (Dillon-MD 3/29, also reported by Trevor-AZ 3/12)

9635	BRAZIL R.Aparecida 2300-2330 PT, pgm of old PT standards, ID,
	good reception (Forth-IL 3/8)
9640	CHINA RBeijing 1205 EG, wid & CH news; fair (Hill-MA 3/11)
0640	1217 EG, mx, rep't on a conference in Bei.; p (Sellers 3/24)
9640	ANTIGUA Deu.W. *0300-0350* EG, IDs, sched, wid & ntl nx, sports
	rep't Iol'd by radio magazine format: adr: f-g (Jordan 3/22)
9645	JAPAN NHK 2310-0000 EG, tx, mx request pgm w/sel's of lcl pops:
	lang lesson, mx, nx; good (Jordan 4/1)
9650	CHINA RB 0509-0600 EG, wid nx, CH nx; cmtry on econ reforms in
	CH; CH Scrapbook: ancient clocks of the forbidden city; cmtry
	on CH ice hockey team (Brecht-AL 4/16)
9655	PERU R.Norperuana 1152 SP, nice Andean mx; fr (Wilkins-CO 3/19)
9660	VENEZUELA R.Rumbos 0252-0300 SP, ID, ballads (Bobb-MN 4/2)
9665	KENYA VOK 1511-1535 lang, US pops & nice Afr. vocals, time pips
	at 1530, into rel.pgm; pr (Allen-OK 3/9)
9670nf	SYRIA R.Damascus 1930-2030 FR/EG, tx, instr.mx, some mid-F vcle
	elyso; EG s/on 2005, ID, sched, nx, EZL mx bridge, then ty on
	ISTGEL'S SOLLED. DOLICIES: AR mx (Jordan 3/17 also Hill_MA 3/21)
9675	PERU R.del Pacifico 1215 SP, nx, 1228 to rel.pgm (Wilkins-CO 3/19)
9680	PORTUGAL RPt 0030 EG, YL w/tour o/historical bldgs in PT (Trevor-AZ 3/12)
9690	ARGENTINA RAE 2000-2100 EG, wild nx, annmts, tango mx, features,
	Argentine cinema (Chattos 3/15) 0100 EG, IS, ID, nx, musical
	interlude fold by nom on Argentian and the former of the
9695	interlude fol'd by pgm on Argentine economy; f (Trevor-AZ 3/13) SWEDEN RSI 2304-2320 EG, tx abt SW Prime Minister's murder "SW
5055	SWEDEN RSI 2304-2320 EG, tx abt SW Prime Minister's murder, "SW
	Calling DX'ers," fade-out at 2320 (Nelson-ND 3/18) 0400 EG,
	entire half hour devoted in tribute to Olof Palme (Prm.Mnstr)
0.00-	a farewell by the SW people in songs and mx; p (Trevor-AZ 3/29)
9705	MEXICO R.MX Int'l 0420-0500* SP. MX ballads. ID (Alexander-PA 3/9)
9715	FRANCE RFI 0725 FR, love songs, top-40 mx;p (Park-HI 3/13)
9725	SWITZERLAND RSI 0400 EG, IS, ID, nx; fr (Trevor-AZ 3/21)
9750	LIBERIA VOA 0820 lang til 0823, then nx in EG; 0845 s/off"we
	conclude this special x-msn to Africa (Johnson 3/5)
9750	CHILE R.Mineria 1004, 2 men w/nx & ads; 1033 tx: international
	song festival; g (Burnell-NF 2/8)
9750	S.KOREA R.Korea 1440-1500 EG, "SW Digest" in progress, DX rept's
	& mailbag. Heavy QRM via BBC fr: 1450. EG ID & end of daily
	one hour program in EG, 1500*; fr (Johnson-TX 3/15)
