



"THE SWBC JOURNAL" OFFICIAL PUBLICATION OF THE

# NORTH AMERICAN SHORTWAVE ASSOCIATION

MAY 1971

NASWA HEADQUARTERS

POST OFFICE BOX 989

VOL. X NO. 5

ALTOONA, PA. 16603 USA

## HELPING HAND SERVICE

For sale; Haeth GD-125 Q-multiplier in A-1 condition. Complete w/manual and schematic. For added info and price, etc., write Ed Insinger, 24 Madison Ave., Summit, N.J. 07901

Free! First come, first served! Telephone type carbon pile lightning arrestors which limit antenna to a mere 500 volts to receiver. Contact John Kolb, 4026 Ingraham Street, San Diego, California 92109. (These are good for 40 strikes!)

For sale; HyGain SW-6 antenna kit. Never opened. Priced at \$5.50 including postage. Write Mark Hogarth, 1617 Williamsbridge Road, Bronx, New York 10461

For sale; Realistic DX-150 receiver w/matching speaker. In like new condition. \$75.00 plus shipping. Write Bob Sawallesh, 4313 Granby Road, Woodbridge, Virginia 22191

For sale; Factory wired Heathkit SB-310. Complete w/sideband filters, 100kc calibrator and in original condition. Write Dave Messing, 612 Chicago Ave., Plattsmouth, Neb. 68048

For sale; Squires-Sanders SS-IBS international broadcast abnd receiver. Digital freq read-out, push-button operation. The only receiver recommended by Playboy magazine for "the man who has everything!" Beautiful condition. Contact Dr. Richard E. Wood, Dept. of Foreign Languages, Louisiana State University, Baton Rouge, La. 70803

Wanted; Would like to hear from members who DX the 'Bootleg' band 1610-1630kcs. In past 3 months I have ID'd 8 stations here. Write Bill Martin, 2674 Whitman Drive, Wilmington, Delaware 19808 (Want to swap notes, info, data, etc.)

For sale; Zenith R-1000 (transistor) receiver. Leather bound; Chrome fittings. Has standard BCB, Marine band and 6 SW bands. Write Miss Norma Cuthbertson, 67 Younge St., Suite 1003, Toronto 215, Ontario, Canada.

## HEY THERE!!

Corresponding Secretary- Ed Shaw, wants it known that orders for club stationary are sent via 3rd class mail unless extra fee is included for 1st class service. Seem's there are a few members complaining that it takes too long for their orders to reach them. Tsk tsk!

## REMEMBER!!

Keep in mind that postage rates go up this month. It is now more important than ever that if/when you write Hdqs or editors, you include SASE for reply. Membership fee's will not be increased! Let's hope that rate increase will improve delivery service.

NEW MEMBERS, WELCOME!!!

Bill McGraw, San Diego, California. Via FE Communications Handbook.	Arthur L. Barnett, New Orleans, Louisiana. Via Communications World.
Bernard J. Sussman, Jamaica, New York. Via SWL Guide/Todd Graves.	Philip A. Schmidt, Schenectady, New York. Via Communications World.
Jack Jonap, Bridgeport, Connecticut. Via Communications World.	John W. Creamer, Denver, Colorado. Via Log Report editor-Dan Ferguson.
Dwight Sunday, Sturgis, Michigan. Via Communications World.	Robert Levine, New York, New York. Via Communications World.
John L. McDill, Sidney, Montana. Via SWL Guide/Todd Graves.	M. R. Leonhardt, Liberty, Indiana. Via Communications World.
Tom Gavaras, Wayzata, Minnesota. Via Radio Sweden/SCDXers.	Mike Vennum, Spokane, Washington. Via World Radio-TV Handbook.
Edward J. Insinger, Summit, New Jersey. Via World Radio-TV Handbook.	Walter G. Windish, Woodcliff Lake, New Jersey. Via Communications World.
Robert L. Wells, Alexandria, Virginia. Via Communications World.	Robin L. Smith, Anchorage, Alaska. Via member David Schmidt.
Pete Thomson, Charles City, Iowa. Via Communications World.	Walter C. Gehan, Lubbock, Texas. Via Communications World.
Earl R. Smith, Troy, New York. Via "the salesman who sold me my rx (DX-120)"	Tancredo R. Verzosa, Seattle, Washington. Via Radio HCJB, Quito Ecuador.
Gary Elston, Santa Clara, California. Via World Radio-TV Handbook.	Mark Dujmich, McKeesport, Pennsylvania. Via Communications World.
Robert Allen Read, Jesup, Georgia. Via SWL Guide/Todd Graves.	Joseph H. Quintana, Ogden, Utah. Via Communications World.
Gregory K. Sorknes, Keesler AFB, Mississippi. Via PE Communications Handbook.	+++++++
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RENEWALS

Second year- John Kolb. Third year- John Callarman, Ralph Perry, W. H. White, Richard Anderson, Richard Heggs, Kenneth Cummings. Fourth year- Robert Peritz, Geoff Oates, Tom Burnett, Bill Flynn, Gary Cartone. Sixth year- Leo Poirier, Edward J. Pyatt, Art Poulis. Eighth year- Bill Sparks.

NOTE

Members joining or renewing after the 15th of the month will be listed next month. Tnx!!!

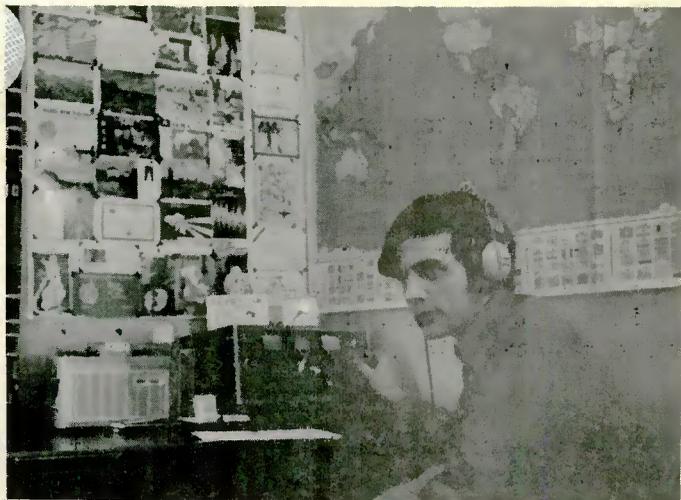
FOR THE RECORD

A number of letters have been received here at Hdqs regarding good showing in amount of new members listed each month. We would like to clear up any misconception hereto. While it is fact we have been gaining new members each month, be alert to fact we also lose a number of old members via nonrenewals. On the average, a member stays with us for 2 or 3 years, they either then leave the hobby or join another club. The majority who stay with us for longer period are those members/DXers who are active and take the hobby more seriously. It is these whom we rely on month after month for reports and support, in the main. The above lists of new members for this month, and the renewals shows 25 and 16, it does not show that that there are/were 46 nonrenewals, some of which may come back/renew later. In any case, we wanted members to be informed hereto and not think we are growing as much as it may be thought. Unlike some club(s) NASWA counts only those members who are paid uptodate, not the total who have joined. Were we to count all members the club has had, believe it or not, the number would be in excess of 3000. As is, the factual total fluctuates between approximately 490-520 each month. And remember, it is not the number of members a club has that makes it worthy, but rather the support those members give.

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WATCH FOR SOME "SPECIALS" IN THE JUNE EDITION OF FRENDX!!!!!!

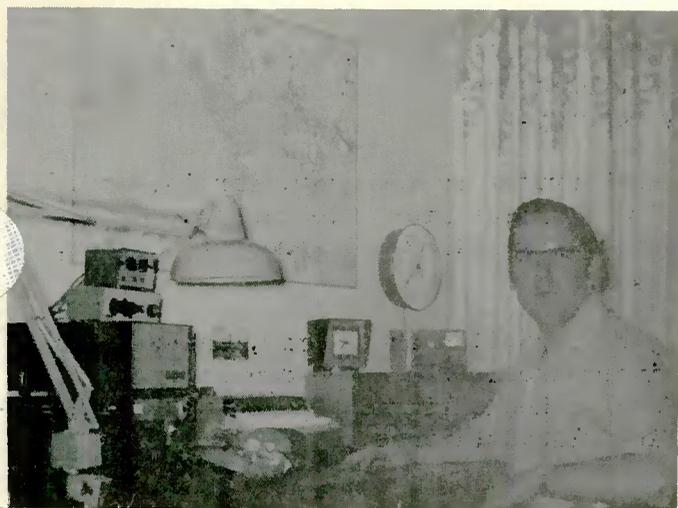
DXers in Den



**JIM ROBERTS, MANITOBA**



**CURNE CHADWICK, IOWA**



**GREGG CALKIN, ONTARIO**



**GREG ROSENBLATT, PENNA.**



**RONALD HYRE, ILLINOIS**



**DANNY JAMISON, VIRGINIA**

(See next page for info/data on these NASWA members. Have you sent in your pix yet???????)

DXers in DENIS

JIM ROBERTS, Manitoba, Canada. In his first year with NASWA, Jim is 19 and attends the University of Manitoba. His receiver is a Kenwood 9R59D and his antenna is an inverted L dipole. Interested in the hobby for about five years, actively the past two, he prefers to DX the low-powered African and Latin American stations. Also enjoys helping new SWL's. His QSL totals to date, 60 out of 81 countries logged.

CURNE CHADWICK, Council Bluffs, Iowa. Employed by the Burlington Northern Railroad, Curne is married and in his third year with NASWA. He uses a Drake SPR-4 receiver and an SWL-7 dipole antenna, 34' vertical and 80' longwire. His interest in the hobby involves making new friends, receiving overseas mail(QSLs), listening to news via various stations and experimenting with antenna's.

GREGG CALKIN, Ottawa, Ontario. Our QSL Editor, Gregg is unmarried and is an Administrative Officer with the Canadian Government. He uses a Drake SW4A receiver and a dipole antenna. His main interests in the hobby lie in the area of the small/rare DX stations and field of clandestine stations. He also has a sincere interest in promoting and furthering the hobby. Has been with NASWA for six years and in addition to editing QSL section, he is currently serving as member of Board of Directors.

GREG ROSENBLATT, Cressona, Pennsylvania. In his first year with NASWA, Greg is highschool student. Receiver is a Columbia 'Masterwork' and he uses a longwire antenna. Main interest in the hobby is DXing and his goal is to QSL every country.

RONALD HYRE, Schaumburg, Illinois. An electronics tech writer by vocation, Ron is married and is in his first year with NASWA. His receiver is a Hallicrafters SZ-122A and he uses a 75' longwire antenna. With 35 SWBC QSLs so far, he prefers DXing Asia and Africa. Too, he finds SWLing an enjoyable hobby in every respect.

DANNY JAMISON, Charlottesville, Virginia. Currently serving with the US Army, Danny is in his fourth year with NASWA. He is single. His receivers are a Drake SW-4 and Hallicrafter S-120. He uses a rhombic and a longwire antenna. To date he has logged 136 countries and has 56 QSLs. Prefers DXing the Asian and the Pacific Island stations.

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We are still interested in receiving snapshots or small photo's, either color or black/white, from any/all members who care to support these pages. Shots can be personal type, or of you in den w/receiver, or just of your shack setup. Please not do submit shots larger than 3x5" as we do not have equipment or facilities to handle!!

Thank you!

Exclusive

Exclusive

THE LOUDENBOOMER REPORT

In keeping with the current trend toward more fine fun-filled DX bulletins, the International World Wide Continental DX Association this month presents 'DX Funtest'. Here's how it works. If you can submit a worse pun, based on DXing or geography that is related thereto, than you find in the splendid winning entries below, you'll win a free autographed copy of the new Rick Steele book "DXing the stations of the Zambesi River"... a 220 page authoritative guide that you're sure to find indispensable in your DX efforts. All entries should be accompanied by a \$100.00 entry fee to cover the cost. So c'mon and join in the fun and see if you can beat the DXperts and win that big prize.

You have heard, of course, that one of the major African stations is now on the air twenty-four hours a day. Yup! They decided they were "Ghana" run all night. And do you remember when Nkruma was running the show in Ghana and got overthrown? Do you know what he did when he heard the news? "What a Kwame deal!" And some of his followers who were sorry to see him go, sang that old favorite, "Accra'd For You!"

What's a social worker in Upper Volta called? An Ouagadougouder of course! And we are sure you know that the manufacture of ladies unmentionables is the major industry in Brazzaville.

What does a horse do when he is running fast? He "Galapagos"! And one of our great inventors was Henry Ford...he "Madagascar!" A restaurant without a cocktail lounge is "Zanzibar!", and a run-down bar in Male is a real "Maldives!"

Then there was the DXer who, after he spent years trying to and finally managed to log Vientiane, went bananas because he couldn't decide whether conditions had been "Laosy" that day.

One well-known broadcast equipment manufacturer has just sold a gold-plated xmitter to one of the religious stations. Now its slogan is "Broadcasting from the Purley Gates".

You probably already know that a non-drinker in Yugoslavia is a "Titotler".

We heard about one fellow who went to Venezuela to investigate Radio Libertad. He "Merida" girl down there and ended up "Basquing" in the sun. Later he went to Chile where he met his "Antofagasta".

SBC has a new program devoted to important issues of the day. It's called "Berneing Questions".

The DXer who manages to log Portuguese Timor has himself a real "Dili" of a catch!

Then there was the world traveler who went to Nigeria because he hadn't "Benin" that country yet. While there he met a friend who told him how interesting "Yaounde" was. After he arrived there he "Cameroon" to his friends way of thinking and agreed with him. He also stopped off in Equatorial Guinea where he learned that baseball is very popular. They play it just like we do, with a ball and "Bata". While there he received a telegram from another friend in Nairobi. It read, "Kenya come and visit me?"

So okay now gang. Now that you are quite ill, we will come to a halt. I suggest you go do something else...like go get some fresh air or put your butterfly catching gear in shape. And don't forget to submit your entry in the Funtest, you have until the end of this week to do it. Remember to triple space and don't, above all, write too close to the paper. Entries will be judged on neatness and all become the property of the IWWCDXA.

...Charlie Loudenboomer

\* \* \* \* \*

WARNING!! This page may be hazardous to your sanity!!!

ANARC REPORT

By NASWA-ANARC Rep. Gray Scrimgeour - 227 Hanna Road - Toronto 350, Ontario, Canada

Yes, Charlie, there is a Gray Scrimgeour! But he can't take credit for any of the good work done by Don Jensen, Gerry Dexter, or Wendel Craighead, as much as he'd like to, hi. They all DX!!!

Voting is now taking place for site of the 1971 ANARC Convention. Possibilities are Indianapolis, or IRCA's site - either Toledo or San Diego (Richmond withdrew its bid, so that the eastern vote in IRCA wouldn't be split between the 2 possible cities). We'll let you know as soon as possible where and when the convention will be held, so that you can start making plans to attend. My own choice of location is split between several possibilities, as close friends whom I've attended conventions with are bidding, and I know that any of the three locations will put on a good show. The question again arises - should ANARC have an independent convention, or could it meet concurrently with a large club convention? The latter has never been tried, despite offers for many years from IRCA. More DXers can attend conventions if there are separate sites (because of the immense geography and cost of travel in this continent of ours), but a large convention would be a lot more fun - especially if you add on the possibility of many NRC members attending the IRCA meeting if it's held in San Diego. I'd be one who'd be willing to go from Toronto if I knew that I could attend IRCA-ANARC one weekend in San Diego, and NRC the next in San Francisco. Too bad IRCA's voting is always so late, and that the site is usually not known till ANARC's vote is taken, tco. In any case, as we ANARC ES's say, when does the train leave (or does it still)? (You see Charlie, we may all be the same person; railfans and DXers are strange people!).

Three more well-known DXers have been selected to receive the ANARC Merit Award.

Ernest R. Cooper of Brooklyn, New York, who has served for 25 years as the editor of NRC's "Musings of the Members" section. Ernie's column of variable size (usually 6 to 10 pages per issue) appears 32 times a year - weekly during the autumn and winter "busy" season.

August Balbi of Los Angeles, California, who has been well known for his many years of DXing (since 1933). August has served editorships in many clubs and is a former president of ASWLC. A real DXing pioneer!

Hank Bennett of Cherry Hill, New Jersey, who is SWBC editor for NNRC and who handles the SWL WPE (now WDX) registration programme. Hank's column in Popular Electronics was well known to us all, and probably was one reason for some to start actively in the DXing hobby.

To each of these gentlemen, congratulations. You have worked hard for all of us, and we thank you.

Ed Pyatt of the QSL Committee reports that a reply has been received from the Voice of Turkey. Mr. K. Akcakca of the station says that all reports should bear "Short Wave Radio Ankara" on the envelope and use this correct address:

Turkiye 'nin Sesi  
Kisa Dalga Ankara Radyosu  
TRT Turkiye Radyo Televizyon Kurumu  
Genel Mudurlugu  
Mithat Pasa Caddesi, 37  
Ankara - TURKEY.

The committee has also contacted Belize and Baghdad, as well as Gabon and Kenya who now seem to be verifying well.

Till next month, 73, Gray



# SHORTWAVE CENTER

WILLIAM A. MATTHEWS, EDITOR  
POST OFFICE BOX 15306  
COLUMBUS, OHIO 43215

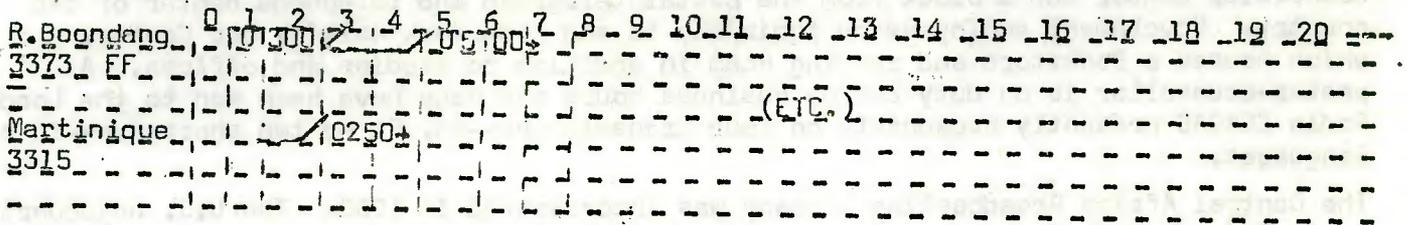
Deadline 15th of the Month  
Your support is solicited!

ON: PREPARATION FOR DXING  
Serge C. P. Neumann

Being adequately prepared for the DX station you are about to try and log, is about as important as having your receiver in best working condition and proper antenna and information. Most seasoned DXers have "systems" or "routines" which they follow to increase their chances of logging that DX station. They do everything possible to enhance the possibility of logging that station. But for many listeners and SWLers such preparation is an unfamiliar commodity. To those of you in this category, this article may be of some help!

The type of preparation we'll discuss are those of gathering vital information: station, time, frequency. This can be done in either of two proven methods, cross-reference and catalogue. First, the cross-reference method:

Ruled paper (squared) is required. Across the top, starting about 2 inches from the left hand edge, write "0, 1, 2, 3", etc. thru "23" on each vertical line. These are your hour markers. On the two inches of space provided along the left hand side of the paper, you write the name of the country, or station, and frequency (with room for comments as to type of programming). If a station, for example, is on the air between 0300-0500 GMT, you would draw a heavy line horizontally beginning at "3" and going until "5". If the station signs-off at 0500, then place a / mark at the end of the horizontal line at "5" hours. This then is what your chart would look like:



etc.

Although it's difficult to reproduce such a chart effectively by mimeograph means, it should give you an insight on how it works. You can cross-check stations. If you are pressed for time, and the time that you DX you wish to utilize to the best extent, this chart can assist you. Your left hand column lists the station and frequency that it's on. And appropriately, the hours of transmission are listed under the respective times. Example: Martinique, signs-off at a0250, indicated by a vertical line. Next to it "0250+" which means 0250 sign-off. Any given time, a DXer can glance at the chart, see what time it is, and checking the chart as to that time, what stations are on the air that he would want to log. Or if the DXer has more time, he can use the chart as a guide. It works both ways, but is very much of a time saver when it comes to looking up the station that you need, rather than going through all those bulletins.

The second proven method is considerably less complicated and understandable via this medium. It is a simple card index system. It involves the use of 95 index cards... each marked differently according to 15 minute time blocks... starting with 0000, 0015, 0030... ranging to 2345 GMT. Each of these cards would list the station and frequency which you are interested in. About 12 separate entries can be made under each card. This system works very well also, but it takes much longer to prepare than the former. Say a station is on the air between 0300-0500 GMT, you'd have to fill out a card for each 15 minute block starting with 0300 and proceeding to 0500. This would mean putting

ON: PREPARATION FOR DXING  
(continued)

the desired information on 8 separate index cards...0300, 0315, 0330, 0345, 0400, 0415, 0430, and 0445. You wouldn't place the station under the 0500 card because that's when the station signs-off.

Both systems of reference have worked well for me. Although the second system requires more time to up-date and maintain, it is efficient. I now prefer the first method (of charting) because my time is limited and it offers a quick reference to what stations I would want to log and when. It is easier to maintain (usually updated anew each month)...all it requires of you is that you add new stations and informations as you get it and mark out those you've already heard. Both systems will aid you and reward you when it comes to logging those stations. It's all part of being prepared for DXing.

\* \* \*

BURUNDI BROADCASTS

The Central Africa Broadcasting Company stations are located in Burundi, a small, over-populated country of 3 million people sandwiched between the Congo, Tanzania and Rwanda. The country is actually in the shape of a heart, so we say that it is in the heart of Africa!

There are only three missionary radio stations in all of this vast continent. We are thankful for ELWA and RVQG broadcasts across Africa. We of Central Africa Broadcasting are also concerned about South Africa and about North Africa with the Moslem world, and we do plan to direct broadcasts into these areas.

Our headquarters in Africa, Radio CORDAC Center, is located in the center of the capital city of Bujumbura, two blocks from the government buildings, a block from the commercial center and a block from the postal telegraph and telephone center of the country. Government employees on their way to and from work walk by our Center, which houses a Bookstore and reading Room in addition to studios and offices. A pastor-counsellor is on duty during business hours and many have been won to the Lord. Radio CORDAC presently broadcasts on four transmitters--AM, FM and two shortwave--in six languages.

