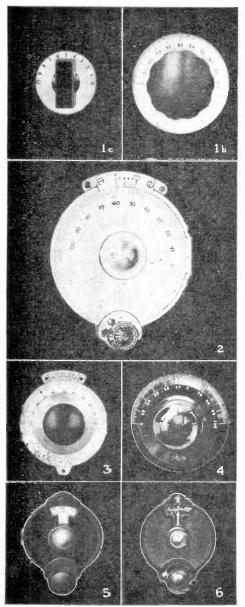


Only because the RME-69 was originally engineered as a really fine receiver has it been possible for owners to possess an instrument which TODAY is strictly up-to-the-minute in every detail. Information will be furnished upon request.

RADIO MFG. ENGINEERS, INC.

306 FIRST AVENUE

PEORIA, ILLINOIS, U. S. A.



NATIONAL DIALS

THE fine finish of a National Dial adds distinction to the appearance of your equipment and its accuracy insures precision. For years National Dials have been practically standard on the best of quality apparatus. They are known and respected by amateurs and professional alike. Space does not permit a complete listing here, and only a few popular models have been selected for a brief description below. Complete listings are given in the National Catalog.

The HRO (Fig 1a) is solid nicklesilver, $15_4''$ in diameter, and fits $\frac{1}{4}$ " shafts. (Net Price \$0.45) The Type O Dial (Fig. 1b) is likewise of solid nickel-silver. It is $3\frac{1}{2}$ " in diameter, and is well insulated from the $\frac{1}{4}$ " shaft on which it mounts. (Net Price \$0.90).

Precision Dials, Type N, have engine-divided scales and flush vernitrs of sold nickel-silver. The sixinch Type NW Dial (Fig. 2) has a powerful friction drive of adjustable ratio. (Net Price \$9.00.) The fourinch Type N Dial (Fig. 3) has a fixed ratio of five-to-one. (Net Price \$4.05).

The original Type A Dial (Fig. 4) for many years has been a favorite for general purpose use. It is exceptionally smooth and entirely free from backlash. The mechanism is contained within the Bakelite Knob and shell It is four inches in diameter, and the ratio is five-to-one. (Net Price \$1.80).

The Type B Dial is another old favorite, incorporating both variable ratio and built-in illuminator. It is inclosed in a Bakelite shell, with a window for marking calibrations directly on the scale. (Net Price \$1.65, Illuminator \$0.30 extra.). The Type BX Dial (Fig. 6) is identical to the Type B, but is equipped with a metal vernier and scale reading to one part in one thousand. (Net Price \$2.10). The Type BM Dial (Fig. 5) is a smaller, fixed-ratio version of the Type B Dial for use where space is limited. (Net Price \$1.50).

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Note:-Readers who may find it more convenient may send 5 shillings to Arthur Bear, 100 Adams Gardens Estate, London, SE16, England.

Readers ars asked to be careful not to mistake this organization for others which may have a similar name. This is the original International Short Wave Club and all mail should be addressed to International Short Wave Club, East Liverpool, Ohio.

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SHORT WAVE LISTENER'S SUPPLIES

Writing Many station owners are members of this organization and will

- Paper verify your report faster if they know you are a member. Nearly all station owners are acquainted with this organization. Some firms offer special discounts to members. In order to let everyone know you are a member, write your reports on, and send your orders on, our special stationery. It has the club emblem printed in blue ink, on a good grade of paper, typewriter size. The price, only 50c per hundred, postpaid.
- Club Many members have their own private stationery and wish to Seals use it and still let it be known that they are members of the club. For these members we have seals, or stickers as they are called, at 25c per hundred, postpaid.
- Globes We do not sell a map. Distances can not be measured correctly on most maps. For accuracy, beauty, and distinction we suggest a world globe. We have two models for sale. One a beautiful twelve-inch globe which usually sells for \$12.00. It is modern and up to-date, has many short wave stations marked on it, is washable and is printed in eighteen different colors. It makes a

wonderful addition to your radio and adds interest to short wave reception when visitors come. We have hundreds of unsolicited letters from people who bought these globes. Six different people have bought five or more of them after getting their first one. Many others have bought five or more. Seldom do we sell one without receiving a letter from the purchaser commenting on the beauty and the price. The price is \$2.75 F.O.B. Indianapolis, Indiana. You must send postage. Ask your postmaster for the postage rate on eight pounds from Indianapolis and add this to the \$2.75. The second globe is exactly the same as the first one except that it stands on the floor and uses a higher pedestal. The first one is sixteen inches high, the second forty inches high. The second one sells for \$3.75 plus postage on ten pounds.

Send all orders addressed to-

International Short Wave Club, East Liverpool, Ohio



Ladies wouldn't appreciate these features but you will

1. Main dial calibrated in Megacycles for ease in locating stations.

2. Vernier Tuning Control with 100 to 1 ratio drive.

3. A beat oscillator which can be turned on or off with a switch on the front panel to locate weak stations, or stations which are not talking as you tune by them.

4. An antenna rejection filter to eliminate many unwanted signals.

5. A handsome, rugged metal grey finished cabinet—a professional job throughout.

6. A phone jack for weak signal reception (and so that you can listen whenever you will without disturbing anyone else).

7.9 Metal Tubes.

8.520 to 23,000 kcs. or 555 meters to 13 meters.

9. 6-inch full electro-dynamic speaker.

HERE is a communication type receiver distinctly a man's set, with razor selectivity and keen sensitivity that will enable you to get stations you never could hear before—and the headphone jack which automatically cuts out the loudspeaker, so that you can listen to your heart's content at all hours of the day and night without hearing the familiar cry—"For heaven's sake, turn that off!"

RCA Communication Receiver ACR-155 **\$74,50** Complete with tubes



For further information write to Dept. IS

Amateur Radio Section

RCA MANUFACTURING CO., INC., CAMDEN, NEW JERSEY A Service of the Radio Corporation of America

NEW UNIVERSAL LANGUAGE TESTS

The ambition of twentythree years was realized last month by Prof. Carlo Spatari, with the publishing of his first book on his new Universal language. This new language is based on the musical symbols DO. RA, MI, FA, etc. These symbols are used by music students the world over. From eight symbols, Prof. Spatari has arranged a complete new language that can easily be understood after a few hours of studv. The symbols are spoken, not sung. By combining certain symbols, he has arrived at the place where a station can carry on a complete radio program without using any other language.

A series of test programs will originate in the studios of WMCA, New York City in September. Listening posts are being established in remote corners of the earth to relay the tests around the globe in an International hook-up.

The new book is a complete diagnosis of the new language, covering all the details. Plans now call for broadcasts from short wave stations and station

Prof. Carlo Spatari

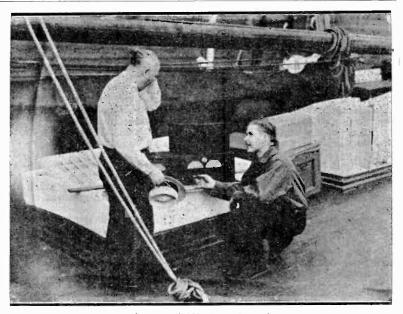
operators may get in touch with Prof. Spatari, who will arrange for all the programs. The present edition of the book is written in English, but a Spanish edition will be out soon. For details write to the Spatari Radio Foundation, Post Office Box 36, Woolsey Station, Astoria, New York.

WADIA BACK HOME

D. R. D. Wadia of Bombay, India, who recently visited America and Europe is back home, but due to the amount of work that piled up on him while he was away, he will not be able to answer any more SWI. letters.

THE SPIRIT OF PROGRESS IS CO-OPERATION

7



On The "Effie Morrissey"

In the above photo we see Captain Bob Bartlett of the Schooner "Effie Morrissey" and radioman Cliff Foss, examining a new RME-69 receiver and DB-20 preselector and booster. The "Morrissey" is now exploring the arctic regions somewhere near Greenland. W1OXDA is the call used by this ship and the station is heard on 14.255 mc. and 12.865 mc. working amateurs and with the University of West Virginia. The RME-69 was used by W1OXDA.

SPECIAL BROADCASTS

Ray Shaffar of Waterloo, Iowa, has arranged with station COGF, Matanzas, Cuba, on 11.80 mc. to broadcast special programs dedicated to members of this club on October 16th from J1:30 P.M. to 12:30 A.M. and again Saturday October 30th from 11:30 P.M. to 12:30 A.M. next day.

BOOSTERS

We give thanks for the friends we have. The following people have secured new members for us during the past month: C. J. L. Goldsworthy, London, England (3); C. E. Gates, Pittsburgh, Pa.; Walter E. Butts, Worthington, Ohio; R. Cooper, Norwood, Ohio; H. E. Clampett, Arkansas City, Kansas; DX Radio Sales, Beverly Hills, California.

THIS IS YOUR CLUB, MAKE IT WHAT YOU WILL

Greetings, Friends. This month we are trying another idea out. We believe it will be good and will be welcomed by most members. As a matter of fact we expect it to be copied by other magazines within a short period of time. The International Short Wave Club has originated many wrinkles which have been copied by other magazines. Our's was the first short wave club. We published the first short wave magazine. We were the first to publish a station list. We were the first to arrange special programs from overseas stations. We were the first to print a list showing what each station did, like broadcast, phone, etc. We were first to separate the broadcasters when they became numerous. We were the first to print broadcast stations in an hourly guide form. We were the first ot have chapters where members could meet. We were the first to have pennal lists. We were the first to use reports from listeners and give the listeners credit for sending in the news. We were the first to publish news by continents. We could go on taking up space to tell you more firsts, but what would be the use. Our ideas have been copied so much that many may believe we are copying from others, instead of them copying from us.

Anyhow, this month we give you news in the frequency order instead of by continents. Now when a listener tunes in a new station, he only has to turn to the page covering the band wherein he heard the station and there will be his information. Or, in case he wants to hear a new station, he will know what band to tune in when he starts searching and will not have to read the entire magazine. We would appreciate comments on this from members. Of course, it may be a little strange at first, but give it a trial and then let us know what you think of it.

And now, another appeal. We want every member of the club who is ill, bed-fast, crippled or otherwise handicapped to drop us a note and let us know about your troubles. Please don't be backward.

Next month we introduce, we hope, a new idea to help beginners. Each fall there are thousands of new short wave sets sold. This fall we expect to make many new listeners into ardent DX fans and I. S. W. C. members. Speaking of this reminds us that we would appreciate the firm name and address of any and all your local radio dealers who sell all-wave sets.

Fred Karpen, of Johnstown, Pa., whose photo appeared in the August issue has a baby girl, his first. Frank Grey, Berwyn, Illinois, also has a baby girl, the first in their family. Congratulations, fellows.

One last word. Hundreds of you readers will be buying new short wave sets this season. We know, from letters shown to us, that some rival organizations are sending out letters asking people to say they bought their sets through ads in their magazines, but if you like the old I. S. W. C. and the clean, up-to-date news and information we publish, just mention the I. S. W. C. to the people you buy your set from and also send us complete details on how the new set performs so we can pass the information along to your fellow-members who are interested in the same receiver.

FOR SALE-Scott XV, \$125, console \$10; factory seals intact; guarantee two years to run. H.A.C. S.W. log 500 stations. G. C. Gallagher, 18 Delano Avenue, San Francisco, California.

ARTIFICIAL VERIFICATIONS

As the result of a short note in our July edition regarding artificial verifications, we have received more than a hundred letters on the subject. This indicates an intense interest. To give new readers an idea of what we are writing about, we will explain the thing again. Several listeners have started a plan to tune in certain stations that are not good at verifying, and after checking up on what they heard, send out verifications which they, the listeners, have printed, verifying reception of the station for anyone sending them a report and so much money. The letters we received bring out one fact clearly. This plan endangers the future of short wave verification collecting and must be done away with. With all due respect to Messrs. Weyrich, Albohn, Jones and others, whom we believe were honest and sincere in their efforts to help short wave fans get verifications of stations that are slow to verify, we believe the thing must be stopped right now.

If listeners will undertake to verify stations, it will not be long until almost all stations would want to be excused from verifying, which is in itself, quite an expense to the station. It may be true that some stations will never verify now, but for an example, Mr. Weyrich checks and verifies HRN because it is claimed they do not verify, while members Rossi and Seymour of this club show us verifications from the station, a grey card with red letters. Regardless, however, of the few stations that may not verify now, there will be more refuse to verify if short wave fans take over the job for them.

Letters also show that there is in existence a so-called short wave club that is selling and exchanging verifications. This same club for years published specific reports. That is, they published the actual time a song or speech was heard by the reporter. Anyone could copy material from their magazine, send to the station and get a verification. By so doing, this organization has already reduced the value of a real verification no small degree. An organization of such a character should have been disbarred long ago, but there seems to be just enough cheaters in the world to keep it going. A station owner once wrote us that he received 24 reports following a bit of false information published in their bulletin, indicating that one man made a mistake and 23 others cheated.

Now this same organization is asking short wave fans to send there a sum of money and so many reports, which must be written on paper you buy from them, and they will guarantee a verification. They have already gotten several stations lined up with them, too. People interested in the future of short wave vertification collecting will see to it that none of their money and none of their reports go to such an organization. Better still, it would be best for every reader to resolve here and now that they will never pay anyone except the station, and then only the postage, no matter the circumstances, for a verification. All reports will be sent direct to the station. And, by refusing to join, cause any organization to fail that gives specific reports and offers verifications for sale by trick methods. The future of short wave verification collecting depends on how strong a stand is taken here and now against such practices.

SHORT WAVE NEWS

What many people call "skill" in tuning for short wave stations is nothing more or less than knowing WHEN and WHERE to tune for stations. Nearly all short wave stations are experimental and change their wave lengths or schedules almost without notice. To know when these changes take place is as important to successful reception as having a good receiver.

The time is given in Eastern Standard. Add five hours for Greenwich Mean Time.

4.00 to 5.00 Mc. (4 to 5 on Calibrated Dial)

RV15, Khabarovsk, Siberia, on 4.27 mc. has harmonics on 8.54 mc. and 12.81 mc. heard better that the original wave. HJIABB, Barranquilla, Colombia, moved to 4.85 mc. (Rossi, Pa.) HJ3ABD, Bogota, Colombia, is on 4.85 mc. now, and HJIABB is still on 4.78, (Oxrieder, Pa.) HJ3ABD is on 4.835, (Walcott, Calif.) On 4.86 mc. (Gallagher, Calif.)

5.00 to 6.00 Me. (5 to 6 on Dial)

YV2RA, Maracaibo, Venezuela, is now on 5.77 mc. not 5.75, (Oxreider and Rossi). TIGPH, San Jose, Costa Rica, was heard till 11:50 P.M., when schedule says 11:00 only, (Lowery, England). YV1RB, Venezuela, on 5.85 mc. was heard till midnight when schedule shows 10:00 P.M. only, (Lowery). YV3RA, Caracas, Venezuela, on 5.87 mc. now having moved from 5.90, (Oxrieder and Rossi). HRN, Tegucigalpa, Honduras, on 5.87 mc. was heard till 11:50 P.M., when schedule shows only 10:00 P.M. (Lowery, England and Kindell, New Zealand). ZNB, Mafaking, Africa, on 5.90 mc. broadcasts daily 1:00 to 2:30 P.M. now, (Hansen, Africa). XTW, Canton, China, on 5.91 mc. is a new phone heard calling Shanghai around 9:00 A.M. (Walcott, Calif.) PJC1, Willemstad, Curacao, West Indies, is on 5.95 mc. weekdays 6:36 to 8:36 P.M. Has 150 watts power and many have veries now.

6.00 to 7.00 Mc. (6 to 7 on Calibrated Dial)

9MI on the ship "Kanimbla," verie says they broadcast on 6.01 mc., has only 50 watts power and broadcasts every Sunday 6:00 to 7:30 A.M. (Myers, Calif.) FIQA, Madagascar, on 6.01 mc. seems to roam around anywhere between 6.01 and 5.90 mc., broadcasting midnight to 12:30 A.M. and 9:45 to 10:30 A.M. (Hansen and Walcott). Radio Philco at Saigon, Indo-China on 6.07 mc., according to announcements is really heard between 5.90 and 5.98 better, say they start Saturdays at 4:30 A.M., Sundays and Wednesdays 5:30 A.M. and other days at 6:00 A.M. and broadcast till 9:30 A.M. They were heard on 7.32 mc. for a while but moved to 5.89. They are also on about 11.71 mc. (Walcott). COCO, Havana, Cuba, on 6.01 mc. signs off at 11:30 P.M., not 11:00, (Worcester, Hawaii).

Rangoon, Burma, sends letter saying schedule is 9:20 to 9:40 P.M. and 9:00 to 9:30 A.M. Heard on 6.007 mc. (Walcott Calif.) Heard daily on both schedules. (MacIntyre, Burma). On schedule, (Hansen, Africa). XEUW, Vera Cruz, Mexico, heard on 6.02 mc. signing off at 12:30 A.M.,

not midnight, (Worcester, Hawaii). Heard till 1:00 A.M. (Lowery, Eng.) SBG, Matola, Sweden, is on 6.06 mc. from 1:30 to 5:00 P.M. now. A verie from ZHJ, Penang Wireless Society. 40 Perak Road, Penang, says 6.08 mc., 49 watts power weekdays, 6:40 to 8:40 A.M., but it is heard on 6.057, (Walcott. Calif.) Letter from George Vargas, Chief Engineer says OAX4Z is on long waves in Lima, Peru. OAX4T is on 9.082 mc. from 11:30 to 1:30 P.M. and OAX4Z is on 6.50 mc. from 7:00 to 11:36 P.M. (Gallagher, Calif.) OAX4Z has always been heard on 6.08 mc., not 6.50 and was heard as late as 1:00 A.M. (Lowery, England). Others say OAX4Z is on 6.08.

HJ5ABD, Colombia, on 6.08 mc. signs off at 11:00 P.M., not 10:00 P.M. (Pegge, England). W9XF, Chicago, on 6.10 mc. heard at 5:00 P.M., when schedule shows 10:00 P.M. to 1:00 A.M. (Edwards, Pa.) VPB, Colombo, Ceylon, moves around a lot. Veries say 6.16 mc. but they are now on about 6.097 mc. (Walcott, Calif.) On 6.115 (Gallagher and Walcott). On 49.2 meters, (Cooke, India). HP5H, Panama City was heard on 6.05 mc for some time, then moved to 6.122 mc. and then disappeared altogether, (Oxrieder, Pa.) A letter says OAX7A, on 6.128 mc., broadcasts daily 7:00 to 11:00 P.M. Address is Empresa Radiodifusora Cuzco, Calle Montero No. 43, Cuzco, Peru, (Rossi, Pa.) A letter from the station says Arequipa, Peru, once on 6.12 is now on long waves (Amers, Calif.)

CP12, Radio Tunari, Cochamba, Bolivia, is on 6.16 mc. irregularly, (Rossi, Pa.) ZGE, Kuala Lumpur, Asia, is moving around. Broadcasts Sundays, Tuesdays and Fridays, 6:40 to 8:40 A.M. on 6.21 mc. (Myers, Calif.) CP1, Radio Chuquisaca, at Sucre, Bolivia, was on 6.23 mc. for a while but was last heard on 9.895 mc. 9:00 to 10:00 P.M. (Rossi, Pa.) OAX4G, Lima, Peru, moved from 6.26 to 6.295 mc., below YV4RG, (Oxrieder and Rossi).

COWB, Havana, on 6.31 mc. heard at midnight twice, (Lowery, Eng.) COCW, "La Voz de la Antilles," Havana. Cuba, on 6.324 mc. was heard as early as 4:45 P.M. and as late as 11:00 P.M., using chimes as an identification, (Rossi. Stark, Legge and Heglund). OAX1A, Chiclayo. Peru, moved from 6.17 to 6.335 mc. and is heard 9:00 to 11:00 P.M. (Oxrieder and Rossi). Is on 6.30 and gave address as Post Office Box 9, (Worcester, Hawaii). TIPG, San Jose. Costa Rica, on 6.41 mc. heard at 7:00 A.M. and till midnight, not just 6:00 P.M. to 11:30 P.M. (Kindell, New Zealand). Has strong harmonic on 12.82 mc. (Stark, Mo.) Radic Guardia Civil, Tetuan, Spanish Morocco, is on about 6.48 mc. between 5:00 and 11:00 P. M. with war news, heard 7:00 to 8:15 P.M. quite regularly.

