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NORTH AMERICAN SHORTWAVE ASSOCIATION



JANUARY 1969

VOL. 8 NO. 1

NASWA HEADQUARTERS

POST OFFICE BOX 989

ALTOONA, PA. 16603

HAPPY 1969!!

And so we enter another year. Too bad many of us will forget the benefits of the one now past and look to the new ahead.

We say we seek to improve and to progress; Yet, in ways, these be only excuses self-centered, especially when they be of mere head, exclusive of good for/from heart.

The world today is one of uneasiness, uncertainty, Even the clubs/hobby with which we are here concerned are engulfed. If only the majority of us were to stop and think, we would be awakened to the fact that in the realm of the many clubs related to the hobby we engage in, there is also a world...a cross-section of men from many lands. And were more of us willing to work together, give to better understanding of one the other, not only would our own little world attain more pleasure and happiness, but too, the all of the world around us. If we in a common hobby cannot live together; If we continually permit frictions and petty differences prevail, be instilled, we can but reach an end ungood. It will take a bit of heart from each the all of us to reach an end rewarding. We must cast out the better than thou attitudes, give respect to one another and effort together as a team, strive to let the cup of our own little world overflow into that of this we now enter another year.

To those of you which have been with the NASWA through the past year or years, you have seen us grow. You are well aware that we have not done so without the support you have given, the faith you have shown and the heart you have offered. We have gone through times of strife and overcome problems met only because of members/friends sincere. And so, were you one of these, it is hoped you can look back with fond memory, look ahead with happy heart.

In days to come there will be changes...there always are. New members will enter in, old ones will depart. No doubt there will occasion to be replacements on the bulletin or Hdqs staff. Problems will again occur and there may other times of strife. In these respects then, the year entering will bring nothing new; Nothing that is except opportunity for our continuing as best we can to serve one another through blessings entwined in our motto of "Unity and Friendship".

And so we enter a new year; Let all of us resolve to make it a worthy one for everyone, and let us hope that the world outside will follow/heed the NASWA motto to result in peace and brotherhood to mankind.

A Happy New Year to all!!!

Bill Eddings

HELP NASWA CLIMB IN '69!

REPORT AND GIVE SUPPORT!

Frendx is the official publication of the North American SW Assn. and is for the SWL or IXer expressly interested in International Shortwave broadcasts. There are no subscriptions/ Only active and in good standing members are entitled to receive copies other than samples/exchanges. Membership in NASWA is \$5.00 per year with 12 editions sent via 3rd class (surface/sea mail abroad) or \$7.00 for 12 editions sent 1st class to NA. Air-mail rates are available on request.

This and all editions are made possible through the combined efforts and interests of the bulletin staff, club officers and supporting members.

Executive Editor/Hdqs, William Eddings
Shortwave Center Editor, Richard Wood
Log Report Editor, Dan Ferguson
QSL Report Editor, Gregg Calkin
NewsRoom Editor, Dan Henderson

FlashSheet Editor, Al Niblack
ANARC Reporter, Douglas Benson
Awards Chairman, Warren Nordgren
Contest Chairman, George Schnabel

Special contributors, this month; Edward Pyatt, Richard Jenneman, Don Jensen, Alvin Sizer, William Matthews, Bob Hagerman, Ron Szymczak, Rod Williams, Cesar Objio.

LATE NEWS/NOTES

Merger between/of IRCA and NRC has fallen through; Doubtful if ever will come about... "How to Listen to the World" has been sold to new publisher. The 1969 edition will now sell for \$3.95 per copy instead of previous price of \$3.50. Due change of publishers, current edition will be late. Was sked for January, now will be February or March..... The NASWA Country List has been revised and will be available shortly. Rather than a copy being mailed to all members, only those writing/requesting it will receive. This because of fact not all members have use/interest....A reminder that report forms in Spanish, French and Portuguse are available via our QSL Editor, Gregg Calkin. Members desiring copies should send 10¢ (coin only) each direct to him. Be sure to specify which form(s) you desire....There has been delay in delivery of new supply of club stamps. We ask members who have recently ordered to be patient....Members who are displeased with contents of certain section(s) of Frendx are requested to send criticisms to both the editor involved and to Hdqs. In this way proper actions can be taken.....

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MEMBERSHIP FEES MAKE POSSIBLE
THE PUBLICATION OF OUR BULLETINS.

MEMBERSHIP REPORTS MAKE POSSIBLE
THE CONTENTS OF OUR BULLETINS.

RENEWALS

Second year: Jan Tuner, C.M. Stanbury II, Grady Ferguson, George Schnabel, Robert Kirkpatrick, Tom Daly, Ron Cole, James Mappin, John Treat III, Rudy Menna, Steve Wood, John Soneff Jr., C.J. Schillmiller, Art Stollmaier. Third year: Roger Legge, Ernest Blair, Les Nichols. Fourth year: Rene Chicoine, Bob Citronberg.

BILL GRAHAM MEMORIAL FUND

It is quite likely that by the next issue of Frendx will be done on our new mimeo. Most recent contributors helping make this possible are Ron Honig, Les Nichols, Ed Shaw, Glenn Hauser, Kanji Haitani, John Zaharek. Our thanks go to these and all others who were kind enough to donate.

1969 WRTH

According to recent info received, price of the current World Radio TV Handbook is \$5.95. Clubs are given a discount provided more than 20 copies are ordered at one time and are shipped to one address. NASWA could supply copies to members who are interested, for \$4.50 including the postage and handling fee.

If one of our reliable members residing in New York or New Jersey would volunteer to take on the task of mailing out orders, we will consider. Keep in mind it would necessitate this person need send copies to individual members ordering, and it would involve time and effort on his part. We would run an order blank in upcoming Frendx, set a deadline; It would be a one shot deal, no orders would be accepted after the deadline. Members would save \$1.45 off list price. Interested?

A MUSINGS SECTION?

Numerous members have expressed a desire for Frendx to contain a musings section. It is being seriously considered. What we would remind you of is that we operate on a budget, cannot possibly have bulletins excessively paged. There is only one sensible solution...either raise membership fee, or have a certain present section give portion devoted to musings. Some of our members already think we give space to unuseful/uninteresting subjects, yet some consider these same as needful and worthy. Point is, we cant please everyone. No club can. Still and all, we are considering a musings section, if that is what majority wants.

"OPEN MIKE"...cont'd....

It would be too, too much to ask that each QSL state exact location of transmitter. But, as far as countries goes, I maintain that I am ethically entitled to mention I have heard and verified certain stations even though these stations do not send an ideal QSL. What does it matter that a QSL received does not have ideal wording on it? If you really know and heard a certain station, you also know whether or not the QSL is of value. If you are not sure of a station heard, but have enough program detail to report, then I believe any QSL received should be counted, however sparse it may be. But (and now to deflate some balloons) A report should always carry the request to be checked against the log and that a QSL be issued only if deemed correct. If one can honestly tell himself he has abided by this, then I believe all QSLs are good as gold. It's all self-satisfaction!
Edward Shaw, Calif.

COMPETITION DATA

Winners of our winter contest will be announced in next bulletin. George Schnabel, NASWA Contest Mgr. advises that another competition will be upcoming soon. He also tells us that although there were more entries received than before, late arrival of bulletin to some areas gave reason for additional entries not being sent. There to our next contest will be announced well in advance of starting date.

REGARDING FLASH SHEET

Members reporting to Al Niblack are asked to submit only last minute data, and not duplicate info that is sent for Log Report section, edited by Dan Ferguson. Of late there has been a number of same stations listed in both sections. We remind you that it be impossible for Al and/or Dan to know what has been sent to the other, therefore they effort to contain all the worthy. Flash Sheet is for last minute reports too late for regular loggings section, but while such might be last minute to one reporter, it may be stale to another. Both editors try to make their sections as useful as possible, dont put burden/blame on them that is unjust.

THANKS!

To those members who have written Hdqs of late with kind words and understanding, ole Bill extends appreciation and sincere gratitude.

THE LOUDENBOOMER REPORT

(...applause...) Thank you ladies and gentlemen! I'm Charlie Loudenboomer back once again with the second annual International Worldwide Continental DX Association Golden Knob Awards. Yes, it is again time to give special honor to those DXers who have had the foresight and fortitude to lead the way, DX-wise, during the past year.

Our first presentation this evening is the IWVCDXA Golden Knob Award for cardswaps and I am pleased to announce that this year's recipient is Harvey I. Exchangem of Dubuque, Iowa. This year Harvey marked what must be a milestone unique in the world of radio. A few days ago he received listener card number 2,199,131. I know that Harvey's over two million friends will be disappointed that he can't be with us this evening. Unfortunately he was unable to find the door and couldn't get out of his house. In fact, no one has seen him in quite some time!

Another well-known DXer receives a special IWVCDXA Golden Knob Award this year. He is Irving R. Fingercramp of Rutland, Vermont. Irving is a popular author of articles on DX and SWling and I'm sure you've all read his writings in the popular newstand magazines. Such memorable works as "DXing the 18th Parallel", "The Fascinating World of 2.183mc", and "The Strange Case of Novaya Zemlya Radio" are particular standouts. Well, Irv has recently written his 500th article and it will soon be on local newstands. Be sure to look for it. It's entitled "Convert your Tropo 2 SWL Special into a Hummerland 190XY and DX the South Pole".

They say persistence pays off and our next Golden Knob winner has been proving that for quite sometime now. He is so close to his goal, we thought we'd give him the award this year because he's trying so hard. I'm talking about Rodney L. Powwacket III of Long Island, N.Y., who many years ago decided he would verify all of the more than 100 cities in the USSR operating on shortwave. Since that time, through judicious use of his many logs, careful listening and more reports than I can count, he has come to within one of reaching his long dreamed of goal. Bombarding R. Moscow with reports, working with I. Petroveright up through Mrs. Stepanover, sending reports, tapes, stamps and trinkets. Pleading, begging, threatening and demanding, Rodney finally has cards indicating reception of every city but one. Sad to say, Mrs. Stepanover still flatly refuses to admit that Moscow itself has any SW transmitters.

A special salute, and an IWVCDXA Golden Knob Award goes this year to the officers and BOD's of two of this country's leading DX clubs for their intelligent decision, their foresight and their ability to put hobby before club. We are talking about the North Dakota DX Alliance and the South Dakota Listener's League. A few months ago, the leaders of these two clubs met in strictest secrecy and agreed to merge into one. I am happy to announce that the Dakota DX Club arrives on the scene next month. By pooling their efforts in this way, the new club can much better serve its twentyone members. Our hats are off in admiration!

So, my dear friends, we conclude the Second Annual IWVCDXA Golden Knob Awards. A "well done" and warm handshake to the winners. Perhaps when next year's awards ceremony time rolls around, you will be on the receiving end. It's a question of diligent, hard work and of making a significant contribution to this wonderful hobby. But whether you are up here on the stage as a winner, or just an average Joe DXer out there in the audience, I hope we'll see you next year at the third annual IWVCDXA Golden Knob Awards banquet. Until then, I bid you luck. So long and thank you!

BE: For those of you that could not make it to any of the conventions or banquets I have attended this year, and in response to the many hundreds of requests I have received, I here release/present copy of my latest photograph. Should you wish a frame for it, so that you might hang it with all rare QSLs, award certificates, etc., send me \$3.99 and I will ship you a very deluxe, suitable frame.



NEW

MEMBERS

WELCOME!!

NEW

MEMBERS

(Applications received after 20th of month will be listed next month.)

Don C. Brown, 1477 Mildmay Court, Clarkson, Ont., Canada. Age 43, married, Radiologist. Heathkit GR-54. 75' longwire. Hrd of NASWA de friend/member Tom Williamson.

Lud Elliman, Box 277, Damariscotta, Maine 04543. Age 59, married, retired Lt. Comm. USN. Drake SW4A. Mosley SWL7. Read of NASWA in RTVE magazine.

John Schlitt, 70 Iroquoise Avenue, Lake Hiawatha, New Jersey 07034. Age 67, married, retired electrician. Heathkit GR-64. Mosley SWL7. Read of NASWA in RTVE magazine.

Kris Lemna, 2005 Concord Road, Muncie, Indiana 47304. Age 15, high school student. Heathkit SB-310 and GR-64. 50' inverted L. Read of NASWA in PE Comm. Handbook.

W. H. White, 761 Cathcart Blvd., Sarnia, Ont., Canada. Age 53, married, Research Administrator. Heathkit SB-310 and Hallicrafters SX-24. Heard of NASWA via ASWLC.

George Davenel Jr., 45-14 156th St., Flushing, New York 11355. Age 17, high school student. Lafayette HA-230. Mosley SWL7. Read of NASWA in WRTH.

David Potter, 1307 Reynolds Street, Key West, Florida 33040. Age 15, high school student. Hallicrafters S-40-B. 40' longwire. Learned of NASWA via PE magazine.

David Bendersky, 5600 West 98 Terrace, Overland Park, Kansas 66207. Age 49, married, Research Engineer. Drake SW4A. Mosley SWL7. Read of NASWA in RTVE magazine.

Jerry Heien, 1400 Batsan Drive, Apt. 21, Broadview, Illinois 60153. Age 23, married, electronics technician. Hammarlund HQ-145AC. 25' longwire. Hrd of NASWA de Dick Pistek.

Den Schreckengost, 166 Johnson Street, Corry, Penna. 16407. Age 17, high school student. Electro "902". 50' and 100' longwires. Erd of NASWA via Battersville SW Assn.

John J. Hunter, 1088 Batavia Avenue, Livermore, Calif. 94550. Age 60, married, retired trainmaster. Hammarlund HQ-180A. Mosley SWL7. Read of NASWA in RTVE magazine.

Mildred E. Marshall, Box 291, Devils Lake, North Dakota 58301. Married, housewife.

Hallicrafters SX-122. Mosley SWL7. Learned of NASWA via son/member Larry Marshall USN. S. M. Padsha, 507 Kennedy Towers, 10101 Sask. Drive, Edmonton, Alberta, Canada. Age 47, married, Prof. of Physiology. DX-150. 125' longwire. Read of NASWA in PE Comm. Hndbk.

Edward Insinger, 24 Madison Avenue, Summit, New Jersey 07901. Age 20, single, Industrial Arts teacher. Hallicrafters S240. Inverted L. Read of NASWA in RTVE Magazine.

Richard D. White, P.O. Box 98, Ringgold, Louisiana 71068. Age 25, married, Pharmacist. SounDesign "12". Built-in. Learned of NASWA via B.S.A. Radiogram.

Miss Kristin Torrey, P.O. Box 47, Les Plaines, Illinois 60017. Unmarried, Nurse/O.R. technician. Hammarlund HQ-180AC. Trik-stik and longwire. Read of NASWA in PE Comm. Fbk.

Randy Grabowski, 1303 South 12th St., Sheboygan, Wisc. 53081. Age 23, single, photo lab technician. Zenith TransOceanic. Inverted L. Heard of NASWA via Radio Nederland.

Father John Pejza, 12096 Ventura Ave., Ojai, Calif. 93203. Age 34, single, Priest. Hammarlund HQ-100A. 70' longwire. Learned of NASWA de Richard Wood and John Arthur.

Robert Cafaggi, 107 W. Lancaster Ave., Shillington, Penna. 19607. Age 23, single. Hallicrafters S-120. Longwire. Learned of NASWA from friends and via PE magazine.

Chris Tomaszcki, 3400 Theodore, Detroit, Michigan 48211. Age 16, high school student. Hallicrafters SX-100. Mosley SWL7. Read of NASWA in WRTH.

NOTE: Will the following, who have submitted payment, but no application, please do so as soon as possible. We do not accept subscriptions to Frendx. Only those submitting application form with payment are listed, granted membership in NASWA.... Leonard J. McQueed, Larry Rands, Norman Conklin, Kenneth Cummings, Edw. McIntyre, John Gries and Ray Barrett. (If already mailed, pse disregard.)

HAPP NEW YEAR!!!

HAPPY NEW YEAR!!!

The ANARC Report, 1969

As we commence the new year, may we wish upon the Association of North American Radio Clubs a bit of Godspeed, along with the hopes of all for continued expansion and sphere of influence. The Association, ever alert to your wishes, is personified for NASWA by representatives Doug Benson (report editor), Bruno Colapietro and Gerry Dexter.....

Major interest items this month include suggestions for addendas to the Study Committee report mentioned here last month, as reported by Executive Secretary Scrimgeour, including one that specialized clubs (Utility, FM, TV clubs) be admitted to fullscale membership, regardless of numbers of members. (A club, under the proposed changes, needs 50.) That committee chairmen be allowed a special vote in all, or some, matters (many chairmen in the past have not been representatives of the Association). And a suggestion for proviso for reimbursement of dues by defunct clubs. ES Scrimgeour promises that the entire ball of wax regarding changes will be presented for formal vote in February. Should be doggone interesting. Watch this column, of course, for pertinent details.

Rudy Menna, Philly, NASWAer, sent a note here few weeks back, urging a largescale ANARC DX Contest, just as Scrimgeour announced liason w/ European DX Council for our participation in such a contest. Details on this if/when worked out, all..

ANARC is now seeking nominations for the 1969 Man Of The Year. R. Irace, chairman, notes that "Committeemen make the final selection on each individual's merits and DXing activities, but do need nominations."

Serge Neumann, serving with AFRTS in Choimany, reports being snowed under with workload, hence his resignation as official liason man between ANARC and the EDXC, our counterpart in Europe. Serge made solid inroads in a short period of time, and Scrimgeour reports established relations between ANARC and ELXC due Serge's efforts.

Noted Ed Shaw's interesting questionnaire mailed to selected recipients, followed by a mimeoed reply to those who answered it. Ed is gung ho NASWA, alright. We need more like him.

Again, our reminder that the association is looking for a host/host city for the 69 Convention. Contact Bruce Reynolds, Rt 2, Warrensburg Mo 64093.

Find myself with a bit of space here, so let me briefly review again the procedures involved in your initiation of ideas for ANARC: If you'll submit your ideas (as did Rudy above) to any of your reps, in simple readable style, together with all pertinent convincers you might wish to add, the rep who receives it will, excersizing the judgement his years in the hobby have fostered, do one of three things; 1. Get a letter back to you outlining why the proposal would not be of interest to ANARC 2. Submit the proposal, if deemed worthy, to the association for inclusion in the newsletter and vote by the representatives, hence action on it 3. Get a note to you telling you that the proposal, albeit workable, is ill-timed for presentation and will be submitted to the association with that notation attached to it. In the main, these three catagories cover our usual procedures and nearly everything can and is delegated into one of the three. It has been of tremendous comfort, though, to note that our members' "success rate" (if one may use that term) has been outstanding. All but one of the current existing committees have sprung from NASWA-members' proposals or seconds of proposals. Only four times in the past four years has this writer had to, regrettably, give a member a "thumbs down". 73s from Bruno, Gerry and Doug.



SHORTWAVE BROADCAST CENTER

RICHARD E. WOOD, EDITOR, 1630 Ruth Place, Honolulu, Hawaii 96816. Deadline 10th.

HOW TO HEAR HARMONICS

by Glenn Hauser

You have probably noticed reports of harmonic DX from time to time in the pages of FRENDX and elsewhere. You may have dismissed them as inconsequential, alien to SWBC DX interests, the product of receiver misalignment, or even fabrication by the reporter!

The fact is, harmonics are a little-known and fascinating DX specialty, well worth the trouble to understand and the time and effort to monitor. In this article I'll try to answer the most frequently asked questions about harmonics, explain how they arise, how and why to go about DX-ing them, and provide some examples and useful tables.

Q. Just what are harmonics?

A. For our purposes, we define a harmonic as "the appearance of a transmitter on an integral multiple of its fundamental frequency." "Integral" means multiplied by any whole number, such as 2, 3, 4, rather than numbers involving fractions. "Fundamental" simply means the frequency where the station normally transmits. Harmonics in radio are similar to musical overtones or the vibration of a string in more than one section.

Q. What causes harmonics?

A. Every transmitter produces harmonics - it is inherent in the electronic scheme of things. Modern, well-adjusted transmitters are capable of suppressing harmonics to a great degree, so that you can only hear them in the immediate vicinity of the transmitter/antenna system. Other transmitters, of antiquated design, or operating in countries with lenient technical standards, let more of a signal out on harmonics - perhaps a few watts, or in extreme cases a few dozen watts. The mere fact that a station is radiating a few watts on harmonics is not enough, however.

Q. Under what conditions can I DX harmonics?

A. Propagation conditions and sunspot count are extremely important in harmonic DX-ing, much more so than in ordinary DX-ing. Since all harmonics show up on at least twice the fundamental frequency, the higher the MUF (maximum usable frequency), the better the possibilities for harmonic DX. They are especially plentiful in the 23-31 MHz. range, since small powers can propagate a signal readily at great distances, when conditions are good (as any 10-meter ham can tell you); and since there is less interference from the smaller number of stations assigned to these harmonic bands. Indeed, on the 30 MHz second harmonic of the 19m band, harmonic DX is often interference-free.

How to hear Harmonics(Continued)

Q. When are the best times and seasons for harmonic DX-ing?

A. Harmonics are subject to the same variables as a fundamental on the same frequency would be. The high end of the HF spectrum, which I've been discussing, is best in the daytime: the higher the frequency, the more vital is daylight. F2-layer ionization reaches its peak shortly after midday at the midpoint of the path. For example, Europe comes in about 9 a.m. local time, and the Far East around 3 p.m. Harmonic DX-ing also peaks when the sunspot count peaks - and that means round about now. At lowpoints of the cycle, any DX at all, let alone harmonics, may be rarity above 23 MHz. So now is the ideal time to get started on HF harmonic DX-ing! And as a general rule, upper-end conditions are better in winter than in summer.

Q. How "high" can harmonics go?

A. There's no theoretical limit, but they're pretty rare anywhere above the 4th multiple. I've heard only three 5th. harmonics, one 6th. and one 7th. If you mean how high in frequency, this is just a question of propagation conditions and receiver sensitivity. Eleven-meter band stations might be heard on 51 MHz 2nd. harmonics when F2 ionization is really dense; or during a sporadic E opening, it's conceivable that you might hear some up to 100 MHz. But that's getting into the VHF range.

Q. What about harmonic DX-ing below 23 MHz?

A. There's plenty of excitement here too, and less dependence on ideal conditions. It's possible that SWBC harmonics can be heard as low as 6.4 MHz., i.e. twice the lower frequency edge of the 90m band - and the tropical 120m band would appear anywhere as low as 4.6 MHz. (This has occurred in practice: R.S.Carlos, Brazil, 2420 kHz., was reported on 4340 kHz., in Europe, some years ago). (Ed.) So broad-cast -type harmonics can appear anywhere above 4.6 MHz., except for a few ranges which happen not to contain harmonics of any of the lower bands. And even these are subject to the harmonicizing of out-of-band transmitters. Then there are harmonics of MWBC stations, which can appear anywhere above 1058 kHz., and have been observed as high as 11 MHz.

Q. Should these MW harmonics be counted as S WBC stations?

A. In my opinion, yes; but there is some controversy on this point. It boils down to whether you subscribe to the original-programming-intent theory or the actual-fact-of-transmission theory. I feel that any non-utility station transmitting programs in amplitude modulation between 3 and 30 MHz., whether intentionally or not, qualifies as a "shortwave broadcast station." Others, including the SW Center editor, feel this is too liberal an interpretation. Whatever your opinion on this, the fact remains that MW DX stations can be heard on their harmonics! And it's fascinating to hear a "graveyarder" on one of the six "local" channels where hundreds of low-power stations operate simultaneously - completely in the clear on a harmonic! You might not have a chance in the world of ever hearing the station on its fundamental. Of course, only mediumwave harmonics heard beyond the local area (i.e. propagated by skywave) are of any interest.

Q. What kind of receiver should I have for harmonic DX-ing?

A. You'll need one of the better ones! It must be general coverage for obvious reasons, unless you only want to try for the occasional harmonic that happens to fall in another SWBC band. It must be very sensitive, since many harmonics are just barely audible above the background noise level. And its calibration must be quite accurate, unless you have separate frequency-measuring capability. Sensitivity is more important than selectivity, but the more you have of both, the better.