The Central Africa Broadcasting Company was incorporated in 1963. The U.S. headquarters is in Friendswood, Texas, near Houston, in the NASA community. It is an interdenominational ministry with members of various denominations and organizations serving on the Boards, committees and staff in Africa and America.

I became involved in this vision in 1959 when I was working with the Far East Broadcasting Company in Okinawa. We were installing the FEBC 100 KW station directed to Communist China, when I received a letter from four Burundis missionaries asking how to obtain a radio franchise and put a missionary radio station on the air. From that time, I acted as consultant for this project, and God did give the miracle franchise on September 3, 1963. We went on the air Christmas Eve, 1963. We are now in our seventh year of broadcasting--our Jubilee Year!

Soon after going on the air, we began researching the countries of Central Africa to determine the needs for missionary radio development. At the same time, we initiated negotiations for further installations with the Burundi government. After five years of planning, praying and negotiating, we recently had a real breakthrough. The Burundi government has given authorization for more powerful transmitters and a new antenna site in the mountains. Burundi is called the "Alps of Africa," and we will be putting in a complex of transmitters right on the continental divide.

Our engineers have designed a set of six directional antennas. Each antenna can be fed at any shortwave frequency by two transmitters, simultaneously, carrying two different programs--even in different languages! The first antenna to be installed will be non-directional, blanketing a 250-mile circle, and will be fed by two transmitters.

BURUNDI BROADCASTS  
(continued)

Such antennas are of new design for broadcasting; they can be used with 10-20 kilowatt transmitters. There is certainly a need for more super-power and high-power transmitters for missionary radio. But also needed are literally thousands of medium-powered transmitters like these to serve in the numerous first languages of the people.

We have known of God preparing properties over a period of years and then presenting them to us. This was true of the property in the capital city of Burundi, Radio CORDAC Center. Now up in the mountains, He has provided another beautiful property which has been developed by a Belgian couple for several years. The main house is a large, Spanish-villa type, with several smaller houses for missionary and African staff. Other uses being considered for this property are for Bible Conferences, Youth Camps and a Language Study Center.

A short distance from the houses is another group of buildings and a hydro-electric system that comes with the property. It is in operation, and previously powered a pottery factory in a long, narrow building. This building is heavily wired, and is ready-made for our transmitters. By faith, we have been shipping antenna materials to Burundi for the last three years. We have shipped over 40 tons of towers, plus two specially designed antennas--all worth some \$100,000. We have been building and rebuilding transmitters in the United States. Two are now in Houston ready to be shipped--right on schedule! The government has approved that we immediately may put on one 10KW and another 2 $\frac{1}{2}$ KW transmitter.

Letter response to the present broadcasts is encouraging, although literacy is low throughout Africa. Our present audience is estimated at several million. Our next target is 30 countries in Africa, with a potential audience of 100 million. These countries will be powerfully covered when the new installations are in operation. In three years we hope to have all aspects of the new site and installation functioning to this objective.

Robert D. Kellum, Executive Director  
Central Africa Broadcasting Company  
in ICB Bulletin  
..via Richard Anderson

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A TREATISE UPON SWL RECEIVERS, ANTENNAS, SWL GEAR, AND RELATED GADGETRY  
Edward Shaw

It's pretty well obvious that a receiver of one sort or another is needed to hear what is on the radio frequency spectrum. No doubt everyone has acquired at least one. For those of us who are electronically inclined or financially endowed, it is only a matter of expense to acquire a receiver, or parts to make one, which will receive anything on the air waves. Receivers necessarily vary widely in cost for several reasons. Most common are quality factors. This means the work gone into constructing a receiver which will assure optimum sensitivity, selectivity, rejection, stability, etc. It takes many extra parts of high quality to do these things. Another reason for varying receiver expense is the scarcity of parts, or whole receivers, to be used for a particular job. A ready-constructed VLF receiver, for instance, might be expensive to come by. And once gotten, it would be highly impractical because the receiver would require an antenna of fantastic length to function properly, or a ground grid facility such as used by the U.S. Navy. So you will see that it is best to pursue the interest you can most afford unless you have facilities available to you from other sources. But, standard receivers and kits are on the market at reasonable prices for most amateur needs, so enjoy yourself.

Next, an antenna system, however rudimentary, must be used to catch the signals for your receiver to amplify. Antennas, of course, are of widely varying designs and are peculiar to your particular interests. Therefore, the two essential items of

A TREATISE UPON SWL...GADGETRY  
(continued)

equipment are your receiver and the accompanying antenna.

There are other additional equipments which are nice to have and will be of great use to the amateur or professional. Some are even luxurious, but are of little technical value. Listed here are some of the items which are considered to be standard monitoring equipment and where they may be obtained. While most are not necessary to the enjoyment of listening, the amateur will find the 'extras' enhance his hobby and provide much enjoyment.

**Receivers** - The basic instrument whereby signals received from antennas are amplified and made audible to the monitor. See an Allied or Lafayette Radio catalog. Popular models for the SWL are made by Knight Kit, Heath Kit, Hallicrafters, Hammarlund, Drake, Collins, Realist, National, Amoco, and Lafayette Radio Corporation sources.

**Antennas** - The means of taking the signal out of the air and feeding it to the receiver. These are readily home made from a simple long wire, or available from such commercial sources as Mosley, Murch, Hy-Gain, Philmore, etc. See Allied, Lafayette catalogs, or a GILFER Assoc. bulletin.

**"S" meters** - A small meter with a scale from 0 to at least 10, and usually as much as 50 or more. This meter gives comparative strength reading of different signals. The stronger the signals are, the higher the meter will register. It must be remembered that the meter gives only relative readings for strength. It is particularly useful to determine when a signal is optimally tuned in. The meter is usually included as an integral part of better receivers, but may be purchased separately and wired into a receiver's circuitry.

**Q-Multiplier** - This particularly useful instrument makes possible a sharper defined bandspread--a problem plaguing smaller receiver owners. Where you will notice many stations close together on the dial may melt into one another, the Q-multiplier may provide sharper distinctions between these close frequencies by providing a slot for the desired frequency and thereby shutting out much of the undesired interference.

**Crystal Calibrator** - This instrument is almost an absolute necessity to the serious DXer. It is used to determine exact frequency. The crystal calibrator emits audible signals in measured Kilohertz so that the amateur may count the number of signals while tuning his dial and therefore determine frequency when he has located a station. There are many excellent varieties on the market--some measuring as low as 5 KHz. See Heath or Allied catalogs, or write Lab 1, New Canaan, Connecticut.

**BFO** - Beat Frequency Oscillator. This device is useful mostly to the amateur listening to CW (Carrier Wave) signals. The BFO converts the raw electrical impulses received into audible beeps. It is also somewhat useful in detecting carrier waves or signals from distant or low power stations otherwise inaudible.

Part II of this article will appear in next month's Short Wave Center.

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DX ATLAS: PHILIPPINES - THE SUN COUNTRY  
Edward J. Pyatt

Just off the southeastern coast of Asia is 116,220 square miles of sun country: the Philippines. Happily, it is one country that's available in 7,112 islands.

DX ATLAS  
(continued)

The Republic of the Philippines is a tropical country that can satiate the senses. But that doesn't sum up to a land generously endowed with beautiful works of nature. Its physical attractions can be mysterious like the huge Chocolate Hills, the origin of which has not been explained to this day. They can be intriguing like the giant Footprints of Angeles and Ceburazan; puzzling like the fantastic rock formations in Salinas; potent like the country's volcanoes, of which one is in a pretty mixed-up predicament, sitting in the middle of a lake with an island with a lake with an island. (See if you can figure that one out!) Indeed, the Philippines is as perplexing as it is picturesque.

While the land may seem to elude accurate description, there is no mistaking the warmth and friendliness of the people. Filipinos, numbering 36 million, are genuinely hospitable and display a great zest for living. Their finest exports are dance and music. The Bayanihan, most famous of the country's dance troupes, has literally toured the world on foot before admiring audiences. Filipino musicians play from Tokyo to Sydney, and daily life in the Philippines pulsates with a gaiety that erupts into revelry on fiestas and festivals.

Spanish, Hindu, Arabian, Chinese, and Malay influences have been assimilated to varying degrees in the country. If that doesn't explain the Filipino character, it certainly provides a clue to the kaleidoscopic culture of the people. Nowhere else is the blending of cultures brought into such a charming mix as in the Philippines where Orientals have American nicknames, Spanish family names and speak Filipino (Tagalog) and English. Nowhere else is western culture brought into such a contrast with other ways of life as in this land where Igorots, Bandjacs, and 52 other ethnic groups follow age old customs and traditions; where 20th century progress makes the country bustle at a frantic pace without disturbing the leisurely clip-clop of calesas--horse drawn carriages--on old streets or the gentle swaying of bamboo in the countryside.

The Philippines has more islands to explore than any other Asian country. Of the more than 7,000 islands about 4,000 are relatively untraveled, and with a coastline longer than that of the U.S., it has more beaches and shores to wander and hunt seashells on. Of the 13 most valuable seashells found in the world, three came from the Philippines. The "Glory of the Sea" (valued at over \$1,000), considered the most beautiful, has been found in the islands. Here too, one finds more species of birds than anywhere else in the Pacific. In the countryside is the Orient's richest array of flowering plants and ferns. Some 900 species of orchids, many of which cannot be found in other countries, make one big orchid garden. The virgin forests in the provinces, notably Mindoro and Palawan are rich with wild life, such as deer, boars, snipe and wild ducks. Fruits like rambutan, mangosteen, lanzones, and durian grow in wild abundance in most parts of Mindanao. The second-greatest depth known to man (35,400 feet) can be found off Surigao. Philippine waters yield lovely corals and pearls and a wide variety of fish.

Time and historical tides have blended a kaleidoscope of cultures on the islands. The mixture appears in the features of Filipinos born of the mingling of races and tribes which populated the country.

Aboriginal Negritos originally lived here. Then came the Indonesians, a Mongoloid people. The Asian Malays arrived in numbers and eventually provided the dominant shading. Chinese and Indian traders settled before Spain conquered and colonized for three centuries. Spanish colonization was replaced by almost 50 years of American domination interrupted by three years of Japanese occupation. The palette of history added new pastels to the tropical islands' own rich assortment of colorful arts and crafts, tongues and skills, songs and dances.

The blacks, browns, yellows, and whites whose blending produced the free Filipino of today also contributed to his culture. Spanish conquistadors introduced Catholicism, church architecture and new agricultural methods. Muslim traditions in the southern

DX ATLAS  
(continued)

Philippines tinged folk dances and folklore with Arabic and Indo-Malaysian coloration. The American influence is seen in tall office buildings and hotels.

Not every brush which dabbled or stroked on the Philippine canvas drew lines of precision and harmony. History seldom paints that way, and not all men who make it are masters. Filipinos themselves will do the required retouching, perfecting the overall picture until it conforms to their own values of rhythm, balance, proportion, and harmony. Inevitably, they will use the colors mixed by history. Not however, in a Spanish, Japanese, or American way, nor in a purely Malaysian way, for the Filipino eye has seen additional shapes and shadings. The unfinished picture shows signs of becoming a warm, colorful, glowing blend of something uniquely Philippine.

To peek in on this colorful nation, DXers are advised to monitor the following stations:

Radio Veritas - a relatively new station on the shortwave spectrum and one that is very friendly. Try 11830, or 15170 for this one.

Voice of the Philippines - Spotty, but look for it on 9580 kcs and 11950 kc/s.

Voice of the State University - DuH 9 on 5043 kcs. This is my favorite Filipino station. Many interesting programs including numerous "Rap" sessions by University students. This station is operated by the University of the Philippines from Diliman, which is just outside of Quezon City.

Mindanao Broadcasting Network - on 7280 from the Philippine's third largest city, Davao.

South East Asia Radio Voice - has been around a while, check 15420, 9750, 11910 or 17875 kc/s.

Far East Broadcasting Company - another missionary station which transmits in many languages. Try 15440, 3345, 6120, 7225, 7230, 9505, 9715, 11855, 11920, 15300, 15385, 15390, 17810 and 21515 kc/s. This is the easiest Filipino station to log.

Philippine Broadcasting Service - on 6170, 3286, 9615 kcs. A newcomer, but good in English and Filipino.

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SW DX-ING: WHAT NEXT?

Alan Thompson

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It isn't necessary to have been DXing as long as I have - some 30 years! - to realise that the SW BC spectrum is getting more cluttered year by year! Hardly a month goes by but it is reported that one of the 180-odd countries in the world is proposing to instal a high-power SW station in order that the "Voice of ...." may be heard in more and more quarters where it has been non-existent, or just a whisper, in the past.

Those of us who can recall the days before World War II - pardon us whilst we get out our wheel-chairs you products of the fifties and sixties! - aren't just enjoying the dreams of old men when we say that it was then possible to listen to short-wave stations in many lands with much better reception than is the case in this year of grace, 1971. It is a fact, and an unassailable fact, that then there was pleasure to be gained from DXing. Don't let us delude ourselves - just how much pleasure is there in DXing the short-wave bands now: there is the chance to show considerable technical skill in the operation of a complex receiver, equipped with numerous gadgets, and that is the great interest for many of us who still pursue the hobby. We are like the good pianist who gets his 'kicks' from a brilliant rendering of a Chopin Etude. He is

SW DX-ING: WHAT NEXT?

(continued)

proud of his ability to produce from his instrument something better than that that can be achieved by the more average mortal - this is the case, however, even though he be the most self-effacing of all individuals. We, too -- once we have passed through the stage of logging the 'easy' stations -- are not really DXers trying to listen to long-distance short-wave stations BUT capable technicians adept at handling complex gear in order to extract sufficient information from the 'noise' of static, interference and jammer in order to assemble enough material for a reception report. I wonder whether this is sufficient of a hobby to maintain interest as the years progress and the problem is aggravated with each new high-power station that takes the air. Let me confess that there are times when it palls for me and I long for a station broadcasting a programme on a clear channel that I can really enjoy listening to!

Don't let us get bogged-down in a discussion whether the transistor is better than the tube - or vice-versa! This is not the point of the argument: the real issue is whether we are not becoming antisocial towards our families owing to the technical complexity of the gear that many of us are using, and because of the very low fidelity standards that we now regard as acceptable DX quality.

There were days before the advent of the television and they don't go so far back that Queen Victoria sat on the British throne with half the world painted red on the map, whilst our American friends spent their days chasing the Indians that threatened their homes. It's just a matter of some 20 years since the average DXer did his DXing on the old family radio when the local station didn't appeal -- on that old radio which young Junior used: Mom used to listen to the Sunday morning service: Pa tuned for the big fight: Sis used to find her very own favorite music. In fact, Dad (or Pa, or what you will!) and Junior if he was so inclined, made their DXing part of family activity and family life. Say what you will, there was something rather thrilling about hearing a concert from Radio Australia and hearing it as part of the family life together when the day's work was over. DXing then was a hobby that fitted into the family in the same way as stamp-collecting, pressing flowers or whatever the family was currently interested in.

Contrast that cosy picture - no: it wasn't schmaltzy! it was a family taking their pleasures together as families should if the word 'family' means anything at all - contrast that cosy picture with the average DXers home today. Ugh! That old family 4-valve (tube if you prefer) radio has been replaced by a multitude of portable transistor radios which enable everyone to have music or news wherever they go: BUT what of our DXer? He's probably possessed of one of the electronic marvels with variable selectivity, crystal filters, frequency read-out (if he's lucky), bandspread, antenna trimmers, AFC, squelch, AGC, BFO ..... and various other things which mean just nothing to the family. So, he's become a technician and a technician who produces the most God-awful sounds from his machine at the strangest hours of the day and night. He's probably been relegated - thanks to the millions of dollars spent on better housing programmes: - to an attic, a spare bed-room, a hut in the garden, the garage: anywhere, in fact, where he can make his hideous noises where they will cause the least annoyance to those (not afflicted with this madness that clutches at him!) around him. Just what sort of hobby is this? Is it the sort of hobby that will ever win, again, social acceptance in the way that DXing did in the thirties when it was something that one put down or took up when there was nothing else, more interesting, to be done?

As a group, DXers are blind (or should it be deaf?) to the progress of the world around them. 20 or 30 years back the noises that emanated from the latest phonograph bore very little resemblance to those which had been made by the artist recording the disc - we were used to accepting poor quality sound reproduction. Today, we are all used to the immeasurably improved sounds of the FM radio: to the tolerably realistic reproduction of the hi-fi, whether it be mono, stereo or the latest quadrophonic version. In all this, the DXer has taken the path away from real high fidelity and

SW DX-ING: WHAT NEXT?  
(continued)

succeeded in producing a cacophony that grates on the ears of everyone other than the performer at the latest electronic marvel from the Super-Duper Communications Receiver Co. Inc.! His banishment to the farthest recesses of the home is the direct result of the introduction of better fidelity of music reproduction in the home, on radio, on TV and on disc and tape --- whilst this has been going on he has been going the other way introducing filters and sharper I.F. filters which have the effect (as they are designed to do!) of reducing sharply the spectrum of noise that emerges from his loudspeaker. Hence, I feel, the large measure of lack of acceptance of DXing as a hobby that has a place in the modern home. It's just that with the improvement in radio receivers and the increase in the number of SW stations, the sounds that his gear produce are so offensive to the ears of the uninitiated. Who wants to listen to a Beethoven Symphony with a crystal filter in circuit and the band-width reduced to 3 khz to avoid adjacent station QRM? It produces a sound that was unacceptable on the domestic phonograph of 30 years ago!!!

What then of the future? Before someone gets the idea that I am anti-DXing let me make it clear that I've got a room cluttered with all the gear that the advanced DXer regards as indispensable - although truth to tell he could manage without 50% of it. The technical side of the hobby gets a grip on you and you start acquiring this gadget and that: making this modification: installing this 'better' tube, and so on.

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Part II will appear in the June edition of FRENDX. The author is Secretary-General of the European DX Council, has his own program on Deutschlandfunk, and is well known internationally for his work in British DX circles.

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NEW TRANSMITTER SITES FOR DEUTSCHE WELLE

The largest and most powerful Shortwave transmitting complex in the world is presently under construction for Deutsche Welle in southern Germany. When completed, the Wextach Valley Station, about 50 miles west of Munich, will consist of 24 Shortwave transmitters of 500 KW each.

The first five transmitters will be in operation in time for the 1972 Olympic Games in Munich; tests with two transmitters will probably begin before the end of 1971.

A relay station on the island of Malta, consisting of a 600 KW MW-transmitter and three Shortwave transmitters of 250 KW each, is expected to go into operation before 1973.

Plans for a relay station in the Caribbean have also been announced by Deutsche Welle, but the exact location has not been mentioned as yet. Earlier plans for a station in Guatemala, El Salvador or Bonaire did not materialize.

Deutsche Welle & ADDX  
...via Ernest S. Behr

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KC2XIO

NASWA member Steven Handler received a letter from Peter P. Viezbicke, Chief of Frequency-Time Broadcast Services Section, Time and Frequency Division, recently concerning station KC2XIO. The following information was given. KC2XIO is authorized to broadcast on the single frequency of 13.56 MHz  $\pm$  4 kHz. Current authorization is for daytime transmission only.

Its purpose is to experiment with new formats proposed for the standard time and frequency broadcast stations WWV and WWVH. We have become increasingly aware that the present formats of these NBS radio stations are in need of revision. New transmitters

KC2XIO  
(continued)

for WWVH are to become operational on the island of Kauai, Hawaii, on or about July 1, 1971, and we intend to provide better service with a new format.

The NBS was given approval to broadcast from KC2XIO on June 17, and broadcasts began July 9, 1970. Since then, intermittent experimental programs have been broadcast to evaluate possible new formats.

The experimental broadcasts originate from one of the standby transmitters of station WWV in Fort Collins, Colorado. Experiments to date have provided some very valuable information, but they are not expected to continue indefinitely. Authorization expires May 1971.

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SPORTS ON SHORTWAVE

Robert E. Byers

To sports fans, like myself, I find shortwave radio a way for sports broadcasts from N.H.L. hockey to cricket games to be heard.

Sometimes shortwave radio may be the only media in which a particular game or contest can be heard. A good example of this is the Mohammed Ali (Cassius Clay)- Joe Fraser heavyweight championship fight on March 8th. There is no radio or T.V. coverage in North America of live blow by blow play except for close circuit T.V. outlets. This is except for the AFRTS that will broadcast it for U.S. servicemen. Anybody with a shortwave radio will also be able to hear it while others who know nothing about SWling will be climbing up the walls so to speak because they will not be knowing what will be going on till later.

AFRTS is probably the king when it comes to sports broadcasts. There are few days far between that AFRTS does not broadcast some sport. They range from baseball that can be heard almost every day in the summer to football to basketball, to the odd N.H.L. hockey game which seems to be last thing broadcast if they are stuck for something. This is unfortunate because hockey is the fastest and possibly the roughest sport in the world.

The B.B.C. also broadcasts a fair number of sports. Last year they broadcasted the World Cup Soccer games from Mexico City and they were about the only way people in North America could hear the games. Other soccer games besides World Cup are broadcast. Britain is known for "Cricket" games which are also broadcast in the World Service.

The C.B.C., Radio Canada International, also broadcasts its share of sports. N.H.L. hockey is the main one. At 1100 (GMT) - 1215 (GMT) on 9,625 kHz on Sunday only you can hear the audio portion of the C.B.C.'s television programme "Hockey Night in Canada" which the highlights of Saturday night hockey games are broadcast. These are either one of the games played by the Toronto Maple Leafs, Montreal Canadiens, or Vancouver Canucks play. Also on Sunday nights on the C.B.C. "Northern Service" a live hockey game is broadcast which is usually a Toronto game unless the Leafs do not play Sunday. If not it is Montreal or another game. Also the CBC broadcasts live once-a-year Canada's football championship game "The Grey Cup Game". To those who are not familiar with this, this is the Canadian Football League (CFL) a professional league game between winners of the Eastern and Western Conferences of the C.F.L. that decides Canada's champions. It is similar to the U.S. "Super Bowl."