Japanese airports are heard on 6.48 mc. quite often around 2:00 to 5:45 A.M. Some are J2AA. J2IK, J3A1 and J2FA. HCVT, La voz de Tanghuria, at Ambato, Ecuador, is on 6.55 mc. evenings, (Rossi, Pa.) TI2M, San Jose, Costa Rica, is on 6.79 mc. irregularly, (Rossi. Pa.) XGOX, Nanking, China, was actually on 6.895 mc., not 6.82 as aunounced, (Walcott, Calif.) XBA, Mexico, actually on 6.96 not 6.98 mc., from 10:50 to 11:00 P.M., when schedule says 7:00 to 8:45 P.M. (Stark, Mo.) VK8SC, Port Hediund, West Australia, is on 6.96 mc. with 200 watts power. Is owned by Australian Medical Service to broadcast medical services to flying doctor. Heard Sundays 4:30 to 5:15 A.M. and once worked postmaster at Melbourne at 8:30 A.M. (Walcott).

7.00 to 8.00 Mc. (7 to 8 on Calibrated Dial)

FO8AA, Radio Oceanie, Tahiti, on 7.10 mc. broadcasts Tuesdays and Fridays 11:00 P.M. to midnight, but many times stays on till 12:45 A.M. Many amateurs may be heard using voice near 7.12 mc. evenings, particu larly those in the Canary Islands, like EA9BJ, EA8AS, EA8AK, EA8AE, and EA8AT. CR6AA, Lobito, Angola, Africa, is on 7.177 mc. Wednesdays and Saturdays 2:45 to 4:50 P.M. and sometimes on 9.666 mc. also. Address is Box 103, (Sokolovsky, Palestine).

A

A new Chinese phone is on 7.22 mc. between 7:00 and 9:00 A.M. (Walcott, Calif.) A Communist station, located at Radio Home, 10 Av de la Liberte, Becon Courbevoie, France, is on 7.32 mc. 6:00 to 6:55, but we are not sure if this is A.M. or P.M. This is direct from the station. KZGG, Manila, P. I., on 7.83 mc. was heard three days sending special broadcasts at 4:30 A.M. This is a phone station, (Myers, Calif.)

8.00 to 9.00 Mc. (8 to 9 on Dial)

YNPR, Managua, Nicaragua, seems to be moving around. Heard on 8.58 mc., 8.60 and 8.61 mc., according to reports. A new station HC1EC at Quito, Ecuador, was heard on 8.60 mc. once, (Rossi). XEAW, Vera Cruz, Mexico, is a new station reported on 8.63 mc. between 8:00 and 10:00 P.M. (Erwin, Ill.) Heard 9:00 P.M. to 12:50 A.M. using slogan "Auditorio del Continent" (Rossi, Pa.) ZUD, Pretoria, South Africa, is testing on 8.73 mc. between 7:00 and 8:00 A.M. Reports should be sent to the radio Engineer care of Postmaster Pretoria, (Hansen, Africa). ZMBJ on the ship "Awatea," no longer broadcasts on 8.84 mc., but they do phone Australia and New Zealand. Heard calling ZLT at 11:00 P.M. (Campbell, Calif.)

The African Broadcasting Corporation is testing a new station on 8.90 mc. every Sunday between 5:00 A.M. and 3:00 P.M. relaying programs from Capetown, (Hansen, Africa). JRZB on the ship "Yasukuni Maru" is on 8.90 mc. phoning JZG Japan (6.33 mc.) around 6:00 A.M. (Myers. Calif.)

9.00 to 10.00 Mc. (9 to 10 on Dial)

COBZ. or CO9BZ (they use both calls) at Havana, Cuba, was heard on a dozen waves between 9.00 and 9.30 mc. Using the slogan "Radio Sales" and giving address as Box 866, they were heard by many. Veries say 9.03 and right now they are closed to this wave, (Stark, Mo.; Heglund, Fla.; Caldwell, Pa.; Legge, N. Y.; Stempel, Conn.; Oxrieder, Pa) Heard 8:00 A.M. till 11:00 P.M. or midnight. On 9.10 now, (Eder, Minn.) Verie says 9.03, (Walmsley, Calif.; Amers, Calif.)

CODX, a new station in Cuba was heard on 9.125 mc. one midnight testing, but never since, (Oxrieder, Pa.)

Letter from George Vargas Escalante, Chief Engineer, says OAX4T is on 9.082 nic. from 11:30 A.M. to 1:30 P.M., while member Ernest Orchard of England, reports it on 9.66 mc., 12:30 A.M. to 1:15 A.M. once, and member Las Casas of Venezuela, reports it on 31.3 meters at 4:30 P.M. once. COBC, Havana, Cuba, called "Radio Progresso Cubano" moved to 9.31 mc. (Stark, Mo.) Is on 9.36, (Eden, Minn.) On 9.30, (Shaffar, Iowa). Gave address as Box 132, (Curiel, Curacao). Others say Box 32, not 132. On 9.39 at 5:45 P.M. (Pegge, England).

Verie from OAX4J, Lima, Peru, says they relay OAX4I on 9.33 mc. and also 9.52 mc. noon to 3:00 P.M. and 5:00 P.M. to 1:00 A.M. (Stark, Mo.) We believe this is a mistake, and they are actually on 9.34 mc, but announce 9.52—Editor. PLV, Bandoeng, Java, on 9.41 mc. is used now to relay programs, 5.30 to 9:30 A.M. and 6:00 to 6:30 P.M. (Cooke, Gallagher, Stemple and Walcott). XEWW, Mexico City, using the slogan "La Voz de la American Latina Desde Mexico," on 9.50 mc. broadcasts from 6:00 P.M. to midnight often, but not reguarly as they sometimes stay on 15.16 mc. till midnight. The address is Apartado 2516.

Club-member S. F. Carville writes to us that he operates the communist station called "Radio Liberte," near Paris, France. The latest schedule sent by him is as follows: On 9.83 mc. and 10.07 mc. from 9:00 to 9:55 G.M.T. or 4:00 to 4:55 A.M. in German. On 9.53 mc., 10.30 mc. and 7.32 mc. from 11:00 to 11:55 G.M.T. or 6:00 to 6:55 A.M., E.S.T. in Italian. On 9.45 mc. from 8:00 to 8:55 G.M.T. or 3:00 to 3:55 A.M., E.S.T., 10:00 to 10:55 G.M.T. or 5:00 to 5:55 A.M., E.S.T., and 20.00 to 20.55 G.M.T. or 3:00 to 3:55 P.M, E.S.T. in French. One thing we are not sure of. The station was heard 4:00 to 4:55 P.M., not A.M., in German So, all these schedules may be in P.M., not A.M. The address is Radio Home, 10 Ave. de la Liberte, Becon Courbevoie, France. They will soon test near 18, 23 and 27 meters around 7:00 P.M., Mr. Carville says.

HS8PJ, Bangkok, Siam, has moved from 9.35 mc. to 9.51 mc. and broadcasts Thursdays 8:00 to 10:00 A.M. (Walcott and Amers of California). This is a rare catch. They are also back on 19.02 Mondays, 8:00 to 10:00 A. M.

FlQA, Madagascar, is heard roaming between 9.50 and 9.58 mc. and heard around 7:30 to 10:30 A.M. Anyone in the U.S.A. getting them is just lucky. Try around 9.53 mc. around 7:30 to 9:30 A.M. XEFT. Mexico. moved to 9.55 mc. (Oxrieder, Pa.) A new station YSK, San Salvador, El Salvador, is heard on 9.552 mc, near HJ4ABH till 10:00 P.M. broadcasting. (Grey, Illinois). YDE, Bandoeng, Java, is back on 9.65 mc. after being on 9.55 for a time, (Rossi Pa.) Programs are reported on both 9.55 and 9.65 mc, between 5:30 A.M. and 10:00 A.M. by others. XTV, Canton, China, uses both 9.495 and 9.548 mc. now to phone Shanghai mornings, (Walcott, Calif.) Radio Manila, Manila, P. I., is still on 9.57 mc. broadcasting between 9:00 P.M. and 9:00 A.M. relaying KZEG and KZRM programs. Was on 11.84 for awhile, but seems to be on 9.57 now, (Myers, Baynes, Kindell, Walcott). A verie from VK3LR says 31.34 meters, not 31.32 as we list it, (Rastall, England). Starts at 12:30 A.M. on Saturdays, and around 2:30 A.M. other days. (Wilson, Campbell). CQN, Macao, China, may be on 9.93 mc, or 10.13 since member Stark says 9.93 and member Myers says 10.125. Anyhow a letter from the station to member Thoreson of Alberta, Canada, says they will soon move between 40 and 50 meters.

VK6ME, Parth. West Australia, on 9.59 mc. has sent out veries saying they have 200 watts. 2,000 watts and 5,000 watts. The latest one is shown by Ed Lips and says 5,000, while Emmett Riggle shows us one saying 200, PCJ, Hilversum, Holland, on 9.59 mc. was heard one Saturday at 8:00 P.M.

(Edwards, Pa.) This may not be a change in schedule, but a test broadcast—Editor.

A station using the slogan "Radio Universal" and relaying OAX5A, using the call OAX5C, is heard on 9.63 mc. till 11:00 P.M. (Worcester, Hawaii). Heard on 9.64 mc. and also on 11.80 mc. at same time (Ovrieder, Pa.) On 31.18 meters at 10:30 P.M. (Kendall, New Zealand). On 9.63 at 6:30 F.M. (Pegge, England). Would be at Inca, Peru.—Editor.

A new Japanese broadcaster is being heard on 9.62 mc. and 10.53 mc. daily until 10:00 A.M. using the call-sign JFAK, (Amers, Calif.) Is JFAK, Taihoku, Japan, on 9.625 mc. and heard 4:00 to 10:30 A.M. weekdays and to 10:15 Sundays, (Walcott, Calif.) Another new Japanese broadcaster is heard using JDY, a phone station on 9.925 mc. daily 7:00 to 8:00 A.M. and using the call JQAK, Dairen, Kwangtung. Was heard using English 4:45 to 5:00 A.M. once, (Walcott, Calif.) Is JDI on 9.90 mc. and heard at 7:00 A.M. (Grey, Illinois).

A stange new French station is heard on 9.68 mc., 6:30 to 8:00 P.M., signing off with the "Marseillaise" (Oxrieder, Pa.) We wonder if this is station "Fort De France" back on the air again.—Editor

LUA. Buenos Aires, Argentina, is on 9.70 mc. relaying the programs of LR3 daily, signing off at midnight, (Worcester, Hawaii). LUA is a commercial phone station.—Editor.

COCM, Havana, Cuba, is a new station heard around 9.80 or 9.85 mc. broadcasting between 6:00 P.M. and midnight and giving address as Calle 23 No. 482. Vedado, Havana. They relay CMCM "Transradio Columbia," Apartado 33. On 9.80 mc. (Edwards, Pa; Eder, Minn.; Shaffer, Iowa; Atherton, Vt.) On 9.85 mc. (Grey, Ill.; Stark, Mo.; Walmsley, Calif.) On 9.825 (Roberts, Ind.) On 9.87 (Nash. N. Y.) On 9.83 (Amers, Calif.) On 9.82 (Gallagher, Calif.) They announce 9.825.—Editor. A Chinese broadcast station is heard on 9.82 mc. around 9:00 A.M. (Walcott, Calif.) On 9.80 mc., 4:00 to 5:30 A.M. one Monday, (Karpen, Pa.)

CSW, Lisbon, Portugal, has discontinued their 10.04 mc. wave and are on 9.54 mc. daily from 3:00 to 8:00 P.M. (Ebbecke, Pa.) CSW noticed on 9.94 mc. at 5:00 P.M. now, (Oxrieder, Pa.)

19.00 to 11.00 Me. (10 to 11 on Dial)

JIB, Taihoku, Taiwan, Japan, on 10.535 mc. broadcasts now from 9:05 to 10:25 A.M. weekdays and 9:50 to 10.15 A.M. Sundays after regular phone work is completed. (Walcott, Calif.)

11.00 to 12.00 Mc. (11 to 12 on Dial)

A verie from XEWB, Guadalajara, Mexico, says 11.71 mc., Apartado 3808, Hospicio 50, (Walmsley, Calif.) This must be the station we called XEWV, heard on 11.33 mc. and 11.41 mc. between 9:00 and 11:40 P.M. last month.—Editor. The phone XTB, Shanghai, China, moved from 11.41 to 11.48 mc. and is heard mornings, (Walcott, Calif.) XETM, Apartado 74, Villa Hermosa, Tabasco, Mexico, is heard near 11.52 mc. between 7:09 and 11:00 P.M. (Rossi and Oxrieder).

WXA, Juneau, Alaska, is a new phone on 11.55 mc. and was heard one night at 11:00 P.M. calling WVD, Seattle. WVD on 11.93 mc. was heard

11:00 P.M. to 2:00 A.M., both stations used scrambled speech, (Walcott, Calif.) WXA may also use 5.32 mc., 11.55 mc. and 9.92 mc.—Editor. Another new phone is JVL, Nazaki, Japan, on 11.66 mc. heard phoning 6:00 to 8:00 A.M. (Karpen, Pa.)

HP5A, Apartado 954, Panama City, is a new station heard on 11.70 mc. broadcasting between 11:00 A.M. and 10:00 P.M. according to announcements, but heard as early as 6:30 A.M. and as late as midnight. Is usually heard 8:00 P.M. to midnight. A verie says they have 500 watts power. Was heard till 1:45 A.M. by one member. They announce "Star and Herald Theatre of Panama." Reported by members Pegge, Karpen, Caldwell, Shepperd, Wilson, Stempel, Oxrieder, Treece, Edwards, Legge, Hyde, Seymour, Etark, Adler, Eder and Atherton.

OER3 is the call of the Vienna station on 11.80 mc. and OER2 is on 6.072 mc. although veries say OER2 on both, (Rossi and Atherton). JZJ, Nazaki, Japan. sends us their schedule for September as 11.80 mc., 8:00 to 9:00 A.M., 3:00 to 4:00 P.M. and 4:30 to 5:00 P.M., but was heard between 6:30 and 8:30 A.M. by members Karpen, Davenport, Walcott and Lawrence). FIQA, Madagascar, may possibly be heard by someone roaming between 11.80 and 11.88 mc., broadcasting midnight to 12:30 A.M. and 8:30 A.M.

COGF, sends veries saying different things on them. All say they have 1,000 watts power and the address is Betancourt 51, Matanzas and they relay CMGF. They are on 11.80 mc. One verie says 1:30 to 4:00 P.M. and 6:00 to 10:00 P.M. (Atherton ,Vt.) Another says 1:30 to 5:00 P.M. and 7:00 to 10:00 P.M. (Scala, N. Y.) However, the station is heard nearly always till 11:00 P.M.. and sometimes till midnight, (Adler, Rossi, Pegge, Gallagher, Dement). 2RO, Rome, Italy, claims all programs will be on 11.31 mc. during September, their 9.64 wave will not be used. RFM, Khabarovsk. Siberia, a phone on 11.82 mc. has been heard broadcasting almost daily 5:00 to 10:00 A.M. (Karpen, Pa.) Heard phoning at 9:00 A.

W2XE. New York, must have changed schedule for they are heard on 11.83 mc. till 11:00 P.M. when schedule was till 9.00 P.M. only. They announced schedule till 11:00 P.M. (Dement, Stark and Nichols).

SGE, Motala, Sweden, opened up in June on 11.70 mc. and was heard from 1.20 A.M. to 11:00 A.M. irregularly and 11:00 A.M. to 1:30 P.M. regularly, then they moved to 6.06 mc. Is now used 1:20 to 2:05 A.M., 6:00 to 9:00 A.M. and 11:00 A.M. to 1:30 P.M. (Pegge, Eng.)

A station YSN or YSH, San Salvador, El Salvador is on 11.701 mc. broadcasting. Heard one Sunday using YSN 9:30 to 10:30 P.M. (Roberts, Ind.) Heard 9:13 to 9:20 using YSH and changed to 5.52 mc. at 9:20 P.M., and heard best on 9:52, (Slaughter, Texas). Radio Philco at Saigon, Into-China, is still roaming around between 11.70 and 11.73 mc. broadcasting till 9:30 A.M. and coming on any time between 4:30 and 6:30 A.M. CR7BH, Lourenco Marques, Portuguese East Africa, on 11.718 mc. is now on the air from 12:15 to 1:00 A.M., 9:30 to 11:00 A.M. and 12:45 to 3:45 P.M. weekdays and 5:30 to 7:00 A.M. and 10:00 to 12:30 P.M. and 1:30 to 3:30 P.M. Sundays, (Hansen, Africa). Americans should try around 7:00 to 11:30 A.M. Mrs. Alice Wilbur of New Jersey claims CR7BH tested three

nights from 7:00 to 8:15 P.M., last month. TPA, Paris, France, changed to 12.00 mc. from 11.72 mc. one day only last month, (Gallagher, Calif.)

XEVE, Mexicali, Mexico, was heard on 11.76 mc. calling Mexico once at 5:00 P.M. and once at 7:00 P.M. (Gallagher, Calif.) OAX5B verie says 11.796 mc. daily noon to 4:00 P.M. and 7:00 to 11:30 P.M. Owner is P. A. Umbert F, address Avenida San Luis, Inca, Peru. Slogan, "Radio Universal" (Rossi, Pa.) OXY, Denmark, on 11.805 mc. heard broadcasting test programs 5:10 to 6:00 P.M. last month, (Rossi, Pa.) Heard 7:00 to 8:30 or 9:00 P.M. many nights, (Bhosys, New York). At 7:00 P.M. (Shaffar, Iowa). At 8:00 P.M. (Roberts, Ind.) From 6:25 to 8:00, (Oxrieder, Pa.)

OLR4A, Czechoslovakia, is now on 11.84 mc. daily 2:30 to 4:30 P.M. and Mondays and Thursdays 7:00 to 9:10 P.M. OLR5A on 15.23 mc. was used once instead of OLR4A from 7:00 to 9:10 P.M. (Heglund, Fla.; Wooten, Ala.) WVD, Seattle, Washington, may be heard 11:00 P.M. to 2:00 A.M. on 11.93 mc. irregularly phoning Alaska, (Walcott, Calif.) H12X, Trujillo, Dominican Republic, on 11.97 mc. is heard Sundays and Wednesdays when schedule says Tuesdays and Fridays only 7:40 to 9:10 P.M. (Amers, Calif.)

12.00 to 13.00 Me.

A station CEB1109 or CB1109 is on on about 12.00 mc. It is located at Valdivia, Chile, and broadcasts between 7:30 and 10:00 P.M., but once till midnight. Frequency wobbles between 12.00 and 12.02 mc. Address announced as Box 642. Uses English at times, (Stark, Mo.) On 12.02, 8:00 P.M. to midnight, (Gallagher, Cal.) On 12.007, 6 to 10 P.M. (Oxrieder, Pa.)

TPZ, Alger, Algeria, on 12.12 mc. broadcasts some afternoons 3:30 to 4:30 P.M. and phones Paris often. CEB, was the call used by the Chilean station on 12.30 mc. recently according to members Wilson and Campbell. A letter, however, says no call has been assigned and they are simply called "Radio Service." (Rossi). Arguments still go on over the station announcing HIN on 12.48 mc: Some say it is a harmonic because they announce only 6.24 mc., but one member says they do announce their 12.50 mc. wavelength. He is Wilson of England. Is this a harmonic of 6.24 mc. or is it a regular station?