CONTRIBUTE MONTHLY TO EVERY SECTION OF YOUR BULLETIN:

LOG NEWSROOM PUNCH SHEET SWBC CENTER OCT 1968

How to hear Harmonics (Continued)

Q. How can I be certain it's not my receiver producing the harmonics?

A. The supreme test is to determine the fundamental related to the harmonic you're monitoring, and then check the fundamental. If you can't hear the station there, but can on the harmonic, it's proof that the signal was propagated on the higher frequency, just where you hear it, and nowhere else. Don't assume it's not an authentic harmonic, however, if it's audible on the fundamental too. In many cases both frequencies may be suitable for propagation between the points concerned. With "higher" harmonics (i.e. greater multiples), you'll find the fundamental is often below the LUF (lowest usable high frequency), and inaudible. For instance, in the daytime, the 49m band is hardly ideal for DX, but on 24 or 30 MHz., conditions may be optimum for propagation over the same path. Another guarantee is, once you have a high-quality communications receiver, to make certain it's aligned for its very best performance. Only cheap or misaligned receivers are likely to produce their own harmonics. IF images (usually displaced at twice the IF from the fundamental, often 910 kHz) are another problem. Even if you can't get rid of them, they should be easy to distinguish from harmonics because of the different frequency relations. Other ways to authenticate harmonic catches are by comparing interference and fading characteristics. Chances are there will be some interference on the fundamental, and none on the harmonic. If not, they're from different sources. As for fading, especially on the high end of the HF range, harmonics fade in and out quite a lot, since ionization at such frequencies is less stable, and areas of the world "open" are more restricted and shift more rapidly. If you could compare the variations in signal strength (fading) between harmonics and fundamental on a paper recorder (like a seismograph) you'd doubtless see that they are entirely different. If they should be identical, it's time to repair the receiver or throw it out for a better one!

Q. Can I then be sure that any program material I hear outside the SWBC bands is a harmonic?

A. Not at all. There are still a good number of "outlaws" who operate as SWBC stations outside the prescribed band limits. In addition, fixed (point-to-point) stations sometimes carry program material on AM for relay at a distant point. An example of this is Press Wireless, San Francisco, which feeds major sporting events to Hawaii and Latin America. Also, there are studio-transmitter links of broadcast stations, which might first be taken for harmonics. Such a station is R. Alajuela, TIJH, Costa Rica, heard around 27545 kHz. (10 watts: well heard in Australia, Hawaii, and throughout the U.S. Ed.)

Q. What is the difference between harmonics and spurious emissions?

A. Harmonics are a special type of spurious emission: those which are integral multiples of the fundamental. Occasionally, arcing at the antenna or other problems lead to radiation on non-harmonic spurs. These are just as fascinating to DX, but are called spurs rather than harmonics. At times so much power goes out on the spur and so little on the fundamental, that the station is said to have "jumped frequency". Such a case was La Voz de Veracruz, XEFT, heard with a strong, distorted signal on 8875 kHz but with nothing audible on its nominal 9545 kHz; this occurred for a few days in October 1967. Also that month, R. RSA was heard on 15643 kHz., spur probably from 15220. They blamed the problem on a faulty synthesizer, and estimated that power in the spur may have been as great as on the fundamental. Other spurious emissions arise from the interaction of two adjacent transmitters; unfortunately, it's hard to prove whether these occur in the receiver or transmitter. An example of this is XEHH-11830 and XEFP-11740 appearing mixed on 11600; both stations are commonly owned and likely transmit from the same site. These are so-called "mirror" frequencies: 11600 and 11830 are both 140 kHz from 11740. Another case is WNYW, whose 17730 and 17840 outlets have been heard on 17950 kHz. (Worst "frequency jumpers" observed here are R. RSA and R. Havana. Ed.)

Q. What about the bandwidth of harmonics?

A. At first glance you might think that if you multiply a frequency by four, the signal will be four times as wide. This can happen but seldom does, since most harmonics arise in a stage of the transmitter not involving the bandwidth. When the bandwidth is multiplied along with the carrier frequency, you'll find distorted audio and a very "wide" signal on the harmonic, rather like FM heard on an AM detector. Such a case was XEDM-1580, which covered nearly 100 kHz when heard on its 7th harmonic, 11060 kHz.

Q. Is there any formula for figuring how much power there is on a given harmonic, compared to the fundamental?

A. According to Gordon P. Nelson of the NRC, in the worst possible case (a "sawtooth" waveform) the power goes as $(1/n^2)$ where n is the harmonic number. This means that the 5th harmonic of a 50-kW station could radiate as much as 2 kW ($1/25 \times 50$). But in virtually all cases it would be much less. The BDC says, flatly, "It is not practicable to give a meaningful figure for the power actual (sic) radiated in the harmonics."

NEXT MONTH: VERIFYING HARMONICS; THE REASONS FOR HARMONIC DX-ING; LOG OF HARMONICS HEARD BY THE AUTHOR; TABLE OF FREQUENCY BANDS IN WHICH HARMONICS FALL

ARGENTINA VOIDS 21 RADIO LICENSES

Argentina's military government has terminated the franchises of 21 privately owned radio stations in a move described by one critic as "the death of free broadcasting in Argentina." The government has awarded the franchises to other private groups, consisting largely of retired military officers and others friendly to the presidency of Gen. Juan Carlos Onganía.

Of 91 radio stations in Argentina, 30 are privately owned, 44 are owned by the Government and the rest are owned by universities and other groups. The government has decided to turn over 10 of its stations to private organizations, but these are expected to be organizations friendly to the Government.

The private broadcasters losing their licenses intend to fight in the courts, but their chances are regarded as poor. "This is a disaster for hundreds of hard-working and dedicated news staffs", a reporter for one station said. "We have built up a news staff, but a new organization will have to start from scratch."

The awarding of franchises for radio stations in Argentina is traditionally political. Under former dictator Juan D. Perón, all broadcasting was either owned or controlled by the Government. Since his regime, parties in power normally have assigned franchises to their friends, and regular turn-over of ownership has become normal.

With few exceptions, broadcasting stations have long been non-political in editorial content. The new franchises being assigned by the Government are for 15 years, much longer than was issued by past administrations.

...N.Y. Times, via Don Jensen

Conover in Kazakhstan. Some of the younger residents of Alma-Ata, the remote Central Asian city in the U.S.S.R., are fed up with the cultural barrenness of their environs and are relying heavily on SW broadcasts from other countries. This was revealed in an unusually candid interview which the Associated Press obtained with a 19-year-old college student identified only as "Yuri". "Life out here is boring!", confessed Yuri, "I want to go to the West, to Leningrad, I'd like to visit Czechoslovakia and Yugoslavia." Most western SW broadcasts have been jammed since August last, but Yuri can get the Voice of America's jazz show "by careful tuning" AP

RADIO'S THE BIG MEDIUM - IN BOLIVIA

Cochabamba, Bolivia -- Radio is the only evidence of a world beyond the horizon for many isolated Bolivian communities in the upper Andes and jungle lowlands. Lack of all-weather roads in this central South American country and a precarious telephone system augment the importance of radio.

The government and its foes are aware of the impact of radio. During a recent government crisis, President René Barrientos closed Radio Altiplano in La Paz after it broadcast a call to insurrection. All other radio stations remained silent for 12 hours to protest Barrientos' order (Even *Emisora del Estado*, owned and operated by the Government? Ed.) Under pressure, the President lifted the ban on Radio Altiplano. In mid-July at the time of the flight of Antonio Arguedas, the former interior minister who delivered the diary of Ernesto (Che) Guevara to Cuba, two hooded figures seized a national capital radio station to broadcast news of Barrientos' downfall.

More recently, two Cochabamba radio stations were dynamited by unidentified terrorists.

Despite its importance, radio is still far from being a responsible medium here. Newscasts are fragmented and full of unchecked reports. Three minutes out of every ten are consumed by unimaginative advertising. One station, Radio San Rafael of this city, is exerting enormous influence to improve the ethics and methods of other broadcasters.

Father Leo J. Sommer, director of the Maryknoll station, had the job dropped on him in 1960 while he was home in Boston on furlough from his former parish in Santa Cruz, Bolivia. On the eve of his return here a terse message informed him, "You will be in charge of Radio San Rafael in Cochabamba when you return to Bolivia."

Maryknoll fathers are flexible men. Father Sommer founded Radio San Rafael with a homemade transmitter and a staff of five volunteers. At the outset, it was on the air nine hours a day broadcasting rock 'n roll music and news culled from the daily papers. The transmitter was housed in a two-room adobe hut at the foot of one of the mountains that ring Cochabamba.

Today, Radio San Rafael reaches 300,000 listeners and has a staff of 36. It is on the air 18 hours per day, broadcasting in Spanish and Quechua, the language of Bolivia's untutored Indians. Its two-story modern plant encloses recording studios, broadcasting and control rooms, a tape library and an auditorium. Technical help is provided by the Los Angeles Lay Mission Helpers. Lay helper Gerald Toohey of Seattle is technical director of the station.

Toohey gave up a good job with the Boeing Co. in Seattle to spend six years working here for \$25 per month plus room and board. He will shortly be replaced by William Resch of Chicago, another Lay Helper who formerly worked for RCA.

Part of the Radio San Rafael technical director's job is training young Bolivians employed by other stations. Most stations here are financially weak and Radio San Rafael attempts to help them by persuading advertisers to pay more for better shows. Its influence has improved newscasting in depth and is fostering programs aimed at students and peasants. For students there are radio courses in such things as music appreciation. Programs geared for peasants include a literacy course and planting advice.

Radio San Rafael's small research section now is producing the first market studies on radio listening in Bolivia. They will be made available to other stations.

...Copley News Service, via Al Sizer

CONTRIBUTE TO THE BILL GRAHAM MEMORIAL FUND TODAY

FAR EAST NETWORK, TOKYO

Of the shortwave stations operated within the territory of Japan, one is owned by the United States. It is the Far East Network, Tokyo. F.E.N. celebrated its 23rd anniversary on September 12, 1968 and for the past 23 years, it has been achieving its announced goal, "Serving American Forces Overseas - This is the Far East Network".

The first elements of the Armed Forces Radio Service Units, the Far East Network, landed with the earliest occupation forces from the southwestern Pacific by way of Saipan, Guam, and Okinawa. In the early days, the Network used the facilities of the government radio network, NHK, located in the principal cities covering all areas where American forces were stationed. A re-organization occurred in 1953 and FEN stations were relocated on military installations in areas of troop concentration.

The Network is an integral part of the Armed Forces Information Program. This program assists commanders through the medium of radio and television by helping to assure them that their military men and women are fully informed and that they comprehend the values of the American Government and the American heritage. By the programming of FEN, the listener is made aware of the dangers confronting the Free World.

Shortwave relay transmitters extend the medium wave coverage area to serve ships at sea and aircraft in flight. Frequencies used are 3910, 6155, 11750, and 15260 kHz.

The FEN Headquarters is located at South Camp D rake on the outskirts of Tokyo. Supervision of the overall operations of the stations is done there. F.E.N. HQ provides program and production guidance, engineering training, maintenance personnel and equipment.

The Network mission broadcasts command information as well as providing the standard radio fare - news, sports and music in sufficient quantity and balance with broadcast quality to please the most critical audio-ophile. Music is selected from an extensive library of transcriptions.

News broadcasts include news on the hour every hour and on the half-hour during peak listening periods in the morning hours. Included in the news is the "up to the minute" news compiled from the principal U.S. news services, the Armed Forces News Bureau, and the Far East Network Newsroom. A direct broadcast audio cable connects the network "key" station, FEN Tokyo, with the Armed Forces News Bureau in Washington thus bringing the voices of people who make the news and the commentaries done by leading radio and TV personalities.

Sports coverage extends from the broadcast of local sports to up-to-the-minute play by play broadcasts of major league baseball, football, and championship boxing. Frequently, these events are beamed live to the FEN via AFRTS transmitters on the West Coast of the U.S., or via undersea cable.

To augment the production efforts of the network and individual stations, Stateside radio and television programs are provided on a weekly basis.

The overall operation of the Far East Network and its around the clock broadcasting are the responsibility of Lt.Col. Hal H. Harlan, who heads a staff which reflects the principle of unification in action, a tri-service organization with soldiers, sailors, airmen and marines working together with the Dept. of the Air Force civilians and local nationals, bringing information, education and entertainment to the men and women away from home.

The Chief of the Far East Network, Lt.Col. H.H. Harlan said, "As we begin our 24th year of broadcasting, we feel that we are advancing and keeping pace with the state of the broadcast art. For example, we are presently using remote controlled computerized equipment. This allows the listener to hear programs automatically

East Network(Continued)

for much of the twenty-four hours of the day, permitting us to relieve a broadcast specialist from routine duties to perform other duties such as writing and production. We also plan bigger and better programs in the future for our military listeners."

The Far East Network welcomes reception reports and verifies by attractive QSL card. Reports should be sent to: Hq. Far East Network, APO San Francisco 96267. Return postage is not required and written reports are preferred, not reports on tape.

I gratefully acknowledge the assistance of Lt. Col. Hal H. Harlan in the preparation of this article. The Far East Network is audible all over North America when Far East conditions are good. Reports are desired, so tune in, send a report and tell them that you heard about them in FRENDX!

...William Matthews

* * * * *

"THE VOICE" TURNS PEOPLE OFF

Brazil's lowest-rated radio program, officially known as the "Voice of Brazil", is broadcast for an hour every night on every radio station in the country.

To most Brazilians, it is known as the hour of silence. Some pride themselves on being able to turn off their set just before the first bar of the program's theme music, Carlos Gomes' "Guarani".

The government, which produces the program in Brasilia and requires its broadcast by all commercial stations, considers the program a key factor in national integration. It is a kind of spoken official gazette, which is supposed to bring the public up-to-date.

Plans have been announced to require televised broadcast of government documentaries as well, through the creation of a public relations commission within the presidency to produce government news. The program's coverage of Congress reflects opposition views as well as those of government supporters, but is presented in such a dull fashion that it does little to inspire faith or interest.

Presidential speeches are sometimes broadcast on the program two or three days late. This is of some interest to remote villages in Brazil's sprawling interior, but it puts the urban listener to sleep.

In fact, it is to the people of the interior that the program is mainly directed, enabling them to maintain at least some contact with the rest of the country.

...AP, via Doug Benson

(Note: Contrast this with the attractive weekly Mexican government show, La Hora Nacional, produced for the government by a qualified station, XEW, and presenting, not dull political speeches, but dramatizations from the lives of Pancho Villa and other national heroes, lively music, and sparkling features. A Voz do Brasil could learn, but probably will not, from La Hora Nacional del Gobierno Mexicano. REW)

* * * * *

The SW-4A may be discontinued. The R.L. Drake Co. has said that the model SW-4A receiver will probably be discontinued when current stocks are sold. This news via Gilfer Associates. Seems like a job for A.N.A.R.C.'s Manufacturer's Liaison Committee, but owners or potential purchasers of this useful receiver could help by writing to the company in Miamisburg, Ohio, with polite protests. REW

YOUR ORIGINAL ARTICLES FOR THE SHORTWAVE CENTER ARE WELCOME

SOLAR FLARES

Solar flares are being studied very carefully at the Space Disturbance Forecast Center in Boulder, Colorado, operated by the Environmental Science Services Administration. In fact, there is a sign hung near the big white telescope there, admonishing "THINK FLARES".

Chief astronomer Patrick McIntosh and observer Joe Sutorik watch the sun, helping communications, especially vital for airlines and aerospace missions. Solar flares are actually bursts of energy released from magnetic fields within clusters of sunspots. As most DX-ers know, sunspots play a very important part in propagation conditions. The cause of solar flares is connected with the equator of the sun. The equator rotates faster than the poles, and this causes magnetic lines of force to wrap around the sun. The result: these ropes of intense magnetic fields occasionally kink, causing sunspot groups, which develop into flares later. The flares cannot be seen by the naked eye, but through telescopes (specially equipped ones) they appear as an area of intensifying whiteness.

As to the effects of a flare...the X-rays and ultraviolet waves emitted during the flare affect the ionosphere, knocking out almost all shortwave communications. Besides upsetting SW communications, a flare can also cause aurora borealis, more familiarly known as the Northern Lights. Specifically on shortwave, now, a solar flare is the cause of the so-called "Sudden Ionospheric Disturbances". If these flares could be predicted, then perhaps all SWL's could be saved the wasting of time by listening at this time, or the worry that something has gone wrong with their receiver. The way to tell if a solar flare is occurring is wait. If suddenly the band goes dead, check in about a 1/2-hour. Conditions may be better then. If, by three hours later, all is still dead, you had better get a tube tester. Actually, though, the actual flare may last only for a couple of hours, but, because of it, conditions may not be very good for a day or so, and many stations will be weaker than normal strength.

...AP, via Bob Hagerman with additions

(Note: It is well worth while to DX during and immediately after SID's as well, as good DX may be logged. As polar-area stations are most strongly affected, weaker stations in the tropical zone may be heard, while otherwise they would be under interference. Various kinds of selective fading may be observed, and a few stations, perhaps quite rare and unexpected ones, may stand out in the clear on an otherwise faded band. REW):

QUESTION BOX

- Q. What kind of earphones should I buy for shortwave reception? I am told hi-fi, stereo phones are not the best for the shortwave listener.
- A. Asking what kind of earphones to buy for a SW receiver is somewhat like asking, "What kind of automobile do I buy?" However, there are some guidelines to follow. Stereo phones from a hi-fi set are not communications type phones. They are not tailored for communications. They are not as responsive (sensitive) and do not have a response curve tailored for voice (for communications). The response curve for voice is a rather limited, narrow range, and within this range the reproduction of the voice is more intelligible, if properly designed. Stereo phones are just the opposite, their response curve is tailored to reproduce everything.
- Communications type headphones are tailored to do one job, that of producing a more readable signal under any and all conditions for communications. An example of this type phone is the Superex AFS headset, or the Superex COM-S headset. Another point: when buying, follow the receiver manufacturer's recommendations and buy phones with impedance match of the same value, or very nearly, as the phone jack output. A mismatch will cause signal transfer loss.

NAMES OF LATIN AMERICAN MONETARY UNITS

Every country in the world has its own way of counting its money and many are the different words used in every one to designate the different monetary units. Latin American countries, as well as their language, inherited their monetary units directly from Spain. Money used in the continent during the colonial days was Spanish, brought by the conquerors to the New World. After these colonies became free many names were changed in order to have a different one, preferably honoring somebody or something important in their history, but in some of them one name remained, still used today in many countries; this is the peso, formerly named peso duro or peso fuerte (meaning hard or strong weight, a name probably arising from the weight of one silver or gold ounce.) This one is still the unit in the following countries: Argentina, Bolivia, Colombia, Cuba, Dominican Republic, Mexico and Uruguay. Since the peso has different values in each country, it is necessary to add the country's name, for instance: peso colombiano, peso mexicano, etc. Other countries selected new names for their coins, as follows:-

- Bolivia: peso boliviano. Formerly known only as "boliviano" after the country's name itself, which in turn comes from honoring Simón Bolívar, the South American Liberator. Name was changed after devaluation.
- Brazil: cruzeiro. This word translated to English means "cross", and they arrived at this name after several devaluations of their unit, always needing a new name. Some time ago the name was rei ("king") (generally used in plural, reis, Ed.), but a fast devaluation forced them to change it to mil-reis (i.e. one "mil-reis" was worth 1000 reis). Devaluation continued and they selected a new name, cruzeiro, which comes from "o cruzeiro do Sul" (the Southern Cross); the austral constellation depicted on the Brazilian coat of arms. Now they are using another name, "novo-cruzeiro" (new cruzeiro).
- Costa Rica: colón. This is in honor of America's discoverer, Christopher Columbus, in Spanish, Cristóbal Colón.
- Chile: escudo. This country has also been a victim of devaluation. Their monetary unit was the peso, but devaluation made them choose a new name: escudo ("coat of arms" or "shield"). This comes from the colonial coin on which the Spanish coat of arms was printed. The name was picked again as a substitute for 1000 pesos.
- Ecuador: sucre. This is after the name of the Venezuelan Liberator, Antonio José de Sucre, 1795-1830. In the same period as Simón Bolívar he fought against the Spanish forces in order to expel them from South America; with his victory in the battle of Pichincha, Ecuador was liberated.
- El Salvador: colón. Same as Costa Rica.
- Guatemala: quetzal. This is the name of a beautiful bird with green and red feathers, commonly found in this country and which was chosen as the national bird, and can be seen on Guatemala's coat of arms. (and on the TGNA QS L-card, Ed.)
- Haiti: gourde. It is said that this is an old kind of bowl used to measure grain a long time ago; always used, it came to be the name of their monetary unit.
- Honduras: lempira. The name is after a Honduran Indian chief (1497-1537) who fought the Spaniards for the freedom of his land, and died after being made a prisoner through a trap laid by the Spanish captain, Cáceres.
- Nicaragua: corchoba. After the Spanish conqueror Francisco Hernández de Córdoba. He was a member of an expedition led by Pedrarias (Pedro Arias) Dávila. He later conquered Nicaragua and Honduras, and when he laid claim to governorship of these lands Pedrarias imprisoned and killed him.
- Panama: Balboa. After the Spanish conqueror Vasco Núñez de Balboa (1475-1517). He reached the Isthmus of Panama and crossed it, discovering the Pacific, which he named "Southern Sea". He dismantled his ships and sailed in the Pacific after carrying the ships across the isthmus. But Pedrarias Dávila, governor of the area, grew jealous of his deeds and beheaded him.

Latin American Monetary Units (Continued)

Paraguay: guarani. Name of Indians who live on the territory comprising Paraguay and parts of Brazil, Argentina and Bolivia. Also the name of their language.

Peru: sol. This word means "sun", and its use comes from the Incas who worshipped the sun as their god. In memory of these ancient Indians the monetary unit of the country is named after their god.

Venezuela: bolivar. After the Venezuelan Liberator, Simón Bolívar, born in Caracas, 1783-1830, who fought for the freedom of Venezuela, Colombia, Ecuador, Peru and Bolivia, almost always with a poor and badly trained army. After liberation, he could not keep all the territory under one rule as he wished, and they all became separate countries. He died peacefully in Santa Marta, Colombia.

...César Obispo (Dominican Republic)

(Note: The relevance of Latin American coins to DX is that they are frequently quoted in commercials. Unidentified Latin American stations may often be broken down into choices between a location in either Venezuela or Colombia; either Ecuador or Peru; either Honduras or Guatemala; etc., due to similar music and programming styles. In all these cases, a commercial quoting local currency can be the key. REW)

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Latin protest: In a last-minute flash, Broadcasting Magazine, via Gerry Dexter, informs us of a meeting just held in Miami by the Inter-American Association of Broadcasters to protest the moves by the Argentine military government against private broadcasters, described in detail earlier in this issue. The meeting was called on the initiative of the group of South American member nations within the Association, including Argentina, Brazil, Bolivia, Chile, Peru and Uruguay.

** ** ** ** **

QUESTION BOX.

Q. What is the difference between a preamplifier and a preselector? Which is better?
 A. The difference between a preamplifier and a preselector is elementary; a preamp is "broadbanded" and it is not necessary to "track" it in front of the receiver tuning. In other words, one setting on each band is usually all that is necessary. It does not have to be retuned each time a station is tuned in on the receiver, unless the receiver is switched to another band.

A preamp is broad enough to accept signals on any particular band and amplify them. A touch-up of the tuning control may help a bit but it is not at all critical. By the same token a preamp will not suppress an image or repeat point on a receiver, to determine if the frequency in question is a true frequency. It merely amplifies. The current Ameco PCL-P is a preamp and an example.

The old RME Model DB22A Preselector (no longer in production) was a true preselector. It was necessary to track the unit in front of the companion receiver on each and every station tuned in. It was that critical and rejective. It featured two stages of tuned RF (manually controlled) and definitely indicated if a signal was a true signal or a repeat point (image) of the receiver. It suppressed all images. Not only did it suppress images, it also did an amplification job of 22Db's. This is an example of a preselector. Al Niblack.

Alistair Cooke book. Talk about America is the title of a book released by Alfred Knopf, Publishers, at \$5.95, by well-known Anglo-American BBC broadcaster Alistair Cooke. In 310 pages it reviews some of his BBC "Letters from America", one of the oldest and most popular BBC features for over twenty years. "Letter from America" is broadcast weekly on both the BBC World Service and the domestic services of the BBC. Information from Rod Williams.

RADIO YEREVAN

Armenia is a very old land located in the Caucasus region of the U.S.S.R. It has a 3000-year history and the capital, Yerevan, celebrated its 2750th anniversary this year. Armenia is a very mountainous region and many of the villages are almost inaccessible.

Located in the capital city, at no. 5 Mravian Street, is the office of the Armenian Radio & Television. The building is a large, old four-story brick structure. This is where the director of Armenian Radio & TV, John Sackovich Kirakosian, has his office. It is also the headquarters of Radio Yerevan. Radio Yerevan was founded in 1926, at about the same time as the other Soviet radio stations were being set up. By the eve of the second World War, their broadcasts were being received in even the most remote and inaccessible villages of Armenia. Today, Radio Yerevan's broadcasts are received all over the world.

Besides broadcasting in Armenian, they also transmit Russian, Arabic, Kurdish, French, Azerbaijani, and English at different times throughout the day. Most of the programs are cultural and entertaining. Their broadcasts are supposed to be very popular, but this could be because they are the only station in Armenia.

The station receives quite a lot of mail from all countries. According to the director, all letters receive attention. He also says that every year they get many humorous letters with jokes and funny questions. However, they say that not one of all these humorous letters came from the Soviet Union. They also get their share of anti-communist jokes, too. (Does he say this? Ed.)

Active shortwave frequencies include 4040 kHz. (note: there is also a Vladivostok-area station on this frequency, so Western North American DX-ers should beware confusion. Ed.) and 7270 kHz. There are several other frequencies listed, but they may or may not be active.