Finally to those who can get the radio station CFCX on 6,005 kHz they can hear more sports broadcasts. CFCF a radio station in Montreal owns the shortwave outlet CFCX and they broadcast all Montreal Canadiens hockey games, all or most Montreal Expos baseball games, and all C.F.L. Montreal Allouette football games.

This article has just named a few of the stations that broadcast sports, but for all

SPORTS ON SHORTWAVE  
(continued)

sports fans shortwave radio is the face-off or kick-off for fast action sports.

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ELWA CELEBRATES 17th ANNIVERSARY

Radio ELWA in Monrovia, Liberia, the radio arm of the Sudan Interior Mission, has celebrated its 17th anniversary of broadcasting the Christian Gospel to Africa. On January 18, 1954, West Africans first tuned in their radios and heard: "This is Radio Station ELWA broadcasting from Monrovia, Liberia." From the small beginning of a single transmitter, ELWA has grown in its 17 years to the present ELWA Radio Village.

Five transmitters now beam the Gospel not only to Liberia and West Africa, but in a wider arc across Africa from the Congo to Equatorial Africa, the Middle East and North Africa. Five frequencies are used. In addition to the local 710 kc medium wave frequency, 90 Meters broadcasts 40 to 50 minutes a day in each of ten Liberian tribal languages, with five other tribal languages having programs each week; 60 Meters serves Liberia, Sierra Leone and Ghana in English and African Languages, and other countries in French; and 19 Meters broadcasts to the Congo and Equatorial Africa in the afternoon, to the Middle East in the early evening and North Africa in the late evening.

Five studios are used in the preparation of programs for these transmitters. External Recording Studios are operated in Abidjan, Jos and Igbaji in Nigeria, and Beirut, Lebanon. Associate studios in other countries also record programs for use over the External Service of ELWA.

President William V.S. Tubman graciously signed the deed to the 23 acre government plot which, with the adjacent area acquired previously, will allow ELWA to develop a new transmitting site two miles southeast. This was another example of the cooperation given ELWA by the Liberian Government and people through the years. First project on the new site will be a 10,000 watt transmitter which will boost the 710 kc medium wave signal. Efforts are also being made to strengthen local programming on this frequency.

For broadcasts to the surrounding French-speaking West African countries, a new antenna is being erected which will improve coverage. Radio stations in other African countries are offering time for broadcasting Christian programs, and ELWA's experience in remote recording is to be used in supplying individual programs for these stations.

Arnold Lueders in the ICB Bulletin  
...via Richard Anderson

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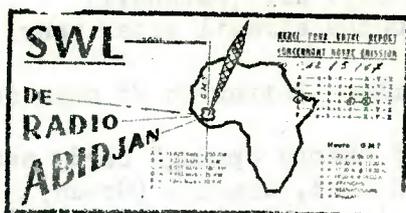
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STRATEGIC SEYCHELLES RADIO STATION BEGINS INDIA COVERAGE

Within six months of going on the air, the Far East Broadcasting Associates' radio station here has reached a broadcast volume of seven hours a day, seven days a week, beamed mainly to India. The islands' strategic location in the Indian Ocean north-east of Madagascar gives the station ready access to India, Africa, and the Middle East. The Seychelles are a British colony of 92 islands, with a population of about 45,000. The political significance of the islands is gaining in importance with the construction of a huge international airport, and with the increasing activity of the Russian navy in the Indian Ocean. To facilitate broadcasting to Africa, the Africa Evangelical Fellowship has undertaken the provision of capital funds for building 300-foot antennae masts on a coral reef half a mile from shore. The unique tidal rise of only four feet at this particular point makes possible the complicated engineering work for the masts, now being designed in Britain.

AFRICA NOW ...via Richard Anderson

Q S L R E P O R T

Gregg A. Calkin  
Editor

Deadline: The Fifteenth

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NOTE!!ATTENTION!NOTE!!

Due to the impending move of your QSL Editor from Ottawa to a city outside of CANADA, and due to the rather short notice which has accompanied this move, it is important for all members to take note of the following address changes in order that QSL REPORT will continue to function smoothly. Effective immediately, any and all mail for QSL Report must be sent to Hq. in Altoona at:

QSL REPORT  
North American Short-Wave Association  
P. O. Box 989  
Altoona, Pennsylvania 16603 (U.S.A.)

At the same time, any and all personal mail for your editor (not reports for the column though) must be sent to:

Gregg A. Calkin  
174 Waterloo Street  
Saint John, N. B. CANADA.

Once I am settled in my new location, announcements will be made in FRENDX and in this column and we will (hopefully) resume a general normality. I apologize for any inconvenience this may cause, but my work has caused me to live abroad for a few years and I ask you to bear with me.

QSLs RECEIVED

A fine month gentlemen! In particular, your attention is drawn to QSLs from Burma, Gambia, Somalia, Radio Nordsee International (a card!!) and several interesting time signal stations in France, the G.F.R. and Guam.

ALGERIA: RTVA, Algiers, nice card w/drawings of camels w/all data in French. Rpted in English. 2 months for 3 IRCs (Schwing)

ANGOLA: R. Clube do Cabinda, 5032, 3 cards for 3 different loggings in 1 rpt. 4 months (Dexter)

ARGENTINA: RAE, 9690, green global card w/frequency only given for mint stamps; 6 months (Burnell) 2 months for 9690 and 1-IRC (Carlson)

ASCENSION IS: BBC, Thames card from France office, w/relay site typed in (Handler)

AUSTRALIA: VLQ9, Brisbane, ABC map card in 2 months for 2 IRCs (Schwing)

VLW9, Perth, 9610, card and letter in 1 month air for 3 IRCs. V/S: Noel Miles. Complete veri (Gettings) 8 weeks air; 2IRC's (Hogarth)

Radio Australia, 11710, Darwin antenna card w/full data in 2½ months after f/up. 5 months total. No IRCs (Breitenbach) 9580, Darwin card, 2nd class air (Sellers) 28 days for 3 IRCs, air (Gettings)

AUSTRIA: ORF, Vienna, 6155, colorful card/photo, w/full data by air in 45 days. No IRCs (Lobdell)

BELGIUM: ORU, 9550, card, sked and mailbay script. 1-IRC; 3 weeks air (Howard)

BEIJORUSSIAN SSR: Radio Moscow, Minsk, gray card, 35 days air (Marshall)

BRAZIL: Radio Gazeta, 9685, letter and decal in 2 months airmail after many tried. V/S: Director-General (Dexter)

Radio Inconfidencia, Belo Horiztone, 6000, mimeo letter in 23 days seamail. Full verie information (Lewis)

BULGARIA: Radio Sofia, 9700, Sofia U. card, sked and "Happy Spring" card, seamail. No IRCs. Full veri (Gettings) 9700, 57 days, letter and card, seamail (Green) Sofia U. card, returning mint stamps (Burns) 60 days seamail (Leonhardt) 63 days seamail; no IRCs (Lawry) 2 months, 11 days (Howard)

BURMA: Burma Broadcasting Sce, Rangoon, 5040, letter w/clear verification statement and date; frequency/time omitted, 11 weeks, air for 4 IRCs. Letter is from Than Pe, Deputy Secretary, Ministry of Information, the Revolutionary Government of the Union of Burma, and is copied to the Ministry of Foreign Affairs and the Director of Broad-casting Sce. w/reference to a former letter from each. This may indicate a new policy (Segal) I hope so! Fantastic OM! (Ed.)

CANADA: CJCX, Sydney, N. S., 6010, card in 8 days (Charnes)

CFCX, Montreal, 6005, long red card in 10 weeks; no time, no IRCs (Carlson)

CKZU, Vancouver, 6160, CBC card in 1 week air (Schmidt)

CFRX, Toronto, 6070, card air in 7 days for mint stamps. V/S: Clive Eastwood (Leonhardt) 8 days and thank-you letter (Schmidt) 6 days for 1-IRC (Howard)

CFVP, Calgary, 6030 kHz, card of xmtr site/studios in 1 week air (Schmidt)

CFZN, St. Johns, Nfld., 6160, card in 16 days for rpt w/dime (Sizer)

CHU, Ottawa, 14670, replied in 3 days w/card and info sheet on station. They advise that the National Research Council of Canada now runs the station and that rpts should be addressed to: Radio Station CHU, National Research Council, Ottawa, Canada Postal Code K1A 0S1. The WRTVH address is incorrect (Calkin) 7335, card in 1 week; no IRCs (Breitenbach)

Radio Canada, Anik I card in 2 weeks for rpt on 9440 test at 0600 GMT. (Stuart) 15190, p/card in 15 days for 2 IRCs. V/s: Brian Townsley (Brindley) 9625, 22 days for rpt form (Lobdell)

R. Canada, Northern Sce, 9625, card in 14 days air (Leonhardt)

CANAL ZONE: U.S. Naval Observatory Time Signal station; attempts to verify CZ and Guam time signal stations resulted in reply from Washington that U.S. Naval Stations doe not sent reply cards. Sent much other data, though, w/list of their and world time stations (Sizer)

CANARY ISLANDS: RNE/15365, letter and sked in Spanish; air in 12 days. 2 IRCs; full data (Hird) 18 days air from Juan de Rojas; Madrid (Lewis)

CEYLON: VOA, Colombo, 11835, regular card in 6 days. V/S: Peggy Mathias. (Breitenbach)

CHINA (PRC): Radio Peking, 17673, thank-you card w/pic of Peking Festival. Sea in 2 months; no IRCs (Gettings)

COLOMBIA: Radio Bucaramanga, 4845, letter veri in 10 days air w/blue pennant. 2 IRCs. No veri details (Schmidt)

Radio Colosal, 4945, letter and nice pennant in 1½ weeks. V/S: Samuel Sanchez (Marks)  
2 IRCs sent (Volle)

Radio Nacional, 6180, beautiful card in 2 months for Spanish rpt and tape//

Transmisora Caldas, 5020, nice letter, pennant and some colorful Colombian stamps; 16 days. V/S: Ignacion Escobar Uribe, Gerente. Mint stamps and 1-IRC sent w/rpt (Volle) 5020, 14 days, letter, stamps and pennant (Smallshaw)

CONGO (Kinshasa): Letter in French, w/all details, from V/S: V. Nikuna. 5 months for 3 IRCs; rpted in English (Schwing) 2 months for rpt in French w/mint stamps. Also sent souvenir US stamps w/rpt (Handler)

CONGO (Brazzaville): Radiodiffusion Télévision Congolaise, 4765, card in just under 2 months air; for 3 IRCs and French rpt. Full data; 4765 kHz (Calkin) Pointe Noire/4843, brown/yellow OCORA card in 29 days for FF rpt and 2 IRCs (Lobdell)

COSTA RICA: TIFC, 9645, card in 3 months, white card w/black/red lettering (Drake) card and letter in  $5\frac{1}{2}$  months air for 3 IRCs (Marshall) 9645, card and letter in 45 days air for 3 IRCs. Rpted in English (Lawry) 15 weeks for 2 IRCs (Carlson)

CUBA: Havana, 9525, multi-colored card in 4 months seamail. Full data; IRC sent (Taylor) 11760, dove/globe design, air w/sked from V/S: Maria Montero Triana;  $9\frac{1}{2}$  months. Also copy of "Granma" 1 week later (Burnell) 11865, 203 days air, w/card and letter (Green) 10 weeks air (Roseliep) 13 months air; no IRCs (Hogarth) 9525, blue/card in 11 wks. No IRCs (Breitenbach)

CYPRUS: BBC Thames card, w/site typed in red on reverse. 1 month for rpt to NYC during British mail strike (Handler)

CZECHOSLOVAKIA: Radio Prague, 5930, card w/full data in 90 days seamail (Cornils) 3 b/w photo cards in 2 months seamail (Leger) 6055, card in 2 months air (Gettings) card in 2 months, 5 days. No IRC (Howard)

Voice of Vietnam, thank-you flower/stamps card in  $2\frac{1}{2}$  weeks (Handler)

DODECANESE IS: VOA/Rhodes, 9615, blue projection card from Washington in 5 wks (Carlson)

ECUADOR: CRE Guayaquil, 4765, nice Spanish letter from Alicia de Blacio, Secretaria, and splendid multi-colored pennant. Rather inspecific text; 2 weeks air for mint stamps w/SS rpt (Padula)

HCJB, Quito, 15115, card, sked and letter in  $1\frac{1}{2}$  months air. 3 IRCs sent; full data (Maslak) 9710, card w/pic of Quito compound, 9 weeks air; IRCs sent (Roseliep) 15115, 9 weeks for 3 IRCs (Schmidt)

Em. Gran Colombia, 4910, letter and verie text w/nice pennant showing micro. V/S: Eduardo Cevallos A., Gerente Director.  $2\frac{1}{2}$  months total (Smallshaw)

ENGLAND: BBC London, 7150, card w/pic of Parliament Buildings and sked. 6 weeks air from Calais, France, due to British postal strike. (Roseliep) 9517, Thames card via Calais, seamail. No IRCs (Gettings)

EQUATORIAL GUINEA: Radio Ecuatorial, Bata, 4926, letter in  $7\frac{1}{2}$  months after f/up w/more IRCs. V/S: El Director, but unreadable (Sparks)

ETHIOPIA: ETLF, Addis Ababa, 11880, blue/white card w/sked; 22 weeks; 3 IRCs. (Cornils) 5 months for 2 IRCs (Schwing)

FIJI IS: Radio Fiji, 3230, new card, color shot of beach scene and full data on reverse. 4 months and  $3\frac{1}{2}$  months after 1st aerogramme QSL (Calkin)

FINLAND: FBC, 11755/15185, 2 cards for 2 reports, air in 1 month. No IRCs (Lobdell) card w/all details in 2 months for 2 IRCs (Schwing)

FRANCE: ORTF, 15295, orange card and sked in 3 months. 1-IRC (Howard)

Observatoire de Paris time station, FTH42, 7428 kHz, card and info sheet, in 2 weeks air (Dexter) 7 days for 3 IRCs (Sizer)

GAMBIA: Radio Gambia, Bathurst, 4820 kHz, form letter w/verie statement only and data on the station;  $2\frac{1}{2}$  months airmail. V/S: the Director of Information and Broadcasting (Calkin)

G.F.R. Deutsche Welle, 9545, card air in  $2\frac{1}{2}$  months air. IRC sent (Maslak) 136 days air no IRCs (Green) card showing map location of Köln; 6 weeks air for 2 IRCs (Burns) 9735, 83 days air for 3 IRCs (Lawry) 63 days air w/sked; 2 IRCs (Leonhardt)

G.D.R. DAM, Elmshorn, 6475.5 kHz, letter in English in 8 days from Dr. H. Enslin verifying their TS station. Also sent station info, sked and p/card of Hamburg. Rpted in English w//3 IRCs (Sizer)

GHANA: Ghana Broadcasting Corp., card w/tri-colored border for 4915. 1 month, 2 days. Full data for 1-IRC (Handler) 6130, plain card in 1 month for 3 IRCs (Howard)

GREECE: VOA/Rhodes, 7110, projection card in 6 days from V/S: Peggy Mathias. No time (Handler)

GUAM: NPN, 13380, blue/gold map card w/veri statement in 2 weeks. 10-cent stamp sent. Address is U.S. NAVCOMMSTA, Guam(NPN), FPO San Francisco, Calif. 96630 (Breitenbach) See also Canal Zone (Ed.)

GUATEMALA: TGNA, Quetzal Bird card w/sked and literature; 7 months. Apologies from V/A: Wayne Berger for delay due to lack of personnel (Cornils)

HAITI: 4VEH, 9770, card, sked, letter in 43 days for 2 IRCs and photo w/EE rpt (Hyre) 11835, red/black folder card w/religious literature in 42 days seamail. V/S: Mrs. Kent Ragsdale. 2 IRCs sent (Duba) 45 days air w/religious pamphlet (Leonhardt)

HAWAII: WWVH, 5000, Pacific scene card in 10 days (Smallshaw)

HONDURAS: Radio Progreso, Yoro, HRPL, letter in Spanish, air in 21 days. V/S: Jerry E. Tolle. 2 IRCs sent; full veri data (Lewis)

HUNGARY: Radio Budapest, 6234, card w/photo in 41 days seamail. No IRCs (Lawry) 11910, card in 1 month, 8 days (Howard)

INDIA: AIR, Lucknow, 3204, card w/site specified; 3 months (Dexter)

IRAQ: Baghdad, 11857/9745, yellow map cards giving incorrect frequencies in 26 and 24 weeks air. 1-IRC w/each (Padula)

ISRAEL: IBS, Old Jerusalem card w/pennant/flag; 2 months for 9009. 3 IRCs (Handler) 9625, 5 weeks, 17th Century Jerusalem card; 2 IRCs (Sellers) 1½ months air (Howard)

ITALY: RAI, 9575, card in 2 months (Smallshaw) 10 weeks seamail & u/separate cover a pile of colorful periodicals, w/sked and commemorative stickers from RAI. 1-IRC (Hogarth) 9575, card in 11 weeks (Gettings)

INTERNATIONAL WATERS: Radio Nordsee Internationa, 6205 kHz, replied after 5 reports, 3 follow-ups and 1 tape with a beautiful color photo QSL of the Mebo II anchored off the Dutch coast. Reverse contains extensive data on the station and individual MW/SW and FM transmitters, their antennas and power, plus definite confirmation statement. Return address is given as RNI - Radio Nordsee International, QSL-Dept., P.O. Box 113, CH 8047 Zurich, Switzerland. (Calkin)

JAPAN: NHK, Tokyo, 17825, card from Expo '70, air. No IRCs (Gettings) 9505, 1 month, 18 days. No IRCs (Howard) And card for 21640 in 17 days. No IRCs (Lobdell) 55 days, no IRCs. Air (Lewis) 15445, card in 40 days air. No IRCs (Hird)

KOREA (REP): VOFK, card of Buddhist temple, w/all details. 4 months for 2 IRCs. Sked and rpt forms also received (Schwing)

KUWAIT: Radio Kuwait, 11825, folder card in 4 months (Handler) 11825, 4 months air; no IRCs (Duba) 15405/11845, separate cards in 7 months air. 1-IRC w/each (Padula) 11705, 20 days; no IRCs (Lobdell)

LIBERIA: ELWA, Monrovia, 11950, card w/contemporary African drawing + sked. V/S: D.A.W. Will. 4 weeks air (Roseliep) 11940, African drummer card, sked and religious material, air for 2 IRCs (Hogarth)

VOA, Monrovia, 15445, star card in 11 days seamail. No IRCs. V/S: Vivian Despot date, frequency and site included (Hird)

LIBYA: El Beida, QSL letter for the Libyan Broadcasting Sce, Box 119 in 21 days air. Lost a year trying to get Box 333 Tripoli to verify; letter gives verie statement, date, frequency, power as well as the site. Sked only lists one SW frequency: 7165 kHz. V/S: Nouri El Sharif, C.E. QSL sent registered for 5 IRCs (Haines)

LUXEMBOURG: Radio Luxembourg, 6090, antenna/crest card in 8 weeks seamail for 2 IRCs. Full data; rpted by 3" tape registered (Pappas) 78 days (Drake) 1 month 25 days; 1-IRC w/towers card. Also plain b/w card from London. 3 IRCs, 1 month (Howard)

MALAYSIA: BBC Far Eastern Relay, 15435, Thames card after 2 months. (Kelley) 11835, 75 days airmail. No data but gave site. No IRCs (Duba)

MARTINIQUE: ORTF, Fort-de-France, 33 days, letter in French from V/S: L.-M. Cchic (Young) 3315, personal letter in French in 10 days for 2 IRCs. No time (Carlson)

MEXICO: Radio Mexico, XERMX, 21705, registered letter and bright orange/blue pennant in 27 days registered. V/S: Arnaldo Martinez Gonzalez, Gerente General. Rpted in Spanish no IRCs (Burnell)

MONACO: TWR, card in 36 days w/sked and 2 IRCs. Full data (Young) antenna card in 2½ weeks air; no IRC (Cornils) 7290, 10 weeks sea (Charnes) 30 days air w/sked and tract. 3 IRCs sent; 7290 kHz, 31 days air. 2 IRCs (Gettings, Hird)

MOROCCO: VOA/Tangier, regular VOA card in 5 days. V/S: Peggy Pathias; no IRCs (Breitenbach) 7270, 3 weeks, no time given; no IRCs sent (Carlson)

MOZAMBIQUE: Lourenco Marques, 11780, card air in 2 months; 1-IRC (Jamison) 22 days air for 2 IRCs (Marshall) 1 month for 2 IRCs (Howard) 6055/11780, card air in 1 month Mint stamps sent (Lobdell)

NETHERLANDS: RNL, 9715, b/w photo card of Cathedral by air in 1½ months w/full data. No IRCs (Lobdell)

NEW CALEDONIA: Nouméa, 2 cards for 9510 and 7170 in 56 and 39 days resp. Rpted in EE w/3 IRCs (Estand) 7170, 6 weeks for 3 IRCs (White) 7170, 5 weeks air for rpt in FF (Leger) 1 month for 1-IRC (Howard)

NEW GUINEA: VLT/K, Port Moresby, 4890, map card in 6 weeks air for 2 IRCs. Full data (Schmidt)

NEW ZEALAND: Radio New Zealand, blue globe card, sked, travel folder and Kiwi pin; 3 IRCs. 56 days seamail; no time given (Schultz) 11780, global map card, sked from V/S: H. Taylor-Smith. 3 Months air (Roseliep) card in 3 months; 2 IRCs sent (Duba) card and travel info + sked seamail. No IRC (Gettings)

NIGERIA: VON, Lagos, 15200, p/card in 10 days from the CE. Full data (Marinoff)

NBC/3986, plain card and sked for 3 IRCs which were returned. 1 month (Howard)

NORWAY: Radio Norway, Oslo, color p/p/card w/veri on the reverse for 21655 kHz; 3 weeks for rpt on Sunday EE pgm. (Handler) 2 weeks air (Leger) 25900, card of Frogheseteren, by air w/sked in 1½ months. No IRCs (Lobdell)

PAKISTAN: Islamabad, 11705, card w/site indicated after 4 attempts. 4 months (Dexter) Karachi, 21590, card in 28 weeks w/thank-you note, after 2 f/ups and 5 IRCs; reply by air (Sellers)

PHILIPPINES: FEBC/Manila, new style card showing tropical scene w/river huts and palm trees. For 17850 test, but gave frequency incorrectly as 17810 kHz. 10 weeks seamail (Padula) 6030, new style card w/green tinted b/w foto of native hut, 1 month (Lobdell)

Philippine Broadcasting Sce, DUH2, 6170 kHz, replied w/friendly letter from V/S: Alejandro T. Laragan, Broadcast Operations Chief; 17 months after report, 1 month after f/up. 2 IRCs sent each time (Calkin)

VOA, 15185, card in 9 days seamail. No IRCs. Date, freq. & site (Hird)

POLAND: Warsaw "millenium" card for HS relay on 9570 kHz; 4 weeks air and personal letter from K. Gocman. (Padula) map card in 4 1 days air. No IRCs (Lewis)

PORTUGAL: RFE, card in 33 days for EE rpt and 6 cent stamp to NYC Hq. 15145 (Sizer) 11840, 12 days air, color card and pennant (Schmidt)

ROMANIA: Bucharest, 2 cards and nice pennant in 47 days air (Leger)

R.S.F.S.R. Radio Moscow, Kazan, 6200, green card air in 2 months and pocket calendar. (Marshall) all details; w/site, sked and pgm (Schwing)

Radio Moscow, Moscow, 9700, card w/Russian design, sked, no IRCs. 2 months; air (Roseliep) 7210, card, booklet, sked, air in 2 months. No IRCs (Gettings)

RWANDA: Deutsche Welle, 11965, card, pennant and long personal letter in 2 months air; from Köln. Rpted to NYC office (Leger) 15380, card in 80 days air; no IRCs (Hird) 2 months for 1-IRC. 11905 kHz (Carlson)

SAUDI ARABIA: Riyadh, 11855, card and typed sked in 17 days from V/S: Werner Storg. Rpted in EE w/2 IRCs. (Hyre) 15150, white card w/swords, air in only 16 days. (Lobdell)

SEYCHELLES: FEBA, 15265, blue/white card, sked and friendly letter from V/S: Brenda Bacon (Howard)

SOMALIA: Somali Bcing Sce, card from Mogadiscio for 6093 kHz in 1 month air. Full data. V/S: The Chief Engineer/SBS (Matthews) 33 days for EE Rpt on 6097. SASE sent and used. Directed rpt to the "English Section, Radio Mogadiscio" (Sizer) Excellent!! (Ed.)

