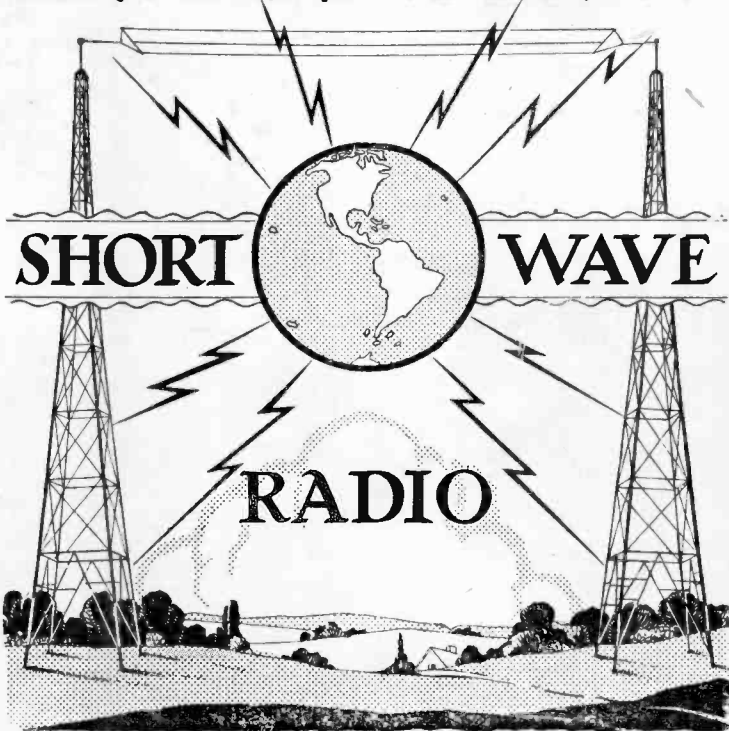


VOL VII

DECEMBER, 1935

NO. 3

INTERNATIONAL



- Short Wave News.
- Accurate Station List.
- Hourly Tuning Guide.

- Police Stations.
- Aircraft Stations.
- And Other Features.

THE VOICE OF THE
INTERNATIONAL SHORT WAVE CLUB

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"Simply Uncanny ...

*surpasses anything I have ever used—
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MR. A. B. BAADSGAARD, prominent Alberta, Canada, radio dealer and short wave enthusiast, further states: "In my reports to radio celebrities all over the world I take pleasure in mentioning the fact that the Lynch HI-FI Antenna was instrumental in enabling me to receive their programs with good loud speaker volume and with an appreciable absence of disturbing noises. The stations received include the new Warsaw, Poland, station on 22 meters, VUB, India; JVH, Japan; ZBW, China; RNE, Russia. I am certain I would never have been able to experience the thrill of the Warsaw, Poland, scoop without the Lynch Antenna, as it has proved time and again to be far superior to all others."

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All ready to hang. Saves 90% of installation time. Any novice can install it—quickly, easily, correctly. Makes every set perform better on ALL waves. Results are amazing.

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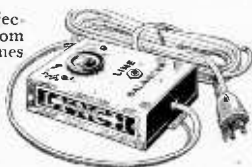
The above kit with 50 feet of famous Lynch Giant-Killer Cable (instead of twisted pair).

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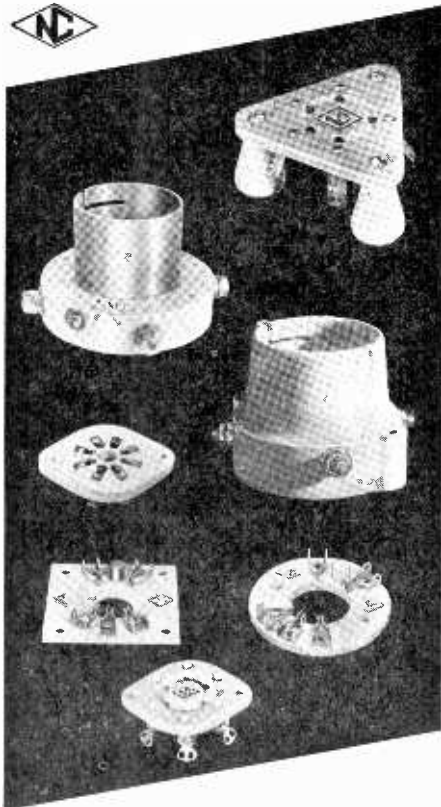
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... for Short
or Ultra Short-
Wave Use