Programs prepared by Radio Yerevan but broadcast from Khabarovsk to North America are noted on 11850, 11980, 15180, 17775 and 17880 kHz., intended for the West Coast of North America, at 0300, with English at 0320. Transmissions are on Tuesday, Wednesday, Friday and Saturday only. Do not be misled: these transmissions are beamed from Khabarovsk, Asiatic R.S.F.S.R., not Armenia.

Radio Yerevan usually verifies and is friendly. You may write to them at this address: Armenian Radio, Mravian Street 5, Yerevan 25, Armenian S.S.R., U.S.S.R.

...Richard Murphy

** ** *

RADIO ATENEA

With stations in the Central American republics one by one becoming silent on shortwave, and general stagnation on the shortwave scene in Guatemala, Panama and even Honduras, compared with only a few years ago, it is a distinct pleasure to welcome a newly active shortwave station in one of the Central American states, especially one which has been operating on MW for 33 years and which is now entering SW for the first time. Radio Atenea is the new station which most of you will by now have heard on 6150 kHz., a wise choice for a channel on 49m., and one which is providing good reception everywhere in Latin America. Sr. Sergio Araya Duarte of the Depto. de Promocion tells me that reports have been received from all the C.American republics, from Mexico, Chile, Colombia and Brazil. Radio Atenea is a commercial station, despite its cultural name, and operates continuously. Shortwave transmission began on November 1, the transmitter being built by Ing. Roy Jimenez. Modulation was rather poor during the initial tests, but appears to be satisfactory now. Verification is by personal letter, with all details given, and souvenir stickers are also sent. If you receive a verification, be sure to remember to send a thank-you, so important for a friendly station like this. Address: Apartado 2208, S. José, Costa Rica. RFW

SIBS - SOLOMON ISLANDS BROADCASTING SERVICE

Much attention has focussed recently on the new station in the Australian Solomon Islands, Radio Bougainville. As is well known, the Solomons Group is divided between two administrations, Australian and British, and it is in the British Solomon Islands that the S.I.B.S., the Solomon Islands Broadcasting Service, is located. The population of the islands is predominantly Melanesian, and Pidgin English is the dominant language. Linguists call the new language "Neo-Melanesian", as it has ceased to be a mere pidgin and become the new language of almost all the Melanesian islands. The Melanesians are the darkest-skinned of the Pacific peoples, their name deriving from the Greek root for "black islanders".

Perhaps as a result of some friendly competition from Radio Bougainville, the S.I.B.S. is expanding. It is planning to go into uninterrupted operation from 1900 to 1130 GMT from the middle of 1969: a big operation for a station in such an isolated island group. The 41-metre band transmitter will shortly be reactivated, and both frequencies, 3995 and 7115 kHz., will then run 5 kW throughout the regular broadcast schedule: this should make reception on 7115 kHz. quite easy in Eastern North America, similar to that of Noumea on 7170 kHz. At present, only 3995 kHz. is in use.

Program policy is changing, too. As the number of receivers in the hands of the local population, they, and not resident Britons and Australians, must be the main target of the broadcasts, which means more Pidgin programs and fewer in English. For this reason, the BBC news relay has been shifted from 8 p.m. to 10 p.m., local time, a time when expatriates may still be awake, but most islanders will already be asleep. And Pidgin news has been extended from a quarter-hour to half an hour, at the regular time of 7 p.m. This is just local news, however. Eventually, the world news will be translated into Pidgin or into simplified English. The greater number of locally-owned radio sets is due in large measure to the efforts of the Foundation for the People of the South Pacific. They are now installed in schools, local clinics and hospitals and in the villages. The Foundation is an American organization. There is another BBC news relay every morning, at 7 a.m. local, and the ABC news is relayed at 7:45 a.m. and 1:30 p.m..

The station is commercial, and programs are sponsored by Mobil Oil, the Vincent Chemical Co., and by many local firms in Honiara. The islands' wealth is growing in step with the development of oil resources. At present, it broadcasts on 3995 kHz. at 1900-2300, 0100-0500 and 0640-1130 weekdays; 1900-2130 and 0655-1130 Saturdays, and on Sundays in the evening only: 0725-1130. The new SIBS Henderson Transmitting Station, to be installed next year, will transmit programs which will continue to originate in the downtown (if such a word may be used) Honiara studios. The yagi aerials for the line-of-sight VHF link are being installed by Pye. The new transmitters will be unmanned, and remotely switched, again by a VHF link. There will be a new transmitter on 3995 kHz., a 5 kW Standard Telephones and Cables type 4SU55E operating via an eight-element vertical incidence antenna. The present 3995 kHz. transmitter, also of 5 kW, and made by Amalgamated Wireless (Australasia) Ltd., will then be switched to 7115 kHz., with a similar antenna. There will be a standby generator at Henderson in case the mains electricity fails. It will switch in automatically in case of need.

Verification is by QSL card, provided sufficient details are included in the report; a letter or other information may also be sent. The present confirmation signer is Barry J. Whitehall, Broadcasting Officer, and the address, P.O. Box C11, Honiara, British Solomon Islands.

...Richard E. Wood

RADIO PAX, BEIRA, MOZAMBIQUE

Rádio Pax, Emissora Católica de Moçambique, transmits from Beira, second city of Mozambique, Portuguese East Africa. Beira (correctly preceded by the definite article, as "a Beira") has a population of just over 40,000, and is situated 450 miles northeast of Lourenço Marques, with which all DX-ers are familiar, thanks to the powerful and popular Rádio Clube. Beira is important as a port and as a holiday resort for Rhodesians and others.

The Beira station was founded by the Catholic Church and is dependent upon contributions from friends and wellwishers. It operates daily from 6 a.m. to 11 p.m. local time, except for Mondays, when close-down is listed as 10:30 p.m., which, however, is probably a printer's error. On Sunday, broadcasts are continuous; on weekdays, there is a break in transmission from 7:30 to 11:30 a.m. and again from 1:30 p.m. to 4 p.m. On Saturdays, the noontime transmission continues until 2:30 p.m.

Although educational efforts are being undertaken to teach the entire population Portuguese, broadcasts in several African languages have been introduced, to serve the countryside. These languages are Xisena, Maxangane and Bitonga. They enjoy the largest audience and include complete African-language newscasts, request music programs and selections of Portuguese and African music.

The African-language programming is in the afternoon; morning and evening transmission is in Portuguese, with very varied programming. Although the station is operated by the Catholic Church, only a small proportion of the programming is overtly religious. The most important religious feature is the relay of the Sunday morning mass from Beira Cathedral, at 8 a.m. There is also a program of church news at 9 p.m. on Saturdays.

In Mozambique, as elsewhere on the African continent, there is a colony of Greek traders. They are catered to in a program of Greek music Fridays at 1:15 p.m. One of the more political programs is on Sundays at 12:45 p.m., entitled "do Minho a Timor"; the purpose is to reinforce a sense of nationhood among natives of all the provinces of Portugal, whether in Europe, Africa or Asia.

Compared with most overseas stations, very few relays from foreign stations are presented. The only shortwave relay is a 45-minute Emissora Nacional variety presentation at 8 p.m. Saturdays.

The station's director is Padre Manuel Carreira das Neves, who is always glad to hear from foreign friends. In sending a reception report, it might be a pleasant gesture to include a small donation for this non-commercial missionary station. Reception reports, in Portuguese, are verified by letter from P. Carreira, and should be addressed to Caixa Postal 594, Beira, Mozambique. The station is audible under favorable East African conditions in North America at its 0400 GMT sign-on on the only active shortwave frequency, 7205 kHz., where the power is 10 kW.

Best wishes to Rádio Pax from NASWA.

...Richard E. Wood

At a top-level meeting in Heaven, Genghis Khan remarked, "If I had had the Israeli armored divisions, I would have conquered all of Asia." Hannibal retorted, "If I had had the Israeli Air Force, the whole of Europe would have been mine." Napoleon looked at them both gravely and said, "If only I had had Radio Cairo, nobody in history would ever have heard of Waterloo."

...Al Hamishar, Tel Aviv, via R. Williams

Note: NASWA's bulletin FRENDX is not copyrighted; there are no subscriptions. It is a club bulletin intended for the members, who write it themselves. Other clubs extracting and reprinting articles are requested to cite the source, crediting NASWA and the author. And it would be a courtesy to contact the author before quotation.

RADIO WAVES THROUGH THE EARTH

Recently there was an article in the Chicago Daily News by Leonard Reiffel which should interest all of us. In the article, a new way of transmitting radio waves is discussed. Instead of sending signals using the ionosphere, scientists are now working on a way to send signals through the earth using waveguides. A waveguide often looks like a rectangular pipe, 1 by 2 inches. Radio waves can be sent through such pipes by the same phenomenon which makes the ionosphere/ground combination work so well. Inside the earth there are good conductors of electricity—two layers of hot rocks. Between these two layers is a layer of rock which is a poor conductor, which extends over 20 miles. These three layers form a waveguide, making it possible for signals to be sent. But the waves that pass through it must be very big, hence of very low frequency.

This has become of interest to military system engineers who must devise ways for isolated military establishments deep in the earth to communicate with each other without using surface antenna equipment.

D X-ers will look forward to farther developments in this new system.

...Ronald Szymczak

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GILFER ASSOCIATES' "BAND SURVEYS"

One of the most annoying features of the World Radio TV Handbook is that the station list at the end of the Handbook is so very cramped. It gives no space for corrections, additions and notes.

Spaciousness, then, is the most attractive feature of a new concept in station listing which has just appeared from the presses of Gilfer Associates, P.O. Box 239, Park Ridge NJ 07656, who are also American agents for WRTH.

These are the new individual BAND SURVEYS, of which the 13m. Survey is the first to appear, priced at \$1.25. It consists of twelve large, boldly printed pages, with a graph-style frequency usage chart for each frequency. Individual frequencies cover up to two inches of page space, giving plenty of room for annotations. On each frequency, station name, power, exact location, and QSL policy, as well as hours of operation and target area are given. Frequencies are given exactly, with observed variations indicated. For example, Voice of Nigeria's nominal 21455 kHz. is listed as "21,454, varies \pm 2 kHz.". Exact transmitter locations are given for all BEC and most Radio Moscow frequencies; this alone makes the SURVEY well worth while.

Gilfer says, "If this method proves of interest to SWL's we hope to bring out SURVEY material for other bands - and eventually introduce a subscription service to up-date individual pages." The 16m. Survey, priced at \$1.50, will have appeared by the time this edition of FRENDX is published.

Very few inaccuracies were noted in the 13-meter Survey. Above all, it is clear that Gilfer, unlike the World Radio TV Handbook, pays close attention to actual monitoring by active DX-ers, as I notice some unlisted frequencies very recently reported in the DX press carefully reflected and appropriately annotated in the 13m Survey.

13 meters, a fairly uncrowded band and one on which no local broadcasting takes place, was a wise choice for a first Survey. It will be interesting to see how Gilfer approaches the more complicated task of listing, say, the 49 or 60 m.b., where many small Latin American and other stations operate.

If DX-ers approve of this concept of station listing, or if they have comments, they should let Gilfer Associates know, so that the Band Surveys can best be shaped and planned to suit the DX-er's needs, which they show every sign of doing.

QSL REPORT

GREGG CALKIN - EDITOR
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A NEW YEAR

1968 is gone and we are once again in the beginning of a new year with all its potential. At the beginning of each year we pause to look back over previous achievements and DX catches, and your editor can look back with pride over the past 12 months at the many strides that have been made in NASWA, and at the deeply interested support afforded to QSL REPORT by the membership.

But 1969 is a time to look to the future, to new aspirations and goals, to new enlarged plans, to a better Association. So while we can rightly look at 1968 as a year filled with happy memories and joys, we can also see the possibilities and future potential of the 12 months spread out before us. Now is the time to resolve to do our individual parts, however small or large, for the promotion of our Association and hobby. Plan now to support all sections of *Frendx*, the organ of our NASWA.

QSLs RECEIVED

ALBANIA: Tirana sent card of national flag, with schedule and magazines by registered airmail. Full data (Burnett, Calif.) 6205 kHz, 76 days (Hoskins, Wisconsin)

ALGERIA: Radiodiffusion-Télévision Algérienne, Algiers, 9685 kHz, card, rpt forms, sked in French, by seamaile in 16½ weeks. Full data; 2 IRCs and rpted in French (Hagerman, Michigan)

ANGOLA: Voz de Angola, 5960, own QSL card, all data, from Director. Text in English, and typed on mini-typewriter. By airmail in 2 weeks (Wood, Hawaii)

Radio Angola, 4820, card by air in 35 days; QSL gives time, frequency and power. Mint stamps sent. (Burnett, Calif.) card, 3-lang sked in 3 wks. Reported in Portuguese w/2 IRCs (Hagerman, Michigan)

Radio Comercial de Angola, 4795 kHz, form letter airmail in 5 weeks after f/up. V/S: Fernandes Marcelino (Field, Michigan)

ARGENTINA: Radio El Mundo, 9710, attractive card and nice pennant by air in 2½ months. No IRCs sent; full data (Caldwell, Calif.) 3 months seamaile; 1-IRC (S. Kamp, Texas)

ARMENIAN SSR: Radio Yerevan, 17800, card, 5 p/p/cards, sked in 48 days by registered seamaile. Full data. 1-IRC (Hoskins, Wisconsin)

ASCENSION IS: BBC, 11865, card by air from London, although rpted via Patrick AFB. Rcvd in 10½ weeks. Location typed in (Barman, Ill.) 15260, Thames foto card in 9 weeks. No IRCs (Caldwell, California)

AUSTRALIA: Radio Australia, 17870, card w/photo of Kangaroo in 2 months; w/sked in 7 weeks. (Landolt, Illinois) aerogramme confirming 2 rpts for 9580 and 11710, and containing 4 color fotos of Nature scenes in Australia. 1 month. (Randall, Mass.) 15240, in 18 weeks by registered mail (Rabone, N. Y.) 3½ months (Glasberg, Pa) Wildflower card in 75 d (Hoskins, Wisconsin)

VLX9, Perth, 9610, card by air in 11 months. 3 IRCs. Complete data (Weber, Ohio)

AUSTRIA: Vienna, 9770 kHz, card and very detailed sked in 30 days airmail. Card is printed on glossy paper and shows drawings of several Austrian scenes. 2 IRCs sent; card gives complete verification data. Rpt form sent w/QSL (R. Murphy, Texas) 15 days by airmail (Hoskins, Wisconsin)

BELGIUM: ORU, Brussels, 6125, w/standard card by airmail in 14 days. Card is white, yellow, red and blue featuring map of Belgium and antenna towers. Also sked (Mayo, Me.)

BOLIVIA: Radio San Rafael, Cochabamba, with mimeo letter for 5055 kHz. V/S: Leo J. Sommer (Tunér, Sweden)

Radio Universo, La Paz, 5017 (nominally 5015) sends letter, states date and frequency, plus stamps and pennant from Antonio Berthin M., Director Técnico. By Air in 5 weeks (Wood, Hawaii)

BONAIRE: Norea Radio, 9695 (via TWR), form letter and pennant in 4 months from Oslo, Norway (Ryan, California)

Radio Nederland, 11730, "flamingo" card in 2 weeks airmail. No IRCs. (Weber, Ohio) 11740, windmill card by air in 1 week (Hagerman, Michigan)

Benelux DX Club programme (via Radio Nederland), 11740, sent attractive card by air in 12 days with all info. V/S: B. J. Loog, President (Hagerman, Michigan)

TWR, 11820, folder card showing xmtr building in 30 days. IRC sent. (Rabone, NY) 9 days from V/S: Mrs. Beverly Jones (Friedman, Mass.) 9575, 35 days (Mayo, Me.) 9695, 2½ months (Glasberg, P. Q.)

BRASIL: Radio Brasil Central, 4995, sent English and Portuguese form letter, plus photo of park in Goiania and magnificent pennant by air in 3½ weeks from Norton Lima, Director, who wants stamps. IRC sent and rpted in Port (Hagerman, Michigan)

Radio Guaruja, 5975, w/card (Tunér, Sweden)

Radio Maua, 9705, friendly letter (Tunér, Sweden)

Radio Nacional, Rio, 6145, card of Rio and note in poor English by air in 4½ months. And a second one in 2 weeks for 11795 (Field, Michigan)

Radio Rural Brasileira, Brasilia, card from 15105 kHz in 20 months

Radio TV Bandeirantes, São Paulo, nice personal letter via airmail in 2 months, 3 weeks for 11925 kHz. Letter is in English and gives general QSL statement only. V/S: Samir Razuk. 3 IRCs (Lobdell, Massachusetts)

Radio Tupi, 6115/15370, returned prepared card in 2 weeks after f/up and 6th report. V/S: Direção Artistica. SASE sent (Field, Michigan)

BRUNEI: Radio Brunei, 4865, card seamail in 38 days from the C.E. 3 IRCs sent; date and frequency given (S. Kamp, Texas)

BULGARIA: Sofia, colorful card showing the Bachkova Monastery, with pennant seamail in 3 months. No IRCs. Full data (Caldwell, California) 9700, card in 2 months (S. Kamp, Texas) 2 months (Kaltwasser, N.Y.) 3 months (Glasberg, P.Q., Hoskins, Wisconsin)

BURUNDI: La Voix de la Révolution, Bujumbura, 6140 kHz. Letter indicating details had been checked from Joachim Baribwegure, Le Directeur-Ancien. In 9 weeks seamail. Letter and original report both in French (Wood, Hawaii)

BYELORUSSIAN SSR: Minsk, 15150, card, personal letter from Mrs. Stepanova, by airmail in 3 weeks from MOCKBA. Full data (Field, Michigan)

CANADA: CFRX, Toronto, Ontario, 6070 kHz, card surface mail from Clive Eastwood in 5 days. No time given (Barman, Ill.) 8 days, 1st class mail (Weber, Ohio) 2 wks (Glasberg, P.Q.)

CHNX, Halifax, N.S., 6130 kHz, white card in 45 days surface mail. Full data and IRCs returned (Hoskins, Wisconsin)

CJGX, Sydney, N. S., 6010, card 1st class in 9 days. No real data. Stamps sent (Weber, Ohio)

CANARY ISLANDS: RNE sent Madrid card showing view of transmitter hall. V/S: Juan de Rojas. Rpted in Spanish, no IRCs; reply via seamail for 15365 kHz. Total time elapsed being 83 days. 45 minutes of programme details itemized in rpt (Padua, Australia) 58 days via Madrid airmail (Hoskins, Wisconsin)

CEYLON: Radio Ceylon, 15230, English form letter and sked by air in 2½ weeks after f/up. 3 IRCs sent. V/S: Director General (Hagerman, Michigan)

CHILE: Radio Minería, 9753 kHz, after six attempts with form letter from Luis Hernan Videla Pacheco, Gerente (Tunér, Sweden)

CHINA: Radio Peking, 9780, card, English and Spanish sked by air in 5½ weeks. (Hagerman, Michigan) 3 months (Glasberg, P.Q.) carload of rubbish and "varie card" w/absolutely no

in 94 days by registered mail. IRC sent (Hoskins, Wisconsin)

CLAUDESTINE: Radio Euzkadi verified w/usual card from France in 19 days by airmail. No IRCs; rpted in Spanish. 15025 kHz (Williamson, Ontario) Nominal or actual freq?(GAC)

COLOMBIA: La Voz del Llano, 6115 kHz sent personal letter signed by Bernado Otero Lafauria, Sub-Gerente. Detailed information included on the geographical attractions, industries and occupations of Colombia. Reported in Spanish, with 4 IRCs, together with p/card of Melbourne. Reply via airmail, with delay of 4½ months before reply mailed. Text of QSL in Spanish (Padula, Australia) 3 months after 4th report. SASE sent; verie data in Spanish. (Field, Michigan)

Radio Bucaramanga, 4845 kHz, sent letter in Spanish, p/card and 2 pennants by airmail in only 8 days. Frequency only given. Reported in Spanish with IRCs. Nice pennants from V/S: Gerente, Jaime Bautista. (Hagerman, Michigan)

COMGRES: ORTF, moroni, w/card for 3331 kHz (Tunér, Sweden)

CONGO: ORTF, Brazzaville, 15190, by air in 24 weeks. Full data (Nenna, Pennsylvania) 15445, 64 days (Hoskins, Wisconsin)

CONGO, DEMOCRATIC REPUBLIC OF: Station du Kasai Occidental, Luluabourg, 6125 kHz. Letter airmail, registered, all details from L. Mibanga, Directeur Chef, in 6 weeks. Report and reply both in French (Wood, Hawaii)

COSTA RICA: Radio Atenea, 6150, 2-page letter, all details, from Sergio Araya Duarte, Depto. de Producción, airmail in 2 weeks. Enclosed pennant. 1st in world? (Wood, Hawaii)

CUBA: Habana, 9525, card, letter, by air in 6½ months on 3rd report. No IRCs. Via airmail. Complete data (Goldman, N. Y.) 100 days (Hoskins, Wisconsin)

CZECHOSLOVAKIA: "Legal Radio Prague" sent card and letter for reception on 11990 kHz during invasion in August, in 3 weeks. V/S: Vladimir Kucera. 3 IRCs. (Matthews, Pa.) standard Prague card and letter for 2 rpts during early days of occupation. Note says: "Radio Prague studios are located in various parts of Prague and our broadcasts during the August days went out from several of these studios. Other broadcasts on mediumwaves went out from studios all over our Republic." (Dexter, Wisconsin)

Radio Prague, card with church drawing in 2 weeks by air (Kaltwasser)

DENMARK: Radio Denmark, 15165 kHz, card and letter from Suzanne Jackson. New card shows Radio House Aerial Tower, in 4 weeks airmail; 1 IRC (Hurst, Md.) 45 days by air, apologizing for delay (Goldman, N. Y.)

DOMINICAN REPUBLIC: Radio TV Dominicana, HISD, 9505, blue white card in 12 days by air. 1-IRC. Rpted in Spanish (Williamson, Ontario) 2 wks by air (Kaltwasser, N.Y.) 1-2 weeks (Friedman, Mass; Glasberg, P.Q.)

Radio Mil, 4930, w/plain card (Tunér, Sweden) detailed yellow card by air in 16½ weeks. Came from the "Enc. de Relaciones Publicas" (Public Relations Office). Card features station symbol in upper left on front, w/calls and addresses. Reverse has verification data (Hagerman, Michigan) 9 mos, w/apology for delay (Weber)

ECUADOR: HCJB, Quito, 11915, card N°. 4 of Project Outreach Series, showing Xmtr bldg plus sked, tracts, and letter in 68 days seamail. Complete data (Hoskins, Wisconsin) 15115, 11½ weeks, card, religious pamphlets and personal letter. IRC sent (Hagerman, Michigan) 4 months (Glasberg, P. Q.)

Radio Cenit, Bahia de Carquez, HCXX4, 4865 kHz, QSL letter from the Gerente, Señor Carlos Hurtada Polit; states power only 500 Watts. Reported in Spanish; 26 days by airmail - mint stamps sent (Williamson, Ontario) 9 months by air (Wood, Hawaii)

ENGLAND: BBC, 9580, card and sked in 82 days seamail. No data; IRC sent (Hoskins, Wisc)

VCA/Wooferton, 11960, card from Washington. in 92 days surface mail (Hoskins) 6, blue card, all details (date, time, frequency, xmtr location) from Opal Lau. 2 weeks seamail (Wood, Hawaii)

ETHIOPIA: RVOG, Addis Ababa, sent regular blue and white card by seamail in 7 months, 2 weeks for 15400 kHz. Card contains full data. V/S: B. Svensen. No IRCs (Lobdell, Mass)

FINLAND: Radio Finland, Helsinki, 15165, colorful p/card showing map of Finland, noting Fori (xmtrs) and Helsinki (studios). Also sent PDXC card; 4 mos (Caldwell, Glasberg)

FRANCE: ORTF, Paris, black and white card for 21620 kHz. English QSL in 1 month for report in French (Glasberg, P. Q.)

GERMAN DEMOCRATIC REPUBLIC: Radio Berlin International, 15170, card, letter, sked and 5 sample QSL cards (Eagerman, Michigan) 9730 kHz, 1 month by air (Kaltwasser, N.Y.) 81 days (Friedman, Massachusetts)

GERMAN FEDERAL REPUBLIC: Deutsche Welle, Köln, 11945, large blue glossy card showing map of Europe in 2 weeks by air (Kaltwasser, N. Y.)
Südwestfunk, Baden Baden, 7266 kHz, card airmail in 2 weeks.
Complete verification details; 1-IRC sent (Mickle, California)

GHANA: Ghana Broadcasting Corp, 9760 kHz, letter, sked and magazine. QSL is white with black and purple border; rec'd in 25 days seemail. Complete data. IRC (Hoskins, Wisc.)