SOUTH AFRICA: Radio RSA, 9695, colorful p/card QSL of S.Af. in brown and ocean in blue; 2 IRCs sent; reply in 20 days air (Brindley)

Springbok Radio, 3997, S.A. collage card, 2 months air. (Cornils) 4945, Industries card in 27 days air. Full data for 2 IRCs (Lobdell)

SOUTH YEMEN: PDRSYBS, Aden, 5060, pink card in 2 weeks after f/up w/3 IRCs (Sparks)

SPAIN: RNE, 6130, letter and nice pennant in 14 days for aerogramme. V/S: Enrique Pascual (Smallshaw) 11925, xmtr card and letter in Spanish; 12 days. Full data (Green) 7230, new freq., letter in Spanish but gave incorrect freq. of 7105 kHz. 3 weeks air (Padula) Sure 7230 isn't Spanish Sahara, Bob?? (Ed.) 11925, 2 months w/sked (Howard)

SUDAN: Omdurman, 9505, form letter w/date only, air in 3 weeks for 1-IRC on rarely heard freq. in Melbourne. Rpted when running late one day (Padula)

SWEDEN: Radio Sweden, 9725, Northern Lights card w/full data in 6 weeks. No IRCs. (Breitenbach) 9 days air for 2 IRCs. Full data (Schmidt) 15240, card in 26 days. No IRCs (Lobdell)

SWITZERLAND: SBC, 11715, black/white shiny card w/full data. V/S: D. Ashton Johnson; 5½ weeks. No IRCs (Breitenbach) 9535, b/w cards of train in 2 weeks air; 1 month, 3 weeks. (Howard)

TAHITI: Radio Tahiti, 11825, mermaid card and sked in 3 weeks air. 2 IRCs (Howard)

TAIWAN: VOFC, Taipei, card, sked, p/p/card and stamps in 32 days; 2 IRCs and photos sent w/rpt in EE (Hyre) card airmail; full data (Gavaras) 30 days air; no IRC (Baesmann)

TANZANIA: Radio Tanzania, 15435, yellow/brown card w/station drawing after 70 days for 2 IRCs (Kelley)

TUNISIA: RTVT, Tunis, 11900, color p/card of Tunis for Sfax transmitter site; 22 days airmail (Michalenka) 23 days for a pic/card of Porte de France w/incorrect date, freq., time and veri statement. No signature, but from the External Relations Department; for English report and IRC, seamaill (Watman) market p/card w/full data on reverse; 4 weeks for English report w/2 IRCs (Hoogerheide) 17 days for 11900/6195 kHz; air for 2 IRCs. Full data (Charnes)

U.A.R. Cairo, 9475 khz, mimeo QSL letter, summary of N.A. pgms and sked, plus personal letter. 1-IRC sent; reply by air (Gero) letter, sked in 70 days seamaill. No IRCs (Leonhardt) 103 days seamaill; no IRCs (Baesmann) 175 days, mimeo letter for mint stamps (Brook)

U.S.A. WWV, card for all frequencies in 6 weeks w/station information. V/S: John Stanley, E-in-C. No IRCs (Burnell)

AFRTS, 11790, usual card in 10 days w/out site (Hogarth)

KGEI, 15280, map card w/full data in 3 months, including pennant and station information (White) FEBC card w/"pennant" (Smallshaw) "pennant" ? (Ed.)

KC2X10, 13650 (WWV test station), Fort Collins, Colorado, sent standard mimeo letter in 10 days. No verification message other than the fact that the report was of KC2X10. V/S: S. Danielson (Michalenka) returned prepared card, stating power as 10 kW (Stuart) 15 days surface mail from above V/S in the "QSL Dept." (Schultz)

WINB, 11795, card and sked from V/S: Rev. John Norris, incl. full data and site location. 6 cent stamp sent (Gero) 5 weeks w/sked; full data (Charnes) 2 weeks surface w/full veri (Gant)

WNYW, New York City, N.Y., 11885, card by surface mail in 16 days w/sked. Full data; no IRCs (Marinoff)

URUGUAY: Radio El Espectador, 11835 kHz, card and pennant, in Spanish, in 5½ months seamaill, w/full data. V/S: Hector Amengual, Presidente. 3 IRCs sent w/rpt in Spanish and local p/card. (Calkin)

VATICAN CITY: Radio Vaticana, 5995, card air in 14 days for 2 IRCs (Leonhardt) 42 days air for 3 IRCs (Baesmann) 9615, color tower card in 25 days. No IRCs (Howard) 10 days, 2 IRCs (Brook) 21715, card in 24 days (Howard) 9615, 9 days (Dildine) 11725, card in 5 days air. No IRCs (Marinoff)

VENEZUELA: Radio Barquisimeto, 4990, card in 3 weeks for 2 IRCs and English report. (White) card in 3 weeks for Spanish rpt (Sizer) 17 days air for 1-IRC (Charnes) 3 weeks seamail for 2 IRCs; Reported in Spanish (Ricchezza) 17 days airmail, blue/red/white globe card w/out time. 2 IRCs sent and reported in English (Dildine) 15 days for mint stamps and English report (Brook)

Radio Juventud, 4900, card seamail in 4 weeks for 1-IRC (Charnes) 31 days air for 2 IRCs (Lewis)

Radio Lara, YVMQ, 4800, green/white card in 29 days airmail (Lewis)

Radio Mara, 3275, letter in 6 weeks for mint stamps. V/S: Amelia Goveade Gainza (Sparks) 20 days from above V/S, the Asistente del Presidente, who enclosed several Maracaibo quadricentennial decals! Reported in Spanish w/mint stamps for 3275. (Sizer) letter and 2 stickers in 26 days (Charnes)

Radio Nacional, 6170, blue/white card, registered mail in 21 days w/8 x 15 pennant for English report. Also mint stamps sent w/rpt (Sizer)

Radio Rumbos, 9660, card of the Hotel Tamanco in Caracas, w/full verification in English. 3 weeks for 2 IRCs sent (Volle) 6 weeks w/card in English. 1-IRC/seamail (Charnes)

Radio Universo, 4880, network card in 18 days w/date, frequency and verie statement, air for 1-IRC and Spanish language report (Watman) 26 days air for 2 IRCs No time given (Lewis)

Radio Yaracuy, 4940, network card in 30 days w/date, frequency and verie statement. V/S: Luis Ortiz who also enclosed a street map of San Felipe; air for 1-IRC. Reported in Spanish (Watman)

Radio Zulia, Maracaibo, 5050, letter in Spanish in 21 days air registered, from V/S: Gustavo Babbista C., Director. Time not given (Lewis)

Radiodifusora Venezuela, 4890, sent a friendly letter and color p/card of Caracas in 4 months air from V/S: Raul Varela, Locutor. Letter contained date and freq., plus details on the station and Venezuela. 2 IRCs sent w/Spanish report, and thank-you card in Spanish sent on receipt of QSL (Calkin)

WINDWARD ISLANDS: WIBS, Grenada, 11975 kHz, green p/card seamail in 9 weeks. 3 IRCs. (Hogarth)

YUGOSLAVIA: Belgrade, 9620, white folder QSL w/view of Ohrid, plus sked and small calendar. Full data and received in 7 weeks, by airmail (Banta)

ZAMBIA: Radio Zambia, replied by card w/all data for 3295 kHz, air in 2 weeks for 1-IRC. Sked and personal letter from Jane G. Ellis, (for) the C.E., also received (Padula)

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#### HCJB QSLs

HCJB announced in March of this year details of a new set of 4 QSLs which are to be issued during 1971 and which will be available during the course of the year. The cards are highly attractive and feature four views, in color, of the HCJB complex in Quito, including:

- Night View of the HCJB Compound (January - March)
- Stereo Control N° 6 (April - June)
- Antenna Complex (July - September)
- World Radio Chapel (October - December)..

These four cards have been designed to commemorate HCJB's 40th year of broadcasting and will be available for all correct reception reports which contain (1) the date HCJB was heard, (2) the time in GMT, (3) the frequency, within 5 kHz, (4) the name of the program, and (5) items which will identify the programme.

Reports should be addressed to the Director of Engineering, HCJB, Cas. 691, Quito.

QSL OF THE MONTH

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**Polish Pathfinders'**  
**Broadcasting Station**



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Warsaw, ul. Konopnickiej 6, Poland

Igor M. Iwanicki

*Dear Sir,*

*We have great pleasure in edging the receipt of your Reception on our transmission dated 9th September 19670*

*At the same time we wish to assure you that your future remarks and comments on our broadcasts will be most valuable to us and greatly appreciated.*

*Thanking you in advance for your interest in our programme and hoping to hear from you in the near future, we remain,*

*Yours faithfully*

THE DIRECTOR

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This month's QSL is from a station which is rarely, if ever, heard in North America. The Polish Pathfinders' Broadcasting Station operates from Warsaw on such offbeat frequencies as 6850 kHz and 7306 kHz, both channels with 350 watts. The station is well heard in Europe where it frequently dishes out a diet of light and pop music. The above QSL belongs to your editor, who logged Radio Harcerska, as it is known, last September while vacationing in Great Britain.

Sincere thanks again this month to the following 59 reporters:

- |                      |                        |                     |
|----------------------|------------------------|---------------------|
| Bob Baesmann, Ohio   | Robert Estand, Texas   | H. Sellers, Ontario |
| John Banta, N. Y.    | Tom Gavaras, Minn.     | Leon Segal, N. Y.   |
| J. Breitenbach, Cal. | Angelo Gero, Ill.      | Alvin Sizer, Conn.  |
| F.J. Brindley, N. J. | Duane Gettings, Ohio   | Wm. Sparks, Calif.  |
| Chris Brook, Col.    | Bruce Green, Ontario   | J. Smallshaw, Wis.  |
| Jean Burnell, P.Q.   | Bruce Haines, Col.     | Jerry Stuart, Cal.  |
| John Burns, Fla.     | Steven Handler, Ill.   | J.D. Schmidt, Alas. |
| G.A. Calkin, Ontario | Mark Hogarth,          | Mark Schwing, Col.  |
| Don Carlson, Penna.  | J.W. Hoogerheide, Mich | J. Stuart, Okla.    |
| Rick Charnes, Mass.  | Ronald Howard, Md.     | Peter Taylor, Ont.  |
| Cal Cornils, Calif.  | Ronald S. Hyre, Ill.   | David A. Volle,     |
| Gerry Dexter, Wisc.  | Bob Gant, S. C.        | Illinois            |
| R.S. Dildine, Va.    | Richard Hird, Mass.    | Mike Watman, N.H.   |
| Chris Drake, B.C.    | Danny Jamison, Va.     | Wm. White, N. J.    |
| Mark A. Duba, Vt.    | Greg Kelley, Virginia  | J.W. Young, Calif.  |

Sincere thanks to you all also for your cooperation in regard to the addresses mentioned at the first of the column. With a bit of luck, I shall soon be functioning smoothly again. Until next month, best 73s, GREGG.



# NEWSROOM

TIPS/SKEDS

ANTHONY MARKS-EDITOR  
F.O. BOX 521  
LAGRANDE, OR. 97850

HANK MICHALENKA-A.E.  
14 BROOK STR.  
CENTRAL FALLS, R.I.

Deadline 15th Month

Deadline 8th Month

\*\*\*\*\*

**TAHITI, PAPERTE: RT**

RT is noted on an outstanding new JRG of 15170; // to 11825, noted from usual s/on 03:00 in Tahitian. Not yet known whether this replaces former poor, badly modulated 6135 or is additional. This should provide nice evening listening throughout all NA. (KW)

This is the daily evening service from 03:00-05:00 in Tahitian. Also on weekdays 21:00-21:45, w/FF 21:45-23:30 following. FF is also 16:15-18:15. Sn, 05:00-08:00, 20:00-23:00. (WRTH)

**VATICAN CITY: VR**

VR is testing several new JRG to decide summer sked to NA (EE at 00:50). 5990/9615/11725 continue in use and are announced, but 15165 is being tested 05-13 APR, and 15290/17750 from 14 APR. Whichever they decide upon as a result of the tests will be brought into use beginning 02 MAY. (RW)

**FINLAND, HELSINKI: OYA**

Pori (Tx QTH) is observed with IS at 05:55 and Finnish ID at 05:58 on 9550 (WRTH has 9555). At this time, JRM is from NORWAY (9550 WRTH). What's JRM between neighbors? (RW)

**NIGERIA, CALABAR: NEC**

This SE State Programing is noted on 6143 (drift from 6145), where it heterodynes DW to NA on 6145 at 04:30-05:55, then in clear, mostly in EE, with commercials and local announcements. (RW)

**ISRAEL, JERUSALEM: LBA**

(re APR NR); "In the coming months we hope to improve the strength and quality of our transmission, by means of new and better equipment. This should result in improved reception conditions, and your reports on any changes you may note will be much appreciated. As always, comments on our programmes and requests for information or reply are very welcome. We hope to hear from you." English Department IRA to SH

\*\*\*

(Your comments/opinions re this section are wanted. Send to editor or Edqs. Inx.)

**SOUTH AFRICA, JOHANNESBURG: RSA**

(re APR NR); additional transmissions as follows, beginning 01 MAY: Madagascar (Mn-Fr); 03:45-04:00, 17:00-18:00. Ivory Coast (Mn-Fr); 06:45-07:00, 20:00-21:00. Africa, Madagascar, and Mauritius (in FF); 12:00-13:00. Europe (Sn, in GG); 09:00-10:00, and (Sn, in EE); 10:00-12:00. Europe and NA; 22:15-23:15, "The Late and Early Show", a programme in EE mainly for the younger set. NA transmissions will be changed greatly, too. The present four one-hour programmes will be change to two two-hour sessions. (JRG not given for new shows - AI) (SH)  
" - - presumably the new times will be 23:30-01:20, and 01:30-03:20, but not specified (as shown above)." (RW)

**KUWAIT, KUWAIT: KBTS**

This sked from Jawad A. Al-Mazeedi, CE, KBTS, but no telling how current. 07:00-09:00; 4967.5/17750. 09:00-12:00 17750. 19:00-22:00; 4967.5/11705. 22:00-22:30; 11705. 22:30-24:00; 9640. (No L mentioned, but I assume it is not EE, since it differs so much from EE sked listed in MAR NR. AI) (SH)

An interesting note on this, also from SH, is that on the SL from KBTS, which is a map of the Middle East, that land which is Israel is included as a part of Jordan and Saudi Arabia.

**MEXICO, MEXICO DF: XERMX**

(re FEB NR); 14:00-06:00; 9705 (20 kw)/11770 (100 kw). 14:00-02:00; 17835 (100 kw). 14:00-03:00; 21705 (1 mw). Antennas are two omnidirectional w/4 db gain, and three directional and rotatable w/10 db gain. L is principally Spanish w/occasional EE ID. (XERMX, RA)

**GILBERT AND ELLICE ISLANDS, TARAWA: GERS**

Although currently inactive on SWBC, this British protectorate is now considering using SWBC to the Line Islands. Our associate editor is busily trying to convince them to go ahead with these plans, and perhaps a letter from some of you may help them make the decision. Check WRTH. Hopefully news on this in a later column.

## NATIONAL BUREAU OF STANDARDS; USA

From the US Department of Commerce News comes the following information:  
 WWV and WWVH To Change Program Format

"Standard time and frequency radio stations WWV and WWVH, operated by the National Bureau of Standards, U.S. Department of Commerce, plan to revise the formats of their broadcasts, beginning at 00:00 hours UT (Universal Time, or Greenwich Mean Time) on July 1, 1971. The most important features of the new format will be voice announcements of the time every minute instead of every five minutes, use of male and female voices to help distinguish between WWV and WWVH, and elimination of all Morse code signals from the transmissions. Only the content of the broadcasts will change; the carrier frequencies will remain the same.

The formats of WWV (transmitted from Colorado) and WWVH (transmitted from Hawaii) will be similar, but confusion between them will be avoided by using alternate time slots for the transmission of tones, announcements, etc. Both stations will broadcast standard tones and a "tick" every second as in the past. These stations are operated by the NBS Boulder Laboratories, and their signals are controlled by the NBS Atomic Frequency Standard.

Each hour will be divided into one-minute slots; each minute (except the first) will begin with an 0.8-second tone of 1000 Hz at WWV or 1200 Hz at WWVH. The first minute in each hour will begin with an 0.8-second tone of 1500 Hz at both stations. The minute slots will be divided into a 45-second segment and two 7.5-second segments: on alternate minutes the 45-second segment will contain either a standard tone (tentatively 600 Hz) or an announcement.

The announcement slots will be available to Government agencies for their own purposes. Arrangements for Federal agency use of the 23 or 24 available time slots at each station may be made by contacting the Time and Frequency Division, National Bureau of Standards, Boulder, Colorado 80302. Those announcement slots not used by NBS or other agencies will be filled by another standard tone, probably 500 Hz. To prevent interference in those parts of the world which receive both WWV and WWVH, one station's announcements will be scheduled to coincide with the other's tones.

The first 7.5-second segment following the 45-second period will be used by WWV to announce the time, while WWVH is silent. The second 7.5-second segment will be used by WWVH to announce the time, while WWV is silent. WWVH will use a feminine voice, and WWV a masculine.

In the broadcasts of each station, several of the announcement slots will be reserved for NBS use and station identification. Also, each station will omit for 5 minutes of each hour all tones and announcements during the 45-second segments; this period will begin at 45 minutes past the hour at WWV, and 15 minutes past the hour at WWVH.

A special 440 Hz tone will be broadcast for 45 seconds beginning one minute (WWVH) or two minutes (WWV) after the hour. This tone may be used to mark the hours on a strip-chart recorder. The tone is omitted during the zero hour of each UT day.

At all times, during announcements and tones, there will be the usual one-second markers or "ticks", except the 29th and 59th marker in each minute will be omitted. The 60th marker, which begins the minute, will be lengthened to 0.8 second. All other markers will consist of a 5-millisecond pulse of 1000 Hz (1200 Hz at WWVH) beginning at the beginning of the second. Each pulse will be preceded by 10 ms of silence and followed by 25 ms of silence. These "windows"--40 ms long--will not appreciably degrade the intelligibility of announcements.

The time and frequency signals broadcast by WWV may be heard now by telephone. Call (303) 447-1192 to hear the broadcast as received by radio in Boulder. Given the instability of propagation both in the air and in the telephone system, the listener should not expect the accuracy of the time signals to be better than 10 ms (0.01 second). This service will continue as long as the demand for it exists." (CC, TG, AS/HM)

Also concerning WWV, this announcement has been being broadcast on the third minute after each hour: "In cooperation with the Moon Watch division of the Smithsonian Astrophysical Observatory, Radio Station WWV will alert observers by announcing the launching date of a Barium In Vehicle from Wallace Island, VA. This test is scheduled between April 19 & 28.

(continued next page)

WWV; USA (continued)

The decision to launch will be made at 20:00 GMT on a selected date with lift-off schedule for 00:00 GMT. The Barium cloud will be released at about 03:30 GMT. Confirmation of the launch will be announced from WWV commencing at 21:03 GMT of the launch date and will be repeated between the third and fourth minute for the following nine hours, up until the time of the Barium release." (TG/HQ)

And speaking of time, which we have been doing for the last page, I thought you readers might like to know about a revolutionary new timepiece on the market, the Moshe Dayan watch, and this is no joke, people. It's manufactured by the same company that has swept the country with the Spiro Agnew watch, the Bell Time Co. of L.A., CA, and the start at \$15.95.