The National Group of High Frequency Sockets includes a type for nearly every tube and purpose. At the top right is the JX-100, a big wafer-type low loss socket for power pentodes such as the RK-28 and RCA-803. Below it are two fifty-watt sockets with sturdy sidewipe contacts. Type XC-50 is entirely of low-loss Steatite; while Type VM-50 employs the more conventional metal shell and is lower in price. To the left of the fifty-watters is the new Isolantite wafer-socket for octal metal tubes. Two sockets are available for the little acorn tube. One, for the acorn pentode, is assembled on a square aluminum base and has built-in by-pass condensers for the stable high-frequency operation. For the acorn triode, the socket is of Isolantite. Both sockets employ special constant impedance clips. At the lower left is the old favorite, the receiving tube socket. It is made in 4, 5, 6 and 7 prong types as well as a special 6-prong coil model.

The new National General Catalog No. 250, just off the press, describes these and many other quality components in detail. Send for your copy.

National Company, Inc.,
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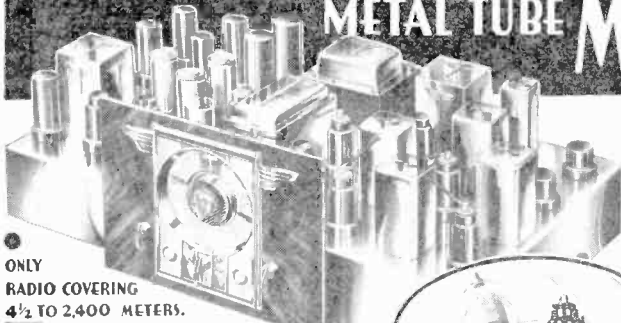
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EVERYWHERE, radio enthusiasts are praising this amazingly beautiful, bigger, better, more powerful, super selective, 18-tube 6-tuning range radio. They say it is a tremendous improvement over Midwest's 16-tube set, so popular last season. It is sold direct to you from Midwest Laboratories at a positive saving of 30% to 50%. (This statement has been verified by a Certified Public Accountant who conducted an impartial survey among representative Ohio, Kentucky and Indiana radio retailers) Before you buy any radio write for FREE 40-page 1936 catalog. Never before so much radio for so little money. Why pay more? You are triple-protected with: One Year Guarantee, Foreign Reception Guarantee and Money-Back Guarantees!

This super Midwest will out-perform \$200 to \$300 sets on a point-for-point comparison. That is why nationally known orchestra leaders like Fred Waring, George Olsen, Jack Denny, Ted Fio Rito, and others use Midwest sets to study types of harmony and rhythmic beats followed by leading American and Foreign orchestras.

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...Establishes new radio style overnight! The V-Front Dispersing Vanes were developed by Midwest engineers as a result of a study of directional effect of the Midwest Full Scope High Fidelity Speaker. These Vanes spread the beautiful lacework of the "highs" throughout the entire room in a scientific manner... directing the High Fidelity waves uniformly to the ear. Send for new FREE 40-page catalog. It pictures the complete line of beautiful 1936 Acousti-Tone V-Spread consoles... and chassis ... in four colors.



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DEPT. 44-F CINCINNATI, OHIO U.S.A.

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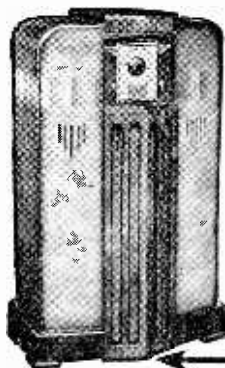
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No middle-men's profits to pay—you buy at wholesale price direct from laboratories... saving 30% to 50%. Increasing costs are sure to result in higher radio prices soon. Buy before the big advance... NOW... while you can take advantage of Midwest's sensational values. You can order your Midwest 1936 Full-Scope High Fidelity Acousti-Tone radio from the 40-page catalog with as much certainty of satisfaction as if you were to come yourself to our great radio laboratories. You save 30% to 50%... you get 30 days FREE trial as little as \$5.00 puts a Midwest radio in your home... Satisfaction guaranteed or money back. Write today, for FREE catalog.