W10XDA on the "Effie Morrissey" is heard on 12.863 mc. at times working W20J, an amateur station. They also use 14.255 mc. and 17.31 mc. VVS, Mingaladon, Burma, and VVN, Fort St. George, Madras, Burma, phone each other weekdays 6:00 to 7:00 A.M. VVS is on 12.88 mc. and a verie says they have 750 watts power and work 10:00 P.M. to 7:00 A.M. (Walcott, Calif.) VVN is on 13.26 mc. W10XGY on the yacht "Iorano" heard on 12.8625 mc. at 9:30 P.M. at Dry Tortugas, West Indies, (Stark, Mo.) In the yacht "Elaino" and heard on 14.00 mc. (Wilson, England). The MacGregor Expedition to Ellesmere Island has a transmitter which will send special material to the U.S.A. for re-broadcast using 12.8625 nc., 17.31 mc., 8.65 mc. and 6.42 mc.

13.00 to 14.00 Mc.

HC2FA, "Radio Paris," Guayaquil, Ecuador, owned by a Dr. Francisco Andronde, is on 13.10 mc. Mondays 8:00 to 10:00 P.M. broadcasting. Has 15 watts power, (Rossi, Pa.) VVN, Fort St. George, Burma, is on 13.26 mc.

phoning VVS 6:00 to 7:00 A.M. (Walcott). VJZ, Rabaul, New Guinea, near Australia, was heard on 13.42 mc. calling Australia once at 6:00 A.M. (Karpen, Pa.)

SPW, Warsaw, Poland, on 13.63 mc. now broadcasts Mondays, Wednesdays and Fridays 12:30 to 1:30 P.M. and Sundays 11:30 A.M. to 1:30 P.M. according to verie, (Nichols, Fa.) This last is new. Heard Sundays, (Boothroyd. England, and Stark, Mo.) ZBG, Pahang, Federated Malay States on 13.6423 mc. was heard 7:30 to 8:15 A.M. phoning Java. A letter says they will not verily. Signed by Senior Engineer and address given as Posts and Telegraphs Dept., Pahang, (Walcott, Calif.) A station CFCT, Victoria, B. C., is heard on 13.00 mc. and a reply from the statiou does not say if it is a transmitter or a harmonic, (Amers, Calif.)

14.00 to 15.00 Mc.

EA9AH, Tetuan, Spanish Morocco, somewhere between 14.03 and 14.10 mc. broadcasts the same music over and over again and shouts "Viva Franco." Heard calling amateurs, but never works them. Heard between 4:00 P.M. and 11:30 P.M., usually on around 7:00 to 9:30 P.M. (Many). Heard till 1:00 A.M. once (Stark). A station called "Radio Raquette" on the battle front near Santander, Spain, is heard on 14.05 mc. giving war news and calling American amateurs around 11:00 P.M. to midnight, (Stempel, Conn. and Rossi, Pa.) EAJS, Bilboa, is also on about 14.03 mc. around 5:30 P.M. (Smith).

Hundreds of amateur stations are heard near 14.10 mc. talking to each other. The American stations crowd the band very badly, but with a selective receiver and careful tuning, a listener can tune in stations all over the world, including the most distant places.

UPOL, the Soviet station at the North Pole, is now on about 14,10 mc. and talks to amateurs between 2:00 and 4:30 P.M. (Rossi, Pa.) Letter says call is REAM and they are on 7 and 14 bands. Connections with Moscow are not made direct but through a transmitter at Rudolph Island, (Smith, England).

VE11N, of the Bowdoin-Kent Expedition has been assigned 14.285 mc. and 3.885 mc. and will visit polar regions Address Bowdoin College, Brunswick, Maine.

15.00 to 16.00 Mc.

RCH, a Siberian phone on 15.01 mc. phones another new station on 16.39 mc. daily 5:00 to 9:00 A.M. (Karpen. Pa.) RKI, Moscow, U. S. S. R., is on 15.08 mc., not 15.04 mc. and relay RAN programs between 7:00 and 9:30 P.M. nightly, (Oxrieder and Karpen). Heard on both 15.04 and 15.08 mc. at same time around 10:00 P.M. often, (Roberts, Ind.) RKI heard, (Atherton, Nelleman and Ebbecke).

SBG, Motala, Sweden, on 15.15 mc. was heard around 3:30 P.M. (Pegge, England). Heard on 15.16 mc. between 1:00 and 3:00 P.M. (Karpen, Pa.)

VPD2, Suva, Fiji Islands, was heard twice on 15.16 mc. instead of 9.54 mc. between 5:00 and 7:00 A.M. One was Monday and one was Tuesday, (Karpen, Pa.)

JZK, Nazaki, Japan, on 15.16 mc. sends a program showing they will be on the air during September from 12:30 A.M. to 1:30 A.M.; 8:00 to

9:00 A.M.; 3:00 to 4:00 P.M. and 4:30 to 5:30 P.M. The station was heard however, between 6:00 and 6:30 P.M. by members Bhosys and Teague and member Worcester of Hawaii says JZK and JZL on 17.785 mc. broadcast programs every Monday, Wednesday and Friday, 2:30 to 3:30 A.M. for Hawaii.

XEWW, Mexico City, on 15.16 mc. broadcasts from noon to 6:00 P.M. most days and goes to 9.50 after that. But at times they stay right on 15.16 mc. until midnight. OLR5A, Czechoslovakia, on 15.23 mc. broadcasts daily 2:00 to 2:15 P.M., but once was used in place of OLR4A from 7:00 to 9:10 P.M.

W2XAD, Schenectady, on 15.33 mc. say they broadcast 11:00 A.M. to 9:00 P.M. not 10:00 A.M. to 8:00 P.M. as we show. (Fortune, Pa.) Heard at 9:30 P.M. (Stark, Mo.) KKR, a phone at Bolinas, Calif., on 15.46 mc. relayed a program at 1:30 P.M. once and a WIK on 13.93 mc. sent one to Moscow at \$:30 P.M. (Stark, Mo.) CO9XX, operated by Frank Jones of Tuninucu, Cuba, tests on 15.55 mc. and may be heard in September, he says. He may also be on 10.22 mc.

16.00 to 21.00 Mc.

FZR, Saigon, Indo-China, is actually on 16.23 mc., not 16.20 and heard phoning Paris 6:00 to 8:00 A.M. (Karpen, Pa.) ITK, the phone at Mogadascio, Africa, moved to 16.44 mc. then 16.40 mc. and is heard between 8:00 and 10:00 A.M. (Walcott, Calif.) FZE8, Djibouti, French Somaliland, verie says they have 5 kw. power and phone Paris on 17.28 mc., and the first Thursday of each month from 7:45 to 8:15 A.M they broadcast. (Seymour, Maryland.) Heard 7:30 to 8:15 P.M. (Rossi, Pa.) Verie received. (Riggle, Ohio.) DAF, Nordenland, Germany, on 17.29 mc. phones a ship JRZP. (Cooke, India.)

W2XGB, Press Wireless, Hicksville, L. I., New York, on 17.31 mc. says schedule is daily except Saturday and Sunday 10:00 A.M. to 1:00 P.M. (Boothem, England.) Heard for awhile 9:00 A.M. to 1:00 P.M. but lately off at noon. (Wilson, England.) Heard till 11:30 A.M. (Amers, Calif.)

A new ship, the Yasukuni Maru, is on about 17.65 mc. phoning Japan and Germany. (Cooke, India.) PHI, Holland, on 17.77 pc. has changed schedule and now broadcasts daily except Wednesdays 8:25 to 10:25 A.M. instead of 7:30 to 9:00 A.M. Starts Sundays at 7:25 A.M. instead of 6:30 A.M., too. This station may suddenly appear on 11.74 mc. instead of 17.77 now.

W3XAL, Bound Brook, New Jersey, on 17.78 mc. has changed schedule and now broadcast 8:00 A.M. to 8:00 P.M. and then they go on 6.10 nc. from 8:00 P.M. to midnight, according to newspapers, but how can W9XF and W3XAL both be used on 6.10 nc. at the same time, we would like to know.

JZL, Nazaki, Japan, on 17.78 mc. is testing at times. Heard 3:00 to 3:30 A.M. ouce. (Walcott, Calif.) At 4:30 A.M. once. (Cooke, India.) A new Russian station on 18.02 mc, was heard sending music 6:00 to 8:00 A.M. once. (Karpen, Pa.) TYE2, Paris, France, a phone on 18.09 mc. is sending special programs from the World's Fair between 9:00 A.M. and

4:00 P.M. irregularly. (Karpen, Pa.) CGA. Canada, is on 18.18 mc. almost daily phoning 7:00 A.M. to 3:00 P.M. (Karpen, Pa.) A new Japanese phone, JVB on 18.19 mc. was heard calling Java 6 to 9 A.M. (Karpen Pa.)

A station COBT, Havana, Cuba, is heard on 18.75 mc. around 7:45 A.M. up to 2:00 P.M. (Roberts, Indiana.) This may be a harmonic of COBC on 9.36 mc.—Editor. A new Japanese phone, JVA on 18.91 mc. called Berlin and sent music once 5:00 to 7:45 A.M. (Karpen, Pa.)

HS8PJ, Bangkok. Siam, has returned to their old schedule. They are on 19.02 mc. Mondays 8:00 to 10:00 A.M. and on 9.51 mc. Thursdays 8:00 to 10:00 A.M. (Walcott, Calif.; King, England; Bell, Scotland; Treece, England.) Phoned DFB, Germany, 9:30 to 10:00 A.M. once (Walcott.) Please note they are on 9.51, not 9.35 now.

WITH THE REPORTERS

Each of the following people have sent us a report since our last list was published. To them we owe a debt of gratitude. Without them the Club would not exist.

Johann P. Curiel, Curacao, D.W.I.; Norman Baynes, Bangalore, India; William Darby, Dublin, Ireland; J. S. Bell, Falkirk, Scotland; N de Las Casas, Caracas, Venezuela; Reuven Sokolovsky, Tel-Aviv, Palestine; Ajodhia Pershad Saifal, Delhi, India; L. E. Hansen, Durban, Natal, Africa: M. Maclutyre, Amherst, Burma; R. E. Cooke, Champion Reef, Kolar Goldfields, India; John B. Keenan, Sydney, Australia; Douglas Worcester, Honolulu, Hawaii; Ingvar Gullberg, Hedemora, Sweden; Arthur Kindell. Wellington, New Zealand, Ricardo F. Rubio, Havana, Cuba.

The following English members wrote us: K. H. Bootham, Ashbourne, Derbyshure; Walter J. Wilson, London; L. Smith, London; H. Lowery, Hove, Sussex; J. R. Garrett Pegge, Chesham, Bucks; S. Boothroyd, Uppermill, Lancs; J. G. Treece, Beeston, Notts; P. Rastall, Manchester; Ernest Orchard, Weymouth.

I. Eppleston, Winnipeg, Manitoba; Louis Everett Thoreson, Ponoka, Alta.; Fred Atherton, Rutland, Vt.; J. B. Wooten, Mobile, Ala.; Carl and Anne Eder, Willmar, Minn.; Lester Elchepp, Stevens Point, Wis.; Neville Seymour, Baltimore, Md.; O. E. Stark, Pierce City, Mo.; J. Stempel, Bridgeport, Conn.; Mrs. P. C. Fair, Mansfield, La.; Mrs. Alice Wilbur, Newark, New Jersey; Mrs. Irving Heglund, Lake Worth, Florida; Edmund Davenport, Rutland, Vt.

G. C. Gallagher, San Francisco, Calif.; H. S. Campbell, Upland, Calif.; Ashley Walcott, San Francisco, Calif.; Roy Myers, Los Angeles, Calif.; Mildred and Harve Amers, Pomona, Calif.; S. H. Lawrence, Anamosa, Calif.; Stuart Walmsley, Los Angles, Calif.; Paschall Lynch, Colorado, Texas; Edward Slaughter, Plainview, Texas; Roy E. De Ment, Plainview.

Elmer Caldwell, Altoona, Pa.; George Ebbecke, Philadelphia, Pa.; Robert Rossi, Philadelphia, Pa.; Captain O. B. Oxrieder, State College, Pa.; Chester Dement, Upper Darby, Pa.; Thomas Nichols, Philadelphia, Pa.; Ford Edwards, Wilmerding, Pa.; Fred Karpen, Johnstown, Pa., Miss E. L. Fortune, York, Pa.

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ALWAYS MENTION THE CLUB WHEN BUYING

Gus Adler, Little Neck, N. Y.; Enrico Scala, Bronx, N. Y.; Nick Gaug, Bronx, New York; George Nash, Brooklyn, N. Y.; Prof. C. W. Bhosys, Brooklyn, N. Y.; Harry Noe, Brooklyn, N. Y.; Henry Nelleman, Chicago, Illinois; Emmett Riggle, Massillon, Ohio; Frank Grey, Downers Grove, Illinois; J. Herbert Hyde, Elmwood, Conn.; Earl D. Collins, New Bedford, Mass; J. Oram Shepperd, Andover, Mass.; Earl Roberts, Indianapolis, Ind.

LATE NEWS

The following bits of news were received by us too late to classify in our regular news section:

A station YSD at San Salvador, El Salvador, was heard on 7.894 mc. or 38.00 meters 9:30 to 10:30 P.M. once by member Palmer of Ohio. This must be the same station heard testing on 11.70 mc., 9.52 mc. and 9.552 mc. mentioned in other places in this magazine.

EAR, Madrid, on 9.48 mc., is now used only 6:30 to 3:30 P.M. OER3 is the call on 11.80 mc. RKI, Moscow, on 15.08 mc. is heard Sundays 1:30 to 3:00 P.M. JZJ, Japan, on 11.80 mc. tested August 8th to 15th from 6:30 to 7:30 A.M. (Ebbecke, Pa.)

Santiago, Chile, is heard on 12.007 mc. from 6:00 P.M. to 10:00 or 10:20 P.M. RNE, Moscow, is using different waves between 12.00 mc. and 12.10 mc. Heard on 12.07 mc. around 10:00 P.M. nightly. COCM on 9.83 mc. says apartado 33 and uses slogan "Ondas Corta Commercial." (Oxrieder)

COGF verie says weekdays 1:00 to 4:00 P.M. and 6:00 to 10:00 P.M. and Sundays 9:00 to 10:00 P.M. OLR5A heard at 10:00 P.M. once on 15.23 mc. (Atherton, Vt.)

Newspaper says ten kw. stations will be opened next year at Delhi, Bombay, Calcutta and Madras, India, and a five kw. station will be at Delhi. (Baynes, India.)

COCM, relaying CMCM, "Radio Columbia," is owned by Captains Ponce and Garcia Navarro, calle 23 No. 482, Vedado, Havana, Cuba, or P. O. Box 33. Has 1 kw. power on 11.80 mc. 8:00 A.M. to midnight. COBZ relays CMBZ. "Radio Salas," owned by Manuel y Guillermo Salas, San Rafael no 14, Altos, or Box 866, Havana. Has 1,500 watts on 9.03 mc., 7:42 A.M. to 12:10 A.M. next day Mondays to Fridays. Saturdays until 2:00 A.M. and Sundays until noon only. (Rubio, Cuba.)

The B. B. C. sends us this schedule for September:

21.53 mc.-GSJ from 6:00 to 8:45 A.M. and 9:00 A.M. to noon.

21.47 mc.-GSH from 6:00 to 8:45 A.M. and 9:00 A.M. to noon.

17.79 mc.--GSG from 1:00 to 3:15 A.M.; 6:00 A.M. to noon; 12:20 to 6:00 P.M. and 9:00 to 11:00 P.M.

15.31 mc.-GSP from 6:00 to 8:00 P.M.

15.26 mc.-GSI from 12:20 to 3:45 P.M. and 9:00 to 11:00 P.M.

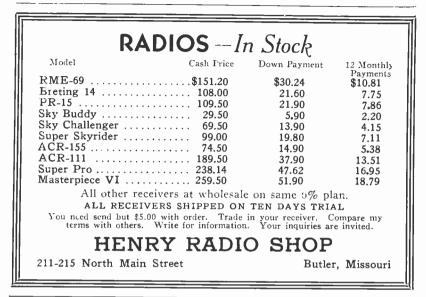
15.18 mc.-GSO from 1:00 to 3:15 A.M., 4 to 6 P.M. and 6 to 8 P.M.

15.14 mc.--GSF from 10:30 A.M. to noon, 4:00 to 8:00 P.M.

11.75 mc.-GSD from 1:00 to 3:15 A.M., 12:20 to 3:45 P.M., 6 to 8 P.M. and 9 to 11 P.M.

9.51 mc.-GSB from 1:00 to 3:15 A.M., 12:20 to 6 P.M. and 9 to 11 P.M.

THIS IS YOUR CLUB, MAKE IT WHAT YOU WILL



The Irish Free State has sanctioned the erection of a short wave station, no details of which are available yet. (Darby, Ireland.)

Germany. The programs scheduled for September follow:

- 17.76 mc.—DJE—12:05 to 5:15 A.M.; 5:55 to 11:00 A.M.; Sun. 11:10 to 12:25 P.M.
- 15.34 mc.-DJR-8:00 to 9:00 A.M. and 4:50 to 10:45 P.M.
- 15.28 mc.—DJQ—12:00 to 11:00 A.M., 4:50 to 10:45 P.M.; Sundays 11:10 to 12:25 P.M.
- 15.20 mc.—DJB—12.05 to 5:15 A.M., 5:55 A.M. to 11 A.M., 4:50 to 10:40 P. M., Sunday 11:10 A.M. to 12:25 P.M.
- 15.11 mc.—DJi.—12 to 2 A.M.; 8 to 9 A.M.; 11:35 to 4:30 P.M. Sundays 6:00 to 8:00 A.M.
- 11.77 mc.-DJD-11:35 A.M. to 4:30 P.M.; 4:50 to 10:45 P.M.
- 9.54 mc.-DJA-12:05 to 5:15 A.M., 4:50 to 10:45 P.M., 5:55 to 10:45 P.M.
- 9.56 mc.-DJA-12:05 to 5:15 A.M., 4:50 to 10:45 P.M.
- 6.02 mc.-DJC-11:35 A.M. to 4:30 P.M.

Germany also has experimental stations, DZA on 9.675 mc., DZB on 10.04 mc., DZC on 10.29 mc., DZE on 12.13 mc., DZG on 15.36 mc. and DZH on 14.46 mc. which may be used at times. DJO on 11.85 mc. is heard most every afternoon starting around 11:35 A.M.and lasting till 4:30 P.M. DZC, DZE, DZG and DZH broadcast every Wednesday for the Penambuco Radio Club (PRA8), Brazil, between 2:00 and 3:00 P.M. (Mascarenhas.

Brazil. Heard 5:00 to 5:30 P.M. with these programs, (Hansen, Africa). Heard at 2:00 P.M. (Studholme, England). On the 14th and first days of each month, stations DZC on 10.29 mc. and a station on 11.855 mc., either DJO or DJP relays a program from YUA, Belgrade, (See YUA news). A new phone, DFZ on 20.02 is in use. (Legge, N.Y.) DGD, Nauen, on 10.21 mc. worked Brazil at 8:00 P.M. once. (Atherton, Vt.) Another new broadcaster was heard on 15.35 mc along with DJR, DJQ and DLB at 6:00 P.M. (Wooten, Ala.) DZG 15.36 mc. and DZC 10.29 mc. sent programs several times to South America 4:00 to 6:00 P.M. (Karpen, Pa.) DJE, DJQ and DZH tested Tokyo, Japan, near noon several times. (Gullberg, Sweden)

OLR5A, 15.23 mc. is heard Mondays and Thursdays on some part of the program taking place 7:00 to 9:10 P.M. OLR4A is used on part of it.

PEN-PALS

The following people would like to correspond with short wave fans: Kenneth Botham, 27 Northcliffe Road, Ashbourne, Derbyshire, England. W. F. Herzog, Box 544, Center Moriches, New York. (Overseas only.) Jack Jordon, 39 Fawcett St., Mayfield, Newcastle, N. S. W., Australia. John Toodles, 357 Edgecombe Ave., Room 4-E, New York City. (Overseas) Paul Winkler, 23612 Lorain Rd., North Olmstead, Ohio. (Overseas, stamps) Alex Farkas, Jr., 1041 Crawford St., Bethlehem, Pa. (Overseas) E. Scala, Jr., 3310 Bainbridge Ave., Bronx, New York.