DX Calendar for June: (HM)  
 04 Viet-nam Independence (1954)  
 26 Malagasy Rep. Independence (1960)  
 30 Burundi Independence (1962)  
 30 D.R. of Congo Independence (1960)

CUBA, HABANA: RHC  
 (re APR NR); RHC went to the Spring sked it ann'd earlier it would, except WCNA, 06:30-08:00, is still 9525, not ann'd 9665, which is used ECNA as is all else predicted. The many technical problems during sugar harvests are not due to financial cutbacks, but to staff cutbacks, as almost all Cubans do volunteer work in the cane fields, including technicians, engineers, and announcers at RHC. There is not much talk on RHC, so far anyway, about the harvest, since last years was something unusual and failed to meet Castro's goals; whereas this year's is mere modest and is being done with less fanfare. (LM)

HUNGARY, BUDAPEST: MRBT

Clandestine Radio Espana Independiente, REI, relayed now via MRBT tx 22:30-22:51 on 9833 between MRBT SS and Hungarian programs. Not // other REI JRG of 7690/10110/12140/14483, and it seems to be derived from tape rather than off-the-air pickup, judging from audio quality and non-// programming. So far as I know, this is the first time a definite QTH could be determined for an REI transmitter. (LM)

LIBERIA, MONROVIA: ELIA

EE, FF, Afr., 4770 w/10 kw; 06:15-08:15, 16:45-22:55 (w). 06:15-09:15, 12:30-23:15 (St). 06:45-22:45 (Sn).  
 Liberian, 3225 w/10 kw; 06:00-08:45, 16:15-22:15 (w). 06:00-08:45, 17:30-22:15 (St). 06:15-10:45, 17:30-22:15 (Sn).  
 Twi, Ewe, More, EE, Hausa, 11950 w/50 kw; 06:15-07:45 (w). 06:15-07:45 (St) \*06:15-10:00 (Sn).  
 FF, More, 11975 w/50 kw; 12:00-12:00 (.). 12:00-14:00 (St). 12:00-13:30 (Sn).  
 Afr., EE, 11940 w/50 kw; 16:45-21:00 (D).  
 FF, 15155 w/50 kw; 17:15-19:00 (D).  
 Arabic, 15095 w/50 kw; 19:00-20:00 (D).  
 FF, Arabic, 15170 w/50 kw; 20:00-22:30 (D). (SH)  
 Note: Here's a different sked - -  
 EE, Hausa, Twi, Ewe, 11950 w/50 kw; 06:15-07:30 (In-St). 06:15-11:00 (Sn). (JH/RE)

HONDURAS (RE), TEGUCIGALPA: HRVC

EE, 4820 w/5 kw; 02:00-04:00 (D).  
 14:00-15:30 (St only). (GR/HM)  
 HRVC entire sked on 4820 is 11:00-04:00. Other 5 kw stations from Honduras we may log are: HRN, 5875, 11:00-04:00; HRLE, 6050, 13:00-05:00; HRMH, 6075, 13:00-05:00. (WRTH)

TURK AND CAICOS ISLANDS, GRAND TURK: VS18  
 EE news, 19:30, 4560 w/0.2 kw. (WRTH)  
 (This used to be 18:30, and possibly still is; WRTH is not infallible. AH)

D.R. Mattocks, manager of the Cable and Wireless station, wrote our Associate Editor saying that there was only one correct reception report received concerning their special Christmas program. However, he has received several obviously phony reports claiming to be connected with that transmission, which, of course, will not be answered. This type activity most certainly can be detrimental to honest reporters, since it can alter a stations verification policy, perhaps to the point were it will no longer verify any report. NASWA has repeated this numerous times in the past. Mr. Mattocks says that he will continue to verify all correct reports on any special program or on their daily news. HM wants it to be known that Mr. Mattocks is also going to notify us when phony reports are received along with the name of the culprit, and it just better not be a NASWA member. There is no excuse for this! (HM)

NEW ZEALAND, WELLINGTON: NZBC

EE Foreign Scene: Pacific; 17:00-19:45; 9755/11780. 20:00-22:35; 15110. 22:45-05:45; 15280. 06:00-08:45; 9540/11780.

Australia; 09:00-11:45; 9520/11820. 20:00-05:45; 17770.

Antarctic (Sn only); 08:15-08:45; 9520. (#CC/HM)

9520 = ZL18; 9540 = ZL2; 9755 = ZL; 11780 = ZL3; 11820 = ? (11830 = ZL19); 15110 = ZL21; 15280 = ZL4; 17770 = ZL5. Antena beams are: 30° and 285°. (WRTH)

NETHERLANDS, HILVERSUM: RNW

EE: 06:30-07:50 (D); 11730B. 08:00-09:20 (D); 9715B. 09:30-10:50 (Sn); 6020LR/6140L/7275LR. 09:30-10:50 (W); 6020LR/17810L/21480L. 14:00-15:20 (D); same QRG. 15:30-15:45 (Tu & Fr only); 17810L/21570L. 17:30-17:45 (Tu & Fr); 17810B. 18:00-18:15 same. 18:30-19:50 (D); 15220L/21570L/21640B. 20:00-21:20 (D); 6020LR/6085L/9715L. 21:30-22:50 (W); 11730L/15425L. 02:00-03:20 (D); 11730B. 05:00-06:20 (D); 9715B/11730B.

L = 100 kw SW Tx at Lopik (Hilversum) w/directional aerial. LR = 100/10 kw SW Tx at Lopik w/omnidirectional aerial. B = 300-kw SW Tx or 500 kw MW Tx at Bonaire (Ned. Antilles) w/omnidirectional aerial. (RNW, HQ, SH)

HUNGARY, BUDAPEST: MRET

This should have been listed on NR-3, but I wasn't too certain I would include it at all, so excuse.

From MRET Editorial Board, Foreign Language Service. "You are invited to take part in a very useful competition for which a large number of attractive prizes are being offered, including holidays in Hungary. All you have to do is simply complete the attached questionnaire and return it to Radio Budapest, and you will automatically be eligible for one of the big prizes."

This is all very interesting, but I don't actually believe they wanted

any too many of us to participate in it. A note at the bottom says that entries must be in by 15 MAR, 1971, but I didn't receive the notice until 09 APR, 1971 (it was posted in Budapest on 20 JAN, 1971). Anyway, the results will be read over the air on 30 APR 1971. They wanted to know such things as how often we listened to MRET and what we liked best, etc.

PORTUGAL, LISBON: ENDR

From Radio Portugal DX Club Newsheet Number 28, which uses material from DEC 1970 International Short Wave Radio of ISWC of London, using material reputed to have come originally from 1967 edition of Communications Handbook of FE.

Classification of SWL/DXers

I. SWL DXers: most active listeners, sole interest is QSL, the stations probably not hearing from him again.

II. SWL listeners: interested in program details, wishing to learn something from the airways, writing the stations regularly.

III. SWL monitors: unsung, unpaid heroes furnishing technical reports on a regular basis, members of stations' "Listener's Club", primarily interested in maintenance of detailed log books.

IV. Pure Listeners: least important to the station, interest limited to entertainment and information only, rarely write the station or join any club.

This is an interesting breakdown, but remember that this is not a classification of NASWA or the NR staff, although it does lie fairly close to my ideas of a breakdown, but not exactly. Keep in mind, people, that a majority of the world's SWLs probably come in group IV, since for most of the world SW radios are still the sole source of entertainment and contact with the outside world, and it is not just a hobby as with most of us in the USA.

ENGLAND, LONDON: BBC

Next month I hope to have a sked of BBC relay stations, which are, of course, Ascension, Malta, Cyprus, and Malaysia.

\*\*\*\*\*

DRAMATIS PERSONAE

- HQ = Headquarters, PA
- WRTH = Disorganized Confusion
- RA = Richard Anderson, IL
- #CC = Curne Chadwick, IA
- JH = John Hedstrom, IL
- CC = Cal Cornils, CA
- LM = Larry Magne, PA

- RW = Dr. Richard E. Wood, IA
- SH = Stemen J. Handler, IL
- AS = Alvin Sizer, CT
- GR = George Rabone, NY
- TG = Tom Gavaras, MA
- HM = Henry Michalenka, RI
- EI = Edward J. Insinger, NJ

As always, gentlemen, our most sincerest thanks for you assistance. Good News.



# LOG REPORT

DAN FERGUSON - EDITOR  
P.O. BOX 8443  
CORAL GABLES, FLORIDA 33124

Deadline 12th of the Month

\* \* \* \* \*

When reporting, please list items with fqy first, and in order by fqy, in either direction. Use a format similar to that used here, but double space between items. Please, no items on post cards - they usually have to be rewritten. Write only on one side of the paper. Mail in time to reach me by the 12th of the month. Reports reaching here later than the 12th are discarded.....Now into this months reports. We are back to normal size again this time.

- 2446 REUNION ORTF f/i around 1745, FF, 1830\*(BP)  
 2446a HAITI 4VSO at 0100 FF rel pgm, past 0130(ECS)  
 2500 ENGLAND MSF, time sigs 0509.5-0510(BB)  
 2500 UNID Time sigs under WWV & DR, no ID 0300(HM)  
 2500T DOM.REP. Suspect R.Progreso, 0105 under WWV(ECS)  
 2510 S.KOREA Taegu at 1415 w/man in Korean?(SFC)Definite ID on this one?(DF)  
 2614 W.GERMANY DAN, Norddeich, TS, second pulses 0000.5-0006(AVS)  
 2660 COLOMBIA Transmisora Apolo w/good sigs, mx: pgm 0300(GAC)  
 2775 W.GERMANY DAO, Keil, TS, second pulses 0000.5-0006(AVS)  
 2850 N.KOREA Pyongyang strong 1410 w/man in Korean?(SFC) ID?(df)  
 3170 CZECH. OLB5, Podebrady, TS, continuous second pulses 0105(AVS)  
 3200 CHINA Fukien area tx: w/Chinese tlks 1100(MSK)  
 3215a DOM.REP. R.Libertad 0245 SS IDs in LA mx: pgm. HISD in disguise?(HM) No, I don't think so. WRTH listings for HISD are incorrect(DF)  
 3240 PERU R.América 0615 pop mx: & ID(BS)  
 3250 INDONESIA RRI Bandjarmasin(BORNEO) Sat to 1900\*, other days \*2050(BP)  
 3275 VENEZ R.Mara 0045-0358\* w/anthem. LA mx:, IDs, ads(HM/GLD/ECS/AHR)SS 1025(DJ)  
 3277 INDONESIA RRI-Djakarta 1353 w/classical mx:, ID, Indon pops(DW)  
 3277+ UNID 2354-2358\* w/mx:, YL ancr, close w/AP. Next day to 0000 t/o, no ID, believe Angola(JDT)3277.5m, ANGOLA - Definitely an Angolan here, close 0000 thru week w/AP; later on Sats. I suggest is Em.Oficial in a move(ARN)  
 3278 MOZAMBIQUE Lourenco Marques, NF, ex: 3218 around 2030 in PP(BP)Ex: 3265 w/"B" pgm 2330-0200 w/ads, TCs, pops, EE & Afrikaans; over WIBS here(ARN)3280(ARN)  
 3280 GRENADA WIBS 0000 EE(GK)0044-0200 mx:, BEC reports, mx: 0200(WJS)  
 3284 FIJI R.Fiji 1044 mx: & GSTQ 1102; later day 1036-1103 best ever hrd(DJ)  
 3286 PHILIPPINES PBS 1308-1346 t/o w/EE pops, ID by YL. Also 1412-1432\* suddenly(DW)  
 3295 GHANA R.Ghana 2255 N:E summary before s/off(BB)  
 3296mv BRAZIL - both stns grd occasionally. Had recent positive ID for Educ.Uberlandia on 3294mv, so assume the Brazilian here 0030 is R.Educ.Rural(BB)  
 3300 BR.HONDURAS R.Belize good lvl w/orch mx: 0300. SS/EE pgmg; TCs off by a minute(RWP)  
 3301m UNID Time sigs like those from OBs.Cajigal on 6099m. Noted 0410. Carrier open a few minutes later, as was 6099. 6099 not checked 0410(BB)  
 3315 VENEZ R.Maracay 0606-0610\* organ mx:, ID, anthem(JDT)  
 3317mv BRAZIL R.Gazeta de Alagoas 0030 PP futebol; last logged 1 year ago(BB)  
 3320 GUATEMALA R.Maya \*1110 mx:, hymns, 1120 Indian lang, 1132 SS ID & hymns to 1150 f/o(ESB)ID as R.Maya to 0304\* w/Lords Prayer(GLD)  
 3325 ANGOLA Em.Oficial, NF, not hrd usual 3375; PP 2100(BP)  
 3326mv BRAZIL R.Borborema 0030 PP futebol(BB)  
 3345 INDONESIA RRI Pontiniak 1448-1510 t/o w/pops, ID, Indo mx: 1500(DW)  
 3350 GHANA R.Ghana 0605 EE mx:, cmtry (DJ)  
 3360 GUATEMALA LV de Nahualá \*1105 SS ID, mx: to 1150 f/o(ESB)  
 3365 DOM.REP. R.Exitos ID 0005, mx:(LZ)0230 LA mx:(AJG)  
 3375mv BRAZIL R.Olinda Pernambuco 0000 PP sports cmtry(BB)

- 3380 GUATEMALA R.Chortis 0240 SS songs(HPK)SS w/mx to 0504\*(DAV)  
 3385 BRAZIL RC Teresina \*0800 PP anmts & mx(ESB)Singing s/off 0303 in PP(ARN)  
 3385 PERU Rdif del Centro(QTH unknown), fiesta mx to 0745\*. No ID for list LV Valle(BS)  
 3396T NIGERIA 0412 EE mx by YL; weak & fading, so no ID(HPK)  
 3438m UNID SS spkr 0305 w/long tlk; not sure if SWBC or what(GLD)  
 3520 UNID SS tlks & SS mx 1130. MW harmonic?(MSK)  
 3560 N.KOREA Pyongyang 1402-1420 t/o w/EE pol. tlks; weak & unlisted fqy(DW))  
 3975 INDONESIA Surabaya 1415 Hawaiian mx, fair(SFC)  
 3985mv NIGERIA NBC Lagos 0515 EE tlk, Yoruba hi-life mx(BB)  
 3995 ECUADOR LV del Tarqui 0533\* after Ec mx & ID(BS)  
 3997 S.AFRICA Springbok Radio excellent 2340 pop mx(GAC)  
 4525 HAWAII US Naval Obs. TS 0555-0600, skips 1/2 minute pulse, CW 0600(GLD)  
 4525 E.GERMANY DEZ, Nauhen, TS, second pulses 2230(AVS)2235-0005, 1 pip per second, 2 at :58 past each minute; 1/2 second tone on minute(GAC)  
 4610 RSPSR(As) Khabarovsk strong 1345 RR songs(SFC)  
 4725 BURMA BBS w/shakey sigs 1150 in native mx & songs(DJ)  
 4749 VENEZ This weak one sometimes audible around 0300; believe is Venez(ARN)  
 4753 INDONESIA Makasar w/man in lang 1410(SFC)  
 4755 BRAZIL "Em.Brasileiras" at 0300, so ZYY3, I think. Several list here(ARN)  
 4762 PERU R.Inca 0630 mx, IDs(GLD)4763, 1030 SS ID, ads, Andean mx; also anncs as "LV del Campesino"(ESB)  
 4765 CONGO Brazzaville good to 2200\*(GAC)  
 4765 ECUADOR CRE 0406 ad, mx, TC, ID(GH)0429-0535 t/o w/SS mx, TCs, ads, ID(MXW)  
 4770 LIBERIA ELWA good in EE 0645(AHR)  
 \*4771 ECUADOR R.Cenit \*1100 mx; also mx to 0430\*(ESB)0420-0430\* w/mx, TC, ID(DW)  
 \*4775 N.KOREA Pyongyang 1030 Korean HS, //6250, not on 4771(ESB)  
 4775 COLOMBIA EM.Kennedy/LV de Maria 0330-0410\* SS mass(?), ID 0400, 4-5 min. rel message by YL in EE. First good logging on this one for me(DW)  
 4777 GABON RTVG w/native songs & FF cmtry 2247-2302\*(DJ)  
 4780 HONDURAS R.Juticalpa 1030 SS ID, ad, into talks, strong(CL)  
 4780T ECUADOR Believed R.Atahualpa w/temperature at 0429(GH)  
 4783m MALI R.Mai 2215 US progressive jazz, regressive rock, //5996(BB)  
 4790 ECUADOR Sistema de Emisoras Atalaya \*1100 w/this ID, Ec mx; 1125 SS m(ESB)On 4791 at 0220 w/mx, ads, IDs, one night only(JDT)  
 4795 ECUADOR LV de los Caras 0405 w/LA mx, ID(AVS)  
 4807t SAO TOME Em.Nacional 2144 f/i w/classical violin mx; mix Brazil 2215(CL)  
 4807 ECUADOR R.Popular 0514 mx, frequent IDs, RTTY(JDT)  
 4815 UPPER VOLTA RTV w/Afr drums 0654, FF id 0700(RWP)0100\* FF, special tx?(AHR)  
 4820 GAMBIA RG 0625 IS, EE anmts 0629, chants; BBC mx 0700; lang 0715(ESB/SFC/JDT/RWP)  
 4820 HONDURAS HRVC w/EE 0300-0500(HPK/BPe/MXW)  
 4824.5 ECUADOR R.Luz y Vida w/Ec mx, YL ancr to 0418\*(ESB)  
 4829 VENEZ R.Tachira 0050 w/LA mx, ads; this is current ID(JDT)  
 4830 BOLIVIA R.Grigota w/EE & SS songs, IDs. Drifting. 0440 (HPK)  
 484lmv ANGOLA RC Cuanza Sul 2245 light instrumentals, US jazz(BB)  
 4845 MALAYSIA R.Malaysia 2220 Indian folk mx, anmts, till 2245 f/o. Unusual opening to Asia(CL)These afternoon opening often noted on 41 meters, less often on 49 moters, and rarely reported on 60 meters - df  
 4845 BOTSWANA RB from 0400 s/on lang & EE, N+E 0420; mx; past 0450(ESB/SFC/RWP/AHR)  
 4850 MAURITANIA RM w/Arab & Indian type mx, lang, 2230(DJ)0700 s/on chants(RWP)  
 4855 SUMATRA RRI-Palembang 1031 w/Indo tlk, Indo pops, chanting(CL)1108-1200 f/o w/ chants, lang tlk(DJ)  
 4860 VENEZ R.Maracaibo 2236 SS tlk by man(CL)0100 SS(AHR)  
 \*4870 ECUADOR R.Rio Amazonas \*1045 Quechua & Jivaro pgms & hymns, past 1130(ESB)  
 4870 DAHOMEY Cotonou w/mx 0525, mx 0530; QRM Ecuador on 4875(AJG)  
 4875 S.AFRICA SABC 0415 Afrik. svc; where are Ecuador/Bolivia at this time?(BB)  
 4875 ECUADOR LV Esmeraldas 0540 LA mx, anmts(AJG) (AK)  
 4882 DOM.REP. R.Comercial w/ad for Coca Cola, SS ID 0300(ARN)Local & US rock, ID 0500/  
 \*4882 CHINA R.Peking s/on RR 1500. 4885 jammed this day. ??(DW)  
 4885U BRAZIL UNID stn from 1000 w/PP tlk & mx; mention Manaus, Amazonas. New?(ESB)