GUATEMALA: Radio Chortis, 3580, verified in 24 days airmail with letter and pennant.
V/S: José Antonio Rodríguez. Report sent in Spanish with mint stamps (Williamson, Ont.)
Radio Nacional de Quezaltenango, sent letter and stamps in 2 weeks airmail from V/S: César Navarro Castellanos, Director (Dexter, Wisconsin)

HAITI: 4VEH, 15280, normal fold-over card by airmail in 45 days. Full data (Weber)

HONDURAS: HRVC, Tegucigalpa, 4820, card in 24 days. V/S: Sally Erickson. Complete data
IRCs sent (R. Murphy, Texas) 24 days (Soneff, La) 11 days (Hoskins, Wis) 4 mos. (Mayo)
HRRH5, La Voz de Occidente, 5960, verified with color foto of Mayan ruins at Santa Rosa de Copen, personal verie text on back from Gerente, Dr. A. Rendon. In 22 days airmail. Reported in Spanish; mint stamps sent (Williamson, Ontario) 15 days w/full verie data (Friedman, Mass.) 2 weeks (Glasberg, P. Q.)

HUNGARY: Budapest, 11910, letter, sked and card with white monument imposed on silver bkg in 74 days by registered seemail. Full data. IRC (Hoskins, Wisc.) 9833, card in blue showing bldgs in 1½ months (Kaltwasser, N. Y.) 3 months (Glasberg, P. Q.)

INDIA: AIR, Delhi, 15235 kHz, verie card photo of Taj Mahal plus sked (Hoskins, Wisc.)
Hyderabad, 4800 kHz, sent letter and card, as result of f/up. Station advised that QSL had been sent, but not received by me; so they issued duplicate. Three CRC's sent with original rpt. V/S: V. Seshachary, Assistant Station Engineer. Reply via air-mail in 2 weeks of f/up (Padula, Australia)

INDONESIA: RRI Surabaya, card after f/up in Indonesian (NASWA form). V/S: Thomas Scegito. For 3975 kHz (Tunér, Sweden)

RRI Palembang, 4857, long friendly letter from M. N. Supomo, Director (Tunér, Sweden)

Voice of Indonesia, 6103 (nominally 6105). Card, all details, from new QSL manager, Farida Nur (Mrs. or Miss. unstated). Air in 5 wks (Wood, Hawaii)

RPI Djambi, 4927 (nominally 4925). Interesting, detailed letter in Indonesian, for report in same language, airmail in 7 weeks from Azil Azwar, Kepala Studio (Head of Studio). Believed first for this new frequency (Wood, Hawaii)

ITALY: RAI, Roma, 11810, card alone sent in 63 days. No IRCs (Peritz, NY) Regular beautifully composed programme booklet. Card with map of Italy in 55 days by air. IRCs (Hoskins, Wisconsin) 56 days, blue, black and yellow with map. 3 IRCs (Estand, Texas) 9575, 2½ months (Glasberg, P. Q.)

JAPAN: NHK, 17825, letter, sked and p/card photo of Kozonji Temple by air in 37 days. Complete verification data. (Hoskins, Wisconsin) 15235, 18 days airmail (Weber, Ohio) 1 month, 17825 (Glasberg, P. Q.)

KOREA (S.) VOPK, Seoul, 15430 kHz, card, rpt forms, sked and pennant in 4 weeks for 2 IRCs. Pennant is a real prize - green satin with gold trim (Forst, Md.) 1 month airmail. No IRCs (Weber, Ohio) 9640, 2½ wks by air (Field, Michigan) 3 wks (Barman, Ill)

KUWAIT: Radio Kuwait, 13150, colorful card and letter, w/facts about Kuwait in 1 month by airmail. IRCs sent (Daloy, Ga.) folder card by air in 1 month for 11940; gives date and frequency. 3 IRCs (Lobdell, Mass.) 21 days, normal stamp reproduction card (Mayo, Maine)

- L: Vientiane, 6130 kHz, card in 2 weeks (Tunér, Sweden)
- LAOTIA: Radio Riga, 7140, 2 different cards for each day of reception in 6 weeks, w/ pennant. V/S: Editor, Swedish Dept. signed personal letter in English to tell me 1st report not received. QSL not in English (Field, Michigan)
- LEBANON: Beirut, 15285, card, sked by registered mail in 58 days. Full data (Goldman, N. Y.) 15440, card in 5 weeks by registered airmail. IRC sent (Lundberg, Minn.) 67 days (Hoskins, Wisconsin)
- LIBERIA: ELWA, Monrovia, 11950, blue, red and white card in 29 days by airmail. No IRCs. Also sked, and religious literature (Estand, Texas)
- LITHUANIAN SSR: Vilnius, 15215 kHz, card, sked and literature on country in 19 weeks seamail. Full data. No IRCs. (Menna, Pennsylvania) 15540, 90 days (Hoskins, Wisconsin) 11975, quaint little card featuring yellow bird and hammer and sickle, by seamail in 6 wks. No IRCs (Caldwell, Calif) 4½ months; no exact frequency (Glasberg, P. Q.)
VOA, Monrovia, card via Washington, in 1 week surface (Pickle, Calif)
- MALAYSIA: Kuala Lumpur sent usual colored card for 7200 kHz in 9 days airmail. 2 IRCs sent with report (Padula, Australia)
BBC/Far Eastern Service, 15435 kHz, normal Bush House card in 30 days by seamail. (Mayo, Maine)
- MAURITANIA: Nouakchott, card with personal note in French in 20 days. Mint stamps sent (Burnett, California)
- MONACO: Trans-World Radio, 7290, card, sked and Bible literature with red and white pennant in 10 weeks by airmail. 2 IRCs. (Hurst, Maryland) folding QSL card and paper pennant for 7245 in 8 weeks (Padula, Australia) 61 days (Hoskins, Wisconsin)
- MONGOLIA: Radio Ulan Bator sent usual card, with sked on reverse side, for home service, on 4762 kHz. Total time 43 days, also sent personal letter. No IRCs. (Padula, Australia)
- NETHERLANDS: Radio Nederland, 21480, Eddie Startz card in 1 week by airmail (Kaltwasser, N.Y.) 15220, 9 days (Estand, Texas) 15320, 21 days (Weber, Ohio)
- NEW CALEDONIA: Radio Nouméa, 7170, sent usual card by air in 3 days. Rpted in French with 3 IRCs. No frequency on card (Hagerman, Michigan)
- NEW ZEALAND: Wellington, 9540, card, tiki charm, sked, by air in 2 months. V/S: J. L. Hartstonge. Full verification data (Goldman, N. Y.)
- NIGERIA: NBC/Lagos, 9690, green glag card in 9 weeks by air; 1-IRC (Menna, Pa) 15365, 15 days; 3 IRCs (Weber, Ohio) 15155, nap, paperbacks, letter, sked, QSL seamail in 75 days. IRC (Hoskins, Wisconsin) 10 days, 21455 (Glasberg, Pa)
Radio Nigeria, Sogunle (west of Lagos), 3980 kHz, 100 kw, letter and sked from G. N. Nwuli, Propagation Department. This is not Enugu now, nor has it ever been (Wood, Hawaii)
- NORWAY: Radio Norway, LLA, 25900, card w/color picture of Laplander, full data. W/Sked by air in 14 days. 2 IRCs sent (Harrington, Tennessee) 11850, prog sked in 44 days by seamail. Full data (Hoskins, Wisconsin)
- PAKISTAN: Radio Pakistan sent usual card, but with all QSL data on reverse, eg date, time, frequency and service. Also sent covering personal letter, from the Director, Listener Research: Masud Quereshi. For 17835 kHz; No IRCs; air reply in 5 mcs (Padula)
- PAPUA: VLT4, Port Moresby, regular blue ABC card with full data in 30 days and via airmail (R. Murphy, Texas)
- PERU: Radio Nor Peruana, 9655 kHz, verified w/letter and pennant in 26 days airmail. Rpted in Spanish with mint Peruvian postage stamps. V/S: Manuel Muñoz Chacon (Williamson, Ohio)
- Radio Tropical, Tarapoto, 4935, personal letter and pennant by air from Juan Pablo Mori Flores, Gerente. (Field, Michigan)
- POLAND: Warsaw, 9655, card; sked, letter by air in 5 weeks. 2 IRCs (Hagerman, Michigan) 11870, 7 weeks from V/S: S. Nowocin, Editor-in-Chief (Field, Michigan)
- PORTUGAL: Radio Safari (over Lisbon), 21555 kHz, verble on adletter sheet, with full data and note from producer: Richard Ginbey; 20 days; 2 IRCs (Friedman, Mass.)

PORTUGAL: Voice of The West, Lisbon, sent colorful native doll cards in 1 month airmail for 9630 and 11935 kHz. Full data (Caldwell, Calif.) 75 days air (Estand, Texas) 225 kHz, 30 days; 3 IRCs sent. Full data (Weber, Ohio)

QATAR: Personal letter from V/S: Taher Shihabi, Director of Broadcasting for 9570 kHz. Iso Qatar stamps. Result of a f/up as station indicated they did not receive signal / 4 IRCs, for reception last August. Reply via registered airmail in 5 weeks after f/up. First in Australia (Padula, Australia) Doha sent "Regarding reports submitted, I am sure you will agree that for our confirmations to have any real value, cross checking with our transmission logs is essential; therefore vague indefinite reports incapable of being so checked are not likely to be confirmed, although the report will be answered of course." (Tuner, Sweden) letter in 5 weeks from box 1414, Doha, Qatar Ryan, California) via registered airmail in 1 month. Letter gives date and says report as correct. Also received stamps in Project Appollo series (Lobdell, Mass.)

RODESIA: RBD, 3396 kHz, sent card in 2 weeks (Tuner, Sweden)

ROMANIA: Bucharest, 7195, card with full data, letter and sked, plus data on joining W Club; in 9 weeks airmail. IRCs sent (Daley, Georgia) 11940, QSL with photo of pelicans in Danube delta in 64 days by registered surface mail. Full data. IRC sent (Hoskins, Wisconsin)

RUSSIAN S.F.S.R. Moscow, 9730, blue, black and white card, w/sked by air in 28 days. Complete and correct data (Estand, Texas)

WANDA: Deutsche Welle/Kigali, card seairmail in 7 weeks with complete info. Gold outline on blue background. 1-IRC (Menna, Pennsylvania) 15380, rpted to Kigali, but reply from Gln in 12 days! (Hoskins, Wisconsin)

SARAWAK: Radio Malaysia Sarawak, card in 17 days airmail. Card features picture of station and gives date only, stating report was correct. For 4950 kHz after 3 reports with 3 IRCs (R. Murphy, Texas)

SAUDI ARABIA: Jeddah, 15150, folder card by airmail in 1½ years. V/S: Werner Storg, L.E. 2 IRCs (Mickle, California) Riyadh, 6000, attractive folder, all details, plus calling card de CE. Rpted in German; by air in 2 weeks. Promised sked (Wood, Hawaii)

SENEGAL: Dakar, p/card by airmail in 21 days for 15115 kHz. QSL features Khora, a native musical instrument (Sizer, Connecticut)

SINGAPORE: Radio Singapura, 11940 kHz, card in approximately 1 month. Card verifies date and came seairmail. 2 IRCs sent w/rpt (R. Murphy, Texas)

SOUTH AFRICA: Radio RSA, 9705//11875 kHz, regular colorful card in 4 weeks by airmail. No IRCs. (Caldwell, California)

SPAIN: RNL, Madrid, 9 60, card and sked of all transmissions in 9 days. All data in Spanish; 2 IRCs sent. (Feritz, N. Y.) 6130 kHz, card and sked in 1 week by air (Kaltwasser, N. Y.)

SWEDEN: Stockholm, 11705 kHz, card in 11 days with sked; also blue and gold pennant and literature (Harrington, Tenn.) in 25 days for 21585 kHz (Glasberg, P. Q.)

SWITZERLAND: SBC, Berne, card with photo of SBC transmitters, in 44 days by air on 9720 kHz. Full data; IRC sent (Hoskins, Wisconsin)

ICRC, Geneva, 7210 kHz, card airmail in 2 weeks. V/S: G. Penard (Weber, Ohio)

TAHITI: Radio Tahiti, 11825 kHz, sent French schedule and usual "topless" mermaid card by airmail in 3 weeks. Reported in French with 3 IRCs (Hagerman, Michigan)

TAIWAN: VOFC, Taipei, card in 3 weeks airmail for 17720 kHz. Complete and correct verification data. IRC sent (Barmen, Illinois)

TURKEY: Radio Ankara, TAJ, 15160 kHz, card only with sketch of dancing Turk in 70 days by seairmail. Complete data. IRC (Hoskins, Wisconsin) 3 months; IRC sent (Rabone, N. Y.)

UKRAINIAN SSR: Kiev, handwritten card in red and blue in 3 weeks by air (Kaltwasser, N. Y.) 15270, with sketches for Moscow and Kiev, and card from Radio Moscow. Normal Moscow regional card in 98 days by registered airmail. IRC (Hoskins, Wisconsin)

UNITED STATES: AFRTS, 17768 kHz, card, blue and white card with seals of various armed forces, in 16 days seemail. Complete verification data (Hoskins, Wisconsin)

WINB, Red Lion, Pennsylvania, 11795 kHz, printed white card, schedule, in 94 days. Full QSL data on QSL (Hoskins, Wisconsin) in 15 weeks from V/S: Rev. John H. Norris. 10-cent stamp sent (Hagerman, Michigan)

KGEI, San Francisco, 15240 kHz, card with small sketch of Golden Gate, sked, tracts, pennant in 67 days surface mail. Full data (Hoskins, Wisconsin)

WNYC, New York City, 21725 kHz, card and schedule in 18 days (Landolt, Illinois) gold and white card in 3 weeks (Glasberg, P. Q.)

United Nations Radio, NYC, 15410 kHz, regular blue and white card with UN Emblem, sked in 37 days surface mail. Full QSL data (Hoskins, Wisconsin) 2 weeks for 15415 (Glasberg, P.Q.)

VOA/Greenville, 5995 kHz, usual red, white and blue verification card in 7 days seemail. Full data for once (Hoskins, Wisconsin)

VATICAN CITY: Radio Vaticana, 9615 kHz, color card showing antennas and studios, w/sked in 2 weeks by air. (Kaltwasser, N.Y.) in only 9 days by airmail (Estand, Texas)

VENEZUELA: Radio Barquisimeto, 4990 kHz, card by air in 19 days. 3 IRCs (Weter, Ohio)

Radio Continente, 5030 kHz, photo card of their antenna towers in only 5 days by airmail. Card has date only, with verie text in English and Spanish. Had personal comments on it in Spanish from V/S: F. Garcia. Reported in Spanish with IRC (Hagerman, Michigan)

Radio Juventud, 4900, usual green/brown/white card of Cadena Radial Venezoleana network in 30 days airmail. Reported in Spanish. Mint stamps sent (Williamson, Ontario)

Radio Nacional, 6170 kHz, form letter saying QSL cards are to be printed and will follow. V/S: Francisco Fossa Andersen (Tunér, Sweden)

Radio Universo, 4880 kHz, same as Juventud card; 30 days (Williamson, Ont.)

WINDWARD ISLANDS: WIBS sent card for 15095 kHz airmail in 14 days. 2 IRCs w/rpt. QSL indicated two previous reports (21690 and 11875 kHz) had been verified, but QSLs never received by me! Station requested that I send duplicates of these original reports, and they would be glad to issue duplicate QSLs (Padula, Australia)

YUGOSLAVIA: Belgrade, 9620 kHz, card, calendar, sked and pennant in 8 weeks by airmail for 1-IRC. Card is folding type with B&W photo insert of walled city (Hurst, Md.)

QSL folder card with photo of Harbour 'Piran', in 70 days by seemail. IRC sent w/rpt (Hoskins, Wisconsin)

ZAMBIA: Radio Zambia, 3346 kHz, card by airmail in 18 days. V/S: J. Allerton. Full verification data on card (S. Kamp, Texas)

And that, Gentlemen, completes QSLs RECEIVED for the month of January with approximately 90 countries being reported. Good show!

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QSL NEWS/NOTES

Your Editor would like to thank those many members who sent cards and Season's Greetings. They were very much appreciated, and I feel very grateful to have so many fine friends.

Next month QSL REPORT again features SCOREBOARD, the first of the New Year. Remember that the key continent is EUROPE; so have your totals revised and send them in in time to reach Fredemeton by the January 15th deadline. If you are not currently listed, take a look at the December/68 issue in details and send them in today.

Finally, Jerry Stuart reports that Chinese Postal Authorities will confiscate

HELLENIC NATIONAL BROADCASTING INSTITUTE

ATHENS - GREECE

HELLENIC
NATIONAL BROADCASTING INSTITUTE
TECHNICAL SERVICES DIRECTORATE← 45 U STREET TO METEOR ST.
ATHENS - GREECE

Athens 4 11 56

VERIFICATION OF RECEPTION REPORT

We thank you for your Reception Report
dated 26th October 1968 concerning our transmission
on 17.740 kHz and from hours
17.30 to 17.45 QXZ which was checked and found correct.

We will appreciate it very much if you
continue sending us your RPK's or comments, if any, which
are of great value to this Institute.

Yours faithfully,
FOR THE TECHNICAL SERVICES DIRECTORATE



ATTN. 218

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In the form of the above QSL, the DXer sees almost a classic verification, one which contains all pertinent data regarding the reception, a verification statement, and an assurance that listeners reports are desired and of value. Athens is not the easiest station in Europe to receive, but it is heard regularly now after a few years of almost complete silence. For those DXers who do hear them and send a report, the above QSL has been produced and is sent quickly by Athens.

RBI ISSUES NEW QSLs

Bob Hagerman, of Hemlock, Michigan has recently sent your editor five of Radio Berlin International's new QSLs cards as samples. They are quite attractive, moreso than their previous B&W sports "herces" series. This group is called the DDR Series, and is composed of a series of multi-colored drawings featuring various cities and points of interest in the GDR. The first card, for example, features drawings of East Berlin, including the Brandenburg Gate, the new radio tower (Eurovision) and other landmarks. Another deals with the Leipzig Fair, another with Goethe, etc. They are all worthwhile additions to any collection, and if you are reporting to RBI soon, why not ask for one of their new DDR Series QSLs.

Have you recently received a QSL? It is a new one for you? a new country? a new QSL just issued by the station? If so, why not let everyone know? Send information to QSL REPORT today, and remember the deadline for the February issue is January 15th.

Until next month, Best 73s and may 1969 be your best year yet, GREGG.

NEWSROOM

DAN KENDERSON, EDITOR
8806 HUNTING LANE, APT. 103
LAUREL, MARYLAND 20810

Deadline 15th of Month

Richard Murphy sends the following schedule from the Far East Broadcasting Company, effective from Nov. to March, 1969:

To Manila and E. Australia from 2155-2330 on 17850 kHz, from 2330-0030 on 15300, 15385, 17850 kHz; from 0100-0300 on 21615, 17850, 15440, and 15300 on Sundays; on the same frequencies from 0830-0930; To Manila and Hong Kong from 0830-1000 on 17850, 21515, and 11890 kHz; To SouthEast Asia from 1130-1230 on 15300, 11920, kHz; and from 1245-1560 and 1530-1630 on 15440 kHz. (FEBC via Richard Murphy Texas).

In reply to a request in last month's column concerning the frequencies of Radio RSA's transmissions, James W. Robinson supplied the following information: 19 meter band frequencies are 15360, 15245, and 15220 kHz, with 15220 currently in use. 25 meter band frequencies are 11990, 11875, and 11785 kHz, with 11875 in use now, and the 31 meter band frequencies are 9720, 9705, 9570, and 9525 kHz, with 9570 kHz currently in use. (James Robinson, Virginia).

RRI, Sukarnapura, is noted on a new, unlisted frequency of 3905 kHz with news at 1000. This may replace 6070 kHz, which has not been heard since NBS, Bangkok, put a 100 kw transmitter on the latter frequency. (Richard Wood, Hawaii).

The following schedule from HRVC, La Voz Evangelica de Honduras, was monitored from Vatican Radio: On 1380 and 4820 kHz daily in Spanish from 1100-1500 and 1900-0300, with English transmissions heard from 1500-1600 and 0300-0400 daily. (John Soneff Louisiana)

Have you ever heard of the Island of Tristan Da Cunha which is situated approximately 1800 miles west of Cape Town, South Africa? Well, this island made headline news a number of years ago when its 24 families were forced off the island by volcanic eruptions which endangered their lives. Many of these people have now returned and have modernized the island. It has a 40 watt transmitter and broadcasts 3 evenings per week: Wednesdays, Fridays, and Sundays in the 90 meter band on 3290 kHz in English. Times of the broadcasts are 1900-2000 and the transmission opens with "A Scottish Soldier". If this station is logged and a QSL is requested, some IRCs should be included to cover postage. (Melvin Flanagan, Jr. Virginia).

The Yemeni Royalist radio is noted with rather regular, stable signals on 9985 kHz around 1800. Sounds too stable and professional to be operating from the primitive mountain areas still in Royalist hands, which indicates a location in Saudi Arabia. Do not confuse this station with Arabic transmissions from Peking in the 9800-10000 kHz range around this time. (Richard Wood).

The following new frequencies have been added to the BBC World Service from December 1: 7185 kHz from 0145-0730 to the Middle East, N. and E. Africa, and Central and E. Medit.; and from 0400-0915 to NW, W., Central and South Africa, and W. Medit.; and on 11805 kHz from 1330-1815 to South and SouthEast Asia, and to the Far East. (BBC, London, via Rod Williams, Georgia).

A New, unidentified station affiliated with the Cadena Radial Colombiana network, Caracol, Colombia, is noted carrying the network all night program, with no local ID's noted, on 4755 kHz around 0600-0800. (Richard Wood)

Radio Lebanon sends the following schedule, valid from November 3rd: To Africa from 1830-2030 on 15350 kHz in English, Arabic, and French; to South America from 2300-0100 on 15340 kHz in Portuguese, Arabic, and Spanish; to North America from 0130-0400 on 11785 kHz in French, Arabic, English, and Spanish; Arabic transmissions are one hour in length, with other languages each ½ hour long.

Omnidirectional broadcasts can be heard from 0430-0730 and 1625-1820 on 5980 kHz, and from 0925-1600 on 9545 kHz. (Radio Lebanon via Larry Lundberg, Minnesota).

Radio Habana Cuba sends the following sked, valid until March 3rd: In English to Northern Europe from 2010-2140 on 17705 kHz; To North, Central, and South America in English from 2050-2150 on 17715 and 15285 kHz, from 0100-0450 on 9525 kHz; from 0100 to 0600 on 15285 kHz, from 0330-0600 on 11760 kHz, and from 0630-0800 on 11930 kHz. (RHC, via Richard Wood and Bob Hagerman, Michigan).

The Philippine Broadcasting Service, Manila, has corrected its long-standing drift to 6165 kHz and is now back on 6170 kHz, where it is noted with English news at 0700. (R. Wood).

Radio Tashkent sends the following current schedule, valid until March: In English from 1200-1230 and 1400-1430; Hindi from 1300-1330 and 1500-1530; Urdu from 1230-1300 and 1330-1400; Persian from 1600-1630 and 1700-1730, and Uzbek from 1630-1700, all on 11925 and 9600 kHz. (Radio Tashkent via Al Sizer, Conn.)

BES, Rangoon, Burma, is now operating outside the band on 4725 kHz carrying English lessons at 1500. Do not confuse with clandestine stations in this area. (R. Wood).

The Voice of Free China broadcasts in English to North America, Australia, New Zealand, Japan, Korea, Africa, W. Europe, Hong Kong, and Macao at 0200-0330 and 1800-1900 on 7130, 9685, 9765, 11825, 15125, 15345, 17720, 17780, and 17850 kHz. (VOFC via Bob Hagerman, Michigan).

Radio Ulan Bator, Mongolia has extended its sign-off time on 7260 kHz from around 1000-1030 to 1300. Excellent signal strength, but do not confuse them with Radio Moscow's Mongolian Service, then on 7265 kHz. (R. Wood).

Radio Netherland, Holland, sends the following sked, valid until March 2nd: (Happy Station Programmes only):

To New Zealand from 0600-0720 on 9715 and 6020 kHz; for Australia and Japan from 0730-0850 on 11945 and 9525 kHz; for Europe from 1030-1150 on 9715, 6020, and 5980 kHz; for South Asia and Europe from 1430-1550 on 21480, 17810, and 6020 kHz; for Africa and Europe from 1600-1720 on 21570 and 17810 kHz; for North America from 1900-2020 on 15425 and 11730 kHz; for Spain and South America from 2030-2150 on 15425, 6085, and 6020 kHz, and for South and Central American and Europe from 2200-2330 on 15320, 9715, and 6020 kHz. On Sunday nites, a program from Bonaire may be heard from the End of December, 1968 from 2330-0110 testing on 6085 kHz. (R. Netherland via Larry Lundberg).

The Swiss Broadcasting Service, Geneva, can be heard to North America from 0130, 0230, and 0300 on 6120, 9535, and 11715 kHz, and from 0445, 0545, and 0615 on 6120 and 9720 kHz. (Swiss Broadcasting Corp. via Larry Lundberg and Bert Brunnel, Holland).