9755	CANADA RCI 0404 EG, nx & "SWLers Digest Forum"; audible again!
	7/9560 jammed; f-p (Park-HI 3/31)
9780	YEMEN R.San'a 2050-2110* AR, local mx til 2100 ID & nx, fol'd by
	some more mx til 2108 s/off anmts & NA (D'Angelo-PA 3/22) 0400
	AR, ID & nx (Green 4/7)
9795	CYPRUS(?) R.Monte Carlo 1800-1845+ Continuous mx (jazz, instr,etc)
	w/an identical jingle played betw.ea.song. No annmts; f-g sig.
	(Gavarae 2/20) 1220-2005 Dr (De w.ea. song. No annmts; 1-g sig.
	(Gavaras 3/20) 1920-2005 AR/FR pops incl. Dire Straits, Stars
	on 45 medley; poss.EG ID; adr: PO Box 128, Monaco; g-vg sig w/
	RFI QRM (I believe they're using a xmtr at Limassol, but that's
0000	my opinion) (McLemore-FL 3/23)
9800	FRENCH GUIANA RFI relay 0315 EG, ID, times & freq's, nx;vg
0015	(Trevor-AZ 3/18) 0318-0330 EG, fol'wng wld.nx: in FR (Dillon 3/9)
9815	ISRAEL KI 2230 EG, nx, rep't on a prize winning novelist; f (Trevor-AZ 3/13)
9820	CHINA RB 1144-1157 EG, "Listemers Letterbox" w/ty abt public libe
	raries in CH, sched (Dillon-MD 3/9) 1200-1255* EG nx & cmtry,
	mx, Mailbox pqm (Bonnet-IN 3/16, also Park-HT 3/11)
9870	SAUDI ARABIA BSKSA 1922-1952 AR, vlc AR mx. ID.fr (Dillon-MD 3/29)
9870	GUAM KTWR 1258 EG, "The Good Tidings Hour", "Through the Bible", IDs, g-vg signal (McLemore-FL 3/12)
	IDs, g-vg signal (McLemore-FL 3/12)
9885	SWITZERLAND SRI 2300 PT, s/on, PT (d-e-t-a-i-l-s, pleeeease-ed.)
	(Green 4/0) 0200 EG, nX, rep't on role women are now playing in
	SWISS POILTICS & DUSINESS: G (Trevor-17 3/13) 0005-0000 pc
	anc'd that poms in GM & SP will follow, eve (Swaringon-NC 4/0)
9910	INDIA AIR GOS 1823 AR, M playing var's sub-continental mx (Park-HI 3/29)
9977	N.KOREA R.Pyong. 1130-1149* EG, F ancr w/tx on Cuban alliance;
	Martial mx, ID, closing anmts (Cobb-ME 3/14)
9988.5	PERI Estacion 2000 0131-0150 cm children 2014)
11634.4	PERU Estacion 2000 0131-0159 SP, SP ballads, ID; wk.sig (Giella 3/22)
	CLAND. LV del CID 1436-1456 SP, ballads & fast vocals, IDs (D'Angelo 3/8)
11660	AUSTRIA R.AUSTIIA INT. 0130 SP. nx. press review (Sladt 3/14)
11685	China RD "UUUU-UIUU" EG. WIG & htl ny, ty on archeological dia-
	coveries, clasc.mx segment; f (Jordan 3/24) 0045 EG, language
	Lesson (Levison 3/13)
11760	COOK ISLANDS R.Cook Isl. 0629 Maori, good reception of pop &
	Polynesian mx pgm; YL w/song anmts & ID (Allen-OK 3/23)
*** Thank	s to all the ministed recents mill such that the second second
11 KU IK	s to all who submitted reports. Till next month, good'day allpmd.