PLAY SAFE

Again this month, as in the past, we have received letters from members who say they wish they had taken our advise and bought their receivers and equipment from our advertisers. We have a hundred letters to show anyone interested in them from people who purchased receivers from firms not using our space and have been mislead. Before any firm can take space with us, they must be Okey. Play safe, patronize our advertisers.

FOR SALE—Patterson 104-AW all-wave 10-tube chassis with speaker in High-boy console. \$20.00. Also Patterson Pre-selector \$7.50. Both need some service. M. R. Barnthouse, 3723 Cudahy St., Huntington Park, Calif. Phone Jefferson 8046.

SEND EQUIPMENT REPORTS

Whenever you buy some new equipment, if it is a receiver, an aerial, a pre-selector or anything like these things, please drop us a letter or card and let us know how it works. We use your information to pass along to others interested in the same equipment. We are always far behind on our letters and are almost always in need of some letter on practically everything you can mention. Be sure and write. Help others like they once helped you.

with NEW DESK STAND



Ideal for desk, palpit, footlights, banquets. Leaf spring suspension acts as shock absorber STAND ONLY LIST \$4.00 NAME PLATE with call letters LIST \$2.00

MICROPHONES: Model RBHn (High Imped.): or RBMn (200 ohms) with cable connector \$ switch, LIST \$42.00 Models RBSn, RSHn, with switch only ...LIST \$32.00

NEW "HAM MIKE"

No Pecks! No Splashing! Recil Broadcast Quality! RF Choke Circuit included in microphone. Output,-68 db. Operates directly into grid. MODEL HAM (High Imped.) or MODEL HAL (200 ohms) ... Gunmetal. LIST \$22.00. Chrome LIST \$23.00. Price includes Ham Desk Stand. Call Letters, and 6 feet of cable

MODEL RAL \$22.00 LIST

A popular Amperite Velocity of very high excellence. Used for both speech and music. No peaks. Flat response over audible range. Out put,-68 db. Triple shielded. Shock absorber, swivel bracket. MODEL RAL (200 ohms): or MODEL RAH (2000 ohms) high impedance FREE: Window Decal & Window Display AMPERITE & SU BROADWAY, N. Y

CHAPTER NEWS

The first meeting of the fall season for the New York Chapter will be held at Stuyvesant High School, East 15th Street, New York City, either on the 10th or 17th of September. The main feature will be a demonstration of the new Scott 30-tube Philharmonic receiver, Also movies of foreign lands heard on short waves will be shown. For complete details drop a card to Jacob Kleimans, 861 East 27th St., Brooklyn, N. Y. A drive for new members will be started at this meeting. Members living in and around New York City should write immediately upon receipt of this magazine.

The London Chapter meets every Friday evening at 80 Theobald's Road, W.C.1, in center of London. Once each month they give a television demonstration which is very interesting. A new receiver is demonstrated every meeting, interesting speakers are introduced and there is always something new. The chapter holds open house at their club rooms every day. The room is equipped with a very attractive library, a short wave receiver and various other things. This chapter also publishes a monthly News Letter, a copy of which will be sent to anyone in the world sending them postage or a reply coupon.

Brighton Chapter meets Wednesday evening at 100 Cromwell Road, Hove, where there are spacious rooms. Every meeting adds interest. Receivers are demonstrated, members exchange notes and show verifications. Write John Bennet, 205 Braeside Ave., Brighton, 6.

The Guernsey Chapter meets every other Tuesday. Many special features are planned for the summer, details of which may be had by writing to F. S. LaPavoux, 8 Upper Canischers, St. Peters Port, Guernsey. The meeting place is 5 Wells Road, St. Peters Port. A station W1XAQ is on 31.60 mc. relaying WNBH, New Bedford, Mass., 2:00 to 6:00 P.M. Studios at New Bedford and transmitter at Fairhaven, (Collings, Mass.)

BIRTHDAY CELEBRATION

October marks the ninth birthday of this organization. But this year we will celebrate in December because we find more people interested at that time. Programs are being arranged now for December and we are going to give prizes for the best reports on these programs. The stations and dates will be announced in our November issue.

FOR SALE—Masterpiece IV, Skyrider Five, National AC3, Gress Eagle, Sampson amplifier, Perlman Oscillator, parts. electric hair clippers. Glenn Watt, Chanute, Kansas.

FOR SALE-DCSW National set, coils 15 to 550 meters, RCA speaker, extra tubes, no batteries. Make offer. Albert C. Koch, 3334 West 17th St., Cleveland, Ohio.

FOR SALE—Baird Universal Short Wave and Television receiver, 16 to 200 meters, cabinet, speaker, headphone, octocoils, tubes. A1 condition. Price \$35.00. C. D. Hodges, 902 Court Street, Lynchburg, Virginia.



WIN THIS GLOBE

One of these beautiful, eighteen color, highly finished, washable, lacquered twelve-inch globes will be given absolutely free to each and every person sending us ten memberships before March first, 1938. Words can hardly describe the real beauty of this globe. No less than fifteen people have bought five or more after buying their first one. Now we are offering one free of charge to anyone sending us ten memberships.

These memberships may be sent to us one at a time or all at one time. The member may send them to us or have the new member send it and tell us it is for him or her. We will keep a record of all memberships and as soon as the member gets ten, the globe will be sent.

We will pay postage up to one dollar on the globe. In places where the postage amounts to more than one dollar, the contestant must pay the postage over and above one dollar.

ULTRA-SHORT WAVES

A few members have written to us regarding stations heard on the ultra-high frequencies. Below we list what information we have on these stations. The figures given are megacycles. 25.95-W6XKG, Los Angeles, Calif. Broadcasts 24 hours daily. 26.40-W9XAZ, Milwaukee, Wisconsin. Relays WTMJ 1 P.M. to midnite. 30.57-KBCH, Pasadena, Calif. U. S. Forestry Service. 30.61-W2XEN, Roselle Park, New Jersey, Police. 31.60-W8XKA, Pittsburgh, Pa. Relays KDKA 3:00 to 11:00 P.M. 31.60-W3XKA, Philadelphia, Pa. Relays KYW noon to 10:00 P.M. 31.60-W1XKA, Millis, Mass. Relays W1XK 9:00 A.M. to noon. 31.60-W4XCA, Memphis Tenn. Relays WMC, 7:30 A.M. to 11:00 P.M. 31.60-W3XEY, Baltimore, Md. Relays NBC 6 P.M. to midnite. 31.60-W8XAI, Rochester, N. Y. Relays WHAM. 31.60-W8XWJ, Detroit, Mich. 6:15-12:30 P.M., 2-5 P.M., 7-10 P.M. 31.60-W2XDV, Wayne, New Jersey. Relays WABC. 31.60-W9XHW, Minneapolis, Minn. 9:00 A.M. to 5:00 P.M. 31.60—W9XPD, St. Louis, Md. Relays KSD 9:00 A.M. to midnite. 31.66-W9XJL, Superior, Wisc. Relays WEBC around 11:00 A.M. 33.33-W2XEM, Newark, N. J., Police. City Hall. 33.33-W2XFA, Jersey City, N. J. City Hall. 35.60-W1XAO, Boston, Mass., Police. City Hall. 35.60-W2XMS, Police station, location not known. 35.60-W3XFK, Police station, location unknown. 35.60-W3XES, Baltimore, Md. Relays WCAO, 9:00 A.M. to 5:00 P.M. 35.60-W2XDV, Wayne, N. J. Owned by CBS, 9-11 A. M. 37.10-W2XHP, Kingston, N. Y. Police. City Hall. 37.50-W3XES, Baltimore, Md. Broadcasts 5 to 11 P. M. 38.60-W2XDV, Wayne, N. J. Relays WABC. 41.00-W2XDV, Wayne, N. J. Relays WABC. 41.00-W2XGH, Schenectady, N. Y., daily 8:00 A.M. to 11:00 P.M. 55.50-W8XK, Pittsburgh, Pa., daily 1:00 to 9:00 P.M.

55.50-W1XKA, Boston, Mass., daily 6:00 A.M. to midnight, Sundays starts at 8:00 A. M.

AMATEURS

Every day there are hundreds of amateur stations heard near 20 meters between 14.11 and 14.30 mc. Many of these are overseas. None operate regularly. Here is a list of amateurs in Asia, Africa and Australia that actually have verified reports sent to them, and these veries have been seen by your editor. There are other stations on the air but we have not seen verifications from them. For addresses, we suggest that you buy a copy of Radio Amateur Call-Book which lists over 62,000 amateur stations, with the address of each one. These sell for \$1.25 a copy and we will accept your order for one. The list follows: Australia (all stations begin with call VK), VK2AZ, 2ABG, 2AP, 2AS, 2ABD, 2AT, 2OK, 2EX, 2EP, 2RB, 2LZ, 2UC, 2NO, 2HP, 2VA, 2TA, 2UJ, 2NY, 2IQ, 2TF, 2JZ, 2UD, 2SK, 2WJ, 2TF, 2JT, 2OO, 2TI, 2XM, 2XU, 3OC, 3KX, 3HL, 3ZL, 3WU, 3MR, 3GM, 3OC, 3WW, 4HR, 4BS, 4VD, 4BB, 4UU, 4JX, 4SX, 5JC,

BE A BOOSTER OF THE CLUB

5AI, 5FM. 5LR, 5WG, 5SU, 5MZ, 6MW, 7JB, 7KV. For Australia try around 6:00 P.M. to midnight in summer and 4:00 to 9:00 A.M. in winter. Africa: EA8AF, 8LW, 8AB, 8AT, 8AL, 8AN, 8BG, 8AO, 8AS, 8AH, 8LC, SUIGG, SU1T, SU1RK, 1SG, 1CH, 1KG, 5X, 8MA, VQ4CRL, VQ4CRO, ON4CSL. EA9AH, FM4AA, FT4AF, CN8MU, CN8AA, CN8MA, CN8AC, ZT1P, ZT2F, ZT1JR, ZT2B;ZT6Q, ZT6N, ZT6X, ZE1JF, ZE1JR, ZE1JS, ZS1JS, ZS1AH, ZS1C, ZS1B, ZS2N,ZS2X, ZS4J, ZS6AF, ZS6AM, ZS6A. ZS6T, ZS5Z. Asia: PK4DG, PK4AU, PK4VR, PK1MX, KA1KY, KA1AK, KA1AN, S6AQ, XU8MT, CR8AA, VS6AG, VS2AK, VS7RA, VS7GJ, VS7SF, and the following which begin with VU: VU2CQ, 2BY, 2JN, 2HQ, 2LS, 2EB, 2FY, 2CS, 2EB, 2LK, 3KF, 7KH, 7RA and 7RS. A member in Pittsburgh says he has received 165 Australian amateurs on voice and another in Chicago says he heard two stations on each Continent within two hours on the 20 meter amateur band. There must be at least 4000 amateurs now on the air between 14.11 and 14.30 mc.

SPECIAL NOTICE TO AMATEUR PHONE LISTENERS

It is likely that next month the I. S. W. C. will be able to publish information on amateur phones heard on the 20 meter band. Reports, therefore, may be sent to us this month. Please be kind enough to send your reports on these stations on a separate paper from the other stations. Please confine your reports, too, to overseas DX stations, since several hundred U.S.A. stations can be heard in a few hours.

	German	French	Italian	Spanish	Portuguese	Dutch
1	ein (as in wine)	un (uhn)	uno	un	uno	een (ayn)
2	zwei(zwy)	deux (like di in dirt)	due(easa in ate)	dous	dos	twee(tway
3	drei (dry)	troix (trwa)	tre (e as a in ate)	trez	tres(trace)	drie(dree)
4	vier (feer)	quatre (katr)	quatro	quatro	cuatro (quatro)	vier(veer)
5	funf (feeunf)	sinq (sank)	cinque	sinco (sinko)	cinco (sinko ⁾	vijf(vaif)
6	sechs (zex)	six(seess)	sei (seh as e in men)	seis (e as in ell)	seis	zes
7	sieben (zeeben)	sept (set)	sette (setteh)	sete (e as in set)	siete(sieteh	zeven (zaven)
8	acht (ahcht)	huit (weet)	otto (1st o as ought)	oiti (o as in on)	ocho	acht (ahcht)
9	neun (noin	neuif (nerf)	nove (noveh)	nove(noveh)	nueve (nueveh)	negen (naygen)
10	zehn (tsayn)	dix (dees)	dieci (diechi)	dez (e as in set)	diez(deeis)	tien (teen short e)

PHONETICAL ALPHABET

26

AIRCRAFT STATIONS

This group of stations is used to relay messages to and from airplanes, such as the location of the plane, flying conditions, etc. They come on the air suddenly, deliver their message and go right off again. This list contains only the land stations, but the planes can be heard on the same wavelengths. When you tune in one, leave your dials set and others will no doubt be heard.

The various groups use different frequencies. Tmese are given in megacyces. The various groups use different frequencies. Tmese are git "A" =3.15, 3.16, 3.17, 3.18, 3.33, 5.11, 5.54, 5.55, 5,56, 5,57. "B" =2.90, 3.07, 3.09, 4.97, 4.99, 5.51, 5.54, 5.67, 5.69. "C" =3.13, 3.24, 3.25, 3.45, 3.46, 4.92, 5.60, 5.61, 5.63. "D" =2.85, 3.01, 5.38. "E" =2.92, 2.94, 2.99, 4.12, 5.55. "G" =-1.71, 2.87, 3.08, 5.41, 5.59, 6.45, 9.71, 10.59. "H" =-1.48, 6.02.

GROUP "A" Bakersfield, Calif KQX Burbank, Calif. KEU Cheyenne, Wyo. KOE Cleveland, Ohio WNAK Chicago, Ill. WUGG

Elko, NevadaKKO
Fort Worth, TexasKGUI
Fresno, CalifKGT
Iowa City, IowaKQQ
Kansas City, MoKNAS
Kylertown, PaWNAM
Lincoln, NebKRF
Medford, OreKGE
Moline, IllWNAU
Newark, N. JWNAO
North Platte, Nebr KMR
Oakland, CalifKFO
Oklahoma City, Okla. KNAV
Omaha, NebKMP
Pasco, WashKRD
Ponca City, OklaKGUZ
Portland, OreKVO
Redding, CalifKTU
Rock Spring, WyoKQC
Sacramento, CalifKFM
Salt Lake City, Utah KQD
San Diego, CalifKGQC
Seattle, WashKZJ
Spokane, WashKGTZ
Toledo, Ohio WNAO
Tulsa, OklaKNAU
Wichita, KansasKGTE

GROUP "B"

Amarillo, TexasKSV
Albuquerque, N.MKSX
Burbank, CalifKSI
Butte, MontKGTY
Camden, N.JWAEE
Columbus, OhioWHG
Cresson, PaWAEG
Cheyenne, WyoKGTT
Chicago, Ill WAEO
Denver, ColoKGSS
Goodland, KansasKGSJ

Indianapolis, IndWHM
Kansas City, MoKST
Kingman, ArizKGTL
Las Vegas, NevKGTJ
Harrisburg, PaWAED
Newark, N.J WAEF
Oklahoma City, Okla. KGSC
Pittsburgh, PaWAEC
Pocatello, IdahoKGTX
Pueblo, ColoKGSR
Robertson, MoKGTR
Salina, KansasKGSM
Salt Lake City, Utah KGTH
San Bruno, CalifKGSB
Springfield, MoKGTQ
Tulsa, OklaKSY
Wichita, KansasKGTD
Winslow, ArizKGTA

GROUD VO?

GROUP "C	
Albany, N.Y.	.WSDM
Abiline, Texas	KGUL
At'anta, Ga	.WQDP
Beaumont, Texas	KGTV
Berea, Ohio	.WSDQ
Big Springs, Texas .	.KGUÃ
Birmingham, Ala	
Boston, Mass	
Brownsville, Texas	KGUE
Buffalo, N.Y.	.WSDQ
Burbank, Calif	.KGUR
Chicago, 111	.WSDG
Cincinnati, Ohio	WSDI
Columbus, Ohio	.WSDP
Detroit, Mich	.WAEI
Douglass, Ariz	.KGUN
Elmira, N.Y	.WAEQ
El Paso, Texas	.KGUA
Evansville, Ind	.WAEN
Fort Worth, Texas .	KGTF
Glendale, Calif	.KGUR
Houston, Texas	
Indianapolis, Ind	.WSDZ
Indio, Calif	.KGUQ
Jackson, Miss	.WSDB
Lake Charles, La	.KGTU
Little Rock, Ark	.KGUU
Louisville, Ky	.WSDF

Memphis, Tenn WSDK Murfreesboro, Tenn WSDH Mabia Ala
Murfreesboro, Tenn WSDH
Mobile, Ala,
Newark, N.L WSDC
New Orleans, La WODO
Phoenix, Ariz KGUP
Robertson, Mo
San Antonio, Texas KGUD
San Diego, CalifKGOZ
Shreveport, La
Springfield, Ill WAEI
Texarkana, Ark KGTB
Tucson, Ariz,
Waco, Texas
Portables WEAP & KGSH
Portable
Murfreesboro, Tenn WSDH Mobile, Ala WAEK Newark, N.J WSDC New Orleans, La WQDQ Phoenix, Ariz KGUP Robertson, Mo KGUP San Diego, Calif KGQZ Shreveport, La KGUS Springfield, Ill WAEJ Texarkana, Ark KGTB Tucson, Ariz KGUH Portables WEAP & KGSH Portable WMER GROUP "D"
Billings Mant KCSK
Biamark N.D. KCTD
Chierre III WEDE
Engo ND KNEP
Halana Manta KOCN
Madiaan Wie WEDD
Milmaulas Wis WAEIT
Minwaukee, WIS WAEH
Bambia N D KNWC
Sochene Wash VCSV
Spokane, WashKUSA
St. raul, Millin
GROUP "D" Billings, Mont KGSK Bismark, N.D KGTP Chicago, Ill WSDS Fargo, N.D KNFB Helena, Mont KGSW Madison, Wis WSDR Milwaukee, Wis WSDR Milwaukee, Wis WAEH Missoula, Mont KGSY Pembia, N.D KNWC Spokane, Wash KGSX St. Paul, Minn KNWA GROUP "E" Blythe, Calif KGUS
Blythe, CalifKGUS GROUP "F" Atlanta, GaWEEA Baltimore, MdWEEB Charleston, S. CWEEG Jacksonvile, FlaWEEJ Linden. N.JWEEJ Linden. N.JWEEJ Marmi, FlaWEEM Mrando, FlaWEEM Orlando, FlaWEEM Spartonburg, S. CWEEF Washington, D. CWEEF Washington, D. CWEEK
GROUP "F"
Atlanta, GaWEEA
Baltimore, MdWEEB
Charleston, S. C WEEC
Greensboro, S. C WEEG
Jacksonvile, FlaWEEJ
Linden. N.JWEEN
McRae, GaWEEH
Miami, FlaWEEM
Orlando, FlaWEEO
Richmond, VaWEER
Spartonburg, S. C WEEF
Washington, D. CWEEK
GROUP "G"
Brownsville, Texas KGIW
Faitbanks, Alaska KFIM
Miami, FlaWKDL
Washington, D. C WEEK GROUP "G" Brownsville, TexasKGJW Faitbanks, AlaskaKFIM Miami, FlaWKDL San Juan, P.RWKDU
GROUP "H"
GROUP "H" Suffield, OhioWMEP PortableWMEW
Portable

HELP YOURSELF BY BOOSTING THE CLUB



HOW TO USE OUR STATION LIST

Our broadcast station list is shown in an hourly guide form. A station shown on 6:00 mc. comes in at 6 on a calibrated dial and one marked 7.00 comes in at 7 on the dial and stations shown between 6.00 and 7.00 come in between 6 and 7 on the dial. Time given is Eastern Standard. Add five hours for G.M.T. A station shown under 7:00 A.M. in list is on at 1200 G. M. T., etc.