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Thrill to new explorations in sections of radio spectrum that are strangers to you. Every type of broadcast from North and South America, Europe, Asia, Africa and Australia is now yours. Send today for money-saving facts.

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Long Island, N. Y.—After comparing many different makes, I finally decided upon Midwest. It out performs other radios costing almost twice as much. The crystal-clear tone is so life-like that it sounds as though I am *Jefferson*, in the studio, actually hearing artists perform.



**TODAY'S FINEST RADIO SAYS
TED FIO RITO**

My new Midwest is finest radio I have had pleasure of hearing. Bass Treble control is marvelous... enables one to hear every instrument in the orchestra. *Ted Fio Rito*



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MIDWEST RADIO CORP.

DEPT 44-F CINCINNATI, OHIO U.S.A.

Established 1920 Cable Address MIRACO All Codes

International Short Wave Radio is published monthly by the International Short Wave Club of East Liverpool, Ohio, U. S. A. Subscription rate \$1.00 per year anywhere. Post Office or Express Company money orders, checks, cash or United States postage stamps accepted. The rate of exchange on \$1.00 may be learned at all postoffices or banks. Single copies, 10c each.

Note:—Readers who may find it more convenient may send their subscriptions to Arthur Bear, 10 St. Mary's Place, Rotherhithe, London, S. E. 16, England.

Readers are 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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ARTHUR J. GREEN, Editor.

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A beautiful 12-inch globe showing the short wave stations of the world, with call-letters and location, for only \$2.75 F.O.B. Indianapolis. This globe is made by the world's greatest globe makers. It is modern in every detail, with all the latest changes in spellings and boundaries made. The map used in this globe was just finished in December, 1934.

The base is of walnut, highly finished. The globe itself can be cleaned by merely washing it with a damp cloth. Every short wave fan should have one of these globes for several good reasons. First of all, it marks the location of stations heard. Second, you can measure distances to the stations you hear. Third, it adds charm and beauty to any radio. Fourth, it creates interest in your short wave reception when people see this globe.

A free globe hand-book included in each sale.

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CHARLES MILLER

We are very happy this month to present a photograph of one of our best-known short wave fans, Mr. Charles Miller of Covington, Kentucky. Mr. Miller is one of our best reporters and never a week goes by, and in winter, seldom a day goes by but what we get a report from him.

The membership certificate to the Heard-All-Continents Club may be seen in the photograph. Mr. Miller only recently became interested in getting verifications, but has made excellent progress since his interest became deep enough to start writing to stations.

He has been interested in short waves just two years, is 22 years of age, has heard 46 countries and has been an I.S.W.C. member since April, 1934. He has gained a host of friends since he started listening in on the short waves.

LATE JANUARY ISSUE

Owing to the fact that Christmas and the New Year will be celebrated in America at the time when we should be busy getting out the January issue, our next issue will be late. These are legal holidays and printing shops are not allowed to operate. It is also likely that the mail will be very slow, as it almost always is after Christmas. But all this does not mean that you should be slow sending in your news. Quite to the contrary, send it in earlier.



JOHN J. KIRBY

Mr. Kirby lives in Brooklyn, New York. He holds a class 3-A certificate in the Heard-All-Continents Club, having shown three verifications from each of the six continents. Mr. Kirby is not what might be termed an "old-timer" in short waves, having become interested only about two years ago. But he has over 130 verifications. Mr. Kirby has taken excellent care in arranging some of these verifications for this photograph. They are mounted on black cardboards.

Mr. Kirby now owns and operates amateur station W2IQZ and asks members who happen to tune this station in to send him reports at 1084 New York Avenue, Apartment 9-D, Brooklyn, N. Y. In a letter which accompanied this photo Mr. Kirby wrote as follows: "I believe I have made a pretty good record for the short time I have been at the game, but all the credit is due to the International Short Wave Club. Without it I would be lost."

FREE BOOKLET

The booklet "Helps and Hints" is a sixteen-page printing offered free of charge to members. All that is necessary is to send 3c in stamps to cover the postage. Positively no copies will be mailed unless the postage is sent, however. This booklet tells how to write in several languages, how to make up a report, how to address your letters, and many other things. It has the addresses of several hundred stations.