Editor: Wallace C. Trolbol, 357 N.E. 149 SL, Sostile, WA 98155

11700 DOMINICAN REPUBLIC R. Clarin in SP 1729, L Am mx, ID 1730, g (Gurley DE 2/20) also in SP 2140 w/ SP version of "Put Your Head on my Shoulders" (Slagt, Aruba) 11705 MONTSERRAT DW relay in SP to L Am 1059, ID for Mont. in SP/EG, g (Sellers) 11705 IRAC(t) R. Baghdad in AR 1400-15104, slow Mid-East mx, chants, nx (Jordan PA 3/6) ARGENTINA RAE in EC 0100, IS, ID, mx, sports, tangos, feature (Stanley AZ 3/12) 11710 VATICAN STATE VR in SW 1914-1930*, nx, excerpts from Bach, f (Bobb MN 3/12) 11715 11720 AUSTRALIA RA in EG 0842-0852, Australian sports, nx, ID, vg (Bobh MN 3/13) UNITED ARAB EMIRATES R. Dubai in DG 0332-0410*, nx, ID, NA, f (Trotto FL 4/4) 11730 ZANZIBAR RTZ in EG 1605-1615*, nx at dictation speed (Tuchscherer WI 3/20) 11735 BRAZIL R. Bras in EG 0215, tlks, Braz pop mx, exc (Dickson OH 3/31) in EG 0225 w/nx on fixed interest rates in Brazil (Swaringen NC 4/9) in EG 0200 w/ID6address 11745 (Nelson ND 3/7) in EG 2100-2150 w/Sunday Special, Braz mx, tlk pgm (Chattos 3/16) SINGAPORE BBC relay in EG 1050, "Business Matters", ID, pom sked (Sellers) 11750 GOOK ISLANDS RCI in EG 0402-0430, ID, TC, island mx (Jordan PA 3/28) in EG w/nx from R. Australia in EG 0504 (Thunberg PA 3/18) in EG/Maori 0925, pops (Park HI) BULGARIA(t) Horizont HS in EG 1820-1900*, tlks, live orch & folk mx (Jordan PA) 11761v 11765 11780 BRAZIL RN de Amazonia in PT 0030, ID, tlks, pop mx (Cobb ME 3/6) in SP? 2330 w/ad musical commercials(Stanley AZ 3/19) in PT 0105, lively mx (Bonnet IN 3/25) MEW ZEALAND RNZ in EG 0412-0435+, pop mx, tlks, ID, nx, requests (Jordan PA) WEST GERMANY DW in EG 1940-1955, world nx, tlk, TC, ID, p (Gurley DE 2/24) INDONESIA RI in EG 1459-1530, world & local nx, tlks, mx, p (Hill MA 3/20) 11780 11785 11790 NETHERLANDS ANTILLES TWR Bonaire in EG 1144, "Morning Sounds", mx, exc (Sellers) 11815 MOZAMBIQUE RM in PT 2105-2115, piano mx, ID, off suddenly 2115 (Gurley DE 2/17) 11820 SOCIETY IS. R. Tahiti in FR 0315, ID, thene mx from "Bonanza" (Stanley AZ 3/20) <u>PHILIPPINE</u> IS. FEBC in EG 1259, children's bible pgm (Thunberg PA 3/15) also in EG 1350-1405 w/clear ID and address annmts, heavy QRN (Hill MA 3/11) 11825 11850 11860 USSR R. Vilnius in EG 2300, ID, interview, instrumentals, exc (Stanley AZ 3/16) 11860 SPAIN REE in SP 1930, IS, ID, nx, xmsn to SA, exc (Stanley AZ 3/15) 11900 MARIANAS IS. KYOI Saipan in EG/JP 1425, US pops, ID, tlk in JP (Nelson ND 3/11) 11910 HUNGARY