Whenever a station shows $\frac{1}{2}$ under a certain hour, it means that the station either starts or ends their program on the halfhour, depending on whether the $\frac{1}{2}$ is shown at the beginning or ending of a group. For example, we see W8XK, the first station on our list, has $\frac{3}{4}$ underneath 4:00 A.M. This means they start the program at 4:45 A.M. We also see the letter S underneath 7:00 A.M. It means the station signs off at 7:00 A.M. Let us try a real hard one. CR7BH on 11.72 mc. for Sunday shows the station with $\frac{1}{2}$ under 10:00 A.M., $\frac{1}{2}$ under N, $\frac{1}{2}$ under 1 and $\frac{1}{2}$: under 3. Well, the first one means they start 10:36 A.M., broadcast on till 12:30 when they sign off; the third one shows they start up again at 1:30 P.M. and the last one shows they sign off at 3:30 P.M. Whenever a full number is shown, the station is on the full hour shown. Whenever the letter S appears, it means station signs off at that hour exactly.

ON THE AIR

⋝ : Σ ⊠ ≥ 1 H : -2C 00 00 20 20 10 . a **a** 8 Σ ρ ŝ ŝ 4 \sim 2 F z \mathbf{z} 00 z z Ξ : 2 α. 20 σΩ n τΩ 10 0 0 0 2 0 n 00 00 s, 00 Z ◄ Q ഹ ŝ 2 Ξ ...SMTWTFS... DaventrySMTWTFS...SMTWTFS...HilversumSee Note B... DaventrySMTWTFS... .SMTWTFS..Buenos Aires. SMTWTFS... TFS.BerlinSMTWTFS. W3XAL...New York....SMTWTFS. HAS-3SudapestS...... .Boston.SMTWTFS. W8XK....Pittsburgh ...SMTWTFS.TokyoSMTWTFS. .. Mexico City... SMTWTFS.BandoengSMTWTFS. GSJ Daventry SMTWTFS ...PrahaSMTWTFS SMTWTFS ...New York.....SMTWTFSBerlinSMTWTFSBerlinSMTWTFS W2XE....New York....SMTWTFS Daventry SMTWTFS SMTWTFS SATWTFS.... DJB BerlinSMTWTFS Irreg. Irreg. DayHuizenSMT Σ HI3XS ZBW4....Hong Kong.... Bangkok Pontoise : Schenectady .. Pittsburgh Daventry MazatlanDaventry Daventry City W2XAD.. GSI : : : Station -WIXAL OLR5A 19.79-XEWW HS8PJ W8XK W2XE XEBM TPA2GSH -DJR GSP DJQ GSO -LRU GSG IHd DJE 15.15.19.80-YDC JZK 19.71—PCJ 5.14..19.82-GSF Meters 15.77-19.76 -19.70 -.13.92 -19.56 -19.68 -13.93-13.94 -16.88 -19.56-19.62-19.63-19.66-19.68-19.75-19.79 -13.97-16.68 -16.8919.4319.52-15.31..19.60 19.68 -19.72-19.73-16.87 -19.645.26. 5.20..1 5.16 5.27 17.79.. 21.52. 5.33 . . 15.28.. 15.25.. 5.24...5.21..21.54.21.53.5.37. 15.23. 5.22. 15.16..7.78. Meg. 19.02. 21.47. 7.77. 17.76. 15.44. 15.34. 15.29. 15.27 5.19. 5.18.

L []] [] [
1 2 3 4 5 6 7 8
8 9 10 11 N
34567
12
Day
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TELEPHONE STATIONS

The time given is Eastern Standard. Add five hours for G. M. T.

T—Stands for Telephone Stations. These stations are used to relay telephone conversations across oceans and a carrier wave, or "whistle," may be heard for several hours without any voice being heard. Some stations use a "chopper" which distorts the voice and makes it impossible to understand.

E-Stands for Experimental Stations These stations are never on the air regularly They are usually telegraph stations which are rented by some chain to relay a broadcast to some foreign country. You never can tell when you will hear them.

Meters Meg. STATION TIME Meters Meg. STATION TIME T=-14.01=-21.41-WKK, Lawrenceville, N. J. Phones LSN, 8:00 A.M. to 4:00 P.M. T=-14.17=-21.16=-LSL, Buenos Aires, Arg. 8:00 A.M. to 1:00 P.M. GAA and PSF. T=-14.23=-21.08=PSA. Rio de Janerio, Brazil, Phones WKK, WLK, daytime. T=-14.24=-21.06=-KWN, Dixon, Calif. Phones irregularly. T=-14.24=-21.03=-LSN, Buenos Aires, Arg. 8:00 A.M. to 4:00 P.M. WKK and WLK. T=-14.27=-21.03=-LSN, Buenos Aires, Arg. 8:00 A.M. to 4:00 P.M. WKK and WLK. T=-14.27=-20.04=-OPL, Leopoldsville, Belgian Congo. Phones ORG, mornings. T=-15.14=-19.78=-WKN, Lawrenceville, N. J. Phones GAU, daytime. T=-15.01=-10.09: KAY. Meride D. L. Dhones deutime. T-15.14-19.78-WKN, Lawrenceville, N. J. Phones GAU, daytime. T-15.24-19.69-KAX, Manila, P. I. Phones daytime. T-15.24-19.69-CEC, Santiago, Chile. Phones LSR, HJY near 11 A.M. and 4 P.M T-15.28-19.62-VQG, Nairobi, Kenya, Africa. 7:30 to 9:30 A. M., England. T-15.39-19.50-LSQ, Buenos Ares, Argenina. Heard testing near 2:00 P.M. T-15.50-19.35-FTM, Assise, France. 10:00 A.M. to 2:00 P.M. LSG. T-15.50-19.35-PMA, Bandoeng, Java. Phones Holland, mornings. T-15.57-19.27-PPU, Rie de Janeiro, Brazil. Phones FTM, 10:30 A.M. to 3:00 P.M T-15.68-19.25-DFA, Nauen, Germany. Phones 10:00 A.M. to 2:00 P.M. irregularly T-15.68-19.21-ORG, Brussels, Belgium. Phones OPL, mornings. T-15.88-18.89-ZSS, Klipheuval, S. Africa. Phones 6 A.M. to 2:30 P.M., England, T-15.88-18.89-LE, Bandoeng, Java. Phones Holland 6 to 11 A.M. KWX irregularly. T-16.05-18.69-XGS. Shanghai. China. Heard 7:00 to 8:00 A. M., Irreg. T-16.05-18.69-XGS, Shanghai, China. Heard 7:00 to 8:00 A. M., Irreg. T--16.05--18.69--XGS, Shanghai, China. Heard 7:00 to 8:00 A. M., Irreg.
f--16.06--18.68--OCI, Lima, Peru. Testing with HJY near 2:00 P.M.
T--16.11--18.62--OGU, Rugby, England. Phones New York mornings.
E--16.22--18.48--HBH. Geneva, Switzerland. Used for special purposes.
f--16.30--18.40--PCK, Kootwuk, Holland. Phones Java near 7:00 A.M.
F--16.35--18.35--WI.A. Lawrenceville, N. J. Phones England 8:00 A.M. to 4:00 P M.
T--16.39--18.30--YVR, Maracay, Venezuela. Phones Germany, 10:00 'A.M.
T--16.44--18.25--FTE, St. Assise, France. Phones LSM, PPU, mornings.
T--16.48--18.20--GAW, Rugby, England. Phones New York mornings. I--16.85-18.20-GAW, Kugby, England. Phones New York mornings.
F-16.50-18.18--PMC, Bandoeng, Java. Phones PCV, 3:10 to 9:20 A.M.
E-16.55-18.12-LSY, Buenos Aires, Argentina. Irregular.
T--16.63-18.09-TYE2, Pontoise, France. Phones U.S.A. 7:00 A.M. to 3:00 P.M.
f--16.63-18.04-GAB, Rugby, England. Phones Canada 10:00 A.M. to noon.
f--16.82-18.05--PCV, Kootwijk, Holland. 6:00 to 9:00 A.M. Java.
T--16.85 to 18.27-17.80 to 16.42-Ships. Heard in daytime.
T--16.91-17.74-HSP, Bangkok, Siam. Phones Japan, Germany and England.
T--17.00-17.64-XGN, Shanghai, China. Phones Japan, Germany and England.
T-17.33-17.31-W2XGB, Hicksville, N. Y. Tests Irreg., relaying WOR.
T--17.12-17.52-DFB, Nauen, Germany. Phones England 7:00 to 10:00 A.M.