Well, that wraps up another Newsroom section for this month. Hope you all will send in those news items so we can have more and more news each month. I would like to wish all a Happy Holiday season and Good DX for 1969, as we head for a Sunspot MINIMUM!! Thanks for all the Christmas Cards, also. 1-73, *John Peterson*



LOG REPORT

DAN FERGUSON * EDITOR
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Deadline 15th of Month

- 421 BRAZIL. R Sao Carlos, drift, 0200 Port. (Berghammer)
 450 HAITI. WVEH, 0330 s/off Fr, Eng. (Berghammer) 1045 Fr rel pgm. (Michalenka)
 900 USA. KRZY, Albuquerque, NM, 0849 temp, Country and Western mx, 2 x 1450. (Hauser)
 203 NIGERIA. NBC, Ibadan, 2120 many times, fair but QM. (Hall)
 205 INDONESIA [Java]. RRI, Bandung, 1035 occasionally, usually poor, QRM. (Hall)
 210 DOM. REP. R. Sol, Higues, baseball games, 12/7. (Objio) Time? (Ed)
 215 DOM. REP. R. Libertad, HIDB, Santiago, 0332 ID, devotional, 0344 s/off, annc 3225, //1130. (Hauser) From 0300, rel pgm 0330, close 0342a. (Nislack) Fair to good signals, variety of pgms to 0345. (Dexter) ID finally hrd 0340, 12/4. (Hirst) 0320-0345 mx, TC, ads, rel pgm 0330. (S. Kamp)
 218 MOZAMBIQUE. Lourenco Marques Radio, 0241 Eng/Afrik anmts, TC as 19 til 5. (Hauser)
 225 LIBERIA. ELWA, 2230 rel pgm, lcl lang. (Berghammer) 2130, 2300 Afr + pop mx. (Hall)
 225 VENEZUELA. R. Occidente, YVOP, Tovar, hrd for first time on this fqy, seems to be new transmitter. On 12/8, ID 2140. (Objio)
 235 VENEZUELA. Emisera Vargas, 1045 Sp under RTTY. (Berghammer)
 241 INDONESIA [C+M]. (tentative), RRI, Ambon, 1030, very weak 11/20. (Berghammer)
 242 IVORY COAST. RTV Ivoirienne, 0630 Fr. (Berghammer)
 245 VENEZUELA. R. Libertador, 0100 pol. speeches, 11/30 - before the election. (Field) To as late as 0630, 17/7. Regular s/off 0400a, 12/10. (Hagerman)
 255 LIBERIA. ELBC, 0630 Eng. (Berghammer) 2145 Eng nx, QRM Venez. 2200. (Hall) ID, time checks 0630. (Sparks)
 255 VENEZUELA. LV del Tigre, s/off w/full ID 0311, 11/30. (Field) 0320 Sp, good (Sizer) 1003 Sp mx, clear ID 1015, 11/30. (M. Kamp)
 262 BRAZIL. R. Tamandare, 0115, Port, QRM Guyana. (Berghammer)
 265 GUYANA. R. Demerara, 0245 s/off. (Sizer) 0645 relay of cricket test from R. Aust. to past 0735, 12/8. //WIBS - 3280, RA - 15240 (primary bdst). (Hirst) Cricket match from R. Australia 12/8, Eng nx 0956, 12/7. (Hagerman)
 275 BRAZIL. R. Clube Bauru, 0130 Port. (Berghammer)
 280 GRENADA. WIBS, 0200 BBC nx, local lvl. 0700 relay RA w/cricket. (Hagerman) Cricket matches 0710, 12/8. (Sparks) Relay of ABC 0745-0805 s/off, 12/7. (Penn)
 284 FIJI. VRH9, Hindi mx, talk 0700, 12/11. (Sparks)
 295 VENEZUELA. R. Trujillo, 0300 Sp. (Sizer) Closing 0030. (Williamson) (Hagerman)
 300 BR. HONDURAS. R. Belize, Eng nx, mx 0240-0315, 11/23. (Soneff) 0406 Eng/Sp nx \
 305 PAPUA. R. Deru, Western mx, native anmts 0810, 11/23. (Sparks)
 316 SIERRA LEONE. Freetown, 0640 man in vernacular, fair 12/5. (Sparks)
 315 MARTINIQUE. ORTF, 0239 Fr ID, anthem, off. 1004 mx, Fr. (Hagerman) Out of line (Ed)
 325 VENEZUELA. R. Monagas, 0100 political pgm, 11/30. (Field) Opera 0241. (Hagerman) 0355 ID, Sp mx. (Mappin)
 329 ZAMBIA. Lusaka, new fqy, ex-3295, s/on 0345 Nyanja. (Berghammer)
 335 SENEGAL. Ziguinchor, 0700 Fr nx. (Berghammer)
 335 N. GUINEA. R. Wewak, na mx, pidgin 0825, 11/23 good. (Sparks) 0940-1200 fair, but QRM. Peaks 1200. (Hall)
 340 ECUADOR. La Estacion de la Alegria, s/off 0500, East after 0400. (Dexter)
 346 ZAMBIA. Lusaka, s/on 0345 Eng, QSB 12/9. (Berghammer)
 365 DOM. REP. R. Exitos, 0420 fine signals (Dexter) 0355 ID, Sp mx. (Mappin)
 366 GHANA. Accra, 2130 occasional mx, fair but QM. (Hall)
 373 MOZAMBIQUE. RCM, Lourenco Marques, 0300 Port rel pgm, 12/8. 7.5kw. (Berghammer)
 375 ANGOLA. Emis. Oficial, 2130 Port, QRM Dominican Republic. (Berghammer)

- 375 GUATEMALA. TG--, Departamento de Chiquimula, rosary 0010, ID not hrd well. (Objio) Who is this? FEIS shows a station in Chiquimula on 6120.(Ed)
- 376 BRAZIL. R.Olinda Pernambuco, 0230 Port, QRM Venezuela.(Berghammer)
- 380 NIGERIA. WWS, Ibadan, 2230 Eng, fair.(Hall)
- 385 FR.GUIANA, ORTF, Fr nx C935, strong.(Hagerman) 0930-1100 good.(Hall) 3386-Fr 2330, QRM Dominican Republic.(Berghammer)
- 385 N.BRITAIN. R.Rabaul, peaked for 10 minutes at 1145 on 12/4. Weak and under noise since then.(Macken) After Cayenne fades 1100, was strong, now weak.(Hall) Mx, pidgin 0825, good 11/23.(Sparks)
- 385 VENEZUELA. R.Barcelona, nx to close 0427.(Williamson) 0314 ID.(Hagerman)
- 395 BRAZIL. R.Tapuyo, 0200 Port.(Berghammer)
- 395 VENEZUELA. R.Universidad, Merida, s/on, Nat. Anthem 1030.(Wood) 0309 Nat. Anthem, ad, ID.(Hagerman)
- 396 NIGERIA. NBC, Kaduna, 2120 Eng nx, several times, fair but QRM.(Hall)
- 395 DOM.REP. R.Santiago, 0454 ID, mx, 12/8.(Hagerman) Out of line, sorry.(Ed)
- 400 DOM.REP. R.Santiago, formerly on this freq, now back with baseball.(Objio)Time?
- 400 CHINA. Fukien, weak 1210 on 12/4.(Macken)
- 405 DOM.REP. R.Santiago, close 0327 w/ID.(Williamson) 2300 Sp.(Berghammer)
- 405 INDONESIA[W.Irian]. RRI, Sukarnapura, new freq, ID, nx 1000.(Wood)
- 415 JAPAN. Nihon SW Bc, 2nd pgm, // 7230, 1030 Japanese.(Berghammer)
- 452.5 ENGLAND. BBC, relay CBC German.(Padula) 0415-0430 Polish to Eur.(Berghammer) Ger nx 1630.(Wood) 0644 Eng ID after Ger, then Czech.(Hagerman)
- 470 CAMEROON. R.Buea, 2130 s/off Fr, bad QRM.(Berghammer)
- 485 INDONESIA[W.Irian]. RRI, Merauke, back after drift, ID 1000.(Wood)
- 485 SWITZERLAND. SEC, 2200 Italian, // 6165, 9535.(Berghammer)
- 490 W.GERMANY. R.Liberty, Russian pgm, choral mx 2015.(Padula)
- 495 W.GERMANY. RFE, Czech talk 2005.(Padula)
- 495 SOLOMON IS. SIBS, s/off w/anthem 1130. Ham QRM 12/8.(Macken) Exc. 1100-1130 s/off w/GSTQ. Eng nx 1100, 1117 dance mx.(Hall)
- 4040 RSFSR[As]. Vladivostok, Russian nx 1630. Not Erevan.(Wood)
- 4710 ECUADOR. Luz y Vida, hrd twice around 0200 w/requests, anncs 4785.(Williamson)
- 4738 ECUADOR. R.El Mundo, Guayaquil, relay R.Quito nx 0030.(Williamson)
- 4750A COLOMBIA. LV del Rio Cauca, Cali, nitely, strong but only one ID in many tries. That was 'en Cali, LV del Cauca'. Usual ID is that of chain, 'Este programa Caracol subira Colombia por frecuencia Modulada'.(Field) 4752- Caracol, UPI nx, ID 0324.(Hauser) From 0200.(Williamson)
- 4752 INDONESIA[C+M]. RRI, Makassar, Indonesian talk 1321, 11/30.(Hauser)
- 4753 INDONESIA[C+M]. RRI, Makassar, 1200 Indonesian, near fade out.(Berghammer)
- 4755 COLOMBIA. HJIV, R.Chiquinquirá, La Reina de Colombia, 0407 ID, Sp mx.(Mappin)
- 4760 PERU. R.Tingo Maria, pop mx, ID, s/off 0500. Weak 11/28.(Sparks)
- 4762 MOZAMBIQUE. RCM, 2045 Port rel pgm, 12/8.(Berghammer)
- 4765 CONGO REP. RTC, Brazzaville, 2030 Fr.(Berghammer)
- 4770 ECUADOR. R.Cenit, Portoviejo, fair 0615 ID.(S.Kamp) (M.Kamp)
- 4771 VENEZUELA. R.Bolivar, 0333 TC for 1134, ID.(Hauser) 4775- 0420 mx, ads, ID.
- 4775 BRAZIL. R.Progreso, 0230 mx, several IDs.(Dexter)
- 4777 GABON. R.Gabon, Fr talk 2147, weak 12/7.(Hagerman) Weak, 0525 Fr, drums. 'Ici Libreville' 0530, then fade out.(Hirst) Native mx 0558.(Sparks)
- 4795 ANGOLA. R.Comercial de Angola, Port talk, mx 2158.(Hagerman)
- 4795 DOM.REP. Ondas Musical, 0404 Sp ID, anthem, off. Almost unreadable.(Hagerman) 2313 Sp mx, QRM R.Reloj, ID 2330.(M.Kamp) 4794- 0230 ID, TC(GMT -4 1/2 hr) (Hauser) Pop dance mx, ID 0300.(Sparks)
- 4800 VENEZUELA. R.Lara, 0156 TC, ID.(Hauser) 0100 easy to catch ID.(Sizer) Light orch mx 0300, usually covered by RFTY.(Williamson) nx 1052.(Hagerman)pops 0310(Brown)
- 4803 KENYA. Voice of Kenya, Kisumu, drift, 0400 local lang.(Berghammer)
- 4805 BRAZIL. R.Amazonas, 0130 sports. This and R.Bace have same address.(Field)

- 4815 VENEZUELA. R.Popular, ID 0027.(Upton)
 4815 PERU. R.Amazonas, Iquitos, 0100 Sp, QRM Brazzaville.(Berghammer)
 4815 UPPER VOLTA. Ouagadougou, fade in 2015 Fr, 12/5.(Berghammer)
 4820 ANGOLA. R.Angola, 0500 s/on Port.(Green)
 4820 HONDURAS. HRVC, Tegucigalpa, s/off 0400, Eng.(Brown)
 4824 BRAZIL. R.Educadora de Parnaiba, 0100 Port, QRM Quito, RTTY.(Berghammer)
 4825 PERU. R.San Jose, OAX8R noted 0230 w/ID, good lvl.(Dexter)
 4835 MALAYSIA[Sarawak]. R.M.S., Kuching, 1115-1215 local pgm, good at times.(Hall)
 4836 BOTSWANA. Gaborone, s/on, Anthem 0358. Also noted 1730.(Wood) 0358 s/on, but fast fade out.(Sparks)
 4840 VENEZUELA. R.Valera, 0330 ID.(Hauser) 0558 Sp ID, off. On late.(Hagerman)
 4845 BRAZIL. R.Difusora de Teresina, 0215 Port.(Berghammer)
 4845 COLOMBIA. R.Bucaramanga, 0233 usual LA format w/woman ancr.(Hagerman)
 4850 MAURITANIA. Nouakchott, 0745 Arab mx, RTTY.(Berghammer) 0725.(Hauser)
 4856 BRAZIL. R.Dif. Taubate, 0230 Port.(Berghammer)
 4860 VENEZUELA. R.Maracaibo, tropical rhythm 0300.(Williamson) ID 0435.(Hagerman)
 4865 AZORES. Em.Nac., Ponta Delgada, 1950 Port nx, anmts, mx, IDs.(Calkin) Good 2030 mx, Port.(Marcus)
 4865 BRUNEI. R.Brunei, 1429 s/off, 11/30.(Hauser) Eng 1330 daily.(Altschuler)
 4865 ECUADOR. R.Cenit, Quito, 0200 Sp, QRM Brazzaville.(Berghammer) Mx, Pepsi ads, IDs 0440-0504 s/off.(Dexter) ID 0350.(Williamson) Pops, ID 0400.(Sparks)
 4870 DAHOMEY. Cotonou, 0600 Eng lessons in Fr, 11/22.(Calkin) 0556 Fr, then Eng by Radio from BBC, good 12/7. May be back to 30 kw.(Hagerman)
 4870 VENEZUELA. R.Tropical, 0342 usual LA format.(Hagerman) 0340 ads, Sp mx, political pgm 0350, s/off 0406, 11/29.(M.Kamp)
 4872 INDONESIA[W.Irian]. RRI, Sorong, 1200 Indonesian, QRM Guatemala.(Berghammer)
 4875 COLOMBIA. LV del Rio Cauca, 0530 Sp.(Berghammer)
 4875 ECUADOR. LV de Esmeraldas, LV del Pueblo, late dance mx pgm 0600, good.(Sparks)
 4875 S.AFRICA. SABC, 2015 with light mx, Afrikaans.(Marcus)
 4880 CONGO(D.R.). Kinshasa, 0430 Fr.(Berghammer) S/on, list pgms for day, 0400.(Wood) Native mx, talk 0510, weak.(Sparks)
 4880 DOM.REP. R.Comercial, 0425 ID, march, off 0430a, 11/30.(Hagerman)
 4880 VENEZUELA. R.Universo, 0328 ID, election returns.(Hauser) Good 1011.(Hagerman)
 4885 COLOMBIA. Ondas del Meta, Villavicencio, on late for fiesta 0600.(Wood) 0253 ID (Hauser) RCN ID 0314, Sp mx.(M.Kamp)
 4886 RSFSR[As]. Vladivostok, Russian lth pgm 1200.(Berghammer)
 4890 HONDURAS. R.Lux, full ID 1200, 'Ranchero' mx.(Hagerman)
 4890 PAPUA. ABC, Port Moresby, after 1200, nx.(Hall) Eng 1217.(Hagerman) 1300 relay BBC nx.(Brown) ABC?(Ed) Regional nx in Eng 0825.(Rowell) Cld mx 1340.(Getman)
 4890 SENEGAL. Dakar, 0630 Fr w/mx on khora.(Sizer) 0709 Fr talk, Arab chants. (Hagerman) 0600 s/on Fr.(Green)
 4890 VENEZUELA. R.Difusora Venez., LA pgmng 0322.(Hagerman) 0330 mx, Sp.(Brown)
 4895 BRAZIL. R.Fare, Manaus, mx 0200, s/off 0300.(Field) 0030 Port.(Berghammer) Futebol 0500.(Wood) 0245 ID.(Hauser)
 4895 MALAYSIA[Malaya]. VoM, 1130 pop mx, better than 4985.(Hall) 50 kw, 4985-10 kw(Ed)
 4900 GUINEA. Conakry, 2100 Fr.(Berghammer) List 4920.(Ed)
 4900 VENEZUELA. R.Juventud, usual pops 1018.(Hagerman)
 4904 CHAD. Fort Lamy, 2115 Fr nx, QRM.(Berghammer) 0632 lang, clear but weak. (Hagerman) 0557-0631 good with ID 0600, Afr mx.(S.Kamp)
 4905 BRAZIL. R.Relogio Federal, 2300 Voz de Brazil pgm, faded by 2330.(Field)
 4910 COLOMBIA. R.Guatapuri, Villedupar, new on SW, mx, frequent IDs as R.Guatapuri. In full ID mentions Todelar chain. Nitely, best after 2300 when R.Relogio Federal has faded out.(Field) New, LA mx, Todelar net, 11/25.(Williamson)
 4910 DOM.REP. R.HIN, 1120 noticias, Monte Carlo cigarette ads.(Hagerman)
 4910 ECUADOR. Emisoras Gran Colombia, 0456 ID, LA mx, local lvl.(Hagerman)

- 4911 ZAMBIA. RL, 2100 vernacular, Western and African mx.(Berghammer) Afr mx 0345(Wood)
 4912.5 GILBERT + ELLICE IS. R.Tarawa, local Eng nx 0915.(Wood) Good daily 0700.(Sparks)
 4915 KENYA. V. of Kenya, 0445 Swahili - not as good as 4934, 12/8. Pwr change?
 (Berghammer) Afr mx, vernacular 1540, fair 12/13.(Sparks)
 4920 AUSTRALIA. VLM, Brisbane, Eng light mx 1235, poor 12/8.(Hagerman)
 4920 VENEZUELA. R.Caracas, 0030 nx, ID. Hrd regularly now. Last hrd 1961.(Field)
 0407 jazz mx, ID, now daily.(Sparks) (Hauser)\
- 4923 ECUADOR. R.Quito, 0333 giving 'Cadena Ecuador Radio' stn list in newscast.
 4925 MOZAMBIQUE. RCM, 2045 Port, 12/8.(Berghammer) Port songs 1830.(Wood)
 4926 EQ.GUINEA[Rio Muni]. R.Ecuatorial, 2010 weak in Sp, 11/27.(Calkin)
 4932 NIGERIA. NBS, Benin City, 2045 Hausa, 11/28.(Berghammer) 0601 Eng nx.(Hauser)
 Pwrful 1st 0450 in Afr lang.(Dexter) 0604 Eng nx, ID.(Hagerman) Eng nx 0610
 (Sparks) 0605-0615 Eng ID, nx.(S.Kamp)
- 4934 KENYA. V. of Kenya, 0435 Eng ID, then rel svc in Swahili, 12/8.(Berghammer)
 4935 BRAZIL. R.Peti, Natal, 0045, Port.(Berghammer)
 4935 COLOMBIA. R.Villavicencio, ID 0500.(Mappin) List 4875.(Ed)
 4940 ECUADOR. R.Dif. Nacional, Quito, 0440 ID, mx.(Mappin)
 4940 IVORY COAST. Abidjan, 2008 Fr nx.(Marcus) Anthem, s/on 0600.(Wood)
 4940 VENEZUELA. R.Yaracuy, 0300 mx, Sp.(Brown)
 4945 COLOMBIA. R.Colesal, 0358 ID, het.(Hauser)
 4945 S.AFRICA. SABC, Paradys, 2100 Eng.(Berghammer)
 4950 MALAYSIA[Sarawak]. R.M.S., Kuching, 1230 Malay, near fade out.(Berghammer)
 4950 SENEGAL. R.Dakar(tent), from 0718 w/almost uninterrupted mx of all kinds, Fr anmt
 0758 not copied. Fr ORTF-type time sig 0800. Dakar list FBIS, not WRTH.(Hirst)
 4950 VENEZUELA. R.Coro, 0305 'Aqui R.Coro, primera en sintonia!'(cf 4990).(Hauser)
 4955 COLOMBIA. R.Nacional, 0200 gong ID, nx.(Brown)
 4965 COLOMBIA. R.Santa Fe, 0313 Sp, mx. Good 12/6.(Altschuler)
 4965 S.AFRICA. SABC, Paradys, s/off 2115 Eng svc.(Berghammer)
 4972 CAMEROON. R.Yacunde, 2115 Fr, drum mx.(Berghammer)
 4975 BRAZIL. R.Timbira, 0030 Port.(Berghammer) 2345 mx, Port.(Hagerman)
 4975 COLOMBIA. R.Internacional, 0325-0400 Sp, mx.(Tenenbaum) (Berghammer)\
- 4976 UGANDA. Kampala, 0400 Eng under open RTTY carrier, RTTY begins 0420, 12/2.
 4980 GHANA. R.Ghana, fair 2115 s/off Eng.(Marcus) 2111 mx, talk.(Hagerman)
 4980 VENEZUELA. Ecos de Torbes, 0125 LA mx, ads.(Mohrmann) 0258 vote PSA!(Hauser)
 Sp talk 2300.(Tuchscherer) 0653 Sp requests, why on so late?(Hagerman) 0427 ID
 (Mappin) Good 0356 w/Sp.(Menna) 0218 Sp ID, nx.(Michalenka)
- 4985 BRAZIL. A Voz de Oeste, 0030 Port.(Berghammer)
 4985 BOLIVIA. La Cruz del Sur, La Paz, s/off in Eng.(Wood)
 4990 VENEZUELA. R.Barquisimeto, LA mx, IDs, ads 0130.(Mohrmann) 0338 sabre dance mx,
 plug new pwr, pgmg. Claim 'La Emisora de mayor sintonia en todo el pais'.
 (Hauser) 0300 Sp mx, IDs.(Tuchscherer) 0315 IDs, nx 0330(Altschuler) 0130(Upton)
 0214 Sp ID, mx.(Michalenka)
- 4994 SUDAN. Khartoum, 2115 Arabic, good daily.(Berghammer)
 5005 PERU. R.Jaen, tropical rhythms 0300.(Wood) 0359 ID w/echo.(Hauser)
 5010 CAMEROON. R.Garoua, 2100 Fr.(Berghammer)
 5010 SINGAPORE. Forces BC Svc, 1115 Eng, Beatles mx over Venezuela.(Berghammer)
 5010 VENEZUELA. R.Bocono, s/off 0200. All Sp.(Nblack)
 5015 GRENADA. WIRS, fair 2230 local nx in Eng.(Marcus) 2300-2315 fair w/BBC relay.
 (Williams) 2225 Eng requests, daily.(Hagerman) Eng nx 2200.(Green)
- 5018 VENEZUELA. R.Carora, 1115 Sp, (Berghammer)
 5020 COLOMBIA. Transmisora Caldas, 0030 Sp over Venez.(Berghammer) 0400 frequent Sp
 IDs.(Tuchscherer) 0415 ID, mx.(Mappin)
 5020 VENEZUELA. R.Nacional, Caracas, 2125 mx to past 2200, also after 0200.(Michalenka)
 5027 BRAZIL. R.Rural, 2200 Port.(Berghammer)