CHAPTER NEWS

The New York Chapter ran an excursion to Netcong and Lawrenceville to visit the A. T. & T. Co. transmitting and receiving stations on November 30th. It was an enjoyable and profitable visit. In December a tour will be made of the General Electric Company's House of Magic. The chapter meets at Plaza Bridge Club, 70 Eighth Ave., Brooklyn. For information, write to Jacob Kleimans, 2610 Glenwood Road, Brooklyn, N. Y.

The Philadelphia Chapter will meet Friday, December 13th at 7:15 P.M., at 438 Market Street. Stations WCAU and W3XAU will be visited on December 21st. Code Classes have been started and lessons in Spanish will be given starting with this meeting. A movie will be shown and an eminent authority on radio will give a talk. This chapter plans on meeting twice a month starting in January. They also plan many unusual treats for members. Every short wave fan within reach of the city should turn out at the next meeting.

The London Chapter meets every Friday at R.A.C.S. Hall, Wandsworth Road, SW8, excepting the second in each month. This chapter will hold a special Christmas social and dance on Friday, December 20th. They have many other features in store. An election of officers was held October 18th. The officers elected were: President, W. J. Hobbs; Secretary, A. E. Bear; Chairman, J. E. Hunter; Vice-Chairman, A. F. Larkman; Technical Advisors, F. Postlethwaite, G. Hayes and C. H. Durrant. The Committee, A. W. Preedy and F. R. Scott.

The Manchester, England, Chapter now holds meetings at British Legion Hall, Middleton, on alternate Tuesdays. An election of officers will be held December 10th, followed by a "hot pot" supper. For details write to H. Wild, 1 Elm Street, Middleton, Manchester.

The Leicester, England, Chapter meets at Forester's Institute, Leicester every Wednesday. For details write to C. Cramp, 49 Avenue Road, Leicester.

PEN-PALS

The following members would like to correspond with other members of the club:

George Zehner, Jr., 2407 North Orkney St., Philadelphia, Pa. (Spanish)

Robert Woods, 15 West Broadway, Sand Springs, Okla. (Burma, Siam)

Warren Rosenlund, 147 Lovell St., Worcester, Mass.

R. W. Allsop, 61 Drakefield Road, Tooting, London SW17, England.

Lewis Evans, 202 E. 8th St., Oklahoma City, Oklahoma. (foreign).

W. G. Graham, care East Geduld Mines, Box 222, Springs Trasvaal, South Africa.

W. J. Woodall, 145 Autrobus Road, Birmingham, England.

Richard Zorn, North Baltimore, Ohio. (foreign)

D. McIntosh, 10 Cobblecrook Gardens, Alva, Scotland.

Richard Schwinn, 1120 North Main Street, Findlay, Ohio. (French)

Do not fail to send your new address when you move. The post office will not deliver these magazines to a new address.

THE BIRTHDAY CONTEST

We beg to report that the Birthday DX Contest has turned out to be a huge success in every way. We have not nearly completed the job of looking over these reports but find that we have received enough to give the judges a large job. Reports have been received from approximately 25 countries. About forty-five pounds of reports have been checked and every day brings us more. In this contest our sympathy goes out to the judges who have to read these reports and announce the winners of the prizes. Their job will be no easy one.

An effort will be made to announce the winners in the January issue. If the list does not appear in that issue, it will be because the job of judging the reports has been too great.

We deeply appreciate the interest shown in this contest. We are thankful to the stations that sent programs and the firms that contributed prizes. We also have special thanks to offer E. C. Lyell of Johannesburg, South Africa, who arranged to have the rules, list of prizes and station programs printed in the Johannesburg and East London newspapers. Also to A. B. McDonough of Wellington, New Zealand, who sent out mimeographed copies of the contest and also caused to have this published in the "Radio Record." Mr. J. Collin Bellamy of Barbados also deserves our thanks for printing and mailing out hundreds of copies of the rules.

APPRECIATION

We have much to be thankful for. For we realize that the wonderful help we are receiving is responsible for the success we are having more so than anything we are doing ourselves. We thank the stations that have broadcast programs for us, the manufacturers that recommended our magazine to their customers, the members that have sent in reports, the members that have mentioned our name in reports to stations and when purchasing something. We also thank those that sent in encouraging letters.