- 4896 PERU R.Chanchamayo w/mx, SS ID, anthem to 0506\*(ESB)  
 4910 VENEZ RDif Venez, 0407-0430 w/US & LA pops(AK)0330 IDs & mx:(BPe)  
 4915 KENYA VoK w/native mx 0415; RTTY(DJ)  
 4915 ECUADOR R.TREBOL, pops & ID 0345, het(BS)0330-0405\* SS ID, LA & Ec mx(DW))n 4916,  
 0315 tropical mx, ID 0405. HJSG was off(ESB)0215 pop mx(ECS)  
 \*4919mv HONDURAS R.Progreso 0200 SS ID, ads(BB)0155 pops, IDs(SN)\*1000 Mex. mx, IDs, ads  
 (ESB)0335 big Latin sound(ECS) 1112 LA mx, amts, big lvl(JDT)  
 4920 RSFSR(EuR) Moscow list, 2200 RR HS(BB)Checked ECS tape, RR amt by YL 2200 is for  
 Moscow time, then regular first pgm IS. No mention of Riga. Hrd it myself in Jan  
 w/same amt(ESB)  
 4927 INDONESIA RRI Djambi, 1420 lang, pops(SFC)  
 4926 EQ.GUINEA Bata 2200 t/i for S/off(ECS)  
 4932 NIGERIA NBC Benin, 2205 fine lvl, some CW mx (ECS)  
 4934mv BRAZIL R.Poti 0245 PP after relaxed semi-classical mx(BB)  
 4940 IVORY COAST RTVI 2215 FF & native rhythms(ECS)  
 4940 VENEZ YVPA, R.Yaracuy w/IDs, tangoes(EPe) (BB/SFC)  
 4945 S.AFRICA SABC 2145 past 0300 w/EE/Afrikaans, pops, ads, TCs, good(CL/ARN/AVS/HPK/  
 4955 COLOMBIA R.Nac., 0200 SS IDs on hour & ½ hour(VSA)  
 4965 S.AFRICA SABC 0409 EE market rpts over HJ(GLD)0430 EE over HJ(BB)EE 2200-2210(ECS)  
 4970 VENEZ R.Rumbos 2145-2200 f/o, long route, sign of things to come?(BP)  
 4970 SARAH RMS, 1100 EE S/O 1145, local mx, pop mx(PDL) What is S/O?(DF)  
 4972 CAMEROON Yaounde 2239 FF cmtry(DJ) Daily 2215 FF & native rhythms(ECS)  
 4974mv BRAZIL R.Timbira 0115 PP futebol(BB)4975, 2 clear IDs 0255 inPP(ARN)  
 4976T UGANDA Kampala 2215 something here w/Afr mx(ECS)  
 4980 GHANA Ejura 0557 mx, drums, ID & N:E(JDT)N:E 0605(AJG)  
 4985 MALAYSIA RM Penang 1145-1200 EE cmtry & mx(PDL)  
 4990 NIGERIA NBC Lagos 0430 drum IS, ID by man in EE 0434, poor(CL)  
 4994mv PERU R.Andina 0130 SS conversation under Brazil(BB)  
 4994 SUDAN Omdurman w/AA chanting(MXW) Whoops, no time given.'(DF)  
 5000 S.AFRICA ZUO time stn, CW ID prior to ¼ hour; best 2300-0000(GAC)  
 5000 ARGENTINA LOL time stn, 2323-2349 w/ CW IDs at 24, 29, 34, etc., minutes.(GAC)  
 5010 SINGAPORE BFBS, 1432-1441 t/o EE request pgm, splash Vladivostok(DW)1410 lang(SFC)  
 5010 VENEZ R.Bocono 0200-0240 w/LA mx, SS, ID, s/off w/anthem. S/off varies(ARN/AVS/  
 5015 GRENADA WBS 2330 EE(GK)BBC mx 2309-2316(SH) (JDT/ESB)  
 5020 VENEZ R.Carora, \*1010 SS ID & Venez mx, over HJFW(ESB)  
 5026T UGANDA 0345 low lvl, mx & format is African, Brazil not hrd this day(ECS)  
 5026A BRAZIL V.de Rio São Francisco, 0015 guitar, PP singing, ads, QRM(ECS)  
 5020T NIGER(out of order, sorry, df) ORTN 2210 FF, good mx; YL w/short tlk 2215(ECS)  
 5030 DOM.REP. LV Papagayo 0200 slow mx, IDs(HM)  
 5030 VENEZ R.Continente 0250 SS songs(HPK)  
 5035 CENTRAL AFRICAN REP. Bangui strongest ever 0445 antive mx(GLD)0505 FF(SFC)0448-  
 0502 Afr mx, Tent. ID 0457(DW)  
 5035 PERU R.Ilo, pop dance mx & ID 0400(BS)  
 5035 COLOMBIA LV de Caqueta 0230 mx, IDs to 0406\* w/anthem(ESB/DW)  
 5040 BURMA BBS 1415-1430 t/o Burmese mx, singing, begin EE 1430(DW)  
 5041 PORT.GUINEA Bissau 0705 PP, Afr mx(SFC)Fair in PP to 0100\*(AHR)  
 5052 SINGAPORE R.Singapore 1240-1305 EE pops(PDL)  
 5052v BRAZIL R.Vitoria, 0130 PP ID & mx, fair(ESB)5053, a Brazilian here 2330-2345(ARN)  
 5065 KARELO-FINNISH SSR, Petrozavodsk, listed, 0305 Moscow HS in RR, weak but clear(BS)  
 \*5071 DOM.REP. R.Cristal, since 22 Mar, ex 5010, 2330-0600\*(ESB/ARN/BS/JDT/SN)  
 5870 USA NSS, Anapolis, US Naval Obs., TS, 0455-0500, strong, CW at 0500(GLD)2258(AVS)  
 5875 HONDURAS HRN 0225 piano mx, SS(RWP)0400 SS ID & tlks, ads(SN)  
 5980 SIERRA LEONE RSL 0741 abrupt s/on w/pops & folk mx, ads, TCs, all EE(CL)  
 5980 PERU R.Panamericana, Lima, 1100, frequent ID w/catchy jingle, mx to 1107(BP)  
 5990 SWEDEN RS EE 0030-0100(SW/FJB)0315-0400 SS/EE to NA(RSH)  
 5995 MALI RM, 2157 native songs, FF, clear to 2245(DJ)2215 FF tlks, folk mx, //4783,  
 also 0731 after VoA-Gvl s/off, to 0800\* w/anthem(CL)  
 5995 VATICAN VR 0050 EE to NA(SW)  
 6000 BRAZIL R.Inconfidencia 0041 LA mx, ads, Ids(JDT)

- 6000A CANADA CFOX, 1320, 21 March only, apparently spurious(HM)
- 6005 ASCENSION IS BBC.WS 0505-0555, NF ex: 6010, unlist BBC chart(LM)6010 still sked for May-Aug, according to latest info I have here(DF)
- 6005 CANADA CFCX 0800 EE ads & mx(SW)
- 6010 CANADA CJCX 0240 EE sports, CW mx, ads(SN)0306 mx(GK)0335-0355 CW mx(RSD)
- 6010T UPUGUAY May be R.Sarandi from 0000 w/SS hi-speed mx, Tue only(EST). Absent from 0515 on Tue, but back next day w/similar pgm on 9515(ESB)
- 6015U COLOMBIA UNID 0200 LA mx, several SS IDs, 25 Mar only, only Brazil next day(ESB)
- 6015 PARAGUAY R.Paraguay 0000 SS tlk past 0030, some Para. mx, relay R.Nac, 6025(ESB)
- 6025 PARAGUAY R.Nacional, 0900 SS tlks, Para. mx, some days over Lisbon. Is gov't pg, //6015(ESB)
- 6015 LODECANESE IS VOA Rhodes 2200 FF, EE ID 2230(RFB)
- 6030 CANADA CFVP, Calgary, 1445 sports, mx(TG)
- 6035 NIGERIA R.Nigeria, Enugu, ID, IS(drums), TC 2200, then EE mx(BP)
- 6037 COSTA RICA TIFC 0335 EE rol pgm, weak(SN)
- 6040U UNID SS pop mx 0340 under VOA Munich(SN)
- 6040 TAIWAN BCC, Tamsui, good sig 1425 w/CC tlk(SFC)7.5 kw(DF)
- 6045 MEXICO XEXQOC w/opera 0425 //drifting MW outlet on 1459(GH)
- 6057 COLOMBIA R.Pacifico 0015 SS, squeezed by HCJB & RHC(ARN)
- 6065 SWEDEN RS 0300 FF, 0330 EE, 5 Apr, anncd 5990(ESB)
- 6065U COLOMBIA UNID RCN stn, 0600 mx, ads, RCN IDs only, 4 Apr only, //hjkj-6160. May be Trans. Caldas, as was absent from 5020 that day. Voz del Llano was here last year but carried Todelar pgms(ESB)
- 6065 MEXICO Seldom hrd XEXG fair lvl 0245 w/ID & mx(GLD)
- 6070 VENEZ R.San Sebastian 1043 mx, IDs, bug lvl(JDT)2330 pop mx, ads, CFRX QRM(ECS)
- 6085T POLAND Warsaw II, 0357 IS, ID 0400, N:P, mx, mx 0530, seems //6095 some days. Rptd as RFE last month due similar IS & opening time, but now seems Polish HS(ESB)
- 6085 W.GERMANY BR still here, believe 24 hrs(SN)0600 GG, mx, mx(AHR)
- 6090 LUXEMBOURG RL 0030-past 0200 w/EE, mx, mx(RSH/JDT/AJ/RB)N:G 0558, then mx(GH)
- 6090 AUSTRALIA ABC 0745 EE stock market rpt(RSH)0825 sports(JDT)
- 6095 COLOMBIA LV del Centro 1100 clear ID & talks(DAV)
- 6100 AUSTRALIA ABC at 1245 in Mandarin(MSK)
- 6110 see March - I did not report R.Univ. de Sonora here(ESB)
- 6115 COLOMBIA LV de Llano 0904 SS tlks, ID, ads, ex: 6065, I think(CL)
- 6115 AUSTRIA Vienna w/N:E, cntry to NA 0030-0043, then SS(WJS)Not 6155?(DF)
- 6120 VENEZ R.Agnostura 0940 ID by man in SS, then pops & ads(CL)
- 6130 CANADA CHNX Halifax 0315 w/wx(GK)mx, wx 0103(WJS)2215 pops, ads(MRL)
- 6130 GHANA RG 2145-2215 EE to W.Afr; mx & rel mx(MRL)
- 6133 ALBANIA Tirana begin Rumanian to Eur 2135, het RFE 6135(BP) (BB)
- 6135 POLAND Warsaw w/shortened EE to NA 0230-0240, the Polish //7270/9525/11815/15275
- 6135 CHILE R.Univ.de Concepcion, s/on around 1030, many IDs to 1100, then mx(BP)
- 6135 TAHITI RT 0730 classical mx, //11825(RSH)
- 6140 CHINA Peking 2230 Viet to 2326\*(ESB)
- 6140 ECUADOR R.Vision de Manta w/pops, ID 0500(BS) UNID LA w/sports, mention R.Nac. Espejo, 0405 into "Romantic Music in the Night", off 0458 w/no ID(GLD)
- 6140 SPAIN RNE in EE 0143-0145\* w/anthem; had trouble w/tape(MXW)
- 6150 RUMANIA Rb \*2300 Ruman. to SA(BP)0131-0204 EE to NA(WJS)0210 EE mx (SW) Is sked to be dropped for the summer, but I don't know the replacement fqy(DF)2215 GG(BPE)
- 6160 COLOMBIA Em.Nueva Granada, long route, f/i 2220, gone by 2245, also 0700-1200(BP)
- 6165 E.GERMANY R.Budapest relay, 0300-0326\* EE, from 0330 in Hung. on 6175, EE 0400; very poor audio, no RBI pgms(ESB)
- 6175 RSFSR(Eur)(Kazan-df) w/Moscow EE to NA, 0327 under RBI(ESB)
- 6180 ARGENTINA R.Nac.Mendoza, 1000 full SS ID(AVS)
- 6180 GUATEMALA LV de Guat., SS, mx 0245(DAV)Orch. mx: 0215, ID 0224(RWP)
- 6185 W.GERMANY DW 0415 GG(SW)
- 6190 MOROCCO RTM - Sebba-Aciun at 2226 w/AA vocals, //6170(CL)
- 6190 W.GERMANY R.Bremen 0425 GG tlk on Chile & GDR, Bucharest s/on 0430(SN)
- 6195 TUNISIA Tunis in AA by man(SFC) No time given!(df)
- 6195 S.AFRICA SABC w/cig. ads 0300 after BBC s/off(ECS)Well hrd 0400RE(SN)

- 6200 USSR R.Moscow 0130 EE, QSLd as Kazan, no longer heard(ESB)  
 6202 PERU LV de Huamanga, Peruvian songs, ID 0500\*(BS)2340 SS, QRM VoA-6190(LM)  
 6205v INT.WATERS RNI again hrd w/pop mx, mostly EE anmts, some rel pgms, sked 0500-0100; exc. sigs 2200-0100 & 0500-0800(BB/RSH/GLD/WJS/ECS/GAC/RSD/SFC/RB/ESB/CL)  
 6250 FERNANDO POO RSI 2245 SS mx, 2257\* after NA(SN)\*0457 w/SS ID, folk tunes(CL) SS & Afr mx: 0515(SFC)  
 6250 PERU R.Cuzco 0255 mx, IDs, TCs, brief mx segments(GLD)  
 6267mv ECUADOR(actually) LV de Galapagos 0200 SS tlk, Cuzco on 625lmv. If they keep collecting islands, they can extend their 200 mile fishing limit to Tahiti(BB) On 6268m, 0335 light mx, pops(ARN)6269 UNID stn weak to 0402 anthem(GLD)  
 6475.5 W.GERMANY DAM, Elmshorn, TS, second pulses 0000.5 to 0006(AVS)  
 6540 N.KOREA Pyongyang w/Korean type mx: 0847(DJ)  
 6560 GRENADA WBS, 2x3280, 0042 good sig, but QRM(ECS)  
 7070 SPAIN RNE no longer hrd since 15 March, only Tirana now(ECS)  
 7110 DODECANESE IS, VOA Rhodes, 0415-0430 AA, mx(SH)  
 7115 CONGO(DR) Kinshasa 0120 FF, ID, native rhythms; is this //15245?(ECS)  
 7125 GUINEA Conakry 0730-0800 Afr rhythms via long route; unusually good lvl(BP)  
 7134.3v ALBANIA Peking relay(nom.7120) EE 0310 //9775v(LM)7134.3v? Was it not also 7134.4v or 7134.2v? Anyway, what good does such close measurement do on a station such as this. A DX station; yes, accurate measurements can help others in tuning DX stations, in spite of day to day variations. But I see no real use in noting in this column the numerous variations in Tirana's fqys, since the stn will be drifted somewhere else by the time this column is real. Comments welcome & will be printed as space permits. DF  
 7135 MONACO R.Monte Carlo 0534 w/FF ID, FF songs(DJ)  
 7140 W.IRIAN RRI-Ambon, Indo 1130, nice lvl(DJ)  
 7140 JAPAN NHK 1128 IS, tlks in RR(according to the sked)(CL)  
 7150 W.GERMANY DW s/on 1800 into RR, then heavily jammed; NF ex 7235(BP)  
 7150 PORTUGAL DW Sines; 0515\* after Serbo-Croatian; NF ex 7145(BP)  
 7150 See March - DW in FF at 2020 is probably Julich, not Kigali.(ESB)Julich for winter quarter, Sines for spring & summer quarters. (DF)  
 7155T JORDAN Amman 2056 Arab vocal, AA talk, time pips, tlk or mx, could'nt get ID(CL)  
 7170 N.CALEDONIA Noumea 0735-0745 FF ads & mx //9510 & new 11710(RSH)  
 1780 AUSTRIA Vienna, w/mx, GG to Eur 2140, NF ex 7110(BP)  
 7185 ENGLAND BBC 0415 EE to Afr(SN)  
 7195 LIBERIA VOA w/mx, anmts 0430(AJG) Lang? EE?(DF)  
 7200T SUDAN Omdurman 0410 AA chants, mixed VOA, poor(SN)  
 7200 ENGLAND VOA Woofferton, 0400-0410 & later, N+E 0400(SN)  
 7210 NORWAY RN s/on 1700, NF ex 11860(BP)  
 7210 SWITZ. ICRC test w/SVC IS, EE ID 2305, FF 2315(CL)  
 7215 IVORY COAST Abidjan at exc lvl 0620; native mx //4940(GLD)  
 7215 BRUNEI RB, Tutong; from 1220 tune w/pop mx, ID in EE 1300 & into Johnny "Rash" number. Fair lvl & ID only clear item hrd(GLD)  
 7215 INDIA Delhi 2148 native mx, N+E, cmtry, poor, //9912(CL)  
 7230 SPANISH SAHARA From BBC WRC, 2 Apr; Tatsfield has picked up EAJ203 here at 0800; would be new country on SWBC. Have hrd stn 0757 w/unfamiliar IS, NHK not hrd; 0800 s/on in AA-like "Huna ----", maybe Hassania. ARO QRM & within a few minutes NHK dominated. About 700 Hz apart(GH)  
 7230 JAPAN JOZ6, NSB; 0811 Jap thru ARO QRM; cmtry(DJ)Yamata, 0810 M&W tlk, het(GH)  
 7230 PHILIPPINES FEBC 1230 end EE rel pgm, begin Malay(VSA)  
 7235 W.GERMANY DW \*2100 Magreb, NF ex 7275, mix BBC(BP)  
 7235 SOLOMON IS SIBS 0800 tune in native or Pidgin(GLD)0829 tlk, EE lesson; CW mx, ID 0900, Pidgin tlk, but no BBC mx as in Dec NASWA LR(GH)  
 7245 S.VIETNAM VTVN 1043 Viet cmtry(DJ)1045 folk tunes & Viet tlk(CL)  
 7245 AUSTRIA Vienna in EE 0730-0745 to Eur(RWP)0515 IS under AROs(RSH)  
 7270 POLAND RW EE mx to Eur 2230, audible now that Djakarta moved to 7175(BP)  
 7270 MOROCCO(Tangier) VOA 0630 N+E(AVS)  
 7275 NIGERIA VoN w/N+E & cmtry 0603(DJ)  
 7290 MONACO TWR s/on EE 0624(GH) EE 0723 s/on(VSA)

- 7295 PORTUGAL DW-Sines, s/on 0530 Czech; NF ex: 7275, strong(BP)
- 7380 USSR-Far East. Vladivostok/Magadan, 0700 local ID often hrd. 13 Mar was for Vlad. & had RR mx, pop mx, //Vlad. on 7210/5015. 25 Mar ID: "Govorit Magadan" w/speeches, mention Magadan often, //Magadan on 4820, not //7210 this time(BS)
- 7428 FRANCE FTH42, Bureau Internat. de l'Heure, TS 2045-2100:45, pips; Morse ID(AVS/GAC)
- 7500 AUSTRALIA VNG, Lyndhurst, TS, second pulses 1050(AVS)
- 8150 GUAM NPN, US Naval Obs., TS, second pulses, 1155(AVS)
- 9009 ISRAEL Kol Israel 2115-2130 N:E(WJS)2045-2100 EE to S.Afr(BB)
- 9022 IRAN Farsi to Eur 2100, no // found(LM)
- 9030 CHINA RP 2030-2126 EE to Eur //7590, RR from 2130 //9290/9340/9390(LM)
- 9050 HAWAII NPM Honolulu, US Naval Obs., TS, second pulses 1158(AVS)
- 9277.5 USA NPG San Francisco, US Naval Obs., 1155 TS, second pulses(AVS)
- 9351 CHINA BPV Shanghai, TS, second pulses(AVS) 1055
- 9360 SPAIN RNE 0445 exc w/N:S(AHR)
- 9380 CHINA RP lang to Eur 2115-2127(LM)
- 9410 ENGLAND BBC 0243 EE rel pgm(HPK)
- 9444 TURKS & Caicos IS; C&W WI Ltd in SSB utility mkr 1306. Would be nice if we could persuade them to use one of these higher fqys for their daily bdcst(GH)
- 9458.5 W.PAKISTAN Karachi to 2030\* EE //11672. Was on 9461(ESB)
- 9470 USSR R.Moscow 0238 SS cmtry, ID(HPK)
- 9475 EGYPT Cairo 0220 EE mx, anti-US, pro-Soviet in flavor(HPK)EE 0213(SH)0300 EE(VSA)
- 9480 USSR "R.Vilnius" 2300 Lithuanian //9610/9675/9745(ESB)
- 9480 CHINA RP 1220 N:E(MSK)
- 9499 CLANDESTINE Bizim Radio exc. daily 0600-0630 Turkish, clear ID 0630\*(GAC/GLD)
- 9505v GUATEMALA TGNA //old 5955(useless) 0255-0404\* EE, request rpts to Box 601; annc EE s/on 6:45 pm, i.e., 0045 GMT(LM)New sked, used to s/off 0430(LM)From what date? MRL and LZ report 0430\* as late as 3 April...AJ noted EE 0150...SFC notes SS 2330
- 9505 SUDAN SBS 2120 local mx, chanters & ME orch.(RWP)
- 9505 CZECH RP \*0700 N:E & cmtry to Eur(SW)
- 9510 N.CALEDONIA Noumea 1000 mx & FF to 1105\* //7170(ESB)
- 9510 ALGERIA Saut al-Assifa, Palestinian relay via Algiers, exc from 1830 in AA, // 11810/9685. Name translates as Voice of the Storm(GAC)
- 9510 VENEZ R.Barquisimeto at fine lvl 0000 ID, native mx, SS; later BBC QR N(ARN)
- 9515 MEXICO XEWW, 0505-0545 SS boxing, EE ring anmts(MRL)SS 1405(AJG)
- 9515 TURKEY Home Svc Sunday 0400-0500, apparent hi-pwr tx(BP)
- 9520 KUWAIT RK w/AA mx, anmts 0540, mixed Port Moresby(BP)
- 9520 DENMARK RD 2357 IS, EE ID, Danish to NA(CL)
- 9520 PAPUA ABC Port Moresby 0600 light mx, TCs(RSH)
- 9525 USSR Moscow Chinese svc 0930, NF, //11890, also new(BP) QTH unknown here(DF)
- 9530 GREECE VOA Rhodes w/EE s/off anmts 2144(DJ)Sked Spring, unsked Summer quarter(DF)
- 9530 LIBERIA/ECUADOR...HCJB SS dominating VOA-Mva PP 0015(GH)
- 9534mv T PERU Believe R.Nac.Tacna causes the het to SBC 0715; here last Fall(BB)
- 9535 SWITZ SBC 0615 EE(SW)
- 9540 N.ZEALAND RNZ 0720 EE to Pac.Is(SW)
- 9545 MEXICO XEFT, Veracruz; 1844 ads, ID as XETF(mw)(GH)
- 9550 BELGIUM RTB, DX pgm 3rd Wed in EE(Thus GMT) at 0049; is ARO pgm(GH)NF for Dutch mx \*2215; ex 15335(BP)
- 9553.5 EL SALVADOR YSS 1831 mx, hetting XETT(GH)
- 9555 MEXICO XETT 1830 ads & TCs each minute, het YSS(GH)
- 9569Mv NIGERIA RTV Kaduna 0715 group singing in Hausa(BB)Unrptd in a while(DF)0600(AHR)
- 9577 EL SALVADOR Presumed YSV, LV del Comercio; mx, SS 1843(GH) Yes(DF)
- 9580 AUSTRALIA ABC ee s/on by kookaburra bird 1214(MSK)
- 9581 NICARAGUA Presumed R.Mar; weak w/mx 1840(GH)
- 9583mv INDONESIA RRI Djakarta, 1100-1200 EE to ANZ, ex: 9579, ex: 9587(BB)Definite moves or just a drifting fqy?(DF)
- 9590 CHILE R.Balmaceda 1019 SS mx, ID 1020(CL)0500-0515 mx & SS anmts(MRL)
- 9620m BRAZIL R.9 de Julho, 0830 PP, Jap vocals, undual 11855 at this time. ESB, are these two stations still relaying each others pgms at any time?(BB)
- 9620 YUGOSLAVIA Belgrade 22000 - 2215 N:E & cmtry(AJ)

9625 ISRAEL Kol Israel, 2100 mx(BG)N:E 2115(WJS)  
 9630 CANADA CBC \*0830 N:E, fair(DAV)  
 9630 CZECH RP 0100 EE(MSK)  
 9640 W.GERMANY DW Julich; 2230 begin GG to Afr(BPe)  
 9640 S.KOREA VoFK; 1120 EE emtry, songs(DJ)  
 9645 BRAZIL R.Cult. Poco de Caldas, PP tlk, fair 10150AVS)  
 9645 VATICAN VR 2115 IS, IS, into PP 2118(BPe)2220 GG tlk(BPe)  
 9645 COSTA RICA TIFC 0315 EE rel tlk & mx(AJ)  
 9660 AUSTRALIA ABC Brisbane, 0720 radio play (RSH)  
 9665mv CUBA RHC, 0330 EE //11839, ex 9525. S/on time & fqy varies now(BB)EE 0115-0300(RSH)  
 9665 E.GERMANY RBI, NF ex 9535, AA mx 2150(BP)  
 9576mv POLAND R.Warsaw 0630-0700 EE to Eur, tx breaks(BB)  
 9680 AUSTRALIA ABC Melbourne 0700 EE,(RSH)0815 EE sports(SW)  
 9682 VENEZ R.Monagas, Maturin, strong 1020 LA vocals, ID, TC, separableABC-9680:(BP)  
 9685 ALGERIA RTVA in AA 0610 w/mx: & tlk(RE)  
 9690 INDIA AIR 1943 IS, s/on EE GOS to Afr(CL)  
 9690 W.GERMANY DW SS mx to Eur 2105; NF ex 7140(BP)  
 9690 AUSTRIA Vienna w/GG to SA 2315; NF ex 9575, well hrd(BP)  
 9690 RWANDA DW Kigali 0545-0630 EE to W.Afr(BB)