- 5000 VENEZUELA. R.Continente, 0320-0355 s/off. Sp ID, talks, bells.(Tuchscherer)
0203 ID, QFM.(Michalenka)
- 5036 BRAZIL. R.Anhanguera, 0015 Port.(Berghammer)
- 5040 GEORGIAN SSR. Tbilisi, strong 0158 s/on. IS, anthem, 6 pips 0200, Georgian ID
'Laparakops Tbilisi' and Russian ID 'Govorit Tbilisi'.(Calkin) 0210 man and
woman, carrier 0214, woman 0215. Good lvl.(Dexter)
- 5040 HAITI. R.Capeois la Mort, 2145 man in Fr. Very weak, but freq was clear.(Field)
- 5040 PERU. R.Los Andes, 0430 Sp under Venez. - zero beat.(Berghammer)
- 5041 BURMA. BES, Rangoon, poor to good daily.(Macken) 1215 Burmese, near fade out.
(Berghammer) 5040- strong after 1100 s/on, local pgn.(Hall)
- 5043 ANGOLA. R.Cl. Benguela, 2115 Port. Do not confuse with Bissau.(Berghammer)
- 5045 BRAZIL. R.Imperial, 2330 Port.(Berghammer)
- 5047 TOGO. Lome, 2055 fair in Fr.(Marcus) 2240-2304 mx, mx, in Fr. Off w/children
singing.(Tuchscherer) Now poor around 2200.(Macken) Strong w/mx 0645.(Dexter)
2231 Fr mx, daily to 2300 s/off.(Hagerman) 2400 Fr ID.(Green) Jazz 2235,(Getman)
- 5050 VENEZUELA. R.Cultura, 2327 Sp ID, TC, LA mx.(Hagerman)
- 5052.5 SINGAPORE. R.Singapura, Eng ID, TC 1100.(Wood) 1414 Mobil Oil ad, cmtry.(Hauser)
- 5055 BOLIVIA. Definitely a Bolivian, tentatively R.San Rafael 2330-2347, 12/3.(Hirst)
- 5050 ALBANIA. R.Tirana, 2100 Albanian HS, sked 0400-2200.(Berghammer)
- 5060 S.YEMEN. Aden, Arab mx 1800.(Wood)
- 5075 CHINA. R.Peking, fair 1215.(Macken)
- 5075 COLOMBIA. HJGC, Accion Cult. Popular, s/off 0318.(Macken)
- 5095 COLOMBIA. 'R.Sutatenza' 0402, Accion Cultural Popular net ID 0400, //5075(Hirst)
- 5930 CZECHOSLOVAKIA. Prague, 0310 pop show in Eng, weak.(Shaw) 0122 Eng mx, mx,
// 9630, 7345.(Tuchscherer)
- 5955 GUATEMALA. TGM, 0305 Eng rel pgn.(Koukol) Eng rel pgn 0300-0330.(Tenenbaum)
End Sp, into Eng 0300.(Wood) S/off Eng 0430.(Altschuler) Mx, Eng 0230.(Brown)
Eng 0400-0430.(Getman)
- 5960 LITHUANIAN SSR. Kaunas(list), Moscow German 2000-2039.(Berghammer)
- 5970 CANADA. CBC, 0300 hockey game in Eng.(Tuchscherer)
- 5975 CHINA. R.Peking, 1358 12/8 .(Hauser)
- 5980 GUYANA. R.Demerara, Georgetown, 1030 tune in w/local theatre ads, mx.(Calkin)
1032 Eng, TC for 13 til 7.(Hauser)
- 5980 LEBANON. Beirut, 0415 s/on Arab.(Marcus) (Lindgren)
- 5981 PERU. R.Panamericana, OBXLM, 'Las noticias internacionales' 0330, ID 0345.
- 5985 TANZANIA. Dar-es-Salaam, s/off 0500 after Swahili.(Calkin)
- 5990 INDONESIA[C+M]. RRI, Manado, 1352-1417, local ID 1358, Djakarta mx, mx.(S.Kamp)
- 5990 SWEDEN. R.Sweden, 0030 nx.(Tuchscherer) 0000 s/on Sp.(Green) Eng 0030.(Baines)
Special pgn on Nbel Prize Awards 0200-0230, 12/11.(G.Ferguson)
- 5995 COLOMBIA. LV del Pueblo, 1057 Pereira ad.(Hauser) Weak, but clear 0114 mx,
political pgn.(M.Kamp)
- 6000 BRAZIL. R.Inconfidencia, 2245 mx, IDs.(Koukol)
- 6000 SINGAPORE. R.Singapura, traditional Chinese songs 1015.(Wood)
- 6000 VENEZUELA. R.Miranda, 0200 Sp, fair 11/25.(Caldwell)
- 6005 BOLIVIA. R.Progreso, La Paz, local mx, Sp ID 0900.(Calkin) Ads, TCs, old US pops
nx til 0005. Bad QFM, positive ID.(Nblack) 0945.(Berghammer) CP58, fair sig
0115 ID, ads.(Williamson) 0105 La Paz/Santa Cruz ad.(Hauser) clear ID 0400
(Hirst) 0923 mx, talk, frequent IDs.(M.Kamp)
- 6005 CANADA. CFCX, Montreal, 1800 nx, sports, mx.(Kaltwasser)
- 6005 W.BERLIN. RIAS, Berlin, Ger nx, female reader 0500.(Wood)
- 6005 W.GERMANY. RIAS, Munich, Ger 0530. In clear on a Mon.(Calkin) mx 1205.(Brummel)
Munich sked 0330-0530, Berlin 1530-0330.(Ed)
- 6005 POLAND. Warsaw, 2230 Polish mx.(Saman)
- 6010 CANADA. CJCX, Sydney, 2330 ID.(Brown)

- 6010 ITALY. RAI, good 2230 Italian.(Marcus) New fqy, Eng nx, mx 0108-0120.(Tenenbaum)
0100-0120 Eng nx, mx, //9575.(Tuchscherer) Nx 0100.(Menna)
- 6010 RYUKYU IS. VOA, Okinawa, 1223 orieltal lang, 11/30. Jammed during LL.(Hauser)
- 6010 THAILAND. Thai TV Co., Bangkok, Thai songs 0915.(Wood)
- 6015 IVORY COAST. Abidjan, Fr 0630, fair.(Caldwell) Fr 0600-0800.(Rowell)
- 6015 SWITZERLAND. SBC, 1930-2030 Eng to UK, //9665.(Berghammer) Str. 2015 Eng.(Fogel)
- 6020 COLOMBIA. LV de Bogota, new on SW, 0055, 11/30.(Hauser) ID 0315.(Williamson)
- 6020 NETHERLANDS. R.Ned., mx 1240.(Brummel) 0630 Happy Station, het.(Hauser) Light
mx 1900.(Saman)
- 6025 PORTUGAL. R.Port., Eng to NA 0200-0230.(Landolt) Port ID 0100.(Upton) 0235 class
mx to ECNA, s/off 0245.(Daly) 2045 Port by Radio.(Saman)
- 6030 W.GERMANY. SIR, Ger nx, mx 0600 daily.(Calkin) 0700.(D.Ferguson)
- 6031 PHILIPPINES. FEBC, Manila, 1115 Eng rel p.m.(Lobdell)
- 6035 BRAZIL. R.Globo, ZYZ26, 0004 ID, 11/30.(Hauser) 0300 Port, ID 0330.(Daly)
- 6035 CANADA. CFVP, Calgary, 0500 20 over 9 lvl, local pgmmg, 11/26. Back to normal
lvl by 0515. 100 watts?(Shaw) Is that fqy correct? List 6C30.(Ed)
- 6035 RSFSR[As]. Vladivostok, 1400 Russ HS.(Berghammer) Khabarovsk list.(Ed)
- 6037 COSTA RICA. TIFC, 0413 serman, hymns, 12/1.(Hauser)
- 6040 COLOMBIA. LV del Tclima, 0223 IS, ID, Todelar net, 12/1.(Hauser) Mx 0330.(Upton)
- 6040 W.GERMANY. VOA, Munich, 0615 special Eng, //6035.(Hauser) 6035 is Monrovia.(Ed)
- 6045 MEXICO. R.Universidad, class. mx 0300. Good 11/21.(Caldwell)
- 6045 MOROCCO. VOA, Tangier, new fqy, Czech talk 2045. Good lvl.(Padula.)
- 6045 PERU. R.Santa Rosa, mx 0214, clear ID 0230.(Getman) (Wood)
- 6053 COLOMBIA. R.Pacifico, here 2330, 12/8. Changes daily.(Berghammer) RCN ID 0300.
- 6055 CZECHOSLOVAKIA. Prague, songs 1206.(Brummel) 0657 IS.(Hauser)
- 6058 ZAMBIA. Lusaka, rel svc 1830.(Wood)
- 6060 HONDURAS. R.Centro, daily 1200-1300 nx, cmtry, ads, IDs(Field) 6057 drift, Sp
0015.(Berghammer) 6059- 1214 ID, Banco Atlantida ad.(Hauser)
- 6065 SWEDEN. R.Sweden, s/on Swedish to Eur 0630.(Wood) 2045 pops.(Saman)
- 6067 COSTA RICA. R.Reloj, 0207 ID after nx, ads. Distorted.(Hauser)
- 6070 CANADA. CFRX, Eng 1500, good.(Fogel) Eng 1100, fair.(Penn)
- 6070 THAILAND. NBS, Bangkok, s/on, IS, anthem, ID 1030.(Wood)
- 6073 CUBA. RHC, drift from 6060, 12/5 only, ID 0400.(Wood) (Upton)
- 6074.5 COLOMBIA. R.Sutatenza, 0158. Full ID incl. Boyaca state.(Hauser) ID 0225.
- 6075 RSFSR[As]. Volgograd(list, appears correct), Moscow ID 0400.(Wood)
- 6077 HONDURAS. LV del Junco, 1235 ID after ads, 12/1.(Hauser)
- 6080 E.GERMANY. RBI, 0330 in Eng. Exc 12/2.(Caldwell) Mx 1211.(Brummel)
- 6080 ALGERIA. RTV Algerienne, Fr hit mx 0630, //11835.(Calkin) Fr 2300, weak.(Marcus)
- 6081 PERU. R.Nac. del Peru, Lima, Sp ID 0330, TC, mx. Heavy het 6080.(Calkin)
Mx, IDs 0015, in Sp.(Koukol) 0115.(Hauser)
- 6085 CONGO(DR). Kisangani, s/on Anthem, 0400.(Wood)
- 6085 NETHERLANDS. R.Nederland, 2000-2050 Eng to UK, //6020.(Berghammer) 0030 Sp to
SA, s/off 0120.(Daly)
- 6085 NETH.ANTILLES. R.Ned, Bonaire, 2350 IS, Ger. Test, poor reception 12/8.(Menna)
- 6090 AUSTRALIA. VLI6, Sydney, 0828 sports.(Hauser)
- 6090 DOM.REP. HISD, 0310-0325 country mx, ID.(Dubin) 6089- Dom. nx 1038.(Hauser)
- 6090 ENGLAND. BBC, 0400 Arab svc, poor. QRM Luxembourg.(Berghammer)
- 6090 LUXEMBOURG. RL, fair in Dutch 0645.(Marcus) 1207.(Brummel) Good 0528 w/ID by
woman, off 0530.(Dexter) (Hauser)
- 6090 NIGERIA. RTV Kaduna, consistent lately after 0500. Hausa/Eng(Shaw) 0537 ID.
- 6094 SOMALI REP. NBS, Mogadiscio, 0345 Afr nx in Somali, poss irreg sked(Berghammer)
- 6095 COLOMBIA. LV del Centro, 0418 TC for 1119, ID.(Hauser)
- 6095 IRAQ. Baghdad, fair in Eng nx 1940.(Marcus) 2045 Ger, then Fr.(Sizer)
- 6099 BIAFRA. R.Biafra, still noted 2300.(Berghammer)
- 6100 W.GERMANY. DW, nx, mx, cmtry 0500-0515.(Randall)

- () HAITI. R.Lumiere(Tentative), mx, Fr 0525, IS gongs 0530.(Shaw) Rather late.(Ed)
 6103 HAITI. La Voix de la Revolution Duvalieriste, Fr w/light mx 2200.(Calkin)
 6103.5 INDONESIA[Java]. V. of Indonesia, 1430 Eng ID.(Hauser)
 6105 BRAZIL. Ceara R. Clube, Port nx 0932.(Hauser)
 6105 PORTUGAL. RFE, Polish 0620, jammed.(Hauser) (Wood)
 6109 CHINA. CPBS, Peking, new freq, 0700-1400. Do not confuse RRI, V.Chin.Air Force.
 6110 AZERBAIJAN. Baku, s/on HS under BBC SW.(Calkin)
 6110 ENGLAND. BBC, 0140 recipe for snake soup in the World Service.(Randall)
 6110 NETH.ANTILLES, TWR, 0832 ID in Port, not 6105 listed.(Hauser)
 6115 CONGO REP. RTV Congolaise, good lvl 0450, ID in Fr 0500.(Dexter)
 6115 PERU. R.Union, Lima, 0058 ad, QRM.(Hauser)
 6120 W.GERMANY. D.Welle, Eng nx, features 0500-0511.(Tenenbaum) 1940-2030 Sp to S.Eur
 // 9606.(Berghammer)
 6120 HAITI. LIVE, Cap Haitien, Fr rel pgm 1030-1050.(Marcus)
 6120 SWITZERLAND. SBC, 0130 Eng to ECNA, //11715, 9535.(Daly)
 6125 BELGIUM. RTB, Eng 0044-0058 to NA on a Mon.(Altschuler)
 6130 CANADA. CHNX, 1000 Eng, good.(Penn)
 6130 ECUADOR. HCJB, 0431 Russian.(Hauser)
 6130 SPAIN. RNE, Eng 0300. Good 11/24.(Caldwell) Eng to NA 0300-0340.(Altschuler)
 0130 Eng to NA.(Kaltwasser) 0203 end Eng nx.(Marcus)
 6135 POLAND. Warsaw, fair 0202, begin Polish.(Marcus)
 6145 W.GERMANY. D.Welle, 0200 Ger to NA.(Fogel)
 6145 VATICAN. VR, fair 0125 s/off Fr.(Marcus) Eng to NA 0050.(Baines)
 6150 COSTA RICA. R.Atenea, new or perhaps reactivated, well hrd after 0500, light mx,
 both LA and NA, many clear IDs.(Hirst) 'Ronda Musical Atenea' 0500, verified.
 (Wood) 0150-0250 pops, ads, since 11/5.(Nblack) 0615 ID.(Hauser) Good after
 0500, app not on every day. To past 0700.(Dexter) 0600 dance mx.(Sparks)
 6150 ENGLAND. VOA, Woofferton, 0443 Russ ID.(Hauser)
 6155 AUSTRIA. Vienna, 0018 Fr talk.(Marcus) 0200 multilingual ID.(Fogel)
 6155 JAPAN. FEN, Tokyo, nx, mx. Good lvl.(Shaw) Tim?(Ed) 0920 rel, ID 0928.(Hauser)
 6160 CANADA. CKZN, 2030 Eng.(Berghammer) Apparently St. Johns, Nfld.(Ed)
 CKZN, Vancouver, 0800m midnight TC.(Hauser) CKZU?(Ed)
 6160 COLOMBIA. Em.Nueva Granada, 0200 RCN combined ID.(Hauser) 0430-0450 Sp, LA mx.
 (Tuchscherer) RCN ID 0530, Sp.(Lindgren)
 6162 ZAMBIA. Lusaka, Eng ID 1830.(Wood)
 6165 MEXICO. La Voz de la America Latina, 0230 Sp.(Caldwell)
 6165 SWITZERLAND. SBC, Italian nx 1217.(Brummel) Fade in 1730, 11/30. Winter
 conditions.(Berghammer) Folk mx 0545-0600.(Randall)
 6170 PHILIPPINES. PBS, Manila, (back from drift to 6165), Eng nx 0700.(Wood) 6165-
 Eng science talk, ID 0900. Note move from 6170.(Sparks) Dates?(Ed)
 6170 VENEZUELA. R.Nacional, 1008 s/on 5020 not mentioned.(Hauser)
 6175 BRAZIL. R.Guarani, 0610 Eng pop mx, local ads. Well hrd.(Shaw) 0620 ID.(Hauser)
 6175 FRANCE. ORTF, 2110 ending Fr nx.(Marcus) Mx 1215.(Brummel)
 6175 MALAYSIA[Malaya]. RM, 1340 Indonesian talk, 12/5. (Hauser)
 6175 PERU. R.Tawantinsuyo, Cuzco, ID 0300.(Wood)
 6180 GUATEMALA. LV de Guat., exc w/Sp mx 0300.(Caldwell) Sp 0505-0600 s/off.(Soneff)
 6190A COLOMBIA. R.Nacional, ID 0357, Sp.(Menna)
 6190 W.GERMANY. P.Bremen, Ger nx 1220.(Brummel)
 6195 HAITI. R.Haiti, Port au Prince, good w/Fr ads 0205.(Marcus) 1058 Old Spice ad in
 Fr, 1101 ID.(Hauser) 1115 strong, Fr ID.(Lobdell) 0000-0030 mx, IDs, under
 VOA splash.(S.Kamp)
 6197 TUNISIA. Tunis, 2100 Arab, 12/7. Return from 5986.(Berghammer) Arab 0715, ID
 0730, strong.(Dexter)
 6200 LITHUANIAN SSR. Vilnius, Moscow Norwegian 1930-2000.(Berghammer)
 6200 COLOMBIA. R.Nac., good 0110 class. mx.(Marcus) 6198- 0310, 11/23.(Williamson)

- 208A ALBANIA. Tirana, Eng 0130.(Caldwell) 6200- Eng to NA 0130-0200.(Landolt)
 234 HUNGARY. Budapest, 2130 House Party.(Saman)
 245 BULGARIA. R.Sofia, 2000-2030 Arabic.(Berghammer) Greek, Sundays 0530.(Wood)
 250 PERU. R.Cuzco, 0230 ID, local programming.(Niblack)
 250 EQ.GUINEA[Fernando Poo]. R.Santa Isabel, 2213 light mx, s/off 2300, 11/27.(M.Kamp)
 253 N.KOREA. Pyongyang, 1057 weak in Korean, 12/1.(Macken) Korean 0830.(Rowell)
 280 N.KOREA. Pyongyang, ID by gal after chimes 1100. Gives fqys, into Eng.(Niblack)
 310 N.KOREA. Pyongyang, Korean mx 1940.(Brummel)
 700 PERU. R.Delcar, Chiclayo, request mx 0245.(Wood)
 025A CHINA. R.Peking, 0045 Eng.(Getman)
 092 ALBANIA. R.Tirana, Serbo-Croatian 1630.(Wood)
 095 CHINA. Peking, strong mornings around 1100.(Macken)
 105 SPAIN. RNE, 2000 Sp HS.(Berghammer)
 105 THAILAND. Thai TV Corp., fair around 1130. Do they QSL?(Macken) 1105 dramatic
 pgm in Thai.(Lobdell)
 115 CONGO(DR). Kinshasa, 0545 Fr, mx.(Rowell) (Lobdell)
 115 THAILAND. NBS, good 1115 when ham QRM was low.(Macken) 1115 Thai mx, talks. /
 125 GUINEA. Conakry, str. in Fr 2230-0000 s/off, //9650, latter QRMd except Sat. /
 125 POLAND. Warsaw, Postbag 2130.(Saman) (Calkin) /
 130 DODECANESE IS. VOA, Rhodes, Arab 0400 under BBC-London(Calkin) 0405 Arab(Marcus)
 130 PORTUGAL. R.Port., 2045 'This Week in Lisbon'.(Saman)
 135 MONACO. R.Monte Carlo, pop mx 0710-0745.(Getman)
 135 W.PAKISTAN. Karachi, new fqy, Urdu nx 1200, Bengali nx 1210.(Wood)
 139A INDONESIA[C+M]. RRI, Ambon, good 1145 w/local tunes.(Lobdell) 7140- pops,
 oriental songs, Indonesian 1048-1130. Into Chinese 1130.(Getman)
 140 CYPRUS. BBC EMP, s/on local ID 0256. Joins WS 0300.(Calkin) Arab 0410.(Marcus)
 150 UKRAINIAN SSR. Lvov(list), Moscow Eng to NA, 0100-0130.(Berghammer)
 160 MALAYSIA[Sarawak]. (tentative), poor 1107, thought to be Sarawak.(Macken)
 165 RYUKYU IS. VOA, Okinawa, Eng nx 1100.(Calkin) Good in Eng 1045.(Macken)
 170 N.CALEDONIA. ORTF, fair 1100 s/off 12/6, het.(Macken)
 175 S.VIETNAM. VTVN, poor to fair 1115. 7245 better.(Macken) 1115 Viet.(Lobdell)
 185 ENGLAND. BBC, 0400 WS to Medit., N.Afr. Good lvl, 11/25.(Williams)
 195 LIBERIA. VOA, Monrovia, 'Mx USA' 2230, good sig.(Michalenka)
 200 ENGLAND. VOA, Woofferton, nx 0600. Fair lvl.(Shaw) Good 0230 in Eng.(Macken)
 200 YUGOSLAVIA. Belgrad, s/off Sp 0128.(Marcus)
 210 SWITZERLAND. ICRC, 11/18-20-22, 2300-0000 Eng/Sp/Fr, next 1/20-22-24.(Michalenka)
 210 RSFSR[As]. Vladivostok, 1000.(Macken) Pwrful daily after 0900, pos. ID 1100(Hall)
 220 AUSTRALIA. RA, Indonesian 1030.(Getman)
 230 PHILIPPINES. FEBC, Indon svc 1325, nx, rel songs. S/off 1345. Clear IDs(Shaw)
 230 S.AFRICA. SABC, Afrikaans nx 1600.(Wood)
 234 W.PAKISTAN. R.Pak., drift, 1945-2030 Eng to UK, //9754.(Berghammer)
 240 NORWAY. R.Norway, Book report 1200.(Saman)
 245 ANGOLA. Em.Oficial, Luanda, s/on anthem 0500.(Wood) 7243- s/on 0500.(Shaw)
 245 S.VIETNAM. Saigon, weak 1350.(Shaw) 1106 Viet mx, talks, fair.(Lobdell)
 257A MONGOLIA. Ulan Bator, poor 1020 w/woman ancr. Bad Audio.(Macken)
 260 INDIA. AIR, Madras(list), 0130 s/on All India Variety pgm, sked to 0400, //9510,
 9575 - neither hrd. Good sig 11/21.(Berghammer)
 260 S.AFRICA. SABC, s/on 0430 w/IS. Eng/Afrikaans.(Shaw)
 268 INDONESIA[Java]. RRI, Djakarta, nx 1200.(Wood) Indon till 1230 when ham QRM.
 (Macken) S/on 1000, pops. Strong daily.(Hall)
 275 ITALY. RAI, 0425 Eng nx to Medit. Good 11/25.(Williams)
 280 USSR. Moscow English 1120 strong.(Macken) Komsomolsk list WRTH(Ed)
 280 CHINA. Peking, 1100 Cantonese under R.Moscow.(Berghammer)
 290 MONACO. TWR, 0730 Eng rel pgm. Sundays only.(Calkin)
 291 N.VIETNAM. R.Hanoi, 11/24 -Sun, 1145 Viet, //11794. New.(Berghammer)

- 717292 N.VIETNAM. Hanoi, s/on 1130 Viet. Eng 1200, //9840, 11840.(Hall)
- 7293A MALAYSIA[Malaya]. R.M., poor in Eng 1125, 12/7.(Macken) Eng 1110.(Lobdell)
Penang w/com'l svc 1250 on 7295. Pop mx, QM.(Shaw)
- 7295 MONACO. TWR, rel pgms 0649-0800.(Landolt) Eng Sun 0625-0655.(Altschuler) Eng rel
pgm 0650-0718.(Getman) S/on Eng rel pgn 0625, good to 0735.(Lstand) 0700 Eng rel
pgm to past 0800. Good.(Penn)
- 7300A ALBANIA. Tirana, Eng 0230.(Caldwell)
- 7345 CZECHOSLOVAKIA. Prague, 0100 Eng nx to NA.(Mohrman) 1630-1700 Eng to UK, 11/30.
Wintertime!(Berghammer) 2230 Czech ID.(Randall)
- 7399 CHINA. R.Peking, 1200 Mandarin HS.(Berghammer)
- 7428 CHINA. R.Peking, 1200 Amoy.(Berghammer)
- 7590 N.KOREA. Pyongyang, 1410 Eng talk, not hrd on 6480.(Tuchscherer)
- 9360 SPAIN. RNE, 2300 s/on Sp.(Green)
- 9457 CHINA. R.Peking, 0100 Eng to ECNA. Weak, //15060, 17673, dual path.(Berghammer)
- 9475 EGYPT. Cairo, good 2250 Eng.(Marcus) ID 0300, Egyptian mx.(Mappin) Close Eng
2300.(Green) 0200 Eng to NA.(Kaltwasser)
- 9490 CHINA. Peking, Eng s/on 1930, //11695.(Wood)
- 9499 ALBANIA. R.Tirana, 0930-1000 Eng to UK, late reception here.(Berghammer) 9495-
s/on Eng to NA 0130.(Daly)
- 9505 JAPAN. NHK, 1500 Eng nx.(Tuchscherer) 0400 s/on Eng nx, gen svc.(Seth)
- 9505 PHILIPPINES. FEBC, Manila, tribal dialects of Thailand 1145.(Wood)
- 9515 MALAYSIA[Malaya]. Penang, com'l svc s/off, anthem 1630.(Wood)
- 9515 SICILY. Caltanissetta, weak 0430 Fr, Ger nx, mx. Eng/Ital. on the hour.(Calkin)
- 9515 TURKEY. Ankara, good 2010 in Turkish.(Marcus) 2100 Arab mx, chants.(Randall)
- 9520 KUWAIT. KBS, 1945 Arab, 12/5. Thru R.Liberty, jammer.(Berghammer)
- 9530 PHILIPPINES. VOA, Poro, 1400 Vietnamese.(Berghammer)
- 9535 INDIA. AIR, Delhi, 1217 in Indian larg, Eng nx 1225-1240 s/off.(Getman)
- 9540 N.ZEALAND. RNZ, 0800 Eng to Pacific, fair 11/30.(Penn)
- 9545 W.GERMANY. D.Welle, 0445-0545 Eng to WCNA.(Rowell)
- 9545 GHANA. R.Ghana, good 2030 Arabic.(Marcus) 2140-2215 Eng, rel mx.(Tuchscherer)
Eng nx 2045, ID 2059, native mx, still on 2140.(G.Ferguson)
- 9545 MEXICO. LV de Vera Cruz, 2145 good w/class. mx.(Caldwell)
- 9545 NORWAY. R.Norway, s/on 0100 Eng weather forecast.(Baines) (G.Ferguson)
- 9550 BELGIUM. RTB, 'A Chat Abroad' 2200.(Baines) 9552- IS 2141, Fr to past 2215.
- 9550 GRENADA. WBS, 1700 local nx.(Berghammer)
- 9555 IRAQ. Baghdad, 1300 Arabic, long path.(Berghammer)
- 9560 JORDAN. Amman, weak to fair 1600-1700 Eng to Eur, ID 1700 'This is the
Broadcasting Service of the Hashemite Kingdom of Jordan'.(Calkin)
- 9570 QATAR. QBS, good conditions 11/28. ABC, same fqy, stronger than usual w/s/off
1500. Qatar hrd til 1530 fadeout w/Arab mx, man and woman talking.(Field)
1945 Arabic, 12/5. QRM Spain 9571 which carries easily confused Moorish music.
(Berghammer) 1500 Arabic mx, talk. Fair 11/27.(Sparks) \Wood)
- 9570 RUMANIA. Bucharest, 0430 Eng to WCNA.(Berghammer) End Eng to NA 0500.(Macken)
- 9571 CHILE. R.Portales, Santiago, Sp, mx, ID 0602.(Lindgren)
- 9575 EGYPT. Cairo, Eng 2200, good.(Baines)
- 9575 INDIA. AIR, Bombay, Variety pgn sked 1300-1500, noted 1330.(Berghammer)
- 9575 ITALY. RAI, 2046 IS, s/on 2050 Italian to ANZ, FE. Poor 12/7.(Penn)
- 9580 AUSTRALIA. RA, Eng nx 1230.(Baines) Read my letter 1245, 12/1.(Randall)
- 9580 S.VIETNAM. Voice of Freedom, Saigon, new, s/on 1057, Cantonese ID thru ABC.(Wood)
- 9585 FRANCE. ORTF, fair 1900 in Arab.(Marcus)
- 9590 CHILE. R.Presidente Balmaceda, Santiago, 1030 nx, mx. Sp.(Sizer) Measured here
0105 Sp nx, ID 0114. Left them at 0150.(G.Ferguson)
- 9595 BRAZIL. R.Cultura da Bahia, 0145 fast Port. Sports?(Tuchscherer)
- 9600 CZECHOSLOVAKIA. R.Prague, 1930-2000 Arabic.(Berghammer)
- 9600 ETHIOPIA. ETLF, IS 1515, BBC same fqy.(Macken) {See Dec, fqy omitted, sorry, Ed}