R. Budapest in EG 2000, s/on with xmsn to Europe (Green TN 4/6) 11940 ROMANIA R. Bucharest in BG 1319, ending talk on Rom. people, ID, g (Sellers) FINIAND RF in BG 1245-1400, pgm & freq sked, world nx, "Airmail", "Weekend Fare" 11945 interview, "Northern Report", wx (Gurley DE 2/19, Dillon MD 3/30, Sellers) CHINA R. Beijing in EG 0300, IS, ID, nx about China, lang lesson (Stanley AZ) FRENCH GUIANA RFI relay in FR/PT 0155, ID 0200, ezl mx, nx (Dickson OH 3/5) 11980 11995 USSR R. Moscow in EG 2000, world nx, "Your Guide to Our Programs", f (Park HI) 12010 nx, top priority, audio book club, g (Brann MO 3/16) 12035 SWITZERIAND SRI in AR 1714, ID in EG, xmsn to N. Africa & Mideast (Slagt, Aruba) in EG 0200 w/ID, mx, week's events in Swit., polka mx (Dillon MD, Dickson OH) BGYPT R. Cairc in AR 2130-2230, tlk re religion in the State, ID, AR mx, tlk re education (Dillon MD 3/16) Western mx between tlks, ID, AR mx 2125 (Gurley DE) 12050 12080 ISRAEL Kol Israel in HB 1850, songs in HB, tlks, ID on hr, g (Bobb MN 3/21) in RS 1630, s/on with ID in EG, mx? and commtry (Slagt, Aruba 3/23) 13705 USSR R. Moscow in EG 1337, commtry re Afghanistan, //13635, vg (Sellers 3/22) DOMINICAN REPUBLIC R. Discovery in EG 1824-1924, mx of the Caribbean, many ID's 15045 address given as P.O. Box 25454, Tampa, FL 33622, f-g (Gavaras, McLemore FL 4/1) in SP 2143-2200, lots of mx, ID at 2200 s/off, p w/QRM (Giella 4/5) UNITED KINGDOM BBC in EG 1300, nr (Witzig 3/15) "Radio Newsreel" 1500 (Dillon MD) 15070 15084 IRAN VOIRI in EG 1130-1150, nx and mailbag, f-g (Oobb ME 3/12) 15105 ANTIGUA DW relay in PT 2208-2231, drama, ID 2229, xmsn to Brazil (Dillon 3/30) CZECHOSLOVAKIA R. Prague in EG 1442, nice mx, ID 1448, tlks, f (Trotto FL 4/5) 15110 1759-1823* in EG, ID, UN radio pgm on So. Africa, Afro pop tune contest (Dillon) 15125 SPAIN REE in SP 1557-1609, mx, tlks, nx, TC, exc (Brann MO 3/22) <u>PAST GERMANY</u> R. Berlin in EG 1858, IS, ID, vp due to QRM (Bobb MN 3/12) 15145 USA WINB Red Lion, Pa. in EG 2310-2330, relig mx, ID, freqs, f (Oobb ME 4/6) 15145 CANADA RCI in EG 2150, "SwL'ers Digest", "Innovation Canada" (Park, Dillon MD 3/30) CANADA RCI in EG 2150, "SwL'ers Digest", "Innovation Canada" (Park, Dillon) ECUADOR HCJB in EG 0100, ID, nx, rpt on Holy Week in Ecuador, vg (Stanley AZ) DENMARK RD in DN 1325, EG ID 1348 & 1352, NA, s/off 1353, g (Gurley DE 2/21) 15145 15150 15155 15165 15170 USA WYFR Family Radio in EG 2206, mailbag, QRM from Tahiti (Park HI 3/15)