 Meters Meg. STATION TIME THE W. T. P. 16.24-KTO, Manila, P. I. Phones Japan 5:00 to 9:00 P.M., irregularly. T-18.51-16.20-FZR, Saigon, Indo-China. Phones Paris mornings. T-18.50-16.14-GBA, Rugby, England. Phones China.Japan 3:00 to 10:00 AM. E-18.62-16.11-IRY, Rome, Italy. Used irregularly for special broadcasts. T-18.81-16.04-KKP Kauhuku, Hawaii. Phones Almost B1:00 P.M. to 9:00 AM. irreg. T-18.81-15.95-RRR, Khabarovsk, U.S.S.R. Phones 11:00 P.M. to 9:00 AM. irreg. T-18.81-15.86-FTK, St. Assise, France. Phones Saigon 8:30 to 11:00 A.M. irreg. T-18.91-15.86-VD, Nazaki, Japan. Phones almost all day and night. T-18.91-15.86-VP, Nazaki, Japan. Phones U.S.A. near 5:00 A.M. and 4:00 P.M. T-19.20-15.61-JVF, Nazaki, Japan. Phones U.S.A. near 5:00 A.M. and 8:00 P.M. T-19.31-15.50-CQSX, Tuinucu, Cuba. Testing irregularly 5:00 to 9:00 A.M. T-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A.M. T-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Rul near 5:00 to 2:00 P.M. T-19.42-15.45-110G, Addis Ababa, Phones Mawaii in place of KWU. E-19.33-15.36-D2G, Zeesen, Germany. Broadcasts irregularly. T-19.42-15.45-110G, Addis Ababa, Ethiopia, phones numitations in daytime. T-19.44.15.35-KWU, Dixon, California. Phones may stations in daytime. T-19.45.15.35-KWU, Dixon, California. Phones may stations in daytime. T-19.45.15.35-KWU, Dixon, California. Phones may stations in daytime. T-19.46.15.25-RIM, Tashkent, U.S.S.R. Phones almost any time. T-20.03-14.98-KAY, Manila, P. I. Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P. M. T-20.03-14.98-KAY, Manila, P. I. Phones more stating in daytime. T-20.03-14.94-HII, Bogota, Colombia, phones WNC daytime. T-20.03-14.94-HII, Bogota, Colombia, phones WNC daytime.<
 1-18.31-16.20-F2K, Sakon, Indo-China. Phones Paris mornings. 1-18.51-16.14-GKA, Rugby, England. Phones China-Japan 3:00 to 10:00 AM. E-18.62-16.11-1RY, Rome, Italy. Used irregularly for special broadcasts. 1-18.71-16.04-KKP, Kauhuku, Hawaii, Phones KWU 1:00 to 7:00 P.M. 1-18.81-15.95-RRR, Khabarovsk, U.S.S.R. Phones 11:00 P.M. to 9:00 A.M. irreg. 1-18.89-15.88-F1K, St. Assise, France. Phones Saigon 8:30 to 11:00 A.M. 1-18.99-15.80-XOJ, Shanghia, China. Phones Japan 5:00 P.M. to midhight. 1-18.91-15.86-VDV, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-VDV, Nazaki, Japan. Phones almost all day and night. 1-19.15.15.60-VDV, Nazaki, Japan. Phones almost any time. 1-19.15.15.15.0-VDV, Nazaki, Japan, phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.33-15.33-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 P.M. 1-19.42-15.45-100G, Accessen, Germany. Broadcasts irregularly. 1-19.42-15.23-RIM, Tashkent, U.S.S.R. Phones Hawaii in place of KWU. 1-19.42-15.23-RIM, Tashkent, U.S.R. Phones Milaviai in day time. 1-19.22-15.04-RKI, Moscow, U.S.S.R. Phones Biost any time. 1-19.92-15.04-RKI, Moscow, U.S.S.R. Phones Milosi and stations. 1-19.92-15.04-RKI, Moscow, U.S.S.R. Phones Milosi and statistics. 1-20.03-14.94-HJB, Bogota, Colombia, phones WNC daytime. 1-20.03-14.94-HJB, Bogota, Colombia, phones WNC daytime. 1-20.03-14.94-HJB, Bogota, Colombia, phones MVC daytime. 1-20.03-14.94-HJB, Bogota, Colombia, phones WNC daytime. 1-20.04-14.94-HJB, Bogota, Colombia, Phon
 1-18.21-16.304KKF, Kauhuku, Hawaii, Phones KWU 1:00 F.M. to 9:00 A.M. irreg. 1-18.89-115.86-FTK, St. Assise, France. Phones Saigon 8:30 to 11:00 A.M. 1-18.89-115.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-19.15.56-JVF, Nazaki, Japan. Phones almost any time. 1-19.15.56-JVF, Nazaki, Japan, Phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-15.60-JVF, Nazaki, Japan, phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-15.60-CO9XX, Tuincu, Cuba. Testing irregularly 5:00 to 9:00 P.M. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9XX, Tuincu, Cuba. Testing irregularly 5:00 to 9:00 P.M. 1-19.42-15.43-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9XX, Tuincu, Cuba. Testing irregularly. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9X, Tuincu, Cuba. Testing in glace of KWU. 2-19.54-15.40-WWO, Dixon, California. Phones Hawaii in place of KWU. 2-19.55-15.04-KKI, Moscow, U.S.S.R. Phones RMaii, 2:00 to 7:00 P.M. 1-19.42-15.40-WWO, Hiakah, Florida, phones many stations in daytime. 1-19.95-15.04-KKI, Moscow, U.S.S.R. Phones almost any time. 1-19.94-14.94-HII, Trujillo, Dominican Republic, phones WNC daytime. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard irreguarly. 1-20.07-14.48-HKD, Moscow, U.S.S.R. Phones and also broadcasts at times. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard irreguarly. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard i
 1-18.21-16.304KKF, Kauhuku, Hawaii, Phones KWU 1:00 F.M. to 9:00 A.M. irreg. 1-18.89-115.86-FTK, St. Assise, France. Phones Saigon 8:30 to 11:00 A.M. 1-18.89-115.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-19.15.56-JVF, Nazaki, Japan. Phones almost any time. 1-19.15.56-JVF, Nazaki, Japan, Phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-15.60-JVF, Nazaki, Japan, phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-15.60-CO9XX, Tuincu, Cuba. Testing irregularly 5:00 to 9:00 P.M. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9XX, Tuincu, Cuba. Testing irregularly 5:00 to 9:00 P.M. 1-19.42-15.43-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9XX, Tuincu, Cuba. Testing irregularly. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9X, Tuincu, Cuba. Testing in glace of KWU. 2-19.54-15.40-WWO, Dixon, California. Phones Hawaii in place of KWU. 2-19.55-15.04-KKI, Moscow, U.S.S.R. Phones RMaii, 2:00 to 7:00 P.M. 1-19.42-15.40-WWO, Hiakah, Florida, phones many stations in daytime. 1-19.95-15.04-KKI, Moscow, U.S.S.R. Phones almost any time. 1-19.94-14.94-HII, Trujillo, Dominican Republic, phones WNC daytime. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard irreguarly. 1-20.07-14.48-HKD, Moscow, U.S.S.R. Phones and also broadcasts at times. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard irreguarly. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard i
 1-18.21-16.304KKF, Kauhuku, Hawaii, Phones KWU 1:00 F.M. to 9:00 A.M. irreg. 1-18.89-115.86-FTK, St. Assise, France. Phones Saigon 8:30 to 11:00 A.M. 1-18.89-115.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-18.91-15.86-JVD, Nazaki, Japan. Phones almost all day and night. 1-19.15.56-JVF, Nazaki, Japan. Phones almost any time. 1-19.15.56-JVF, Nazaki, Japan, Phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-15.60-JVF, Nazaki, Japan, phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-15.60-CO9XX, Tuincu, Cuba. Testing irregularly 5:00 to 9:00 P.M. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9XX, Tuincu, Cuba. Testing irregularly 5:00 to 9:00 P.M. 1-19.42-15.43-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9XX, Tuincu, Cuba. Testing irregularly. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. 2-19.53-15.30-CO9X, Tuincu, Cuba. Testing in glace of KWU. 2-19.54-15.40-WWO, Dixon, California. Phones Hawaii in place of KWU. 2-19.55-15.04-KKI, Moscow, U.S.S.R. Phones RMaii, 2:00 to 7:00 P.M. 1-19.42-15.40-WWO, Hiakah, Florida, phones many stations in daytime. 1-19.95-15.04-KKI, Moscow, U.S.S.R. Phones almost any time. 1-19.94-14.94-HII, Trujillo, Dominican Republic, phones WNC daytime. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard irreguarly. 1-20.07-14.48-HKD, Moscow, U.S.S.R. Phones and also broadcasts at times. 1-20.08-14.94-HII, B. Bogota, Colombia, phones WNC daytime. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard irreguarly. 2-20.27-14.80-WOV, Rocky Point, N. Y., heard i
 T=0.2.1 13.81-LSC, Baintago, Chile, Prones GAA & A. M. to 1 and FrM 1-2 P.M. 1979/ T=19.15-15.66-JVE, Nazaki, Japan. Phones almost any time. T=19.20-15.61-JVF, Nazaki, Japan. phones USA. near 5:00 A.M. and 8:00 P.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. E=19.35-15.30-CQ, Zesen, Germany. Broadcasts irregularly. T=19.54-15.35-KWU, Dixon, California. Phones HAU near 7:00 A.M. T=19.68-15.25-ERIM. Tashkent, U.S.S.R. Phones RMI near 7:00 A.M. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMinatine in daytime. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMI near 7:00 A.M. T=20.03-14.96-KKI, Moscow, U.S.S.R. Phones RWI near 7:00 A.M. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Borota, Colombia, phones WNC daytime. T=20.27-14.80-WOV, Rocky Point, N. Y., heard irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; irregularly. Mon. and Thurs. 4:00 to 1:00 A.M. irregularly. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones around 7:00 A.M. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nakawi, Japan. Phones and also broadcasts. T=20.51-46.9-UWH, Nakawi, Japan. Phones and
 T=0.2.1 13.81-LSC, Baintago, Chile, Prones GAA & A. M. to 1 and FrM 1-2 P.M. 1979/ T=19.15-15.66-JVE, Nazaki, Japan. Phones almost any time. T=19.20-15.61-JVF, Nazaki, Japan. phones USA. near 5:00 A.M. and 8:00 P.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. E=19.35-15.30-CQ, Zesen, Germany. Broadcasts irregularly. T=19.54-15.35-KWU, Dixon, California. Phones HAU near 7:00 A.M. T=19.68-15.25-ERIM. Tashkent, U.S.S.R. Phones RMI near 7:00 A.M. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMinatine in daytime. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMI near 7:00 A.M. T=20.03-14.96-KKI, Moscow, U.S.S.R. Phones RWI near 7:00 A.M. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Borota, Colombia, phones WNC daytime. T=20.27-14.80-WOV, Rocky Point, N. Y., heard irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; irregularly. Mon. and Thurs. 4:00 to 1:00 A.M. irregularly. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones around 7:00 A.M. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nakawi, Japan. Phones and also broadcasts. T=20.51-46.9-UWH, Nakawi, Japan. Phones and
 T=0.2.1 13.81-LSC, Baintago, Chile, Prones GAA & A. M. to 1 and FrM 1-2 P.M. 1979/ T=19.15-15.66-JVE, Nazaki, Japan. Phones almost any time. T=19.20-15.61-JVF, Nazaki, Japan. phones USA. near 5:00 A.M. and 8:00 P.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. E=19.35-15.30-CQ, Zesen, Germany. Broadcasts irregularly. T=19.54-15.35-KWU, Dixon, California. Phones HAU near 7:00 A.M. T=19.68-15.25-ERIM. Tashkent, U.S.S.R. Phones RMI near 7:00 A.M. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMinatine in daytime. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMI near 7:00 A.M. T=20.03-14.96-KKI, Moscow, U.S.S.R. Phones RWI near 7:00 A.M. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Borota, Colombia, phones WNC daytime. T=20.27-14.80-WOV, Rocky Point, N. Y., heard irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; irregularly. Mon. and Thurs. 4:00 to 1:00 A.M. irregularly. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones around 7:00 A.M. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nakawi, Japan. Phones and also broadcasts. T=20.51-46.9-UWH, Nakawi, Japan. Phones and
 T=0.2.1 13.81-LSC, Baintago, Chile, Prones GAA & A. M. to 1 and FrM 1-2 P.M. 1979/ T=19.15-15.66-JVE, Nazaki, Japan. Phones almost any time. T=19.20-15.61-JVF, Nazaki, Japan. phones USA. near 5:00 A.M. and 8:00 P.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. T=19.42-15.45-101G, Addis Ababa, Ethiopia, phones Hawaii in place of KWU. E=19.35-15.30-CQ, Zesen, Germany. Broadcasts irregularly. T=19.54-15.35-KWU, Dixon, California. Phones HAU near 7:00 A.M. T=19.68-15.25-ERIM. Tashkent, U.S.S.R. Phones RMI near 7:00 A.M. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMinatine in daytime. T=19.92-15.04-KKI, Moscow, U.S.S.R. Phones RMI near 7:00 A.M. T=20.03-14.96-KKI, Moscow, U.S.S.R. Phones RWI near 7:00 A.M. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T=20.08-14.94-HIB, Borota, Colombia, phones WNC daytime. T=20.27-14.80-WOV, Rocky Point, N. Y., heard irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; irregularly. Mon. and Thurs. 4:00 to 1:00 A.M. irregularly. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UVH, Nazaki, Japan. Phones around 7:00 A.M. T=20.51-46.9-UVH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nazaki, Japan. Phones and also broadcasts at times. T=20.51-46.9-UWH, Nakawi, Japan. Phones and also broadcasts. T=20.51-46.9-UWH, Nakawi, Japan. Phones and
 1-19.02-15.81-L.N., Buenos Aires, Arg. Phones GAA 8 A.M. to 1 and FTM 1-2 P.M T-19.15-15.60-FVE, Nazaki, Japan, Phones almost any time. T-19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. E-19.35-15.50-CO9XX, Tuinneu, Cuba. Testing irregularly 5:00 to 9:00 P. M. T-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A.M. T-19.42-15.45-100G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A.M. T-19.42-15.45-100G, Zecsen, Germany. Broadcasts irregularly. T-19.54-15.35-6-DZG, Zecsen, Germany. Broadcasts irregularly. T-19.54-15.35-6-DZG, Zecsen, Germany. Broadcasts irregularly. T-19.54-15.35-6-DZG, Zecsen, Germany. Broadcasts irregularly. T-19.55-15.04-RKI, Moscow, U.S.S.R. Phones MKI near 7:00 A.M. T-20.03-14.98-KAY, Manila, P. I. Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P. M. T-20.03-14.98-KAY, Marila, P. I. Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P. M. T-20.08-14.94-HI, B. Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HI, Tsuillo, Dominican Republic, phones WNC daytime. T-20.08-14.94-HI, Truillo, Dominican Republic, phones WNC daytime. T-20.27-14.80-WOV, Rocky Point, N. Y., heard irregularly. Mon. and Thurs, 4:00 to 5:00 P.M.; Tues. and Fri 2 to 3 P.M. T-20.29-14.73-TOA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.55-14.60-JVH, Nazaki, Japan. Phones sub oradcasts at times. T-20.55-14.53-LSN, Buenos Aires, Argentina. Phones NWC daytime. T-20.55-14.53-WMN Lawrenceville. N. J. Phones Row Acternaons. T-20.55-14.54-HBJ, Geneva, Switzerland. Used irregularly. T-20.55-14.54-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HPF, Tegucigalpa, Honduras, phones WNC daytime. T-20.71-14.48-HPF, Tegucigalpa, Honduras, phones WNC daytime. T-20.71-14.48-HPF, T
 1-19.20-15.81-JVF, Nazaki, Japan, phones U.S.A. near 5:00 A.M. and 8:00 P.M. 1-19.31-15.53-HSG2, Bangkok, Siam. Tests Sunday II P.M., Fri. 4:00 A.M. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. 1-19.42-15.45-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. 1-19.42-15.41-KWO, Dixon, California. Phones Hawaii in place of KWU. 1-19.53-15.36-DZG, Zcesen, Germany. Broadcasts irregularly. 1-19.54-15.35-KWU, Dixon, California. Phones Hawaii, 2:00 to 7:00 P.M. 1-19.54-15.35-KWU, Dixon, California. Phones thawaii, 2:00 to 7:00 P.M. 1-19.52-Stof-WNC, Hialeah. Florida, phones many stations in daytime. 1-19.92-15.06-WKC, Hialeah. Florida, phones many stations in daytime. 1-20.03-14.98-KAY, Manila, P. I. Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P. M. 1-20.08-14.94-HIJ, Brogota, Colombia, phones WNC daytime. 1-20.08-14.94-HIJ, Baranaquilla, Colombia, phones WNC daytime. 1-20.08-14.94-HIJ, Truillo, Dominican Republic, phones WNC daytime. 1-20.21.479-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. 1-20.55-14.60-JVH, Nazaki, Japan. Phones IVH 1:00 to 7:00 A.M. irregularly. 1-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. 1-20.58-14.88-RTV, Moscow, U.S.S.R. Phones NWC daytime. 1-20.58-14.88-RTV, Moscow, U.S.S.R. Phones NWC daytime. 1-20.55-14.53-LSN, Buenos Aires, Argentina. Phones NWC daytime. 1-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. 1-20.71-14.48-HRJ5, Nacaome. Honduras, testing with WNC daytime. 1-20.71-14.48-HRJ5, Nacaome. Honduras, testing with WNC daytime. 1-20.71-14.48-HRJ5, Nacaome. Honduras, phones WNC daytime. 1-20.71-14.48-HRJ5, Nacaome. Honduras, phones WNC daytime. 1-20.71-14.48-HRJ5, Nacaome. Honduras, phones WNC d
 1-19.3115.33-HSG2, Bangkok, Siam. Tests Sunday 11 P.M., Fri. 4:00 A.M. E-19.3515.50-CO9XX, Tuinucu, Cuba. Testing irregularly 5:00 to 9:00 P. M. T-19.4215.4511UG, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. T-19.4315.36-DZG, Zeesen, Germary. Broadcasts irregularly. T-19.5415.35KWU, Dixon, California. Phones Hawaii in place of KWU. E-19.5315.36-DZG, Zeesen, Germary. Broadcasts irregularly. T-19.5415.35KWU, Dixon, California. Phones Hawaii, 2:00 to 7:00 P.M. T-19.8415.25RIM. Tashkent, U.S.S.R. Phones sKI near 7:00 A.M. T-19.9515.04RKI, Moscow, U.S.S.R. Phones annost any time. T-20.0314.94HJJ, Bogota, Colomhia, phones work daytime. T-20.0314.94HJJ, Bogota, Colomhia, phones WNC daytime. T-20.08-14.94HJJ, Braranquila, Colombia, phones WNC daytime. T-20.20-14.94HJJ, Barranquila, Colombia, phones WNC daytime. T-20.20-14.94HJA, Barranquila, Colombia, phones WNC daytime. T-20.20-14.79ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.45-14.60-JVH, Nazaki, Japan. Phones JVH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones around 7:00 A.M. T-20.55-14.60-JVH, Nasaki, Japan. Phones around 7:00 A.M. T-20.65-14.59-WMN. Lawrenceville. N. 1 Phones New York daytime. T-20.71-14.48-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HBJ, San Salvador, Salvador. Phones WNC daytime. T-20.71-14.48-HBF, Panama, phones WNC daytime. T-20.72-14.48-HBF, Roacome, Honduras, phones WNC daytime. T-20.72-14.48-HBF, Roacome, Honduras, phones WNC daytime. <li< td=""></li<>
 1-19.42-15.43-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. 1-19.43-15.41-KWO, Dixon, California. Phones Hawaii in place of KWU. E-19.53-15.36-DZG, Zeesen, Germany. Broadcasts irregularly. 1-19.54-15.35-KWU, Dixon, California. Phones Hawaii, 2:00 to 7:00 P.M. 1-19.68-15.25-RIM. Tashkent, U.S.S.R. Phones RKI near 7:00 A.M. 1-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. 1-19.95-15.01-RCH, Kerbi, Siberia. Phones midnite to 9:00 A.M. 1-20.08-14.94-HJB, Bogota, Colomhia, phones WNC daytime. 1-20.08-14.94-HJJ, Trujillo, Dominican Republic, phones WNC daytime. 1-20.08-14.94-HJJ, Barranquila, Colombia, phones WNC daytime. 1-20.08-14.94-HJA, Barranquila, Colombia, phones WNC daytime. 1-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. inregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. 1-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. 1-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. 1-20.64-14.54-HBJ, Geneva, Switzerland. Used irregularly. 1-20.64-14.54-HBJ, Geneva, Switzerland. Used irregularly. 1-20.65-14.53-LSN. Buenos Aires, Argentina. Phones NWC daytime. 1-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. 1-20.71-14.48-HRF, Panama, phones WNC daytime. 1-20.71-14
 1-19.42-15.43-110G, Addis Ababa, Ethiopia, phones Italy 7:00 to 10:00 A M. 1-19.43-15.41-KWO, Dixon, California. Phones Hawaii in place of KWU. E-19.53-15.36-DZG, Zeesen, Germany. Broadcasts irregularly. 1-19.54-15.35-KWU, Dixon, California. Phones Hawaii, 2:00 to 7:00 P.M. 1-19.68-15.25-RIM. Tashkent, U.S.S.R. Phones RKI near 7:00 A.M. 1-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. 1-19.95-15.01-RCH, Kerbi, Siberia. Phones midnite to 9:00 A.M. 1-20.08-14.94-HJB, Bogota, Colomhia, phones WNC daytime. 1-20.08-14.94-HJJ, Trujillo, Dominican Republic, phones WNC daytime. 1-20.08-14.94-HJJ, Barranquila, Colombia, phones WNC daytime. 1-20.08-14.94-HJA, Barranquila, Colombia, phones WNC daytime. 1-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. inregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. 1-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. 1-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. 1-20.64-14.54-HBJ, Geneva, Switzerland. Used irregularly. 1-20.64-14.54-HBJ, Geneva, Switzerland. Used irregularly. 1-20.65-14.53-LSN. Buenos Aires, Argentina. Phones NWC daytime. 1-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. 1-20.71-14.48-HRF, Panama, phones WNC daytime. 1-20.71-14
 1-19.47-15.41-KWO, Dixon, California. Phones Hawaii in place of KWU. E-19.53-15.36-DZG, Zeesen, Germany. Broadcasts irregularly. T-19.68-15.25RIM, Tashkent, U.S.S.R. Phones RKI near 7:00 A.M. T-19.25-15.06-WNC, Hialeah, Florida, Phones many stations in daytime. T-19.92-15.06-WNC, Hialeah, Florida, Phones almost any time. T-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. T-20.03-14.94-HJB, Bogota, Colombia, Phones WNC daytime. T-20.08-14.94-HJB, Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HJB, Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HJA, Barranquilla, Colombia, phones WNC daytime. T-20.29-14.79-ROU, Omsk, Siberia, Phones Moscow 7:00 A.M. irregularly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.5-14.60-UVU, Nocky Point, N. Y., heard irregularly. T-20.5-14.60-UVU, Nazaki, Japan. Phones also broadcasts at times. T-20.68-14.54-HBJ, Geneva, Switzerland. Used irregularly. T-20.66-14.53-LSN, Buenos Aires, Argentina. Phones WNC daytime. T-20.71-14.48-HRJ, Sna Salvador, Salvador. Phones WNC daytime. T-20.71-14.48-HRJ, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Panama, phones WNC daytime. T-20.71-14.48-HRF, Panama, phones WNC daytime. T-20.71-14.48-HRF, Feyucigala, Honduras, phones WNC daytime. T-20.71-14.48-HRF, Revicialpa, Hones WNC daytime. T-20.71-14.48-HRF, Lawrenceville, N. J. Phones MNC daytime. T-20.71-14.48-HRF, Panama, phones WNC daytime. T-20.71-14.48-HRF, Panama, phones WNC daytime. T-20.71-14.48-HRF, Son Salvador. Shones WNC daytime. T-20.71-14.48-HRF, Aramaribo, Dutch Guiana, in the evenings. T-20.73-14.47-WMF, Lawrenceville, N. J. Phones England daylight. T-20.71-14.48-HRF, Aramaribo, Dutch Guiana, in the evenings. T-20.71-14.48-HRF, Aramaribo, Dutch Guiana, in the ev
 12.05 - Hink, Tashkell, U.S.S.R. Prones RKI field 7:00 A.M. T-19.92-15.06-WNC, Hialeah, Florida, Phones almost any time. T-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. T-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. T-20.03-14.98-KAY, Manila, P. I. Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M. T-20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HII, Trujillo, Dominican Republic, phones WNC daytime. T-20.08-14.94-HII, Trujillo, Dominican Republic, phones WNC, Florida. E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.45-14.67-GBL, Rugby, England. Phones JVH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.58-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.65-14.59-WMN, Lawrenceville, N. J. Phones MNC daytime. T-20.65-14.53-LSN, Buenos Aires, Argentina. Phones New York daytime. T-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5, Nacaome. Honduras, the WNC daytime. T-20.71-14.48-HRF, Tegucigalpa, Honduras, phones WNC daytime. T-20.71-14.48-HRF, Tegucigalpa, Honduras, phones WNC daytime. T-20.72-14.43-HRF, Rome, Italy. Phones Africa mornings. T-20.72-14.43-HRF, Tegucigalpa, Honduras, hones England daylight. T-20.72-14.48-HG, Guatemala City, phones WNC daytime. T-20.72-14.48-HG, Guatemala City, phones WNC daytime. T-20.72-14.48-HG, Guatemala City, phones MNC 6 daytime. T-20.72-14.48-HG, Rome, Italy. Phones Africa mornings. T-20.73-14.47-WMF, Lawrenceville, N. J. Phones England daylight. T-20.75-14.46-GBW, Rughy, England. Phones WNC 6 d
 12.05 - Hink, Tashkell, U.S.S.R. Prones RKI field 7:00 A.M. T-19.92-15.06-WNC, Hialeah, Florida, Phones almost any time. T-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. T-19.95-15.04-RKI, Moscow, U.S.S.R. Phones almost any time. T-20.03-14.98-KAY, Manila, P. I. Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M. T-20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HIB, Bogota, Colombia, phones WNC daytime. T-20.08-14.94-HII, Trujillo, Dominican Republic, phones WNC daytime. T-20.08-14.94-HII, Trujillo, Dominican Republic, phones WNC, Florida. E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.45-14.67-GBL, Rugby, England. Phones JVH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.58-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.65-14.59-WMN, Lawrenceville, N. J. Phones MNC daytime. T-20.65-14.53-LSN, Buenos Aires, Argentina. Phones New York daytime. T-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5, Nacaome. Honduras, the WNC daytime. T-20.71-14.48-HRF, Tegucigalpa, Honduras, phones WNC daytime. T-20.71-14.48-HRF, Tegucigalpa, Honduras, phones WNC daytime. T-20.72-14.43-HRF, Rome, Italy. Phones Africa mornings. T-20.72-14.43-HRF, Tegucigalpa, Honduras, hones England daylight. T-20.72-14.48-HG, Guatemala City, phones WNC daytime. T-20.72-14.48-HG, Guatemala City, phones WNC daytime. T-20.72-14.48-HG, Guatemala City, phones MNC 6 daytime. T-20.72-14.48-HG, Rome, Italy. Phones Africa mornings. T-20.73-14.47-WMF, Lawrenceville, N. J. Phones England daylight. T-20.75-14.46-GBW, Rughy, England. Phones WNC 6 d
 11.32-11.30-Wild, Platean, Florida, phones many stations in daytime. 11.32-11.30-Wild, Wild, Wil
 E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.55-14.60-JVH, Nazaki, Japan. Phones 1VH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville. N. J Phones England daylight. T-20.68-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.66-14.53-LSN, Buenos Aires, Argentina. Phones WNC daytime. T-20.71-14.48-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa. Honduras, phones WNC daytime. T-20.72-14.48-HRF, Argengand. Phones WNC daytime. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. Z-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.75-13.60-KZ, Bolinas, California. Used irregularly. T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.55-14.60-JVH, Nazaki, Japan. Phones 1VH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville. N. J Phones England daylight. T-20.68-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.66-14.53-LSN, Buenos Aires, Argentina. Phones WNC daytime. T-20.71-14.48-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa. Honduras, phones WNC daytime. T-20.72-14.48-HRF, Argengand. Phones WNC daytime. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. Z-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.75-13.60-KZ, Bolinas, California. Used irregularly. T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.55-14.60-JVH, Nazaki, Japan. Phones 1VH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville. N. J Phones England daylight. T-20.68-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.66-14.53-LSN, Buenos Aires, Argentina. Phones WNC daytime. T-20.71-14.48-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa. Honduras, phones WNC daytime. T-20.72-14.48-HRF, Argengand. Phones WNC daytime. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. Z-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.75-13.60-KZ, Bolinas, California. Used irregularly. T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.55-14.60-JVH, Nazaki, Japan. Phones 1VH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville. N. J Phones England daylight. T-20.68-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.66-14.53-LSN, Buenos Aires, Argentina. Phones WNC daytime. T-20.71-14.48-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa. Honduras, phones WNC daytime. T-20.72-14.48-HRF, Argengand. Phones WNC daytime. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. Z-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.75-13.60-KZ, Bolinas, California. Used irregularly. T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 E-20.27-14.80-WQV, Rocky Point, N. Y., heard irreguarly. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. T-20.29-14.79-ROU, Omsk, Siberia, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.37-14.73-IQA, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. T-20.55-14.60-JVH, Nazaki, Japan. Phones 1VH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville. N. J Phones England daylight. T-20.68-14.58-RTV, Moscow, U.S.S.R. Phones around 7:00 A.M. T-20.66-14.53-LSN, Buenos Aires, Argentina. Phones WNC daytime. T-20.71-14.48-HBJ, Geneva, Switzerland. Used irregularly. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5. Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa. Honduras, phones WNC daytime. T-20.72-14.48-HRF, Argengand. Phones WNC daytime. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. Z-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.75-13.60-KZ, Bolinas, California. Used irregularly. T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 T-20.29-14.79 - ROU, Main Thirs, 4400 to 500 F.M.; Tues, and Fri. 2 to 3 F.M. T-20.37-14.73-IQA, Rome, Italy, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.45-14.67-GBL, Rugby, England. Phones JVH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville, N. J Phones England daylight. T-20.64-14.54-HBJ, Geneva, Switzerland. Used irregularly. T-20.65-14.53-LSN, Buenos Airces, Argentina. Phones NWC daytime. T-20.71-14.48-HBL5, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa, Honduras, phones WNC daytime. T-20.71-14.48-HRF, Augenceville, N. J. Phones England daylight. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 T-20.29-14.79 - ROU, Main Thirs, 4400 to 500 F.M.; Tues, and Fri. 2 to 3 F.M. T-20.37-14.73-IQA, Rome, Italy, phones Moscow 7:00 to 9:00 A.M. irregularly. T-20.45-14.67-GBL, Rugby, England. Phones JVH 1:00 to 7:00 A.M. T-20.55-14.60-JVH, Nazaki, Japan. Phones and also broadcasts at times. T-20.56-14.59-WMN. Lawrenceville, N. J Phones England daylight. T-20.64-14.54-HBJ, Geneva, Switzerland. Used irregularly. T-20.65-14.53-LSN, Buenos Airces, Argentina. Phones NWC daytime. T-20.71-14.48-HBL5, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.71-14.48-HRF, Tegucigalpa, Honduras, phones WNC daytime. T-20.71-14.48-HRF, Augenceville, N. J. Phones England daylight. T-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings T-21.77-13.60-KKZ, Bolinas, California. Used irregularly.
 1-20.3/14.7310A, Rome, Italy, phones 8:00 to 11:00 A.M. irregularly. 1-20.4514.67GBL, Rugby, England. Phones JVH 1:00 to 7:00 A.M. 1-20.5514.60JVH, Nazaki, Japan. Phones and also broadcasts at times. 1-20.5614.59WMN. Lawrenceville. N. J Phones England daylight. 1-20.6514.59WMN. Lawrenceville. N. J Phones Bengland daylight. 1-20.6514.53ISN, Buenos Aires, Argentina. Phones New York daytime. 1-20.6514.53ISN, Buenos Aires, Argentina. Phones New York daytime. 1-20.7114.48HBJ, Geneva, Switzerland. Used irregularly. 1-20.7114.48HBJ, San Salvador, Salvador. Phones WNC daytime. 1-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. 1-20.7114.48HRF, Tegucigalpa. Honduras, phones WNC daytime. 1-20.7114.48HRF, Tegucigalpa. Honduras, phones WNC daytime. 1-20.7114.48HRF, Guatemala Citv. phones Africa mornings. 1 1-20.7314.46DZH, Zeesen, Germany. Irregular. 1 1-20.7514.46DZH, Zeesen, Germany. Irregular. 20.97 to 12.26-14.30 to 14.11Amateur phones heard in daytime. 2-21.7514.46DZH, Zeesen, Germany. Irregular. 2-21.7613.88FZIAA, Paramaribo, Dutch Guiana, in the evenings. 2-21.7613.83SUZ. Cairo, Egypt. Phones GAA 7:00 A.M. to 3:30 P.M. 1-21.7713.69KKZ, Bolinas, California. Used irregularly. 1-21.7713.69KKZ, Bolinas, California. Used irregularly.
 T-20.6414.54HBJ, Geneva, Switzerland. Used irregularly. T-20.6514.53L.SN, Buenos Aires, Argentina. Phones New York daytime. T-20.7114.48LSN, Buenos Aires, Argentina. Phones WNC diternoons. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRF, Touratago, Costa Rica, phones WNC daytime. T-20.7114.48HRF, Feyucigalpa, Honduras, phones WNC daytime. T-20.7114.48HRF, regucigalpa. Honduras, phones WNC daytime. T-20.7214.48HRF, Lawrenceville, N. J. Phones England daylight. T-20.7514.46D2H, Zeesen, Germany. Irregular. E-20.7514.46D2H, Zeesen, Germany. Irregular. E-21.7613.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.7713.6TYE2, St. Assise, France, Phones Africa daytime. E-21.7713.6KZ, Bolinas, California. Used irregularly. T-21.71-13.69KKZ, Bolinas, California. Used irregularly.
 T-20.6414.54HBJ, Geneva, Switzerland. Used irregularly. T-20.6514.53L.SN, Buenos Aires, Argentina. Phones New York daytime. T-20.7114.48LSN, Buenos Aires, Argentina. Phones WNC diternoons. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRF, Touratago, Costa Rica, phones WNC daytime. T-20.7114.48HRF, Feyucigalpa, Honduras, phones WNC daytime. T-20.7114.48HRF, regucigalpa. Honduras, phones WNC daytime. T-20.7214.48HRF, Lawrenceville, N. J. Phones England daylight. T-20.7514.46D2H, Zeesen, Germany. Irregular. E-20.7514.46D2H, Zeesen, Germany. Irregular. E-21.7613.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.7713.6TYE2, St. Assise, France, Phones Africa daytime. E-21.7713.6KZ, Bolinas, California. Used irregularly. T-21.71-13.69KKZ, Bolinas, California. Used irregularly.
 T-20.6414.54HBJ, Geneva, Switzerland. Used irregularly. T-20.6514.53L.SN, Buenos Aires, Argentina. Phones New York daytime. T-20.7114.48LSN, Buenos Aires, Argentina. Phones WNC diternoons. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRF, Touratago, Costa Rica, phones WNC daytime. T-20.7114.48HRF, Feyucigalpa, Honduras, phones WNC daytime. T-20.7114.48HRF, regucigalpa. Honduras, phones WNC daytime. T-20.7214.48HRF, Lawrenceville, N. J. Phones England daylight. T-20.7514.46D2H, Zeesen, Germany. Irregular. E-20.7514.46D2H, Zeesen, Germany. Irregular. E-21.7613.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.7713.6TYE2, St. Assise, France, Phones Africa daytime. E-21.7713.6KZ, Bolinas, California. Used irregularly. T-21.71-13.69KKZ, Bolinas, California. Used irregularly.
 T-20.6414.54HBJ, Geneva, Switzerland. Used irregularly. T-20.6514.53L.SN, Buenos Aires, Argentina. Phones New York daytime. T-20.7114.48LSN, Buenos Aires, Argentina. Phones WNC diternoons. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRL5, Nacaome. Honduras, testing with WNC daytime. T-20.7114.48HRF, Touratago, Costa Rica, phones WNC daytime. T-20.7114.48HRF, Feyucigalpa, Honduras, phones WNC daytime. T-20.7114.48HRF, regucigalpa. Honduras, phones WNC daytime. T-20.7214.48HRF, Lawrenceville, N. J. Phones England daylight. T-20.7514.46D2H, Zeesen, Germany. Irregular. E-20.7514.46D2H, Zeesen, Germany. Irregular. E-21.7613.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.7713.6TYE2, St. Assise, France, Phones Africa daytime. E-21.7713.6KZ, Bolinas, California. Used irregularly. T-21.71-13.69KKZ, Bolinas, California. Used irregularly.
 1-20.7114.48. TIU, Cartago, Costa Rica, phones WNC daytime. 1-20.7114.48. TIU, Cartago, Costa Rica, phones WNC daytime. 1-20.7114.48. HPF, Panama, phones WNC daytime. 1-20.7114.48. HPF, Panama, phones WNC daytime. 1-20.7114.48. TBS, Rome, Italy. Phones Africa mornings. 1 1-20.7214.48. TBS, Rome, Italy. Phones Africa mornings. 1 1-20.7314.47. WMF, Lawrenceville, N. J. Phones England daylight. 1-20.7514.46. CBW, Rughy, England. Phones WNC 6:00 A.M. to 6:00 P.M. 20.7514.46. DZH, Zeesen, Germany. Irregular. 20.7514.46. Jage PZIAA, Paramaribo, Dutch Guiana, in the evenings. 2-21.5813.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings 1-21.7713.6-TYE2, St. Assise, France, Phones Africa daytime. 21.7713.69-KKZ, Bolinas, California. Used irregularly.
 1-20.7114.48. TIU, Cartago, Costa Rica, phones WNC daytime. 1-20.7114.48. TIU, Cartago, Costa Rica, phones WNC daytime. 1-20.7114.48. HPF, Panama, phones WNC daytime. 1-20.7114.48. HPF, Panama, phones WNC daytime. 1-20.7114.48. TBS, Rome, Italy. Phones Africa mornings. 1 1-20.7214.48. TBS, Rome, Italy. Phones Africa mornings. 1 1-20.7314.47. WMF, Lawrenceville, N. J. Phones England daylight. 1-20.7514.46. CBW, Rughy, England. Phones WNC 6:00 A.M. to 6:00 P.M. 20.7514.46. DZH, Zeesen, Germany. Irregular. 20.7514.46. Jage PZIAA, Paramaribo, Dutch Guiana, in the evenings. 2-21.5813.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings 1-21.7713.6-TYE2, St. Assise, France, Phones Africa daytime. 21.7713.69-KKZ, Bolinas, California. Used irregularly.
 1-20.7114.48. TIU, Cartago, Costa Rica, phones WNC daytime. 1-20.7114.48. TIU, Cartago, Costa Rica, phones WNC daytime. 1-20.7114.48. HPF, Panama, phones WNC daytime. 1-20.7114.48. HPF, Panama, phones WNC daytime. 1-20.7114.48. TBS, Rome, Italy. Phones Africa mornings. 1 1-20.7214.48. TBS, Rome, Italy. Phones Africa mornings. 1 1-20.7314.47. WMF, Lawrenceville, N. J. Phones England daylight. 1-20.7514.46. CBW, Rughy, England. Phones WNC 6:00 A.M. to 6:00 P.M. 20.7514.46. DZH, Zeesen, Germany. Irregular. 20.7514.46. Jage PZIAA, Paramaribo, Dutch Guiana, in the evenings. 2-21.5813.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings 1-21.7713.6-TYE2, St. Assise, France, Phones Africa daytime. 21.7713.69-KKZ, Bolinas, California. Used irregularly.
 T-20.71-14.48—TIU, Cartago, Costa Rica, phones WNC daytime. T-20.71-14.48—YNA, Managua, Nicaragua, phones WNC daytime. T-20.71-14.48—HPF, Panama, phones WNC daytime. T-20.71-14.48—HPF, Terucigalpa, Honduras, phones WNC daytime. T-20.72-14.48—HRF, Terucigalpa, Honduras, Phones WNC daytime. T-20.73-14.46—GBW, Rughy, England. Phones WNC 6:00 A.M. to 6:00 P.M E-20.75-14.46—DZH, Zeesen, Germany. Irregular. E-21.76-13.89—PZIAA, Paramaribo, Dutch Guiana, in the evenings. E-21.58-13.90—WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings T-21.77-13.76—TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69—KKZ, Bolinas, California. Used irregularly. T-21.70-14.38-14.
 T-20.75-14.46-GBW, Rughy, England. Phones WDC 6:00 A.M. to 6:00 P.M. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.88-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.77-13.76-TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly.
 T-20.75-14.46-GBW, Rughy, England. Phones WDC 6:00 A.M. to 6:00 P.M. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.88-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.77-13.76-TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly.
 T-20.75-14.46-GBW, Rughy, England. Phones WDC 6:00 A.M. to 6:00 P.M. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.88-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.77-13.76-TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly.
 T-20.75-14.46-GBW, Rughy, England. Phones WDC 6:00 A.M. to 6:00 P.M. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.88-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.77-13.76-TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly.
 T-20.75-14.46-GBW, Rughy, England. Phones WDC 6:00 A.M. to 6:00 P.M. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-20.75-14.46-DZH, Zeesen, Germany. Irregular. E-21.88-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings E-21.77-13.76-TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly.
 E-21.46—13.98—PZ1AA, Paramaribo, Dutch Guiana, in the evenings. E-21.46—13.98—PZ1AA, Paramaribo, Dutch Guiana, in the evenings. E-21.58—13.90—WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings T-21.70—13.83—SUZ, Cairo, Egypt. Phones GAA 7:00 A.M. to 3:30 P.M. T-21.77—13.76—TYE2, St. Assise, France, Phones Africa daytime. E-21.91—13.69—KKZ, Bolinas, California. Used irregularly. T-21.79—14.84 Fundamentary Phones (France) For the phones (France) For the phone irregularly.
 E-21.46—13.98—PZ1AA, Paramaribo, Dutch Guiana, in the evenings. E-21.46—13.98—PZ1AA, Paramaribo, Dutch Guiana, in the evenings. E-21.58—13.90—WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings T-21.70—13.83—SUZ, Cairo, Egypt. Phones GAA 7:00 A.M. to 3:30 P.M. T-21.77—13.76—TYE2, St. Assise, France, Phones Africa daytime. E-21.91—13.69—KKZ, Bolinas, California. Used irregularly. T-21.79—14.84 Fundamentary Phones (France) For the phones (France) For the phone irregularly.
 E-21.46-13.98-PZ1AA, Paramaribo, Dutch Guiana, in the evenings. E-21.58-13.90-WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings T-21.70-13.83-SUZ. Cairo, Egypt. Phones GAA 7:00 A.M. to 3:30 P.M. T-21.77-13.76-TYE2, St. Assise, France, Phones Africa daytime. E-21.91-13.69-KKZ, Bolinas, California. Used irregularly. T-21.98-13.65-HIV, Borata Colombia Phones irregularly.
F_2 VX_L(6)_H/V Rogota Colombia Phones irregularly
F_2 VX_L(6)_H/V Rogota Colombia Phones irregularly
F_2 VX_L(6)_H/V Rogota Colombia Phones irregularly
F_2 98_1 (6)_H V Bogota Colombia Phones irregularly
The state of the s
T = 21.73 = 13.79 = KVU. Vladvostok. U.S.S.K. 4:00 to 10:00 A M irreg
 T-21.73-13.79—RVU, Vladvostok, U.S.S.R. 4:00 to 10:00 A.M., irreg. T-22.09—13.58—GBB. Rugby, England. Phones Canada and Egypt, daytime. T-22.37—13.41—YSJ, Salvador, San Salvador, phones WNC daytime. T-22.40—13.38—UDU Aswara, Exitera phones that 8:00 A.M. to 3:00 P.M. irregularty.
T-22.37-13.41-YSJ. Salvador, San Salvador, phones WNC davtime.
1 - 22.40 - 10.00 - 1000, Asimala, Entrea, prones really 0.00 A.M. to 5.00 1.M. negutary
T-22.40-13.39-WMA. Lawrenceville, N. J. Phones England. daytime. T-22.44-13.37-IVII. Nazaki Japan. Around 6:00 to 10:00 A M
T-22.44-13.37-JVU, Nazaki, Japan. Around 6:00 to 10:00 A.M. Γ -22.48-13.35-YVQ, Maracay, Venezuela. Phones Florida, daytime.
1-22.50 to 24.3-13.34 to 12.35-Ships. Heard in daytime.
T-22.58-13.28-CGA3, Drummondville, Canada. Phones ships and England daytime.