9701mvT VENEZ R.Sucesos believed the SS stn here 2145 thru Sofia. Sked to s/off 2200 & I've never noted it after that time(BB)  
 9702 NIGER RTN, Niamey; Sun at 0900 FF to Afr; QRM HCJB(RWP)  
 9704mv MEXICO R.Mexico 0130 SS ID, not daily, bad RSA QRM(BB)  
 9710 ITALY RAI 1945 N:E(BPe)N:E 1936(BG)  
 9715 PHILIPPINES FEBC Manila, 1357 Jap mx, 1400/IS, JJ ID(GH)  
 9720T ARGENTINA R.El Mundo 0648 N:E. RAE has EE this time. A relay?(CL)  
 9725 MALAYSIA BBCFES 2200 s/on EE ID, into Asian langs(MSK)  
 9730 E.GERMANY RBI 2040 EE, mx: 2045(BPe)0100 N:E & emtry(SW)  
 9740 PORTUGAL RP 2045 typical mx & songs, IDs often(BPe)  
 9745 AUSTRIA Vienna 1645 dance mx, GG to ME; NF ex 9610(BP)  
 9750 CHILE CE 975, R.Mineria, 0025 rapid-fire mx; jamming & R.Liberty underneath(GH)  
 9754mv BRAZIL R.Brasil Central 0815 PP vocals, hets AFRTS(BB)  
 9765 W.GERMANY DW to E.Asia in EE, mx, tlk(MSK).Time?(DF)  
 9805 EGYPT Cairo 2133 GG tlk, ID 2145(BPe)N:E2200(MSK)  
 9825 ENGLAND BBC 2235 CC to China w/YL tlk, no jammers hrd(LM)  
 9833 HUNGARY RB. R.España Indep. SS to Spain via RB tx: 2230-2251, not //7690/10110/12040/14483. Jammed. Preceded by RB regular SS pgm. Hungarian began 2300 to SA. Definitely same carrier 2251-2305, so is Budapest. So far as I know this is first definite QTH for REI(LM)  
 9835 USSR RM w/EE to NA on NF 2303-2310, QRM Budapest(LM)  
 9912 INDIA AIR 2200 N:E, 2230\*(AHR)  
 9920v CHINA RP 1030-1100 Cambodian(BB)  
 10004 USSR RID, Irkutsk; 1500 CW ID & second pulses(ESB)1107(AVS)  
 10079v PSEUDO-CLANDESTINE Next time I'll be praetertranssubstantialistically precise, OK?(BB) 19 cents. You're getting up there!(DF)  
 10080 CLANDESTINE V.of Camb.Nat.Front, 1430 Asian lang & mx: to 1530. New time?(ESB)  
 10235v N.NIETNAM RH, 1400 Viet, up from 10225(ESB)  
 10335 INDIA AIR Delhi; 1500 Indian mx & lang, 1530 EE mx(ESB)  
 10530 KAZAKH SSR R.Alma Ata, 2300 RR "Mayak" pgm this fqy only, 2359 Alma Ata IS & own pgms on all fqys(ESB)  
 11080 CANAL ZONE NBA, Balboa, US Naval Obs., TS, second pulses, 0457(AVS)  
 11413 CHINA RP HS 1100-1130, seemingly //16105, 17221, 17504 in CC(LM)  
 11525 UNID under jammers presumed the CLANDESTINE RStansiya Svobodnaya Rossia, which is allegedly a CIA stn. If so is a new fqy, ex: 11550(LM) 1845  
 11600 CHINA RP in lang, Hakka?, to SEA 1035-1050(LM)  
 11672 W.PAKISTAN Karachi 1945-2030 w/Urdu/EE to UK(MSK)EE mx/nx to 0100\*(MSK)At 0012 w/IS, EE ID, into EE mx to SEA, ex 7265(CL)1853 pop mx, YL ID 1900 & N:E(JDT)  
 11675 CANADA CBC 2047-2152\* FF & EE, ancd //15535/17820.From 28 Mar on IL715/15325/17820(ESE)

- 11680 ENGLAND BBC AA svc 0350-0440, NF(ex-?) //12125 USB(LM)1650 IS/EE ID/into lang(JDT)  
 11690 USSR RM EE to WCNA 0331, now QSLd as Nikolayevsk; earlier was Magadan and Petropavlovsk. Wonder if their records are correct?(ESB)EE 0620(ECS)  
 11700.7 USSR Serpukhov listed, RM CC 0040-0059(LM)  
 11705 KUWAIT RK \*1600 EE, good lvl(GK)  
 11710 N. CALEDONIA Noumea on NF ex 11910; used for all txs & on Sat w/church svc 2100-0200 also. //9510/3355/7170 & mw 670 at 1900-2100/2330-0200/0600-1100(BP)Noted 0620-0730 in FF & pop mx(LM)0945 FF tlk, //7170(GH)0645 FF, mx(RSH)  
 11710 INDIA AIR Delhi 0030 EE ID by gal, inti talks & folk mx(CL)  
 11710 ARGENTINA RAE in EE 2340, strong & improved modulation(ARN)  
 11715 SWITZ SBC EE 0130(MSK)  
 11720 VATICAN VR in RR 1805(MSK)  
 11725 AUSTRIA Vienna w/GG mx 0300 to SA; NF ex 11790(BP)Bells 0027, strong(ARN)  
 11730 USSR RM w/CC tlk 1030(MSK)  
 11735 USSR RS Atlantika in RR tlk & folk tunes 1630(MSK)  
 11740 AUSTRALIA ABC s/on 1030 Indonesia(MSK)  
 11745 VATICAN VR on NF ex 11745(?-DF) EE mx to ANZ 2210, mixed Stockholm(BP)  
 11745 BRAZIL Em.Pirratinanga, São Paulo; ID, mx, PP anmts 1012(AVS)  
 11750 JAPAN FEN 0715 rock mx, anmts(RSH)  
 11755 BELGIUM RTB on NF ex 15350, Dutch mx 2030(BP)  
 11765 USSR RM, Yerevan list; 1255 S.Asian mx, EE 1300(GH)  
 11765 AUSTRALIA RA 0715 N:E(RSH)  
 11765 BRAZIL R.Dif São Paulo, sports, seemed //11795/11805(MRL)Definite ID?(DF)  
 11770 MEXICO R.Mex., SS 0540-0559\*; Mex. mx(LM)  
 11775T INDIA AIR at 0420 folk mx, lang anmts(CL)  
 11775 LEBANON RB 0130 FF, 0156 AA, 0228 EE, ex 11780((ESB/RSH/MSK)  
 11780 JAPAN NHK in AA mx to ME/N.Afr 1900, NF ex 7195, mix NZ & BBC(BP)1753 mx in EE & "Springtime in Japan"(JDT)  
 11780 N.ZEALAND RNZ 1025 pop mx(DJ)  
 11780 ARGENTINA R.Belgrano 0030 relay LR2-R.Argentina w/SS sports, 0115 ID(ESB)  
 11780 MOZAMBIQUE RCM at fine lvl w/pops, ads, ancd // 60 mb; 0400 ID(RWP)  
 11785 LEBANON RB 0225 EE to NA, 30 Mar, ancd 11775((RSH)  
 11785 BRAZIL R.Guiaba 0119 PP ID, fast tlk by man(CL)  
 11785 IRAQ R.Baghdad at good lvl w/Islamic chant around 2200(RWP)  
 11790 AUSTRIA Vienna 2030 mx, 2100 GG mx & mx to 2155\*; NF //15210(ESB)  
 11790 SWEDEN RS 2055 on NF ex 9715 w/EE to FE(BP)  
 11795 BRAZIL R.Mac., Rio; sports 0115(MRL)  
 11795 USA WINB 2030 w/mx(AJG)  
 11795 W.GERMANY DW 1820 IS, Turkish to Turkey(BPe)  
 11800 CANARY IS RNE observed w/IS 1945 tuning, preparatory to actual s/on(ARN)SS mx, Perry Como record, all SS 0200-0230(MRL)  
 11810 ALGERIA RTVA at 2000 w/N:A(AJG)  
 11810 INDIA AIR Delhi 1428 EE cmtry, mx(VSA)N:E 1334, EE ID, cmtry(DJ)  
 11815 NETH.ANT. TWR EE to As 0033-0050, NF ex 11820(LM)  
 11819a MOZAMBIQUE RCM 0415-0431 t/o w/variety of mx, IS & ID 0430(JDT)  
 11820 MEXICO XEBR, 1800 Mex mx, anmts, ID. Seldom reported at midday(GH)  
 11825 TAHITI ORTF 0605 mx & anmts(AJG)  
 11827 CLANDESTINE V.of the Malayan revolution w/martial Malay talk \*1100(AVS)  
 11835 HAITI 4VEJ at 1330 w/EE rel pgmning(AJG)1330 Back to the Bible Broadcast(BG)  
 11835 URUGUAY R.El Espectador at 0200 w/N:S till abrupt 0301\*(CL)  
 11845 KUWAIT RK s/on 1900 w/"World Theatre" in EE; ex 9660(CL)  
 11850 USSR "Govorit Kiev" 2230, into RR by M&W(ARN)  
 11850 GHANA N:E 2000(AJ)  
 11852a GHANA Ejura at 2050-2058\* w/local mx, ID, EE; a little high in fqy on several days checks(JDT)  
 11854 BRAZIL R.America 2230-2303 t/o w/mx; strong after Gvl close 2230(JDT)  
 11855 BRAZIL R.America loud w/pops 2330, ID(AVS)  
 11855 IRAQ Baghdad w/IS, s/on 0258, anthem, into AA, 2 IDs by gal. Yep, I know, Saudi Arabia operates here, too.(ARN)

- 11865 BRAZIL RC Pernambuco 0350 mx, ID 0400(JDT)  
 11875 NICARAGUA R.Nac., 1338 SS rel svcs(VSA)ID 1400(BG)  
 11885 PORTUGAL RFE, 0135 ID in EE/Bulgarian by gal, tlk on Yardbirds, mx, no jammer noted(CL)  
 11885 USA WNYW 2200-2230(MPM) Details, please(DF)  
 11900 CHILE LV de Chile at big 500 mv lvl 0030-0040 w/ads, native mx, SS(ARN)  
 11900 S.AFRICA R.RSA 2050 end EE, then to Afr(BPe)  
 11900 MALAYSIA VoM at 0700-0820 EE pop mx(PDL)  
 11905 RWANDA DW Ligali 0555 US pops, UN Report in EE(JDT)  
 11905 W.GERMMYY DW 1800 RR to USSR(BPe)  
 11905 ITALY RAI 0115 PP mx to Brazil(AK)0100 N:E, FF 0020(MSK) That's 0120, not 0020.  
 11905 THAILAND R.Thailand noted 1025 w/shakey sigs, tho did hear ID in EE 1030(DJ)  
 11910 HUNGARY Budapest 1755 GG, ID 1800 & into another lang(BPe)  
 11915 ENGLAND VoA-Woofferton, EE ID 1900, then Albanian mx(DAV)  
 11920 IVORY COAST RTVI, 1948-2022 mx, N:F 2000(MXW)FF ID & s/off 2355(MSK)S/on FF 1900(MSK)  
 11920 FRANCE ORTF 0515 N:E to 0530, then FF(BPe)  
 11920 PHILIPPINES FBBC Manila, 1310 "Back to the Bible"(MSK)1322-1340 EE tlk(SH)  
 11925 UZBAK SSR Tashkent 1400 s/on EE mx(AJG)  
 11940 PORTUGAL RP(anncd 11935) //6025. 0200 Press Roundup in EE(AK)  
 11945 CANADA CBC \*2300 N:E(DAV)  
 11950 LIBERIA ELWA, Monrovia, 0610 IS, 0614 s/on EE(GH)610 flute IS, EE ID 0615(JDT)  
 11955 USA KGEI, EE 0430-0500\*, NF ex 9670(BP)  
 11960 CUBA RHC AA & SS to Med. Exc on NF ex 15230. AA to 1030, then SS. Also noted 0830-0930(LM)FF mx to Med 0845, ex 15230(BP)  
 11960 INDIA AIR Delhi, 1943 IS, s/on EE ID, GOS in EE to Afr(CL)  
 11965 PHILIPPINES VoA Chinese 1335(RFB)  
 11970 S.AFRICA R.RSA w/EE to 0220(DAV)  
 11975 E.GERMANY RBI 1530-1600 mx to SEA(PDL)Lang? EE?(DF)  
 11975 GRENADA WIBS 0115 Calypso mx, EE TCs(RSH)EE to 0215\*(DAV)  
 11980 CUBA RHC 2330 SS & mx, 25 Mar only, //11760. Next day back on 11930(ESB)  
 11990 USSR R.Moscow 1300 S.Asian langs to 1428\* w/anthem, strong. May be listed Dushanbe, no longer hrd on 11715(ESB)  
 11990 CZECH RP 1530-1600 N:E to SEA(PDL)  
 11997 N.VIETNAM Unid Hanoi outlet, 1400 FF, 1430-1500 EE, weak & QRM. Any info on this one?(ESB) No (DF) Indochinese lang from R.Liberation 1000-1030(LM)  
 12000 AUSTRALIA VnG, Lyndhurst, 0607-0616 TS(RSD)0355(AVS)  
 12005 EGYPT Cairo strong in AA mx & lang 2300-2340(ARN)  
 12010 USSR RM in RR HS // 12060 w/classical violin mx 0515. Kiev(LM)  
 12015 CHINA RP in Cantonese to Pacific 1000-1015(LM)  
 12025 NUMBERS 5 digit SS numbers 0540(GH)  
 12125 N.VIETNAM VoVN w/EE 1300-1327, lang 1400(GK)  
 12040 USSR RM 2301 Quechua, //12020/9470(ESB)RR HS 0510, //12000(LM)  
 12050 PORTUGAL RP, 2x6025, PP 0515. Anybody know the output of this harmonic?(LM)  
 12055 CHINA RP Malay to SEA 1000-1025 w/mx(LM)  
 12055 USSR RM EE to Afr 2045(LM)  
 12080 CUBA RHC, 0230-0515 EE to ECNA//11840. Must be spur(LM)  
 12095 ENGLAND BBC WS 0415-0515(LM)  
 12100 USSR RM USB feeder in RR HS 0445 w/mx(LM)  
 12116 NUMBERS SS numbers 0603, 5 digits(GH)  
 12124 ENGLAND BBC fixed, RC/SSM chime IS 0340, AA 0345(GH)This really belongs in the domain of the utility clubs.(DF)  
 12139v CLANDESTINE R.España Indep., SS to Spain 1900 //101109LM)  
 12140 CLANDESTINE REI w/chime IS, s/on ID & SS to 0655, begin 0600 daily(GAC)  
 12966 USA US Naval Obs., NPG, Dixon, Calif., TS 0555-0600 & into CW(GLD)  
 13105 BRAZIL PPR Time Signal, Rio, second pulses, longer on minute, from 0125-0130 daily, then CW ID(GAC)  
 13236.5 VENEZ Caracas alleged to be site of R.Euskadi, 2230-2301<sup>1/2</sup>\* SS(LM)Venezuela long known to be the site of the tx. (DF)

- 1328lv VENEZ R.Euzkadi poor 2129-2201½\* to Spain in SS, jammed(LM)  
 13295v CLANDESTINE R.Euzkadi w/SS/Basque tlks, jammed; s/off 2202 w/anthem(MSK)  
 13560 USA Experimental KC2X10 on erratic sked w/TS, many days off; 1905(AVS)  
 14255A BARBADOS R.Rabbados in SSB 2145-2255 w/sports, mx, ads, mx(RSD) Not SWBC(DF)  
 15004 RSFSR(As) RKM, Irkutsk, TS, second pulses 1045(AVS)  
 15018 N.VIETNAM Hanoi w/N:E & mx 1311(SH)  
 15080 INDIA AIR Bombay 1810 Indian mx, EE ID 1820, tlk(RSH)Good w/N:E 1900(AVS)  
 15085 IRAN Teheran 1328 w/national mx, TS 1330, Farsi mx(GH)  
 15085 EGYPT Cairo w/PP & SS to LA, 0025(LM)  
 15105 BRAZIL R.Rural 2332 s/off armts; s/on was around 2200(GH)0000-0035 SS cmtry(MRL)  
 MRL, if you heard Brazil it would have been in Portuguese; if in SS, was not  
 Brazil. Check BBC & VoA broadcasts for the difference between the languages(DF)  
 15105 INDIA AIR s/on 0500 AA, NF, possibly replacing 15260(BP)  
 15105 JAPAN NHK at 0400 w/N:E, QRM HCJB 15115(LZ)  
 15105 ASCENSION IS BBC 1630-1650 N:E to SEA(PDL)  
 15115 VATICAN VR 0000 SS on NF //11725, 96159ESB)2300 PP to Brazil, NF(ARN)  
 15120 CEYLON RC 0119 light mx, EE ID & TC as 7:00 am at 0130(CL)  
 15125 TAIWAN VoFC at 0200 w/ID in EE, mx; QRM Portugal(CL)  
 15125 PORTUGAL RP w/EE & mx 0400-0432\*(WJS)0200-0230(MPM)0340 Press Roundup(LZ)  
 15130T PAKISTAN Islamabad at 1233 w/native tlks, no ID noted, Pakistan mentioned(CL)  
 15140 USSR R.Yerevan/SFE QTH; s/on Armenian, theme 0300(GH)  
 15145 FRANCE ORTF at 2300 FF & mx; //15120/15245(ESB)  
 15145 BRAZIL R.Jornal do Comercio at 2159 w/ID, ads; also at 0223(GH)0205-0232\*(RSD)  
 15145 E.GERMANY RBI w/EE cmtry 1840(MSK)  
 15150 SAUDI ARABIA BSKSA w/ID in AA, t alks 0535(GH)  
 15155 SWEDEN RS at 1903 w/mx, cmtry(LZ)  
 15155 BRAZIL R.Tupi ar 2320 w/PP & EE mx, PP armts. Also known as Rdif de S.Paulo?(DJ)  
 15160 TURKEY Ankara at \*2130 N:F, good(SN)  
 15165 DENMARK RD s/on EE ID, Danish to Greenland, ex 11805 at 1730(CL)S/on 1726 with  
 tone, IS & EE ID, Danish 1730(GLD)EE ID L\*#), into Danish(MSK)1600 IS, ID, into  
 Danish; they now QSL EE rpts(RWP)  
 15165 SWEDEN RS at 1400 IS, EE ID to S.Asia, into Swedish(BPe)  
 15165 RWANDA DW-Kigali s/on 1800 GG, NF ex 15300; mixed R.Denmark(EP)  
 15165 SYRIA Damascus at 2115 EE pop mx; pgm(SN)  
 15170 LIBERIA ELWA w/AA chanting at 2245(AJ)  
 15185 NIGERIA VoN at 0550 IS, but lost sig 0555(ECS)2055 end EE, ID, into FF(BPe)  
 15185 FINLAND FBC, Pori; 1830\* EE(MSK)EE from 1600(BPe)1800 EE(RSH)1455 IS, Finnish  
 & EE IDs at 1500, to NA; rebroadcast of Finnish HS(RWP)  
 15185 SEYCHELLES FEBA 0325-0400 EE rel tlk, hymns, pop mx; sked 0300-0400 EE(RSH)  
 0304 EE armts, into rel tlk, then fast fade 0307(CL)  
 15195 CHINA RP in SS to 0257\*(MRL)  
 15195v TURKEY R.Ankara 2100-2130 Ger on one fqy only. 2130 FF //15160; some days on  
 15190)ESB)  
 15200 AUSTRIA Vienna 1920 pop mx, tlks(BPe)  
 15205 INDIA AIR Delhi 1030-1100 mx to ANZ(PDL)1045 EE tlks, press review, light mx;  
 s/off 1100(CL)  
 15220 TURKEY R.Ankara 1525 IS, 1530-1556\* AA pgm(ESB)  
 15230 BELGIUM RTB 2220 Dutch mx, NF ex 15420(BP)  
 15235 PHILIPPINES FEBC, NF, new lang, GG 0200(BP)  
 15235 INDIA AIR at 0040 w/Indian mx, dedications in EE, N:E(DJ)0104 N:E, cmtry, folk  
 mx to 0115\*; good sigs(CL)  
 15240 CZECH RP 1650 AA mx & tlk(LM)  
 15240 AUSTRALIA RA EE to Pac 0535; good w/pop mx(LM) // 15160  
 15245 CONGO(DR) R.Kinshasa 0130 s/on w/ID, mx, mx; FF; excellent lvl(AK)FF HS fair  
 0015 w/Afr mx, armts by YL(LM)  
 15250 ETHIOPIA ETLF w/nice reception 0429 w/IS, IDs in EE/FF/AA(GH)  
 15250 ROMANIA R.Bucharest 1320 EE tlk about essay contest(MSK)  
 15250 MOROCCO RTVM at 0800 FF to 0900\*; NF ex listed 15245(BP)  
 15260v CUBA RHC FF to Med on NF ex 15155, //17885; w/tlks, mx; jammer QRM(LM) 1735