ALGERIA RA Dom. Svoe. in AR 1245-1305, interviews, TP, ID 1300 (Dillon MD 3/22) BOYPT R. Cairo Dom. Svoe. relay in AR 1204-1245, AR mov, ID, nx (Dillon MD 3/22) ECUADOR HCJB in PT 2023, ppm in commem of Christ's death (Slect, Aruba 3/23) 15205 15210 15220 CUBA RHC in FR 2035-2058, ID, mailbag pgm, g (Gurley DE 2/12) 15230 AUSTRALIA RA in EC 2220-2230, current affairs, ID, p (Dillon MD 3/9) also in EG 15240 2200, IS, ID, "International Report", p (Stanley AZ 3/24) YUGOSLAVIA RY in EG 1540, xmsn to Europe, "Press Review", ID, political tlks, "Sports Roundup", f-p due to QRM from RBI on same freq. (Sellers 3/24) 15240 ECUADOR HCJB in GM 2300, pips, theme mx, ID, Andean flute my (Park HI 3/20) 15250 JAPAN AFRTS FEN Tokyo in EG 0431, "Gene Price Show", country mx (Park H1 3/5) USA KGEI San Francisco in EG 2236, "Sounds of Joy", Christian rock (Park H1) 15260 15280 GIINA R. Beijing in SF 0200, nx, ID "Aqui R. Beijing", g (Dickson OH 3/23) USA WINB Red Lion, Pa. in EG 1910, tlks re PLO supremacy, p (Brann MO 3/31) GUINEA RD Nac. Guinea in FR 2314, hi-life mx pom, numerous rapid ID's (Allen OK) 15280 15285 15308v in FR 1808-1638, Afr vocal mx, TC, f w/ORM from VOA after 1830 (Gurley DE 2/20) in FR 1745, lots of commercials, talk re party in Conarky (Slagt, Aruba 3/1) AUSTRIA RAI in BG 1233-1255, "Austrian SW Panorama", a look at relig radio in 15320 the USA, organ mw, vg (Dillon MD 3/9) waltz mw, nx, WW II tlk (Bonnet IN 3/19) MOROCCO RTVM in AR 1640-1804, vocals, live coverage of sporting event, ID 1700 "Huna Ribat" and return to sports coverage, //17595 tc 1700 (D'Angelo PA 3/16) 15335 15385 ITALY RAI in IT 1904-1908*, ID, IS, f-g (Bobb MN 3/12) AUSTRALIA RA in EG 2200, ID, TC, nx, "International Report", f (Stanley AZ 3/21) 15395 FINLAND RF in FN 1230-1300, Bach organ mx, IS, ID in various langs, into EG 1300 g, (Dillon MD 3/29) in EG 1500, IS, ID, nx, f (Stanley AZ 3/15) 15400 LIBYA VOGAH in AR 1250-1315, firey tlks, shouted crowd noises, exuberant choral 15415 singing, lively instrumentals and male vocal segments, p (Jordan PA 3/25) JAPAN RJ in EG 0100-0115, nx, tlk on the economy (Hill MA 4/2) also in EG 2300 TC, ID, nx, "Current Affairs", "Radio Japan Journal", f (Stanley AZ 3/12) USSR R. Moscow 0100-0223 in EG, ID, polit cmntry (Dickson OH, Paszkiewicz 3/30) 15420 15420 USA WRNO New Orleans in EG 1733, tlk re New Orleans, g (McElvy VA 3/30) TATWAN VOPC in EG 2123, CH lang lessons, mx pgm, ORM from VOA (Park HI 3/6) 15420 15440 CHINA R. Beijing in EG 0045-0055*, mailbag pgm, exc (Hill MA 4/2) 15445 LIBYA R. Jamahariyah in BG 1857-1900*, nx, ID, Afr svce, g (Trotto FL 4/2) 15450 KUWAIT RK in AR 1512-1545, speeches, marching bands, f (Dillon MD 3/9) BANGLADESH RB in EG 1230, mx, nx, ID and s/off 1250, bad QRM (Slagt, Aruba 3/1) 15505 15525 SOUTH KOREA RK in EG 1400, frequent annmts, nx, heavy QRM (Hill MA 3/20) CHINA CPBS 1 Beijing in EG 0007, EG lessons, heavy QRN, p (Park HI 3/16) FRANCE RFI in EG 1600, TC, ID, nx, features (Stanley AZ 3/29, Sellers 3/24) 15575 17605 17620 ITALY RAI in IT 1040-1100, soccer game, mx to s/off 1100, g (Gurley DE 2/23) 37715 ALGERIA R.Algiers in FR 1900-1930+, taped interviews, Mideast mx, p (Jordan PA) 17745 in EG 2008, nx, sports report, emphasis on World Soccer Cup (Sellers 3/17) BRAZIL R. Suriname via Radiobras in EG 1820-1830, tlk on economic projects in 17755 progress sponsored in Suriname by UNESCO, s/off 1830, exc (Gurley DE 2/21) 17770 SPAIN REE in SP 1417, comments on soccer game in progress (Slagt, Aruba 3/23) UNITED ARAB EMIRATES R. Dubai in EG 1300, world nx, cmntry, ID, wx, 69th edition 17775 of mailbag, mostly reception reports (Levison PA 3/11, Dillon MD 3/9) ECUADOR HCJB in EG 2130, "DX Party Line" featuring Scandanavia, //15270, QRM from VOA (Park HI 3/26) also in EG 1954, "World of Science", g (Sellers 3/16) 17790 17795 FRANCE RFI in FR 1626, tlk on VCR's & cost of satellite receivers (Slagt, Aruba) RWANDA DW relay in FR 1332-1350*, Hi-life mx, soccer scores, rock mx, ID relay, vg (Dillon MD 3/23) in EG 1130-1145, ID, nx, "Calling Africa" (Cobb ME 4/1) 17800 ANTICUA DW relay in GLM 2000, s/on w/transmitter ID (Green TN 4/6) CANADA RCI in EG 1925-1930, "SWL Digest", xmsn to Africa, IS (Nelson ND 3/11) SPAIN REE in SP 1810, local mx w/usual Ole's (Levison PA 3/6) 17810 17820 17845 SOUTH AFRICA RSA in EG 1510-1525, tlk on marriage, mailbag (Hill MA 4/6) 21590 *******