- 7600 UZBEK SSR. R.Tashkent, 1200 pwrful in Eng.(Sizer)
 7610 AUSTRALIA. ABC, Perth, mx, nx, race results 1200.(Randall) 1500 nx, wx.(Menna)
 7610 RSFSR[As]. Khabarovsk, Moscow Mandarin 1630, fluttery - dual path.(Berghammer)
 7615 BELGIUM. RTB, 2115 Fr/dutch/Eng.(Breton)
 7615 VATICAN. VR, Eng rel talk 0047.(Estand) 0050-0105 Eng to NA, //11895.(Kaltwasser)
 7620 FRANCE. ORTF, Fr nx by man 0311, 11/31. Good.(Estand)
 7620 YUGOSLAVIA. Belgrad, fair 1957 ending Fr.(Marcus) 1700-1730 Russ.(Berghammer)
 Eng nx 2000.(Seth) 2202 Eng nx to 2213 close w/ID.(G.Ferguson)
 7625 CANADA. R.Canada, Spanish, short ID 0028.(Lindgren)
 7625 SWEDEN. R.Sweden, fair 2110 Eng.(LM) 2045-2055 nx, mx, ID.(Randall)
 7630 CZECH. Prague, 0335-0425 mx, nx to NA.(Randall)
 7635 MONACO. TWR, fair 1945 s/off Port.(Marcus)
 7640 S.KOREA. Seoul, 1100 beginning Eng.(Calkin)
 7645 COSTA RICA. TIF3, Eng ID, rel skit 0334, 11/30 poor.(Estand)
 7650 E.GERMANY. RBI, 0400 nx, 11/3.(Dubin) 0330 Eng to WCNA.(Rowell)
 7650 USSR. Russ HS, 'R.Atlantica' 1615, possibly Leningrad.(Berghammer)
 7660 BULGARIA. R.Sofia, 1945 Eng to Europe, fair 12/7.(Penn)
 7674 POLAND. Warsaw, 1830-1900 Eng to UK.(Berghammer)
 7675 JAPAN. NHK, fair 1115 English. Indonesian 1116.(Marcus)
 7680 PORTUGAL. R.Port., excellent in Eng 0345-0430.(Altschuler)
 7682 ARGENTINA. RAE, Buenos Aires, Eng s/off, ID, request rpts 0700.(Calkin) 0325
 fair w/Argentine mx. Eng.(Marcus) Eng 0410.(Koukol) s/off Eng 0630.(Seth) ID
 0600, Eng.(Mappin) Sp ID 0234.(Lindgren)
 9685 ALGERIA. RTVA, fair 1800 Arab mx. (Marcus)
 9685 RSFSR[Eur]. 'R.Vilnius' Eng 2230-2300 Fri/Sun.(Calkin) 'R.Kiev' Eng 0030-0050,
 // 9665 on a Fri.(Nblack) Moscow list WRTH/FBIS.(Ed)
 9690 CHILE. LV de Chile, Sp, gong 0151, 11/18.(Lindgren)
 9690 NIGERIA. Lagos, good 1930 in French.(Marcus)
 9695 NETH.ANTILLES. TWR, Hour of Decision, 0230.(Baines)
 9705 S.AFRICA. R.RSA, Eng 0130-0230.(Altschuler) 0305.(Dubin) 2330-0320 Eng to NA,
 //11875, 15220.(Rowell, Daly)
 9714 CONGO REP. RTC, Brazzaville, 1850 Fr nx. Sked 1700-1900.(Berghammer)
 9715 NETHERLANDS. R.Nederland, 2100 s/on Eng.(Seth) ID, s/off 2145.(Randall)
 9720 BRAZIL. R. Nacional Rio, 2302 Sp ID.(Koukol)
 9720 SENEGAL. Dakar, fair 1900 in Fr.(Marcus) 0600 Fr ID, anthem.(Hagerman)
 9725 W.GERMANY. RFE, good 2245 w/talks, ID.(Koukol)
 9725 ISRAEL. Kol Israel, good 2015 Eng nx. No longer //9625. Recently 9725 has been
 covered by RFE.(Marcus) 2105-2130 s/off Fr, strong 12/6.(Fogel)
 9730 CONGO REP. Brazzaville, fair 1930 ending Eng.(Marcus)
 9730 E.GERMANY, 0100 Eng to NA.(Kaltwasser) Eng 0405-0415.(Randall)
 9750A CHILE. Soc. Nac. Minería, 0230-0310 Sp, LA mx. 70A under from 0300.(Tuchscherer)
 9755 W.PAKISTAN. Karachi, 2015 ending Eng nx to UK.(Marcus) 9754- Eng to UK 1945-
 2030, //7234.(Berghammer)
 9760 SPAIN. RNE, 0300 nx, Sp mx.(Dubin) Eng to NA 0100.(Breton, Kaltwasser)
 9760 SWEDEN. R.Sweden, 1230-1300 Eng to FE. 'Arctic night' reception.(Berghammer)
 9765 ENGLAND. BBC, London, 0345 Italian, Eur svc.(Rowell)
 9765 RWANDA. D.Welle, 2110.(Seth)
 9770 AUSTRIA. Austrian Radio, 0030 Ger/Eng/Fr.(Breton)
 9870 CHINA. Peking, s/off Chinese 2127.(Getman)
 9912 INDIA. AIR, GOS, 2100 Eng to UK, //7215 well hrd. (Berghammer)
 9945 CHINA. R.Peking, 2230 S.China dialect, LO over!(Berghammer)
 9985 CLANDESTINE. Idhaat ul Mamlakat ul Mutawakiliyat ul Yamaniyat, Yemeni Royalist
 Radio, Arab mx 1800.(Wood)
 11505 CHINA. R.Peking, 0200 Cantonese HS, time pips on the hour.(Berghammer)
 10530 KAZAKH SSR. Alma Ata, s/on 2359 w/chimes.(Baines)

- 11659 CHINA. R.Peking, 0100 Sp to LA, China QTH.(Berghammer)
 11655 EGYPT. Cairo, comment 2010, Arab mx 2015.(Getman)
 11697 CLANDESTINE. Peyk-ye-Iran, 1615 Kurdish.(Berghammer) (Marcus)\
 11700 GRENADA. WIBS, 2215, Eng nx 2230, hrd on rechex.(Niblack) 2225 mx, Eng, //15095
 11700 GUATEMALA. TGQE, pops, ID, address 0100.(Upton) 1500 nx, mx.(Mitchell) US pops
 2221.(Koukol) Sp 2300, exc.(Penn) 2103-2135 pops, IDs, TC.(S.Kamp) 11703V-
 exc 0200 Sp, now drifting widely.(Berghammer) 11706M- measured as high as this
 11/7, 2340-0000 tune out w/Eng, Sp.(Niblack)
 11705 SWEDEN. R.Sweden, 0330 Eng nx, cmtry.(Tuchscherer) Good 0330.(Caldwell)
 Eng 0345.(Mappin)
 11710 AUSTRALIA. RA, Eng DX to Eur 0735-0745.(Getman) 0755 stock report.(Randall)
 11710 INDIA. AIR, Delhi, fair in Eng nx 0104.(Koukol)
 11710 ARGENTINA. RAE, Buenos Aires, 2300 Eng to Eur.(Penn) 11711- Eng to Eur 2300,
 //11778 also hrd.(Berghammer) 11715- Eng nx 2300.(Lobdell)
 11730 NETHERLANDS. R.Ned., Happy Station pgm 1920.(Mappin)
 11735 MOROCCO. Rabat, Eng nx, ID, request pgm, from 1830.(Calkin)
 11740 AUSTRALIA. RA, fair 1500 Eng nx.(Marcus)
 11742 CHILE. R.Nuevo Mundo, good 0330 w/Sp mx.(Caldwell)
 11745 BRAZIL. R.Piratininga, Sao Paulo, 0103 live sports in Port.(Lobdell)
 11750 MALAYSIA[Malaya]. BBC FES, 1215 local IS, relay WS.(Calkin)
 11759 CHINA. R.Peking, Eng talk to ANZ. Weak. S/off 1030.(Randall)
 11760 USA. VOA, Greenville, s/on 1800 Eng to Eur on top of pwrful Havana.(Berghammer)
 11780 ARGENTINA. RAE, Italian s/on 2100.(Wood) R.Belgrano ID 0250, Sp.(Hirst)
 11780 N.ZEALAND. RNZ, 0715 'Tempo Tropicana' pgm.(Calkin) Eng 0800-0820 to Pac Is.
 (Randall) 0715 local nx, ID.(Mappin) 0600-0625 nx, ID, mx.(Mitchell)
 11782V MOZAMBIQUE. RCM, 0430 Eng pops.(Berghammer)
 11785 W.GERMANY. DW, s/on Eng to ANZ 0845.(Randall)
 11785 LEBANON. Beirut, to NA 0130-0400.(Berghammer) s/on Arabic 0130.(Seth) 0232-
 0240 fade out. Good some days.(Mappin)
 11785 VATICAN. Vatican Radio, 2330-2345 Sp to LA, new.(Berghammer)
 11794V N.VIETNAM. R.Hanoi, 1100 Viet, here 11/24. Varies 30 kHz.(Berghammer)
 11801 CEYLON. R.Ceylon, drift, comm svc sked 0130-0330, nrd 0200 Tamil, 12/2.
 Dual to 9720, 7190, both weak.(Berghammer)
 11805 W.PAKISTAN. Karachi, 1950 Eng to UK.(Sizer)
 11810 INDIA. AIR, Delhi, Eng talk 1435.(Marcus) 1330-1500 Eng to SEA.(Berghammer)
 11810 ITALY. RAI, 0100-0120 Eng to NA.(Kaltwasser)
 11810 RUMANIA. R.Bucharest, fair 0300 beginning Eng.(Marcus)
 11815 ASCENSION IS. BBC Relay, Eng nx to Afr 2025.(Getman)
 11820 MOZAMBIQUE. Lourenco Marques, Port mx 1830.(Wood)
 11825 TAHITI. R.Tahiti, Fr 0600.(Caldwell)
 11830 INDIA. Vividh Bharati, Delhi, film mx 0910.(Wood)
 11835 ALGERIA. Algiers, fair 1802 in Fr nx.(Marcus)
 11835 CEYLON. VOA, Colombo, 1500 Tamil, 11/24.(Berghammer)
 11837 HAITI. R.LVEH, organ mx 0145.(Wood) Fr 2320.(Marcus)
 11840 PORTUGAL. R.Port., 0213 lang, strong.(Tuchscherer)
 11850 GHANA. R.Ghana, fair 2005 Eng nx.(Marcus) Eng to NA 2000-2100, //9760.(Soneff)
 S/on Eng 2000.(Michalenka) Mx 2032.(Getman)
 11855 SAUDI ARABIA. Jeddah, Arabic 1910.(Marcus) Arabic 2200.(Calkin) 2222 Arab
 chant, ID, anthem, off 2232. Always strong.(Hagerman) Arab 2034-2045.(Getman)
 11860 ALBANIA. R.Tirana, Eng 2200.(Baines)
 11866 CONGO(DR) La Voix de la Fraternite Africaine, Lubumbashi, ID, drum mx, talk
 in Fr daily at 1800.(Calkin) Fair 1730 in Fr talk on Congo independence.
 (Marcus) 1900 Fr.(Berghammer) Fair w/ID 2000.(Mappin) Eng 1900-2000.(Penn)
 11870 GREECE. VOA, Thes., 1330 Czech. Jammed.(Berghammer)

- 11875 ITALY. RAI, s/on Fr to Afr. Off 1655. New fqy.(Padula)
 11880 MEXICO. R.Dif. Comerciales, 0330 Sp, class mx.(Caldwell) mx 1350.(Brown)
 11890 USSR. 'R.Kiev' 0430-0456, Eng.(Tuchscherer) Riazan listed.(Ed)
 11897V SENEGAL. Dakar, 1930 Eng, app replace 15115.(Berghammer) 11895- ad for
 'Loterie Nationale' 1945.(Wood)
 11900 TUNISIA. Tunis, fair 2310 Arabic nx.(Marcus) 2040 Arab mx, nx.(Sizer)
 11900 CHILE. CEL190 again readable this fqy, closing 0330a on a Mon.(Niblack)
 11905 ETHIOPIA. ETLF, new fqy, ex-11895, Hausa rel pgm 1900.(Padula) Multilingual ID
 1930, Eng nx to 1940.(Niblack) 1840-1930 Hausa.(Berghammer)
 11905 RWANDA. D.Welle, 0610 Eng ID.(Green)
 11915 LIBERIA. VOA, Monrovia, 0600-0700, Eng ID.(Tenenbaum)
 11920 IVORY COAST. Abidjan, good 1805 in Fr w/African mx.(Marcus)
 11920 KUWAIT. KBS, new fqy, ex-11940, 1600 Eng after IS, 11/30.(Macken) 1600 Eng, QRM
 from CRTF after 1630.(Sizer) S/on 1600 Eng nx, hit parade. QRM.(Lobdell) Now
 here 1600 Eng.(G.Ferguson)
 11920 USA. AFRTS, 0300 w/basketball. New fqy, 12/8.(Williams) Bethany.(Ed)
 11925 CHINA. R.Peking, 0300-0400 Cantonese to WCMN.(Berghammer) (Michalenska) \\
 11925 UZBEK. Tashkent, good 1213 in Eng, //9600.(Marcus) Good 1200 s/on Eng. \\
 11930 CONGO REP. Brazzaville, fair 1800 in Fr, //15190 stronger.(Marcus)
 11940 KUWAIT. KBS, Eng nx 1615.(Padula) 1600 ID, mx.(Menna) See 11920.(Ed)
 11940 RUMANIA. R.Bucharest, 0145 Eng talk on Hematology.(Tuchscherer)
 11945 CHINA. R.Peking, ID, lang nx 1030-1045.(Randall)
 11947.5 CHINA. R.Peking, Eng 0344, 11/24.(Lindgren)
 11950 LIBERIA. ELWA, s/off Eng 0745.(Wood) Eng 0600(Green) Eng nx 0710.(Estand)
 11955 CYPRUS. BBC, Limassol, 0215, Big Ben under VOA.(Tuchscherer)
 11955 MALAYSIA[Malaya]. BBC, Tebrau, Japanese 2200.(Wood)
 12000 EGYPT.Cairo, Eng 2200.(Baines)
 12000 RSFSSR[As]. Armavir, Russian 2115.(Getman) Sorry, make that RSFSSR[Eur].(Ed)
 12020 RSFSSR[Eur]. Armavir, German cmtry 2117.(Getman)
 12095 ENGLAND. BBC, London, 2117-2125 Arabic.(Getman)
 15019M N.VIETNAM. Hanoi, s/on 2000.(Padula)
 15040 CLANDESTINE. R.Fuzkadi, 2150 Sp nx.(Marcus) 15032a- s/on 2230 Eng ID.(Daly)
 15040 USSR. 0600 Russ HS, 11/28. Could be anywhere.(Berghammer)
 15060 CHINA. Peking, Eng talk 0114.(Estand)
 15070 ENGLAND. BBC, London, Chinese to FE 1500.(Randall)
 15080 CHINA. R.Peking, 0000 Sp to LA.(Daly)
 15080 INDIA. AIR, Bombay, GOS to E.Afr. 1750 in Eng.(Berghammer)
 15090 GRENADA. WBS, fair 2010 ending relay of BBC nx.(Marcus)
 15095 CHINA. R.Peking, Eng talk, ID 0429.(Estand)
 15095 GRENADA. WBS, 1600 Sun w/Eng. Weak, noisy. Early for this fqy, 11/24.(Williams)
 15100 GRENADA. WBS, 1945 Eng.(Kaltwasser)
 15105 GRENADA. WBS, 2000 relay BBC nx.(Daly)
 15105 BRAZIL. R.Rural, s/off Port 2330.(Seth)
 15115 JCJB 0350 rel pgm.(Dubin) 0300 Eng.(Altschuler)
 15115 SENEGAL. Dakar, 1955 Fr speech, 'Vive le President du Senegal'.(Sizer)
 15120 FRANCE. CRTF, strong 1920 in Fr.(Marcus)
 15120 VATICAN. VR, s/on Russ to Eur 1400.(Padula) Fair 1505 Eng nx.(Marcus)
 15125 E.GERMANY. RBI, new fqy, Arabic 1345. Ger 1400, to Afr.(Padula) (Wood) \\
 15125 TAIWAN. VOFC, currently excellent 0200 s/on Eng nx.(Niblack) s/on Eng 0200. \\
 15130A INDIA. AIR, Delhi, 1005 nx, cmtry, Hindi mx.(Randall)
 15130 USSR. 'R.Vilnius' 2245 in Eng.(Caldwell) Simferopol list.(Ed)
 15150 E.GERMANY. RBI, new fqy, s/on 1430 Eng to S.As., strong.(Padula)
 15160 TURKEY. R.Ankara, fair 1930 ending Fr.(Marcus) IS, s/on 1900 Fr nx, hrd to 2000
 when I left.(G.Ferguson) 2200-2230 Eng to Eur.(Kaltwasser) 0500 Turkish.
 (Mitchell)

- 15165 DENMARK. R.Denmark, good 1135 w/Danish.(Marcus) Eng, mx 1305.(Tenenbaum)
1730 s/on Danish.(Hagerman) 1250 'DX Window', cmtry, off 1318.(Getman)
- 15165 SYRIA. Damascus, Eng nx 2030, low modulation.(Padula) Eng 2030.(Daly)
- 15170 LIBERIA. ELWA, 1900-2000 Arabic, ex-15155, 12/8.(Berghammer)
- 15180 AUSTRALIA. RA, Eng nx 0439, 11/29.(Estand)
- 15185 FRANCE. ORTF, fair 1907 Fr nx.(Marcus)
- 15185 FINLAND. R.Finland, good 1055 in Finnish.(Marcus)
- 15185 TURKEMEN SSR. Ashkabad(List), Moscow Indonesian 1230, dual path.(Berghammer)
- 15185 VATICAN. Vatican Radio, Eng nx to Afr 1930.(Padula)
- 15190 CANADA. CIX, Northern Svc 2200.(Mohrmann) 1930 Eng to NA.(Daley)
- 15195 JAPAN. R.Japan, fair 2310 w/Eng.(Marcus) Eng talk 0311.(Estand)
- 15200 VATICAN. Vatican Radio, 1715 w/talk.(Marcus) What lang?(Ed)
- 15210 AUSTRIA. OR, 1800-1900 five langs to SA on odd dates, //9610 to ME.(Berghammer)
- 15215 TUNISIA. Tunis, new fqy, Arabic talk 2100, //11900.Strong.(Padula)
- 15220 AUSTRALIA. RA, Eng pgm, ID 2215.(Green)
- 15220 NETH.ANTILLES. R.Nederland(TWR lease), 2238 Sp nx.(Mohrmann)
- 15220 S.AFRICA. R.RSA, 0040-0120 Eng to NA.(Landolt)
- 15225 AFGHANISTAN. Kabul, 1300 Eng to Eur, good 12/8.(Breton)
- 15230 CEYLON. Colombo, 0300 light mx pgm anncd in Eng.(Calkin) Eng 0130-0230, BBC nx relay, mx, adc.(Tuchscherer) S/on Eng 0130, BBC nx 0200, mx to past 0245.(Daly)
- 15235 ASCENSION IS. BEC Relay, 0400 s/on WS to Central, S.Africa, strong.(Williams)
- 15235 JAPAN. NHK, 0220 Eng, 'Life in Modern Japan'.(Tuchscherer)
- 15245 FRANCE. CRTF, Afr svc well hrd 1900.(Shaw)
- 15245 W.GERMANY. DW, strong w/Russian 1545.(Padula)
- 15245 CONGO(DR). Kinshasa, good 0045-0100 Fr, w/Afr mx.(Marcus)
- 15245 S.AFRICA. R.RSA, mx 1910.(Brummel)
- 15270 ETHIOPIA. ETLF, new fqy, Malagasy pgm 1520. Mixed w/VOA, Tangier.(Padula)
- 15275 HAITI. R.LVEH, fair 1140 ending Eng nx.(Marcus) Eng rel pgm 0130.(Baines)
- 15285 CUBA. RHC, Eng talk 0307.(Estand)
- 15287A SYRIA. Damascus, good under a carrier 2015.(Shaw)
- 15295 FRANCE. ORTF, Eng nx 1915-1930.(Padula) 1915-1930, // Brazzaville fqys.
(Berghammer) Eng nx 1915.(Baines)
- 15300 JAPAN. NHK, s/on gen svc to Afr 1500.(Seth) Weak 0300 s/on Eng to As.(Altschuler)
s/on 0200 w/half hour in Eng, //15235, 15195.(Baines)
- 15305 USSR. 'R.Erevan' Sundays s/on 0800 Armenian, Fr 0850-0900. No break in carrier
from previous R.Moscow HS. Location?(Padula)
- 15315 PORTUGAL. Em.Nac., Lisbon, 2220 Port, fair.(Marcus)
- 15320 AUSTRALIA. RA, good 0300 ending Eng.(Altschuler)
- 15325 AUSTRIA. Vienna, new fqy, Ger talk 1330. Good lvl.(Padula)
- 15332 MOROCCO. RTVM, returned. Noted 1530 Arabic HS.(Berghammer)
- 15335 NETH.ANTILLES. TWR, DX pgm 2105, 'Music and You', s/off 2125.(G.Ferguson)
- 15340 PORTUGAL. Lisbon, new fqy, Overseas Svc, ex-15315, s/on 0915.(Padula)
- 15360 S.AFRICA. R.RSA, 2000-2050 Port to Angola, //17805.(Rowell)
- 15365 ITALY. RAI, 1930 w/Italian Opera till 2005 tune out.(Shaw)
- 16365 NIGERIA. RN, new fqy, Eng nx 1815. Also 0600 s/on Eng.(Padula) Eng nx 1640,
new fqy, steadily in use.(Niblack) Fair 1820 Eng nx on civil war.(Marcus)
15364v- Eng to Eur 1530-0700, //21453, 9690, 7275. Ex-15255.(Berghammer)
- 15380 RWANDA. DW, Kigali, 2030 Ger in non directional transmission.(Breton)
- 15395 S.AFRICA. SABC, new fqy, SWA svc. Eng rel pgm Sunday 0830.(Padula)
- 1541V ALBANIA. R.Tirana, 1630-1700 Russ. Evades jammers.(Berghammer)
- 15405 USA. WNIW, 'A Little Prayer for You', 1913.(Brummel)
- 15425 AUSTRALIA. VIX15, Perth, Eng comment 0001.(Hagerman)
- 15425 ETHIOPIA. ETLF, strong at s/on 1900 Fr.(Padula)
- 15430 INDIA. AIR, Delhi, Eng nx 1230.(Wood)