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- III ---- Auto-

ALWAYS MENTION THE CLUB WHEN BUYING

Meters Meg. STATION TIME T-22.70-13.22-IRJ, Rome, Italy, phones Japan irregularly 5:00 to 8:00 A. M. T-22.74-13.19-RFL, Khabavorsk, U.S.S.R. Around 4:00 to 10:00 A.M. T-23.08-13.00-FVC, Paris, France. Phones Ships, Irregularly. T-23.29-12.88-RTZ, Irkutsk, U.S.S.R. 10:00 P.M. to 10:00 A.M., irreg. T-23.31-12.87-VVS, Mingaladon, India. Phones 5:00-7:00 A.M., Irreg. T-23.33-12.86-IAC, Piza, Italy. Phones Africa 8:00 A.M. to 1:00 P.M. T-23.33-12.86-1AC, Piza, Italy. Phones Africa 8:00 A.M. to 1:00 P.M.
 (-23.36-12.84-WOO, Occan Gate, N. J. Phones ships irregularly.
 T-23.38-12.83-CNR, Rabat, Morocco. 5:00-8:00 A.M., 2:00-4:00 P.M., irreg.
 T-23.47-12.78-GBC, Rugby, England. Phones ships irregularly.
 T-24.20-12.40-DAF, Norden, Germany. Phones ships irregularly, mornings.
 T-24.40-12.30-PLM, Bandoeng, Java. Phones VK2ME near 6:30 A.M. T-24.41-12.29-GBU, Rugby, England. Phones America, evenings. T-24.49-12.25-TYB, Pontoise, France. Heard late ofternoons, irre Heard late ofternoons, irregularly. T-24,49-12.25-TYB, Pointoise, France. Heard late ofternoons, irregularly. T-24,52-12.24-TFJ, Reykajavik. Iceland. Phones GCB and OXT 5:00 to 10:00 A.M. T-24,56-12.22-TYA, Pontoise, France. Phones the Normandie, irreguarly. T-24,63-12.18-RWJ. Alma-Ata. U.S.S.R. Phones 1:00 to 6:00 A.M. irregularly. T-24,69-12.15-GBS, Rugby, England. Phones New York. E-24,73-12.13-DZE, Zeesen, Germany. 7:00-9:00 A.M., 5:00-9:00 P.M., irreg. T-24.75-12.12-TPZ, Alger, Algeria. Phones Paris mdnight to noon, broadcasts 3:30 to 4:30 P. M., irregularly. T-24.86-12:07-XTU, Canton, China. Phones China 2:00 to 9:30 A. M. T-24.86-12:07-XTU, Canton, China. Phones 4:00 to 8:00 A.M., irreg T-25.00-12.00-IVK, Nazaki, Japan. Phones 4:00 to 8:00 A.M., irreg T-25.00-11:99-FZS. Saigon, Indo-China. Phones Paris mornings. T-25.09-11:95-1UC, Addis Ababa, Ethiopia. Phones Rome around noon and midnight. E-25.11-11:97-KKQ, Bolinas, California. Heard urregularly, evenings. F-25.12-11:95-FTA, St. Assise, France. Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M. T-25.38-11.82-RFM, Khabarovsk, U.S.S.R. Phones around 7:00 to 11:00 A.M. E-25.13-11.05, Kauhuku, Hawaii. Heard in the evenings testing. T-25.73-11.66-JVL, Nazaki, Japan. Phones 6:00 P.M. to 11:00 A.M. irregularly. T-25.73-11.66-JVL, Nazaki, Japan. Phones often and broadcasts, irreg. E-26.09-11.50-XAM, Merida, Yucatan. Irregularly 1:00, 6:00 and 7:00 P.M. 1-25.73-11.00-FPQ, No de jaicho, biazh. Thones often and broadcasts, hreg. E-25.87-11.59-VR44, Stony Hill, Jamaica. Testing with WNC in daytime. E-26.09-11.50-XAM, Merida, Yucatan. Irregularly 1:00, 6:00 and 7:00 P.M. T-26.16-11.47-XTS, Swatow, China. Phones around 2:45 to 9:00 A.M. T-26.31-11.40-HBO, Geneva, Switzerland. Used for special broadcasts. I-27.35-10.97-OCI, Lima, Peru. Phones HJY, evenings. T-27.37-10.96-ZLT2, Wellington, New Zealand. 11:00 P.M. to 7:00 A.M., Australia. T-27.62-10.86-RQT, Irkutsk, U.S.S.R. Phones ships around 7:00 to 10:00 A.M. I-27.56-10.85-DFL, Nauen, Germany. Irregular. E-27.65-10.85-DFL, Nauen, Germany. Irregular. T-27.62-10.84-KWV, Dixon, Calitornia. Phones Hawai, daytime. E-27.65-10.85-DFL, Nauen, Germany. Irregular. T-28.09-10.68-PLQ, Bandoeng, Java. PNT 8:00 to 10:00 A.M. irregularly. I-28.09-10.68-WNB, Lawrenceville, N. J. Phones Bermuda daytime. T-28.09-10.68-WNB, Lawrenceville, N. J. Phones Bermuda daytime. T-28.44-10.66-JVN, Nazaki, Japan. Phones 6:00 P.M. to 11:00 A.M. irregularly. T-28.44-10.55-WOK, Lewrenceville, N. J. Phones Brazil and Argentina, irregularly. T-28.44-10.55-WKOK, Lewrenceville, N. J. Phones Brazil and Argentina, irregularly. T-28.44-10.55-WKOK, Lewrenceville, N. J. Phones Brazil and Argentina, irregularly. T-28.49-10.53-JIB, Taiwan, Japan. Phones Japan 10:00 P.M. to 10:00 A.M. T-28.51-10.52-VK2ME-VLK, Sydney. Australia. 1:00 to 8:00 A.M. T-28.76-10.43-YBG, Medan, Sumara. Phones Japan 10:00 P.M. to 10:00 A.M. T-28.79-10.42-YEG, St. Assise, France. Phones Js0 to 8:30 A.M. T-28.79-10.42-YEG, St. Assise, France. Phones Japan to to 8:30 A.M. T-28.79-10.42-YEG, St. Assise, France. Phones Japan to to 7:00 P.M. T-28.76-10.43-YBG, Medan, Sumatra. Phones Java 5:00 to 8:30 A.M.
T-28.79-10.42-YE3, St. Assise, France. Phones U.S.A. 3:30 to 7:00 P.M.
T-28.80-10.42-YGW, Shanghai, China. Phones almost any time.
I'-28.80-10.42-PDK, Kootwijk, Holland. Phones Java 7:30 to 9:40 A.M.
E-28.85-10.40-KEZ, Bolinas, California. Used irregularly.
E-28.93-10.37-JVO, Nazaki, Japan. Phones 6:00 P.M. to 11:00 A.M. irregularly.
T-29.04-10.33-RVV, Vladivostok, U.S.S.R. Phones around midnight.
B-29.04-10.33-ORK, Brussels, Belgium. 1:30 to 3:00 P.M., daily.
F 20.14.10.30-JVO, Song Arose Argenting. Used for special testa E-29.13-10.30-LSO, Buenos Aires, Argentina. Used for special tests. T-29.13-10.30-PPM, Rio de Janeiro, Brazil. Phones irregular. **E**-29.15-10.29-DZC, Zeesen, Germany. 3:00 to 9:00 P.M., Irregular. **E**-29.27-10.25-LSL, Buenos Aires, Argentina, testing 5:30 to 7:00 P.M. **E**-29.33-10.23-CED, Antofagastan, Chile, heard 7:00 to 9:30 P.M. irregularly.