As in the past, items listed under Log Section D last month were not repeated again this month. However, there were several good new items received despite the continued lowering of the ionospheric layer. Thanks to all who contributed and especially to those who took the trouble to arrange their loggings in frequency order and band them together.



FRENDX CONTRIBUTORS LIST ---- MAY 1986 ISSUE ---- DEADLINE = 12th of MONTH

ALEXANDER, Brian, Mecgabucsburg, PA.; ALLEN, Kirk, Ponca City, OK. (NRD515); BOBB, Norman, Minneapolis, MN. (R1000/R600); BONNET, Arthur, W.Lafavette, IN. (DX400); BOWDEN, Ralph, Mentone, CA. (FRG7700); BRANN, Dustin, Kansas City, MO. (ICF2002); BROUILETTE, Paul, Schamburg, IL. (R71A); BRUNELL, DR. Jean, St. Johns Newfoundland, CANADA, (Racal RAI7C); CHATTOS, Richard, Columbus, OH.; COBB, Ken Portland, ME. (R71A/RF4900/RF2800/CR2021); D'AMGELO, Richard, Wyomissing, PA., (R70); DICKSON, Richard, Goshen, OH. (FRG8800/DX302/XCR30); DILLON, Peter, Columbia, MD. (DX400); FIELD, Marion, Hillsdale, MI. (SPR4); FORTH, Karl, Chicago, IL. (R70/HQ160); GAVARAS, Tom, Minnetonka, MN. (R70); GIELLA, Tom, League City, TX. (R1000); GREEN, Jerry, Maryville, TN., (FRG7700); GURLEY; DR. ROBERT, Wilmington, DE.; HARDESTER, Mike, Modesto, CA. (R1000); HILL, Kenneth, Somerville,MA.(DX1000/2001); HOWARD,Ron, Santa Barbara,CA.(R71A); JOHNSON, Steven, Omaha, NE. (R70/RF2600/SX71); JONES, Brian, San Antonio, TX. (R70); JORDAN, Rufus, Pittsburg, PA. (DX302/Zenith Trans.Oceanic); KLEIN, Kevin, Appleton,WI.(2002/4800); LEVISON,Harold,Philadelphia,PA.(R70); MCELVY,Tom, Norfolk,VA.(R70/DX400); McLEMORE,Travis, Clearwater,FL.(FRG7); MEYER, John, Kellnersville,WI.(CR2021/2800); NELSON,Scott,Parshall,ND.(6500W/HQ100); PARK, Dale, Honolulu, HI. (6700W); PASZKIEWICZ, Sheryl, Manitowoc, WI. (NRD515); RIGAS, Christos, Chicago, IL. (R2000/2002); SCHULZE, Roland, Stuttgart W.Germany, (R4C/SPR4/R7O); SELLERS, Harold, Scarborough, Ontario, Canada, (CRF-1); SHARPE, Bryan, Castro Valley, CA. (DX302/DX400); SLAGT, Raymond, ARUBA, W. Indies, (R2000/7600D/DR28); SWARINGEN, David, Hunetersville, NC. (R70); THUNBERG, BOB, DuBois, PA. (R1000/CR2021/S40B); TROTTO, Ron, St. Cloud, FL. (CR2021); TUCHSCHERER, John, Neenah, WI. (R70/FRG7700); WITZIG, Eric, Annandale, VA. (R1000)

Welcome to several new contributors this month in addition to the monthly regulars that this column so greatly enjoys and appreciates.

New Contributor this month, Tom McElvy of Norfolk,VA. is the Chairman of the "Old Dominion DXers" Awards Section.Those of you who are into the awards for SWL's might be interested in contacting the Old Dominion DXers for info on their awards and memberships. Tom can be contacted at PO Box 9645, Norfolk VA. 23505-0645. ***Please send an SASE along to help out with the postage***

Your editor was in attendance at the DAYTON HAMVENTION (if all went as planned) Scheduled to be along was John"KAP"Kapinos, our own Awards Chairman, Rob Thunberg(SPEEDX Asia/Oceanic Editor) and Daryll Symington (Below 30mhz Editor for All Ohio Scanner Club). More Info in June's Column. 73,004

NO COLLECT CALLS ON THESE ADS, PLEASE

FOR SALE: Collins R390A in excellent condition with manual and extra tubes. Will deliver within 150 miles or can ship. Price \$240.00 plus UPS. WANTED: Radio West loop. Fritz Mellberg, 1505 Central, Hawarden, IA 51023. Phone (712) 552-2458 evenings.

FOR SALE: Thanks for your response. Still available, Indonesian rupiah. Two 500 rupiah notes for \$1.00. Multiples okay. Send SASE with sufficient postage. Gerry Bishop, PSC 1, Box 2568, APO San Francisco, CA 96286.

FOR SALE: ICOM R71-A, two years old and seldom used, with FL44A 4 kHz filter replacing 6 kHz, CR-64 high stability oscillator, front end upgrade. All mods done by EEB. Excellent condition with manual and original carton. Price \$825.00 including UPS prepaid shipping in USA. Alan Plotnick, 77 Woodlawn Street, Hamden, CT 06517. Phone (203) 281-3915 after 6:00 pm.

FOR SALE: AEA Micropatch MP-64 RTTY-CW send/receive computer interface with Commodore 64 computer. Complete set-up \$150.00 (negotiable). Larry Hastie, P.O. Box 1063, Baytown, TX 77522. Phone (713) 424-1104.

FOR SALE: Yaesu FRG-7 SW receiver modified by Gilfer. Excellent condition. With original carton and manual. Price \$235.00 including shipping inside continental USA. Clay Burkholder, Rt. 6, Box 78, Lucasville, OH 45648. Phone (614) 259-4353.

FOR SALE: NRD 515 with matching speaker and two stock filters and two Collins filters. Six months old, all imaculate with original packing case, manual, etc. Price \$700.00 in US bank money order. Must sell. George C. Schrammel, 3009 West Lakefield Drive #3, Milwaukee, WI 53215.