- 15265 AFGHANISTAN Kabul to Eur in EE, anned //11790 unhrd; mx, mx. 1800-1830(LM)
- 15265 SEYCHELLES FEBA at 1329 ID(GH)1500-1530 EE rel pgm(PDL)
- 15280 N.ZEALAND RNZ 0545 light mx(SW)0325 mx(JDT)0500 mx, children's pgm(RSD)
- 15280 HAITI R.4VEH under KGEI 0013-0032 w/children's pgm(RSD)
- 15280 MALAYSIA VoM, 0630-0730 N+E(PDL)
- 15295 FRANCE ORTF 2015 N+E by M&W(AJ)
- 15300 PORTUGAL DW Sines; lang lessons, Bulgarian 1645; NF ex 15405(BP)
- 15300 CHINA "Govorit Peking" ID 0300, M&W ancres(ARN)
- 15310 INDIA Delhi at 0245 EE HS mx by gal(CL)N+E 0255(ARN)
- 15310 GUINEA Conakry at 0713 N+F by man, //9650/7125/4910(CL)
- 15310 LIBERIA Monrovia believed the QTH of jammed RR pgm 1745 w/mx, ID(LM)
- 15320 AUSTRALIA ABC EE w/mx & mx, s/off 0245(MSK)0130(MPM)ID 0525, folk mx(LM)
- 15325 W.GERMANY DW w/GG to N.Af/ME 1615-1630 on NF ex 9655(LM)
- 15325 CANADA CBC 1635 No.Svc.; CBC mx, sports, mx(EPe)
- 15330 VATICAN VR 1500-1530 rel pgm(PDL)
- 15335 FRANCE ORTF Polish to Poland 1615-1635, tlk by man(LM)
- 15335 INDIA AIR 1340 EE tlk, Indian mx to 1400(AJ)
- 15335 BRAZIL R.Farrroupilha w/native mx, PP to 2359a\* w/bells or gongs(ARN)
- 15340 W.GERMANY R.Liberty w/RR(?) clear over jammers 1747, but lost under jammers at 1750(LM)
- 15345 KUWAIT RK w/pop mx in EE 1730(AHR)1738 pop mx; better 1800 after UNID stn s/off. N+E 1830(DJ)EE to Eur \*1600-1725 w/pop, rock, soul mx. Also at 0520 in EE to ME w/long, deep QSB(LM)1633 EE tlk, ex 11705(CL)Rock mx 1600(AJ)1815-1835 N+E, mx, cmtry(RSH)1805 ID in pops request pgm(ARN)
- 15345 ARGENTINA LRA, seldom hrd on this fqy; strong lvl 2108 SS ID, into native mx(ARN)
- 15385 USSR Gorki listed, Moscow FF to Eur 1800-1828 //15405/15440/15450/15460(LM)
- 15385 CHINA RP 0445 EE & mx; fair to good(RSH)
- 15390 ENGLAND BBC in Yugo(?-df), Turk to Eur 1810-1820; NF Turkish svc(LM)
- 15405 ALBANIA Tirana 1830-1840 RR, under Sverdlovsk, jammers(LM)
- 15410 RWANDA DW Kigali; GG to SA 2330(RB)
- 15430 S.KOREA VoFK 0300 N+E(AJ)1350-1415 mailbag, mx(PDL)0300-0330 EE cmtry, lang lessons(MRL)1100 s/on EE mx, tlks by M&W in EE; NF(CL)
- 15430 IRAQ Baghdad 0254 IS, s/on AA by man, into chanting; noted same time next day on listed 15400(CL)
- 15440 PHILIPPINES FEBC; EE ID 1300; into rel talks & mx(CL)
- 15445 CZECH RP w/special Sunday pgm in Slovak 1330; folk mx(GH)
- 15445 LIBERIA VOA Mva; lang pgm 1859(TG)
- 15460 USSR -likely Asian QTH; 0320 RR HS; fair w/classical mx(LM)
- 15470 USSR Kalinin list; RM RR HS 1640, so listed s/off of 1400 obviously incorrect. (LM) Listed where?(DF)
- 15509.7 CHINA RP EE to SEA 1310 fair on NF ex 15095(LM)
- 15519 PAKISTAN(East) Dacca at 1130 w/local ID in EE, N+E by gal. Not noted during therecent riots(CL)
- 15520.4 CHINA RP EE to ECNA fair 0215; here last year also(LM)
- 15550 CHINA RP CC HS 0320 w/man talking fast, many // fqys(LM)
- 17194 BRAZIL PPR, Obs.Nac., Rio; TS, second pulses 0125(AVS)
- 17489.6 CHINA RP EE to NA in SCDSB to unknown site 0205-0256, RR 0300(LM)
- 17504 CHINA RP new CC HS 0205-0233\*. From 0000. S/off varies nitely(LM)
- 17530 GUAM US NAVAL Obs., TS over NPM 2355-0000, CW at 0000(GLD)
- 17697.5 CANAL ZONE NEA, US Naval Obs., Balboa; TS, second pulses 2258(AVS)1755-1800 time pluses; CW transmissions before & after(GLD)
- 17700 BELGIUM RTB in Dutch 2140 and at 2143 in FF; sked gives 17705(GH)1900 FF & mx to Africa(ESB)
- 17705 INDIA AIR Delhi at 1139 IS, ID in Thai, to Thailand(CL)
- 17710 USSR RM EE \*1330-1358\*; strong in lang from \*1400(LM)
- 17720 TURKEY R.Ankara 1400-1430 EE mx, good to SEA(PDL)
- 17720 TAIWAN VoFC EE to WCNA w/distorted audio & co-channel Chinese lang QRM; fair 0310(LM)
- 17730 CUBA RHC on NF ex 17705, EE to Eur 2030(BP)

- 11733 CUBA RHC FF & EE to Eur 2006-2115, nominally 17730. Wandered between 17728.6 and 17733.0, finally settling on 17729.8. EE 2208(LM)So, why report the fqy as 17733.0? Why not 17730v?(DF)
- 17755 ITALY RAI 1400-1425\* Italian to Canada, //21695(ESB)
- 17780 UKRAINIAN SSR Lvlv listed. RR HS beamed to NA w/R.Mayak svc 1527-1620; RR nx 1600(LM)
- 17785 AUSTRIA Vienna 0515 GG nx: to SEA; NF ex: 17740(BP)
- 17800 W.GERMANY DW begins EE to ANZ 0920, NF ex: 15275(BP)
- 17810 NETHERLANDS RN, Hilversum at 1430-1500 mx, excellent in SEA(PDL)
- 17825 JAPAN NHK w/FF nx: 0745, N:E 0800(PDL)
- 17835 MEXICO R.Mexico 1700-1735 ID & piano mx, N:E 1710-1730(AK)
- 17840 CZECH RP 1530-1600 mx: to Afr & Asia.(PDL) EE?(df)
- 17860 BELGIUM RTB 2030 German opera; ID 2100(BPe)
- 17885 VATICAN VR 1500-1530 EE rel pgm(PDL)
- 17880 PORTUGAL EN again using this fqy, good lvl, around 2300; usual pgmg & PP(ARN) (out of order, sorry - DF)
- 17890 TAIWAN VoFC 0300-0400 EE editorials & mx(PDL)0200 mx & mx(RB)
- 17909.lv W.PAKISTAN Karachi on NF ex: 17945, weak in lang 1420(LM) The fqy for this tx has for year alternated in the 17900-17945 region-DF)
- 17945 W.PAKISTAN Karachi 1500-1530 N:E; excellent to SEA(PDL)
- 21465 E.GERMANY RBI 1430 FF t1k, EE 1815(BPe)
- 21480 NETHERLANDS R.Nederland at 1415 DX pgm w/Glenn Hauser giving items from NASWA; song & technical tips(BPe)
- 21480 S.AFRICA R.RSA 1900 ID & into FF(BPe)
- 21495 PORTUGAL Em.Nacional at 1445 w/PP songs(BPe)S/on 1730 FF to Afr, 1814 EE to Africa(WJS)
- 21498.7 CONGO ORTF, Brazzaville in FF to Asia at 1330; QRM de AFRTS(IM)
- 21520 SWITZ SBC 1315-1335 N:E(PDL)
- 21535 S.AFRICA R.RSA 1800 GG nx: to NA(BPe)
- 21600 W.GERMANY DW s/on EE to Afr, mixed USSR; NF ex: 21510(BP)
- 21660 INDIA AIR w/FF mx: to Asia 1115, NF ex: 21580(BP)
- 21695 SWEDEN RS s/on 0930 FF, into Swedish 1000, NF ex: 21690. Also in EE 1100, N:E to Afr, NF ex: 21515(BP)
- 21720 AUSTRIA Vienna 0625 GG, mx; NF ex: 21670 to S.Asia(BP)
- 21745 USSR R.Moscow back here, Indian langs 1100-1130, NF(BP)

I did it again!! I misplaced Marlin Field's report. Several good items, so will list them here. Sorry. df

- 2360 GUAT..R.Maya 1125 rel best & ID. Also 2347-0017. Best 1125-1200 f/o.
- 3240T INDONESIA RRI-Ambon 1148-1205 mx
- 3245T PAPUA R.Kerema 1149-1155 mx: pgm
- 3355 N.CALEDONIA Noumea w/FF & mx: 11000
- 3355 VENEZ R.Valencia 1020 mx, 1050 f/o
- 4760 VENEZ R.Frontera w/mx: pgm 0233-0330
- 4762 PERU R.Inca 0541 ID, 0551 ID
- 4775 UNID w/M&W t1k 1100. India? Indon?
- 4795 ECUADOR LV de los Caras 0354 mx, ID & s/off 0401. Another day 0520\* ID
- 4840 PERU R.Andahuayalas 1114 to 1138 f/o when another stn in, likely AIR
- 11320 INDONESIA R.Angkatan Udara at 1206 -1300 mx: pgm; f/o by 1330.

\*\*\*\*\*  
 Next, the credits, to those who make this possible month after month. Your support is what makes this section. Please keep it up.....

- AJ= Alan Johnson, SB-310(Mississippi)
- AJG=Angelo J. Geu, Ill....AK=Audie Kaufman, Tenn.....ARN= Al Niblack, Ind.....AVS= Al Sizer, Conn.....BB=Bill Berghammer, NYC
- ....BG=Bob Gant, SC....BP=Bob Padula, Australia...BPe= Bert Pector, Ontario...
- BS=Bill Sparks, CA.....CL= Chris Lobdell, Mass....DAV=David Volle, Ill...DF=Dan Ferguson, Fla...DJ=Danny Jamison, VA....
- DW=Dave Williams, Oregon...ECS=Ed Shaw, VA
- ....ESB=Ernest Behr, Ontario...GAC=Gregg Calkin, Ontario....GH=Glenn Hauser, Texas
- ....GK=Greg Kelley, VA...GLD=Geryy Dexter, Wis....HM=Hank Michalenka, RI....HPK= H.Price Kagey, CA...JR=Jim Roberts, Manitoba
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Last Minit News/Tips

FLASHSHEET

Last Minit News/Tips

A. R. NIBLACK-EDITOR, 420 SHELBY ST., VINCENNES, IND. 47591 DEADLINE 23RD OF MONTH!!!  
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AFGHANISTAN Kabul 15265, 11790, both irr heard 1800 EE news, weak to fair (August Balbi,  
ANGOLA 4795 R. Commercial de Angola, fair 2221 tuning, all PP and U.S. pops; / Calif.)  
 lost 2355. (Jerry Berg, Mass.)...3277.5 (TENT) Think its Emisora Oficial on new fgy  
 noted closing 2300 week days, all PP, S/off with "AP". (Al Niblack, Ind.)

ARGENTINA 11755 R. EL Mundo 0100-0300 S/off, SS and musical prgm. (Marlin Field, Mich.)  
AUSTRALIA VLHL15, 15230, 0700-0815, H.S. of ABC, often good...DARWIN relay of ABC,  
 15355 S/on daily 0800 FF; 0830, in Indonesian. (August Balbi, both items)

BOTSWANA (TENT) 3355 Gaborones at 0431 in native severe Ute QRM. (Del Hirst, Tex.)  
BRAZIL 4865 R. Clube do Para 0116 with pops in PP, an ID. (Mike Watman, N. H.)  
CHINA(PR) R. Peking effective 4/13 to ECNA, 1200-1255 anncs fgy will be 15095(ex 9480)  
 with a parallel of 11685. (Larry Mange, Penn.)

COLOMBIA 5035 LV de Caqueta with musical prgm and ID at 0311 in SS. (Marlin Field)  
COMORO IS (TENT) 3332 Splash de CHU, YL in FF and string instr. music, fade-out 0712.  
 (Del Hirst) (Suggest too much daylight for propagation this hour, Editor)

CONGO(REP) 6115 R. Nac Congolaise, noted 0455 by M in FF, ID 0459. Is Brazzaville (Chris  
CUBA R. Habana replaced 9525 with 9665 to NA, EE 0100-0450, //11840 (Harold /Lobdell, Mass)  
CYPRUS Limassol BBC, 7140, ID at 0159, good lvl (Bill Whitacre, Mich) / Sellers, Canada)  
DOMINICAN REP 3600 (TENT) Though unlisted, noted with ID as "R. Reloj", 3/26, musical  
 prgm at 1005. There is a MW Radio Reloj located in the Dominican Rep. (Marlin Field)  
 ... 5030 LV Papagayo heard S/off 0400 after R. Continente left the air. (Marlin Field)  
 ... R. Cristal has moved to 5070, noted 0400 checks, SS. (John Tuchscherer, Wisc.)...  
 5070 R. Cristal heard 3/28, first time new fgy, 0400-0500 past, FB sigs (Marlin Field)

EGYPT(UAR) 9475 R. Cairo good in NA Svc 0235 with pops, press review. (Glenn Hauser,  
 Tex.)... R. Cairo, 9475, excellent in EE at 0200 to NA. (Ed Insinger, N. J.)

ETHIOPIA R. Ethiopia, 6185, observed S/on 0330 w/ flute IS, ID by M in language, into  
 chanting, talks, and strange folk music till DW S/on at 0357. (Chris Lobdell)

FINLAND 9550 w/ IS 0555 Fin0558, QRMd by other Nordic stn, Norway (Dr. R.E. Wood, La.)  
GAMBIA (FLASH) Form letter QSL, all data except time, finally arrived airmail from  
 Information Officer for 4820 report after 3 $\frac{1}{2}$  months. (Al Sizer, Mass.)... 4820 Bathurst  
 finally logged, 4/17; IS 0628, S/on by YL in EE, then Arab chants. (Glenn Hauser)

GERMANY(W) As of 5/2, DW will use the following to WCNA; 6145, 11785, from 0435-0555  
 in EE. Fqys for ECNA Svc will remain unchanged. (John Leger, Ky.)

GUATEMALA Per listening here sked of TGNA/TGNB appears to be (EE): 0045-0404 S/off,  
 Sun nights only; 0258-0404 S/off Mon-Sat nights. Requesting reports. (Larry Magne)...  
 3360 TGVN, La Voz de Nahualla, 0400, 4/11, ID and ranchera music. (Glenn Hauser)

HAITI 4VWI, 15280A, in EE at 0130 but QRM de KGEH. (Ed Insinger)

INDIA AIR GOS, logged in EE at 2100, 9912, with music, news, listeners' letters (Ed  
IRELAND (FLASH-FLASH) The Post Minister is looking into the problem of / Insinger)  
 providing a SW station (SwcDXers) (Its been many moons since Ireland had a SW station, Ed-  
LESOTHO (FLASH-FLASH) This quite likely was the African I heard several / itor)  
 times in February on 4800 after R. Lara S/off at 0400A. Could hear the station come on  
 the air with African music, western pops, news in African language. (TENT) (Bill Sparks,  
LIBERIA ELBC, Monrovia, with music and religious prgms from 2345-0045 S/off, / Calif.)  
 but QRM. I like this one! (Bill Whitacre) (3255)

MALAYSIA BCBFES, Tebrau, 15310 (best) with EE news 0900//11955; also at 1600 on new  
 11955 with BBC News//11750, 9740, 9580, 7120. This on 4/13. (August Balbi)

MALAWI Blantyre 4/10, 0402, with news in EE at tune in, great signal. (Del Hirst)

MEXICO 3200 R. Alma Musical has not been heard since medio March. Report sent to them  
 as XERCP was returned as unknown. However, this is not conclusive evidence as to the ID  
 or Non-ID of the station. Must await more Mexican station data arrival. (Glenn Hauser)

NEW CALEDONIA Numea, 11710, noted at 0600 S/on with bird call IS, ID by M in FF, fair  
 signals. (Chris Lobdell)... Numea, 11710 S/on at 0600 with native bird IS, paralleling  
 9510, 7170, strong lvl at 1030, 3/20. (August Balbi)

NIGERIA NBC outlet at Calabar, 6145, drifting to 6144 and hetting DW 0430-0550, then  
 in the clear. Mostly EE. (Dr. R.E. Wood)

PAKISTAN(W) R. Pakistan, Karachi, 11885, 0210 in H.S. news EE, ID 0220. (Chris Lobdell)...11670(announced) R. Pakistan with EE news in GOS from 2030-2048, at dictation speed, good level. (Ed Insinger)... Karachi, 11885, EE news 0215. (August Balbi)

PAPUA/NG VL8EM, Port Moresby, noted with no strain sigs 0500 in slow EE, followed by music till 0530 S/off, 11880. Fgy is usually covered. (Rich Heggs, Canada)

PHILIPPINES 9580 Voice of the Philippines ID at 0900, EE news, fair lvl(August Balbi)

RHODESIA 3395 Noted at 0447 with EE lang cms and old pops;at 0614 vy hard copy.(Del

SWEDEN Effective 5/2, Radio Sweden will bcast to ECNA, 1400 on 15315;both / Hirst,Tex) prgms at 0030,0200 will be on 11825;to WCNA, 11705, at 0330. (John Leger)

TAHITI (FLASHES) R. Tahiti now using new 15170, 0300 S/on in Tahitian with drums and banjo IS. Vy strong, probably a power hike. Parallel to 11825. (Jerry Berg)... Radio Tahiti observed on 15170, into FF at 0505, and subsequently faded. Fair to good lvl. (Mark Duba, Vt.)...15170 New fgy for Papeete; 4/20, 0501 going from Tahitian to FF. 55544. (Glenn Hauser)... R. Tahiti S/on 4/13, new 15170 with excellent 20 db over sigs. Usual format island music. (Rich Heggs)...R. Tahiti, 15170, noted S/on at 0300 with IS, US pops, ad for Coke. It is super strong lvl. (Chris Lobdell)...Beautiful new fgy in use, 15170, Tahiti, semi-local signals throughout 0300-0800 sked. (Dr. R.E. Wood)... 15169V Heard right now, 0605, ID for R. Tahiti, TCs, pops, SINPO 35424, the best ever heard here. (Larry Magne)

SAHARA(SP) (FLASH-FLASH) R. Sahara heard here 4/13, 4/14, from 0751A, IS of harp(?) 0757, brief music 0800, some Arabic like music, finally lost 0828. This new one, a most delightful surprise, though tentative. (Gerry Dexter, Wisc.)(7230)...John Tuchscherer reports via the BBC Radio Club that R. Sahara, EAJ203, logged on 7230, @800 in SS-AA...Don Jensen, Wisc, reports tentative R. Sahara, 7230, heard five morning checks till 0818A. Some QRM de AROs, quietest time seems to be Mondays AM, ham-wise. (Vy probably, and a welcome new country, Editor)

SEYCHELLES FEBA, 15185, S/on in EE at 0300 with full details, fair lvl(August Balbi)

SOLOMON IS SIBS, 7235, fair to good 0845 with C&W music, later cms. (Jerry Berg)... 7235, SIBS,1000, Island music, anncts in EE, Pidgin-EE, 4/14. (Chris Lobdell)

SO AFRICA 4945 All night svc of Radio South Africa with pops, ads 2204.(Mike Watman)

USA WWV, 15000, is running at :03 past the hour an annct about barium rocket experiment. Looks like we may have a full sked of such PSAs come fiscal '72.(Glenn Hauser)... Radio station WWV is currently airing the following annct between the 3rd and 4th minute: "In cooperation with the Moon Watch Division of the Smithsonian Astrophysical Observatory, radio station WWV will alert observers by announcing the launching date of a Barrium-Ion vehicle from Wallops Island, Va. This test is scheduled between April 19th and 28th. The decision to launch will be made at 2000 hours GMT on the selected date with lift-off scheduled for 0000 GMT. The Barrium cloud will be released at about 0330 GMT. Confirmation of the launch will be announced from WWV commencing at 2103 GMT of the launch date, and will be repeated between the 3rd and 4th minute for the following nine hours until the time of the Barrium release". (M.R. Leonhardt, Ind.)

USSR(ASIATIC) Logged RTA, Novossibirsk, 14996, with good time signals each second from 1105-1110. (Al Sizer)

TURKEY 15195 A new fgy, EE 2200-2230 S/off with ID, strong QRM de NHK. (August Balbi)

VATICAN Per my suggestion testing 15290 to NA, EE 0050, excellent signals(Dr.R.E.Wood)

VIENTNAM(NO) Hanoi in EE regularly 1000, 1530 on 12025//10042. (August Balbi)

CLANDESTINE What seems a Greek clandestine noted in April, 7335, nightly with good sigs , 0430 opening with flute music, into maybe news, a gong in between items.(Jerry Berg)

MARCH 1971: SUNSPOT COUNT AS FURNISHED BY THE ZURICH OBSERVATORY, 4-5-71. 1-76, 2-90, 3-82, 4-70, 5-53, 6-47, 7-47, 8-46, 9-35, 10-34, 11-43, 12-63, 13-76, 14065, 15-68, 16-76, 17-76, 18-79, 19-63, 20-50, 21-51, 22-55, 23-55, 24-51, 25-48, 26-49, 27-55, 28-49, 29-44, 30-56, 31-52  
MEAN--58.2

PREDICTED: APR-72 MAY-69 JUN-67 JUL-64 AUG-61 SEP-59. GOING DOWN!!(Grady Ferguson,N.C.)

ACKNOWLEDGEMENT: Thanks to the excellent turn out of 23 reporters, count 'em! Without your rousing support this column would not exist. The quality of the items reported was also par-excellent.

Last minute items may be phoned to 882-3976 after 2200 GMT. Inquires concerning receivers, accessories, so on, may be addressed to this department. Please inclose a SASE. See you all next month, please keep the reports coming. 73 for now,