- 15430 S.KOREA. VOFK, currently exc lvl as early as 0205, Sp ID 0230.(Niblack) Sp at 0230 on 15432.(Marcus) 0300 Eng interview, fade by 0330.(Sizer)
- 15435 NIGERIA. NRC, Lagos, IS, Fr 1930.(Brummel)
- 15435 RWANDA. DW, Kigali, s/on Amharic, off 1445. QRM BBC.(Padula)
- 15435 MALAYSIA[Malaya]. EBC, Tebrau, s/on 2345 w/preview of pgmmg sked.(Niblack)
- 15436 TANZANIA[Tanganyika]. RT, drift, 1700 s/on Eng, 12/1. QRM DW.(Berghammer)
- 15440 PHILIPPINES. FEBC, Eng 0100, weak 12/2.(Macken) Eng 0100, weak.(Altschuler)
- 15445 W.GERMANY. R.Liberty, new fqy, 1305 Russian nx.(Padula)
- 15445 JAPAN. R.Japan, s/on 2345 Eng to NA, fair lvl.(Niblack) s/off 0045.(Macken) 0020 Eng nx, mx.(Tuchscherer) 2345-0045 Eng to ECNA.(Rowell) 2345 Eng.(Baines) Now well heard here 2345-0045 to ECNA.(G.Ferguson)
- 15450 E.GERMANY. RBI, German 1430. New fqy, to NW Afr.(Padula)
- 15480 NIGERIA. RN, Eng to 1925, then IS, Fr. Powerful.(Shaw)
- 15500 W.PAKISTAN. Karachi, 1133 Eng, fair 11/27.(Macken) East or West? Any pos ID?(Ed)
- 15509 CLANDESTINE. R.Espana Independiente, 1630 Sp, jammer same as 17700 and R.Euzkadi.(Berghammer)
- 15518M E.PAKISTAN, Dacca, s/on 0100 usual IS, seems to ID for Dacca. Fx-15455?(Niblack) 15522A- IS, then Eng 0100, weak but positive ID.(Macken) Eng 0210-0220.(Baines)
- 16105A CHINA.(tentative), Chinese Press Agency, 0015 in lang, weak 11/13.(Hagerman)
- 16300 N.KOREA. Pyongyang, 0100-0200 Sp to LA.(Sizer)
- 16310A N.KOREA. Pyongyang, 0100 Sp ID, s/on.(Hagerman)
- 17670 EGYPT. R.Cairo, 0000-0045 Arabic to SA, //17930.(Berghammer)
- 17673 CHINA. R.Peking, mx, woman anncr in Eng 0340, 11/19.(Lindgren)
- 17720 MARTINIQUE. Fr.Territorial Comm3vc, test in Fr/Eng 1330, 11/28(Fogel) SWBC??(Ed)
- 17720 TAIWAN. R.Liberty(VOFC tx), 0100 s/off Russ. Heavy jamming.(Berghammer)
- 17730 PHILIPPINES. VOA, Poro, Russian 0900.(Wood)
- 17730 USA. WNTW, 1853-2000 Eng to Europe.(Landolt)
- 17735 FRANCE. ORTF, new fqy, s/on Fr 133.(Padula)
- 17740 ASCENSION IS. BBC Relay, to Afr, open 1630 w/local ID.(Niblack)
- 17745 FRANCE. ORTF, Eng nx 1915-1930.(Marcus)
- 17750 CHINA. R.Peking, Eng 0132.(Getman)
- 17750 CUBA. RHC, new fqy, Eng nx 2050. Good lvl.(Padula)
- 17750 KUWAIT. KBS, s/on 0400, Eng ID, anncd to Pakistan. Eng off 0600. Not hrd since 12/2.(Padula)
- 17750 PHILIPPINES. VOA, Poro, 0030 Mandarin.(Berghammer)
- 17775 AUSTRIA. Vienna, new fqy, Eng ID 1450, to SEA.(Padula)
- 17780 TAIWAN. Taipei, Eng 0300, //17720.(Calkin) Eng s/on 0200, anncd //11825, 15125, 15435, 17720, 17920.(Soneff)
- 17785 JAPAN. R.Japan, 2200 s/on Gen Svc.(Green) 0000 Eng gen svc to NA.(Penn)
- 17790 S.AFRICA. R.RSA, 1900 mx.(Saman)
- 17793 CHINA. Peking, s/on Indonesian 0900.(Wood)
- 17795 S.AFRICA. R.RSA, 1900-1950 Eng to Eur.(Rowell)
- 17805 S.AFRICA. R.RSA, 1800-1850 Eng to Afr.(Rowell)
- 17810 NETHERLANDS. R.Ned., Eng nx 1900.(Baines)
- 17820 CANADA. CBC, 1517 Eng nx, Fr nx.(Mohrmann) 1845 SW Club,(Dubin)
- 17825 JAPAN. NHK, 0230 Eng.(Caldwell) Eng 2345-0045, 0200-0300. Reception varies (Soneff) Eng nx 0008-0032.(Tenenbaum)
- 17830 CEYLON. CBC, fair til VOA on 1140a.(Macken)
- 17830 E.GERMANY. RBI, new fqy, s/on 1045 Swahili. QRM Ceylon 1100.(Padula)
- 17830 SWITZERLAND.SBC, 1500 Eng nx,(Tuchscherer)
- 17840 AUSTRALIA. RA, 0230 pop mx. Good.(Caldwell) Good 0200 Eng to NA.(Macken)
- 17840 CZECHOSLOVAKIA. Prague, s/on Eng to Afr 1500.(Seth) (Seth)
- 17850 FRANCE. ORTF, strong 1930 ending Fr nx, business rpt.(Marcus) S/on Fr 1900
- 17850 RUMANIA. Bucharest, Eng nx to Eur. Good lvl.(Padula) End Eng nx 1305.(Marcus)
- 17855 ECUADOR. HCJB, good 1930 ending Eng.(Marcus)

- 17865 POLAND. Warsaw, seldom heard, fair 1230 Fr, Eng 1300, to Afr. Drifts as high as 17870 occasionally.(Padula)
- 17875 EGYPT. Cairo, Arabic ID 2245.(Wood)
- 17885 CUBA. RHC, 1530 Sp cmtry.(Mchrmann) Sp 2000.(Lindgren)
- 17895 CYPRUS. BBC, Limassol, s/on local ID 0455, into WS relay.(Wood)
- 17885 VATICAN. VR, new fqy, Eng nx to India 1510, strong.(Padula)
- 17890 TAIWAN. Taipei, Eng 0230.(Caldwell) 0310 Eng.(Rowell)
- 17895 PORTUGAL. R.Port., 1730 s/on Fr.(Green)
- 17920 EGYPT. R.Cairo, 1315 Eng to DEA, 12/9.(Green) 1345 Arab by Radio, in Eng.(Penn)
- 17945 W.PAKISTAN. Karachi, 1530 mx, songs, good lvl.(Mitchell)
- 21450 CZECHOSLOVAKIA. P ague, fair 1400 Eng.(Marcus)
- 21450 FRANCE. ORTF, new fqy, Fr 1515-1530.(Padula)
- 21450 F.GERMANY. RBI, new fqy, Eng 1330. Ex-21455.(Padula)
- 21455 NIGERIA. R. Nigeria, 1630 Eng nx, cmtry 1642.(Mchrmann) S/on Eng 1630.(Seth) Eng nx 1830.(Mitchell)
- 21465 EGYPT. Cairo, Voice of Africa, Eng mailbag 2115.(Padula)
- 21490 INDIA. AIR, new fqy, ex-21485, Eng nx 1000, NF. to avoid Vatican 21485.(Padula)
- 21495 PORTUGAL. R.Port., 1815-1915 Eng to Afr.(Rowell)
- 21510 NETHERLANDS. R.Nederland, 1600 Happy Station to ANZ.(Lobdell)
- 21512 PHILIPPINES. FEBC, Manila, Eng rel pgm 0930.(Wood)
- 21525 BELGIUM. RTB, Brussels, good 1405 with Flemish.(Marcus)
- 21535 S.AFRICA. R.RSA, 2100-2150 Eng to Afr.(Rowell)
- 21546 GHANA. R.Ghana, drift, 1400-1445 Port to Angola.(Berghammer)
- 21570 PHILIPPINES. VOA, Poro, 0030-0130, Burmese.(Berghammer)
- 21580 FRANCE. ORTF, Fr cmtry 2040.(Mohrman) 1700 Fr mx, //21620, 21645.(Williams)
- 21605 AFGHANISTAN. Kabul, new fqy, s/on 1200 Pushto, off 1255.(Padula)
- 21675 SWEDEN. R.Sweden, fair 1402-1420 Eng.(Marcus) 1400-1430 Eng to ECNA since 11/3. (Berghammer) 1420 Eng talk on stamps,(Mitchell)
- 21690 SWEDEN. R.Sweden, good lvl, Swedish 1000.(Padula)
- 21695 EGYPT. Cairo, s/on 1145 in Indonesian. Consistent.(Padula)
- 21700 PORTUGAL. Em.Nacional, Lisbon, 1825 in Port.(Rowell)
- 21715 USA. WNYW, new fqy, Eng nx 2100.(Padula)
- 21720 GHANA. R.Ghana, Swahili talks 1405. Good lvl.(Padula)
- 21725 USA. WNYW, 1612-1800, Eng to Afr.(Landolt)
- 21735 CZECHOSLOVAKIA. Prague, well heard w/Eng nx 1530 To Afr.)Padula)
- 21735 PORTUGAL. Lisbon, new fqy, ex-21495(from 12/2). Noted in Port 0915 at s/on to Africa.(Padula)
- 23460 RYUKYU IS. VOA, Okinawa, 2 x 11730 Chinese 2300.(Wood)
- 23500 JAPAN..FEN, Tokyo, 2 x 11750, ID, nx 2300.(Wood)
- 23710 USA. WNYW, Sciatuate, 2 x 11855, 0140 WNYW promo in Sp.(Hauser)
- 25560 ENGLAND. BBC WS carries Radio One pgm 1445 Mon-Fri.(Calkin) 25650?(Ed)
- 25670 ENGLAND. BBC, 1735-1745, mx, close Eng to Afr.(Landolt)
- 25730 NORWAY. R.Norway, good 1335 w/mx.(Marcus) Eng 1600 Sundays.(Seth)
- 25790 S.AFRICA. R.RSA, Eng to Middle East 1700-1730. Exc lvl.(Niblack) 1400 Eng sports to Afr.(Penn)
- 25880 MOROCCO. VOA, Tangier, Eng nx to S.As. 1200, regular.(Padula)
- 25950 USA. VOA, Greenville, strong to Eur, w/Armenian 1400.(Padula)
- 26040 USA. VOA, Greenville, Eng nx 1210 to Afr. Potent.(Padula) 1845 Eng to Africa. (Rowell)

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 Last month initials were used in crediting items in order to save space. Very little space was saved. In view of the obvious advantages of crediting by last name, the use of initials is now dropped.
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UNIDENTIFIED

- 3995 RSFSR(As). Unid QTH, relay Mayak 1230.(Wood)
 4725 Daily 1100-1200, powerful Asian, lang unknown.(Hall)
 4753 COLCMBIA. Unid Colombian, 0330 on 12/2, not Bolivia.(Berghammer) (Wood)
 4755 COLCMBIA. Caracol all-nite net. Frequent Caracol, Cadena Radial Colombiana IDs.
 4702 1145 to past 1230, man and woman talking w/mx briefly. Lang a little like that
 of USSR stations. Mongolia.(Field)
 4785 INDONESIA. Unid regional, 1319-1344 fade. ID 1330, didn't read it. QTH?(S.Kamp)
 4825 Russian 2050 w/talk.(Marcus)
 5000 Woman in Fr under WWVH anmt 0644, not noted on subsequent breaks.(Dexter)
 5027 Latin station around 0130.(Dexter) Maybe R.Rural? See 5027 this month.(Ed)
 5063 Latin station around 0140.(Dexter)
 5960 BCLIVIA. Which station, 1024 La Paz ad 12/7. TC. VOA both sides.(Hauser)
 6155 African here from 0612 IS, into pgm 0615. Nat. mx, Fr. Togo list FBIS.(Dexter)
 7125 Eng pop mx and Fr 0540. Low lvl, faded by 0550. No ID.(Shaw)
 7145 USSR. In lang on several occasions 1110.(Macken)
 7260 daily 1100-1230, on and off, pwrful, playing waltzes.(Hall)
 9580 2055 Eng nx, 'The General Svc of ...' I believe was said, 'R.Zambia'. Summer
 WRTH does not agree. Fair sig with some GRM. Is it Zambia?(Penn)
 9975.86 Almost daily, Arab around 1700 on, strong. Often jammed. Believed Yemen.(Hall)
 See 9985 this month.(Ed)

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HAPPY NEW YEAR TO ALL, ESPECIALLY TO

REPORTERS THIS MONTH

David Altschuler, Calif. SX-99	Mike Macken, Mass. SX-100
Fred K. Baines, NS. 51-S	J. R. Mappin, Wash. SX-100
Bill Berghammer, NY. R-4A	Leslie Marcus, NB. SW-4A
Joe Breton, Mass. S-53A	Rudolph Menna, Pa. Zenith
Kevin Brown, Mich. Masterwork	Henry Michalenka, RI. GR-64
Bert Brummel, Holland. Grundig	Arthur F. Mitchell, Ohio. SX-130
Dr. Bill Caldwell, Calif. SW-4A	Mark Mohrman, NY.
Gregg A. Calkin, NB. SW-4A	A. R. M. M. M. Ind. HQ-180A, SX-100II
James A. Daley, Jr., Ga. SX-43	Cesar Objio, Dom. Rep. HE-30
Thomas Daley, NY. SX-130	Bob Padula, Australia. CR-100, HA-230
Gerry L. Dexter, Wisc. HQ-180	Bob Penn, Ga. KT-320
Jeffrey Dubin, Pa. S-120	Harrison Randall, Mass. Telefunken
Bob Estand, Texas. DX-150	Sam Rowell, Wash. DX-150
Dan Ferguson, Fla. SB-310	Joseph Saman, Czechoslovakia. Tesla
Grady Ferguson, NC. SX-100	Michael Seth, NY. SW-4A
Marlin A. Field, Mich. SX-100	Edward C. Shaw, Calif. SX-130
Martin Fogel, Pa. Space Ranger	Al Sizer, Conn. DX-150
Bob Getman, Wisc. NC-125	John T. Soneff, Jr., La. Star Roamer
Jerry L. Green, Va. HE-30	Bill Sparks, Calif. R-4B
Bob Hagerman, Mich. Star Roamer	G. David Tenenbaum, Ill. GR-64
Dr. F. Earle Hall, Mass. HQ-180A	John D. Tuchscherer, Wisc. HQ-100A
Glenn Hauser, Colorado. HQ-160	Tom Upton, Texas. GR-64
Del Hirst, Texas. HQ-100	Rod Williams, Ga. SW-4
Charles Kaltwasser, NY. GR-64	Dr. Tom Williamson, Ontario. HQ-180
Mike Kamp, Texas. HQ-140-X	Richard E. Wood, Hawaii. HQ-180A
Steve Kamp, Texas. HQ-140-X	FBIS
Craig C. Koukcl, Ill. Grundig	SCDX
Dale H. Landolt, Ill. NC-88	WRB/WRTH
John L. Lindgren, Calif. HRC-500	

Last minit NEWS/TIPS
All times are GMT

FLASH
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SHEET
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Last minit NEWS/TIPS
All times are GMT

AL NIBLACK-EDITOR, 420 SHELBY STREET, VINCENTES, IND. 47591 Deadline 23rd of month

ANGOLA: Emissora Oficial, 4820, observed with IS, S/on at 0500, with a brilliant lvl signal. (Hagerman).. 5060 R. Clube do Huambo, Nova Lisboa, noted at 2100 with ID by M in Portuguese, followed by news. (Lobdell).. 5040 An unidentified station, seemingly an Angola outlet has been logged from 0715 till past 0800 fade with a signal that is 50/100kW quality. Prgmng in Portuguese and African vernacular. R. Clube de Benguela with new higher power?? (Churchill, Calif.).. 5960 Voz de Angola found with carrier at 0456, with IS. S/cn at 0500 with "A Portuguesa". (Shaw)

ARGENTINA: LRA heard from 0600-0700 in English time slot on anned 9690. (H. G. Randall) (Continual checks on this one indicate that actual operating fqy is near 9682, Editor)

ASCENSION IS: BBC Relay station S/cn at 1645 in English with parallels of 17740, 15400, and 15105, BBC newss at 1700, and 1800. (Balbi)

AUSTRALIA: (FLASH) Tests from the new Darwin xmitter center for 20 December were altered as to fqy. Delete 7160 and 15270, at 2230-1000, balance of fqys used as previously quoted in FS. (Balbi)

AZORES: 4865 Pnta Delgada heard at 2100 with 3 chimes followed by ID in Portuguese. Big lvl sigs, vy punk modulation. (Lobdell)

BURMA: 5040 Rangoon neted with classical music at 1220 (Shaw).. Rangoon, has been neted the past few weeks using a new fqy replacing 4795 - this fqy is 4725 which does not parallel 5040, and is somewhat lower in signal quality. S/off at 1445. (Churchill)

BOTSWANA: (FLASH) R. Botswana, Gaberones, logged with instrumental sign on tune at 2000 at weak lvl, on fqy of 4836. (Churchill)

BRASIL: 4975 R. Timbira do Maranhao, heard from 0304-0348 with Portuguese news(world, then local,, strongest signal on the band 12/11. Not heard since. (Hagerman)

CAMBODIA: 4908A R. Cambodia noted in Chinese on adjusted fqy. (Shaw).. R. Phnom-Penh is now neted on 4910 with Cambodian prgmng until past 1545. (Churchill)

CEA: 4904 (FLASH) R. Nationale Tchadienne heard at good lvl with African music, ID followed at 0600. (Steve Kamp)

COSTA RICA: 6150 The ID for this one seems to be for, "R. Atenea"; also, "Compania e Atenea", and, "R. Musical Atenea". (Hirst) (Please see last month's FS on this one, thanks for the confirmation, Editor)

DOMINICAN REP: 3215 (FLASH) This is indeed R. Libertad, fair lvl from 0320-0345A S/off. neted with Cms, ID, and religious prgmng. (Kamp) (Hirst)

ECUADOR: R. cenit, Portoviejo, heard on 4770A at 0615 with ID at fair lvl. (Kamp) .. CJE, is using new 17855 to Europe with English 2100-2200 S/off. (Balbi)

GILBERT & ELLICE IS: 4912.5 Tarawa heard with English after 0830, ABC news at 0900, air enough lvl some days. (Balbi)

GUATEMALA: 11700 R. Nacional, Quezaltenango, heard with excellent, local-like quality signal from 2103-2135, with pops, time checks, and an ID. (Kamp) .. 3380 R. Chortis cod nightly with signals with Sp. Cms, IDs, until 0300A S/off. (Hagerman)

GUYANA: 3265.5 R. Lemerara, Georgetown, found operating on an extended sked on this measured fqy from 0522 to 0735 tune-out, with definite ID with local ads and musical interludes of Xmas and light popular music. Also were relaying RA with complete ABC in . Signal strength was good but noise, interference, and low modulation made for only fair readability, all in English. (Mayo)

HAITI: 6195 Radio Haiti heard from 0025-0050 with fair sigs, light music, IDs at 030, 0045. (Kamp) (This one has been noted with excellent signals recently, wonder if increase of power, or conditions, Editor.

INDIA: Indian regionals are beginning to make occasional good showings on 90 meters, some as late as 1600. Heard recently AIR, Gauhati, 3235, with IS at 1559.. AIR, Bhopal, 3315, 1415 with vernacular prgming. And, AIR, Kuresong, 3355 at 1445 with Indian music. (Churchill).. All "AIR" stations have news now in English at 0245-0300, and 1530 to 1545; Hindi at 0230 to 0245, and 1515 to 1530; this is the latest schedule.

(B. L. Mandhar, India)

INDONESIA: 4750 IRI, Makassar, heard with classical music at 1330, good lvl signals. (Shaw).. RRI Studio, Ambon, is heard on 3241, with S/off at 1356 - W anncr with ID, usual electric guitar music, and ll struck on chimes just prior to carrier shutdown. Had Keran prgm from 1346. (Churchill).. RRI, Manado, 5990, heard with music, ID at 1358, then Djakarta news till 1410. (Kamp).. An unidentified RRI regional heard on 4785 till 1344. Possible Sumatra location. What say some one as to identity?? (Kamp)

KUWAIT: 11920 (FLASH) R. Kuwait has an English xmission at 1600-1730, underneath a strong sender which is bcasting in French. (Stevens).. R. Kuwait S/on at 1600 daily and has switched to 11920, but are bucking ORTF on same fqy. (Sizer).. KBS currently on 11920 with English from 1630-1730, strong QRM. (Balbi)

NEPAL: (SUPER FLASH) Via airmail direct from India just at press time comes this irfc regarding R. Nepal. Observed as follows: 1st xmission S/on at 0220 on 11970, 7105; 2nd xmission on 7105 (no time quoted, Editor); 3rd xmission on 11970, 7105 (no time quoted, Editor). Commercials noted as usual. One change though, they have deleted the English news bulletin at 0300, its all "Nepali" now. (B. L. Mandhar) (This xmission on 11970 might afford stateside DXers a shot at this one at 0220 as WBS is out of the way by then, Editor).

NETH. ANTILLES: TWR, Bonaire, beasts to Europe 2130-2215, on 11815. (Balbi)

MOZAMBIQUE: L. Marques S/off at 1433 after a prgm of classical music and jazz, ID by M in Portuguese at 1431, fqy 3265. (Churchill)

MARTINIQUE: 3315 R. Martinique often heard S/on at 1000A, fair lvl in French. (Balbi)

PAKISTAN: Via Special Delivery Churchill, Calif., advises of two unlisted Pakistan station that are being heard - one on 4745 with news in English at 1500, and national hockup at 1520. The other is on 4810 with all vernacular prgms till S/off at 1500.. 17945 R. Pakistan heard from 1331 till close at 1350 with their "slow" news in English, very good lvl. (Ferguson)

PHILIPPINES: FEBC S/on at 2330 with English on 15385, 15440, latter best lvl. (Balbi)

REUNION: 4807 R. Reunion heard from before 1500 with vy few IDs. (Churchill)

RWANDA: 11795 Kigali Relay heard from 0100 in German, new time and new fqy. (Balbi)

SARAWAK: R. Malaysia noted at 1230 with YL in Chinese - good. (Shaw)

SINGAPORE: 4780 R. Singapore using new fqy of 4780, English news at 1530. (Churchill)

SWEDEN: 21675 R. Sweden finally announces this fqy to NA at 1400. (Stevens)

VIETNAM: 7291A Hanoi has news in English at 1200, on this new fqy. (Hall)

ZANZIBAR: (FLASH, FLASH, FLASH) 6005 Logged at 0330 S/on preceded by March Anthen, followed by annct in native by M, then chanting. Lost in heavy QRM by 0345, is supposedly Zanzibar. List as tentative, reports Don Jensen, Wisconsin, at press time.

SUNSPOT COUNT AS FURNISHED BY THE ZURICH OBSERVATORY, 12-4-68: November 1968, 1-85, 2-70, 3-76, 4-93, 5-111, 6-97, 7-92, 8-89, 9-118, 10-131, 12-94, 14-89, 15-84, 16-79, 17-74, 18-69, 19-76, 20-92, 21-90, 22-85, 23-76, 24-62, 25-80, 26-94, 28-72, 29-75, 30-95 MEAN-88.3: PREDICTED-DEC-102 JAN-100 FEB-90 MAR-96 MAY-92. (Grady Ferguson)

Richard Wood of Hawaii sends along some corrections to previous Flashsheet. Due to space limitations it will be necessary to run them next month.

ACKNOWLEDGEMENTS: August Balbi, Calif.. Bruce Churchill, Calif.. Grady Ferguson, No. Carolina.. Ecb Hageman, Mich.. Dr. F. Earle Hall, Mass.. Del Hirst, Texas.. Don Jensen, Wisc.. Steve Kamp, Texas.. Chris Lobbell, Mass.. E. L. Mandhar, India.. Stan Mayo, Maine.. H. G. Randall, Mass.. Ed Shaw, Calif.. Al Sizer, Conn.. Bill Stevens, Penn.. Richard E. Wood, Hawaii. Our thanks to all who made the effort to supply material for this column.

To all those that sent us greeting cards at the holidays, many thanks, it is impossible to acknowledge each and every one. Please keep the reports coming, last minute flash items may be phoned to 882-3976, after 2200 GMT. Best of DX to all.