FOR SALE: Collector's item.Hallicrafters Model S-118 five-band communications receiver. Covers 185 to 420 kHz and 495 kHz to 31 MHz. Price \$25.00 including shipping. Dr. J. Blum, 18-C-2 Warren Park Drive, Pikesville, MD 21208.

FOR SALE: Sony ICF-2001, \$95.00: ICF-6700W, \$175.00. Prices include shipping. Customized Beam Headings (from/to) and Distances (mi/KM) to over 355 WRTH transmitter sites. Useful in picking alternate transmissions and selecting listening times based on distances. ITU Country Codes included. Send your location/coordinates. Price \$6.00. Gilfers's Confidential Frequency List, 5th edition; Guide to RTTY Frequencies, 2nd edition; FRENDX complete 1984-1985, \$5.00 each. Cashiers check or money order, please. Al Drehmann, Route 2, Box 3B, Tryon, NC 28782. Phone (704) 894-3398.

WANTED: Yaesu FRG-7 solid state communications receiver covering 0.5 to 29.9 MHz. Must be in top condition. Charles Runte, 22 Bucknell Road, Somers Point, NJ 08244. Phone (609) 927-6819.

Ads are printed in FRENDX at no expense to members when space permits. Please specify who is to pay postage on items. Send all ads to NASWA, 45 Wildflower Road, Levittown, PA 19057. While it is all right to use a postal card, remember that the cancelling system now used by the post office sometimes gets the wrong side of the card. This, of course, makes your ad rather difficult to read.

A WEDDING INVITATION

5

from Rob Harrington and Joyce Arrington.

We have great news for you. We are getting married and we are telling the whole world about it! You and your family are most welcome to attend our wedding, but, since we need to know how many are going to be here, we request that you RSVP by May 29, 1986 to P.O. Box 21564, Denver, CO 80221. Please RSVP by letter. The wedding will be held on July 26, 1986 at 1:00 pm at the Littleton Christian Church, 6130 South Penn Street, Littleton, CO with a reception to follow at 2:30 pm at Joyce's sister's house in South East Denver.

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NEWS RELEASE

GILFER ASSOCIATES, INC.

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FOR IMMEDIATE RELEASE

GILFER SHORTWAVE ANNOUNCES

THEIR SPRING 1986 CATALOG

Park Ridge, NJ: GILFER SHORTWAVE hass just released their Spring 1986 catalog. It is jam-packed with lots of new items--the most tempting being the new Japan Radio Company's NRD-525, ready for distribution mid-May. Rainer Lichte, author of the now famous "RADIO RECEIVER-CHANCE OR CHOICE", has completed his extensive testing of this fine receiver. Those interested can obtain a copy of his full review plus a colorful brochure of the NRD-525, first class mail, by sending \$3.00 to GILFER SHORTWAVE, 52 Park Avenue, Park Ridge, NJ 07656.

Also included in the catalog is the innovative line of DATONG products. DATONG has been billed in popular publications as one of the best accessory manufacturers. There are also two DRESSLER active antennas (as advertised in the "World Radio TV Handbook,") the ara 30 and ara 500.

In GILFER's book line, there are two new titles of particular interest: First: The Radio Backer's Code Book—a computer do-it-yourself book exploring the world of codes and ciphers while using your home computer shows how to program your computer for these interesting signals using BASIC & Assembler 80. This book is just off the press.

Second, The Wave Antenna for Reception of Medium and Long Wave, by Walter Schultz: explains theory and application of these specialized antennas for the medium wave DXer -- reviewed on "Media Network" by Jonathan Marks.

GILFER is proud of its stock of fine products for the discriminating shortwave listener. Phone to order at (201) 391-7887. New customers can receive a catalog by sending \$1.00 (refundable with first order) to 52 Park Avenue, Park Ridge, NJ 07656.

SOCIA	TION
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ANTERICA	IN RADIO



HOLIDAY INN - PLACE DUPUIS

CONVENTION REGISTRATION FORM

...........

NAME:

ADDRESSE:

POST/ZIP CODE:

TELEPHONE NO. ()

ANARC OR OTHER CLUB AFFILIATION:

1 AM ENCLOSING THE FOLLOWING AMOUNTS:	FULL CONVENTION REGISTRATION	\$ ·
4	SINGLE DAY REGISTRATION	
PLEASE NOTE: THESE AMOUNTS	ANARC AWARDS BANQUET	
ARE ALL PAYABLE IN ADVANCE. PAYMENT CAN BE MADE IN	BUS TOUR OF MONTREAL	0
CANADIAN or U.S. FUNDS BY	BOAT TOUR OF MONTREAL	•
PERSONAL CHEQUE (In Canada and U.S. only) OR BY MONEY ORDER.	TOTAL AMOUNT ENCLOSED	\$
***************************************	**********************************	