Meters Meg. STATION TIME
T-29.45-10.22-PSH, Rio de Janeiro, Brazil. Sending music, evenings. T-29.45-10.22-PSH, Rio de Janeiro, Brazil. Sending music, evenings. T-29.50-10.17-RIO, Baku, U. S. S. R., phones 10:00 P.M. to 10:00 A.M., irregularly. T-29.58-10.14-OPM, Leopoldsville, Belgian Congo. 12-2 A.M., noon-3:00 P.M., irregularly.
T-29.50-10.17-RIO, Baku, U. S. S. R., phones 10:00 P.M. to 10:00 A.M. irregularly.
T-29.58-10.14-OPM, Leopoldsville, Belgian Congo. 12-2 A.M., noon-3:00 P.M., irreg.
T-29.76-10.08-RIR, Tiflis, U. S. S. R. Phones 10:00 P.M. to 10:00 A.M., irregularly.
r -29.79-10.07-EHY, Madrid, Spain. Phones YVK near 4:00 F.M., integrating.
$\Gamma_{-29,86-10,14-}$ UFM, Leoponsvinc, Beglan Congo. 12-21, Mar. Income 106 of Mar. Incom. $\Gamma_{-29,76-10,08-}$ RIR, Tillis, U. S. S. Phones 10:00 P.M. to 10:00 A.M., irregularly. $\Gamma_{-29,80-10,06-}$ TDE, Shinkio, Manchukuo, phones Japan 1:00 to 9:00 A.M., irregularly. $\Gamma_{-29,80-10,06-}$ TDE, Shinkio, Manchukuo, phones Japan 1:00 to 9:00 A.M., irregularly.
$\Gamma = 29.83 = 10.05 = ZFB$, Hamilton, Bermuda. Phones U.S.A. and ships, daytime
T-29.83-10.05-SUV, Carlo, Egypt. Thomes England around 1.00 to 5.00 1.14.
$\Gamma_{-29.83}$ 10.05 SUV, Cairo, Egypt. Phones England around 1:00 to 5:00 P.M. E-29.88-10.04 DZB, Zeesen, Germany. Irregular. $\Gamma_{-30.09}$ 997-KAZ, Manila, P. 1. Phones PLV near 2:00 A.M.
$\Gamma = 30.09 = 9.97 = KAZ$, Mania, F. 1. Thones TLV field 2.00 Mar. $\Gamma = 30.15 = 9.95 = GCU$, Rugby, England. Phones New York evenings.
 T-30.15-9.95-GCU, Rugby, England. Phones New York evenings. T-30.21-9.93-HKB, Bogota, Colombia. Phones PSK irregularly, evenings. T-30.30-9.90-LSN, Buenos Aires, Argentina. 6:00 P.M. to 6:00 A.M. WLO. F-30.40-9.87-WON, Lawrenceville, N. J. Phones England evenings. g-30.40-9.87-JYS, Kemikawa-Cho, Japan. Relays JOAK Irreg., mornings. T-30.52-9.83-IRM, Rome, Italy. Phones Egypt afternoons. T-30.60-9.80-GCW, Rugby, England. Phones America, evenings. g-30.61-9.80-GCW, Rugby, England. Used irregularly, evenings. g-30.61-9.80-CLSI, Buenos Aires, Argentina. Used irregularly, evenings. a-30.7-9.76-VK2ME-VLK. Sydney, Australia. Phones Java 4:00 to 8:00 A.M.
T-30.23-992-IDV, Dairen, Manchuguo, Phones Japan 2-4 A.M., 8-1 0P M., irreg.
1-30 40- 9.87-WON, Lawrenceville, N. J. Phones England evenings.
R-30.40 9.87 IYS, Kemikawa-Cho, Japan. Relays JOAK Irreg., mornings.
F-30.52-9.83-IRM, Rome, Italy. Phones Egypt afternoons.
r -30.60- 9.80-GCW, Rugby, England. Phones America, evenings.
g -30.61- 9.80-LSI, Buenos Aires, Argentina. Used irregularly, evenings.
I -30.75 9.76 VK2ME-VLK, Sydney, Australia. Phones Java 4:00 to 8:00 A.M.
T-30.77 9.75-WOF, Lawrence, N. J. Phones England, evenings.
E-31.00- 9.67-DZA, Zeesen, Germany. Broadcasts Integularly.
r-31.08 9.65 DGU, Nauen, Germany. Phones Egypt in day inc.
 T-30.75-9.76-VK2ME-VLX, Synney, Australia. Thomes angland, evenings. E-31.00-9.67-DZA, Zeesen, Germany. Broadcasts irregularly. T-31.08-9.65-DGU. Nauen, Germany. Phones Egypt in daytme. T-31.58-9.50-XTV, Canton, China. Phones 2:00 to 11:00 A.M., irreg. T-31.61-9.49-KEI, Bolinas, Calif. Used irregularly. T-31.61-9.49-KEI, Bolinas, Calif. Used irregularly.
T-31.61-9.49-KEI, Bonnas, Can. Osci Integration (1990) A.M. to 1:00 P.M., irreg.
$T_{31,71} = 9.40 - 171001$, Allea, Thomas 9.40-11.00 A.M., 6:00-11:00 P.M. irreg
1 31.60 9.72 FLV, Bartwick Holland, Phones 3:00 to 10:00 A.M., irreg.
1 = 32.02 = 9.36 = XTR Swatow China. Phones around 4:00 to 9:30 Å. M.
1-32.15-9.33-CGA4, Drummondville, Canada. Phones ships and England, irregularity
T-32.32-9.28-XTC, Shanghai, China. Phones 2:00 to 11:00 A.M., irreg.
 T-31.61-9.49-KE1, Bolinas, Calif. Used irregularly. T-31.61-9.49-KE1, Bolinas, Calif. Used irregularly. T-31.86-9.42-PLV, Bandoeng, Java. 9:00-11:00 A.M., 6:00-11:00 P.M., irreg. T-32.05-9.36-XTR, Swatow. China. Phones 3:00 to 10:00 A.M., irreg. T-32.15-9.36-XTR, Swatow. China. Phones around 4:00 to 9:30 A. M. T-32.15-9.33-CGA4, Drummondville, Canada. Phones and England, irregularly. T-32.35-9.28-XTC, Shanghai, China. Phones around 4:00 to 9:30 A. M. T-32.35-9.28-CGB, Rugby, England. Phones CGA and SUV aiternoons. T-32.68-9.18-ZSR, Klipkeuval, So. Africa. Phones England 1:00-7:00 P.M., irreg. T-32.83-9.14-YVR, Maracay, Venezuela. Phones England 1:00-7:00 P.M., irreg. T-33.28-9.12-YCP, Balikpapan, Borneo. 5:00-7:00 A.M., phones East Indies. T-33.04-9.08-XTK, Hankow, China. Phones Around 4:00 to 9:30 A. M. T-33.19-9.03-TYA2, Paris, France. Phones Algeria, 6 P. M. to midnite, irreg. T-33.20-9.02-GCS, Rugby, England. Phones York evenings. E-33.29-9.01-KEJ, Bolinas, California. Tests irregular.
T-32.68 9.18 ZSR, Klipkeuval, So. Africa. Phones England 1:00-7:00 P.M., irreg.
1-32.72- 9.17-WNA, Lawrenceville, N. J. Phones England evenings.
[-32.83 9.14 YVR, Maracay, Venezuela. Phones Europe atternoons.
T-32.89 9.12 YCP, Balikpapan, Borneo. 5:00-7:00 A.M., phones Last Indes.
T-33.04-9.08-XTK, Hankow, China. Phones around 4 100 10 9.30 A. M.
T-33.19-9.03-TYAZ, Paris, France. Findes Algeria, 0.1. In to induce, areg.
 r-33.26—9.02—GCS, Rugby, England. Phones New York evenings. g33.29—9.01—KEJ, Bolinas, California. Tests irregular. T-33.41—8.98—VWY, Poona, India. Phones England 6:00-10:00 A.M., irreg. T-33.48—8.96—TPZ2, Alger, Algeria, Africa. Phones Paris daytime. E-33.52—8.95—WEL-W2XBJ, Rocky Point, N. Y. Testing irregularly, evenings. r-33.93 to 36.58—8.84 to 8:20—Ships. Heard irregularly. R-34.10—8.79—HKV, Bogota, Colombia.
E 33.29 9.01 - K EJ, Bonnas, Cadio Ind. 1035 Breguna. (0.10:00 A.M., irreg
1-33.41 0.90 W 1, Fooda, India. I house Digund of the state of the sta
H_ 1352_ 8 95_WEL-W2XBL Rocky Point, N. Y. Testing irregularly, evenings.
Γ 33.93 to 36.58 8.84 to 8:20—Snips. Heard inregularly. R 34.10— 8.79—HKV, Bogota, Colombia. Testing, 5:30 to 11:00 P.M., irregularly. Γ 34.19— 8.77—PNI, Makasser, D. E. I. Phones Java near 4:00 to 5:00 A.M. Γ 34.19— 8.77—PNI, Makasser, D. E. I. Phones ships 5:00.9:00 A.M. irregularly.
F-34.19- 8.77-PNI, Makasser, D. E. I. Phones Java near 4:00 to 5:00 A.M.
T-34.44 8.71 KBB, Manila, P. I. Phones ships 5:00-9:00 A.M., irreg.
1-34.56- 8.68-GBC, Rugby, England. Phones ships irregularly.
E-34.68- 8.65-WVD, Seattle, Wash. Testing irregularly.
T-34.68- 8.65-VOWQ, North West River, Laborador. Findles freg.
r-35.02 8.57 WOO, Ocean Gate, N. J. Phones snips integration.
$\Gamma = 35.42 = 8.47 = DAF$, Norden, Germany. Finders sings integrating.
Γ 35.80 8.38 1AC, Fiza, Italy. Works singly, integrating.
$\Gamma = 36.65 = 8.19 = PSK$, Rio de Janeiro, Brazil. Selaing music 0.00 (7.10) A.M.
T-36.95-8.12-KIT, Mana, T. T. Thouse Rows for the London afternoons.
1-38.00 7.79 PS7 Bio de Japiero Brazil Heard between 6:00 and 11:00 P.M. irrev
T 30 66 7 68 VBZ Manado, Celebes, DEL, Phones PNI 5:00-7:00 A.M.
T 20 32 763 RIM Tashkent U.S.S.R. Heard 5:00 to 11:00 A.M. in winter.
 b 34.10 b 8.77 PNI, Makasser, D. E. I. Phones Java near 4:00 to 5:00 A.M. T 34.44 B 8.71 KBB, Manila, P. I. Phones ships 5:00-9:00 A.M., irreg. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 34.68 B 8.65 WVD, Seattle, Wash. Testing irregularly. T 35.42 B 8.7 WOO, Occan Gate, N. J. Phones ships irregularly. T 35.80 B 8.38 HAC, Piza, Italy. Works ships, irregularly. T 36.95 - 8.12 WTP, Manila, P. I. Phones KWX 10:30 to 11:00 to 7:30 P.M. T 38.06 - 7.86 SUX, Cairo, Egypt. Phones Rome and London afternoons. E 38.50 - 7.78 PSZ, Rio de Janiero, Brazil. Heard between 6:00 and 11:00 P.M irreg. T 39.06 - 7.68 WBZ, Manado, Celebes, DEI. Phones PNI 5:00-7:00 A.M. T 39.32 - 7.63 - RIM, Tashkent, U.S.S.R. Heard 5:00 to 11:00 A.M. in winter. T 39.2 - 7.64 - RIM, Tashkent, Wash.
T to co 7 20 7I T2 Wellington New Zealand phones Sydney 3:00 to 7:00 A.M. irreg
1-40.00-7.37-2212, weinington, new Zoanand, phones Spandy 5.00 to 8:00 P.M.
B-40.65 7.38 XECR, Mexico City, broadcasts Sundays 6:00 to 8:00 P.M. B-40.65 7.38 XECR, Mexico City, broadcasts Sundays 6:00 to 8:00 P.M. T-39.68 7.56 KWY, Dixon, Calif. Phones weekdays 9:30 P.M. to mdnight.
T-39.68-7.56-FZE9. Dilbouti, French Somaliland. Phones Paris.
T-39.68-7.56-FZE9, Djibouti, French Somaliland. Phones Paris. T-39.68-7.52-KKH, Kauhuku, Hawaii. Phones KWO evenings.

T-39.89-7.52-KKH, Kauhuku, Hawaii. Phones KWO evenings.

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THIS IS YOUR CLUB, MAKE IT WHAT YOU WILL

Meters	Meg.	STATION	TIME
			R. Heard 5:00 to 11:00 A.M. in winter.
T-40.71-	7.37-KE	O. Kauhuku, Hawa	if. Phones Dixon nights.
T-42.98-	6.98-KZ	GG. Cebu. P. I. 1	:00 to 4:45 A.M. and 6:30 to noon.
E43.00	6.98-XB	A. Tacubaya, Mexi-	co, 9:30 A.M. to 1:00; 7:00 to 8:30 P.M.
T-43.45-	6.90-GD	S. Rughy, England	Phones New York nights.
T-44.41-	6.75-WC	A Lawrenceville	N. J. Phones England nights.
T-44.44-	6 75-IV	C Nazaki Japan	1:30 to 8:00 A.M., oftimes with music.
T-44 64-	672-XE	M2 Guanacebi Dur	Mexico. Tests around 9:30 P.M., irreg.
T-44.94-	6.67-HB	O Geneva Switzerl	and. Used for special broadcasts.
T-44.96-	6 67 - VV	Q, Maracay, Venezi	uela "Phones irreg
T-45 10-	6 65 1 4	. Piza, Italy. Pho	nes shine evenings
T-45 11-	6.65_IF7	C Ship Chichibu	Maru. Phones irregularly.
			around 9:30 to midnite.
F-46 73	6 42W0	YBS Chienge Hilling	nois. Heard irregularly broadcasting.
E-46 77-	641-HL	A 3 Barranguilla C	olombia. Phones HJA2, irregular.
F-47 30-	6 35 170	head salawing T	VT. JOAK from 5:00 to 7:30 A.M. irregulariy
E-47 54	6 31_TC	Customala City	Relays TGI around 5:00 to 9:00 P.M., Irreg.
50.00 to 60	0.01-102	or 6,00 to 5.00 Mc	Aircraft stations
T 50 93-	5 80_TTC	This Topon	Phones Nazaki 5:00 to 10:00 A.M. winter.
T_51.26-	5.85 WO	D Toward, Japan.	J. Phones Bermuda nights
T-51 46-	5.83-W	D Shiniria Manahu	kuo. Phones Japan 10:00 P.M. to 6:00 A.M.
T_51 50_	5.83-110	A2 Bogota Colomb	in Phones WIA3 afternoons and evening
T_52.26	5 74 YT	D Shanghia China	a. Phones HIA3 afternoons and evenings. A. Phones Hankow 4:00 A.M. to noon. a. Works CFO and CFN near 10 P.M., irrev
F 52.20	5.66_CEI	I Reseland Connd	Works CEO and CEN near 10 DM image
T_54 74	5.48 8 77	7 Uaphow Chine	Phones Shanghia 4:00 A.M. to noon
T-54 74	5 48 YT	Uanhow, China.	Heard around 5:00 to 7:00 A.M., phoning.
F-55 56-	540 HI	A 7 Cuauta Calam	hia. Mondays 4:30 to 7:30 P.M., irregularly.
T59 08-	5 08 WC	'N Tauranawilla P	N. J. Phones England evenings.
T59.76	5.00-75	Unmilton Dorma	d. Dhomes TYS A and this at might
T-60 26	4 08 CB	C Bughy England	ida. Phones U.S.A. and ships at night. Phones to ships, irregularly.
T-61 15	4 00 CC	A 9 December desili	Canada. Phones ships irregularly.
T_61 98_	4.94-CD	W Durby England	l, phones U.S. A. nights.
T_63 13	4.75 320	W, Rugoy, England	J. Phones bips irregularly.
T-66 50	4 51 715	Norran Bahamar	3. Works WND evenings.
T - 67 97 +		12 to 4 10 Shine	. works with evenings.
T_71 21	410 WN	42 to 4.10-Ships.	a. Phones irregularly with VPN.
1	5 8 A 00 A	o 3.96—Amateurs o	a. rhones tregularly with VPN.
u-/J to /.	0.0	0 3.30 Amateurs 0	u voice.

SHIP STATIONS

These stations are telephone stations but are sometimes rented to broadcast a special

Losse stations are telephone stations but are sometimes rented to broadcast a special program from a ship. They operate on four bands: 16.85 to 18.27 meters, 22.50 to 24.3 meters, 33.93 to 36.58 meters and 67.87 to 73.17 meters. In megacycles this is 17.80 to 16.42, 13.34 to 12.35, 8.84 to 8.20 and 4.42 to 4.10. VQIM, Monarch of Bermuda: GFJY, Caledonia; GBTT, Queen Mary; FMNS, Normandie; GMBJ, Empress of Britain; DOAH, Breman; DOAI, Europa; DHEY, Deutchland; DHIZ, Hamburg; DOAX. Columbus; DHAO, Hansa; DHRL, New York; ICEJ, Rex, IBLI, Conte de Savonia · GBZW, Berengaria; DHDL, Cap Arcona; JFZC, Chichibu Maru.

LETTER WRITING CONTEST

The letter writing contest which closes August 31st could not be judged before this issue went to press. The winner will be announced in the October issue.

SPECIAL NEWS FLASHES

Station CJRX, Winnipeg, Canada, is using 11.72 mc. part of the time and 11.80 part of the time, changing around 8:00 P.M. (Stark, Mo.) We do not know what this means, but evidently the change is made purposely.--Editor.

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and Off-On switches; eight metal and eight glass tubes and many other advanced improvements.

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VI

L ET'S give you a quick idea of the enjoyment and pleasure the short wave fan gets from his PHILCO. At 12 noon he "picks up" luncheon music from a famous New York hotel. Then with twirl of the Automatic Tuner he "catches" Big Ben in London striking 5 p. m. Another twist of the dial and "This is the Philco Radio Station, P. O. Box 295, Saigon, French Indo-China signing off at 12:00 P. M. midnight." Still another twirl and he has Honolulu broadcasting setting-up exercises at 6:00 A. M.

And so he goes—around the world and around the clock, "pulling in" the farthest stations with the volume and selectivity that only Philco's engineering superiority makes possible.

With the Foreign Tuning System, High Efficiency Aerial and Spread Band Dial combining to give him such "top notch" DX performance, it's little wonder that PHILCOS are so popular with the Short Wave fans.

PHILCO- The Favorite of Short Wave Fans