I WILL / WILL NOT BE ATTENDING THE FRIDAY EVENING WINE & CHEESE RECEPTION I WILL / WILL NOT BE ATTENDING THE SATURDAY EVENING COCKTAIL PARTY

(Please circle appropriate word above)

I WILL BE TRAVELING TO THE CONVENTION BY: CAR: BUS: AIR: TRAIN:

I WOULD LIKE TO REQUEST THE FOLLOWING SPECIAL MEAL ARRANGEMENTS FOR THE ANARC BANQUE

Please note: The banquet main course is filet of beef brochette. Requests for meal substitutions may be made for religious or dietary reasons only.

CONVENTION ACTIVITIES

All convention activities will take place at the convention hotel, the Holiday Inn -Place Dupuis, 1415 St. Hubert Street, Montreal (Cross Street is St. Catherine East)

MEALS

The convention registration fee does not include any meals. In addition to the restaurants in the hotel there is a wide variety of places to eat in the area around the hotel, and prices are very reasonable. Your convention registration package will include details on area restaurants.

CONVENTION COSTS

FULL CONVENTION REGISTRATION - 3 DAYS SINGLE DAY REGISTRATION (ANY DAY) ANARC AWARDS BANQUET BUS TOUR OF MONTREAL	\$ 10 PER PERSON \$ 25 PER PERSON
	\$ 5.75 - 5-11 yrs. Under 5 yrs. Free.
MONTREAL HARBOUR SUNSET CRUISE	PER PERSON.
PLEASE NOTE: The final price for the harbour cruise will deper number of people who wish to go, and who have ser deposit by July 1. The balance of the price will	nt their

collected at the convention.

THE ABOVE AMOUNTS ARE PAYABLE IN ADVANCE & SHOULD BE SENT ALONG WITH YOUR COMPLETED REGISTRATION FORM. THEY ARE PAYABLE IN CANADIAN OR U. S. CURRENCY. PERSONAL CHEQUES ARE ACCEPTABLE FROM THE U.S. OR CANADA. MONEY ORDER OR BANK DRAFT SHOULD BE USED FOR OTHER COUNTRIES. MAKE CHEQUES ETC. PAYABLE TO: ASSOC. OF N.A. RADIO CLUBS /ANARCON-86.

OPTIONAL CONVENTION ACTIVITIES

The <u>BUS TOUR</u> of Montreal, and the <u>MONTREAL HARBOUR CRUISE</u> must be booked in advance, when you return your registration form. Last minute reservations will only be accomocated on a first come, first served basis, if there is any space available. The <u>BUS TOUR</u> is a two and a nalf hour trip around Montreal. The <u>BOAT TOUR</u> will be a one or two hour long sunset cruise starting at the Montreal harbour. The duration of the cruise will depend on the number of people who take part.

Included in the package you will receive along with the confirmation of your convention registration, will be information about other attractions and places to see in and around Montreal, for those who might wish to come a few days ahead of the convention, or stay a few days afterwards.

THE ANNUAL ANARC AUCTION

If you attended ANARCON-85 in Milwaukee you'll know that a now annual event at the convention is an auction, following the ANARC Awards Banguet. Start saving all your spare cash (if you nave any left after the tax man has his way with you), and come prepared to bid yourself silly and take home some of the auction goodies. This auction is for the benefit of ANARC.

PLEASE NUTE: Since HAP-USA is no longer in operation there will not be a HAP Auction at the convention. This has now been replaced by the ANARC auction.

NASWA

"UNITY AND FRIENDSHIP" PUBLISHES FRENDX MONTHLY

NASWA MEMBERSHIP FEES:

First Class North America	\$16.00
Overseas - Surface Mail	\$10.00
Airmail to Central America, Caribbean, South America and Europe	\$16.00
Airmail to Asia, Africa and the Pacific	\$25.00
Annual to Asia, Anica and the Pacific	\$28.00

All remittances must be in U.S. funds and mailed to: NASWA, 45 Wildflower Road, Levittown, PA 19057, U.S.A.



Besides FRENDX, NASWA also publishes UPDATE ... a mid-month newsletter with the very latest DX news while it's still news. (UPDATE also appears in each issue of FRENDX. It is available only to NASWA members:

UPDATE SUBSCRIPTION RATES PER YEAR:

North America (First Class) Overseas (Airmail)	\$4.00 \$6.00	
Sample copies of FRENDX and UPDATE are available for:	\$6.00	
North America	\$1.00	
Overseas	\$2.00	

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