The following members also deserve great thanks for getting new members for us during the past month. Chester B. Myers, Cedar Rapids, Iowa; E. E. Mullen, San Diego, Calif.; W. C. Rennolds, Wilmette, Ill.; R. K. Masumoto, Honolulu, Hawaii; Miss Marjorie Phillips, Christ Church, Barbados; Georges Laroche, Cap Haitian, Haiti; H. Wild, Manchester, England; C. Cramp, Leicester, England; E. Exans, North Wales; T. F. Herdson, somewhere in England; R. N. Shaw, Wauchope, Australia; William Fell, Apia, Samoa, Pacific Islands; Carl Scherz, San Angelo, Texas; T. W. Moss, Exeter, England; F. H. Bohn, Klamath Falls, Oregon; Fred B. Heller, Jr., Philadelphia, Pa.; George VanHonk, Erie, Pa.; Wallace W. Smith, Louisville, Ky.; Martin F. Schultes, Little Neck, N. Y.; Robert Sherman, Ivoryton, Conn.; J. G. Van Gendt, Aruba, D. W. I.; Russell D. Hines, Sioux Falls, South Dakota; Mrs. Mabel Lee, Avon Park, Florida; C. E. Baker, New York City; Mrs. Kate Randall, Balston Spa, New York; Joseph Hardy, Roxbury, Mass.; Richard J. Russell, Baton Rouge, La.; Andrew Shassetz, Monarch, Wyo.; David L. Capriles, Curacao, D. W. I.; H. E. Goodhue, Sherbrooke, Canada; William Abel, Cleveland, Ohio; Harry Jackson, Leedersville, Australia.

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 average short wave station list contains hundreds of stations that have closed down, changed wavelengths or schedules, or have never really operated. The only reliable and helpful information comes direct from listeners, and even this must be published quickly in order to be of help. The information in this magazine is gathered by members of the club living in practically all parts of the world. Without this information, hundreds, or even thousands, of programs would be missed by readers. And without it, we would not be able to produce such a magazine. So, we say to all, "Thank You." This information is corrected up to within three days of the date of mailing. Other magazines usually make up copy from two to four months in advance of publishing.

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

AFRICA

A letter from Chief Engineer F. Hammar of the Addis Ababa stations contains much helpful information. But before going into this we suggest that every member set their dial to 25.10 meters or 11.95 mc. every Wednesday about 4:50 P.M. and log ETB broadcasting a special program to the United States. Reports on this and other Ethiopian stations are to be sent to Ministere des Postes Telegraphes et Telephones, P. O. Box 283, Addis Ababa, Ethiopia. Mr. Hammar says that they have ETA on 16.42 meters or 18.27 mc.; station ETB on 25.10 meters or 11.95 mc.; station ETD on 39.37 meters or 7.62 mc. and station ETG on 51.02 meters or 5.88 mc. ETA works telegraphy from 1:00 A.M. to 2:00 P.M. and ETB works telephony from 2:00 to 6:30 P.M. When broadcasting they use the call ETC, or Imperial Broadcasting Station. However, we must say that ETB has also been heard as early as 11:00 A.M. on phone. Frank Strom, Brooklyn, N. Y.; Radio of Garden City, N. Y.; H. S. Bradley, Hamilton, N. Y.; each have such a letter. We have many other reports of reception from the following members: E. Browell, W. D. Flagg, Neil Campbell, John Wayand, L. J. Niederle, R. Braunholdt, Eric Butcher, Sam Solito, Ed. Lips, A. Novak, E. Riggle, S. B. Thompson, Charles Miller, Fred Karpen, Bob McLean, John Edwards. J. Repoux says he had ETA on 16.42 meters phoning Paris at Noon once; Fred Karpen reports them at 10:00 A.M. and K. Moots claims he had ETA on 10.47 mc. phoning SUV, Egypt.

IDU, Asmara, Eritrea. This station has been heard on 22.40 meters or 13.38 mc. relaying programs from Rome. Reports show the time from 8:00 A.M. to 3:00 P.M. We have letters from Fred Karpen, Johns-

town, Pa.; Ed. Schmeichel, Chicago, Illinois; Charles Miller, Covington, Ky.; Sam Solito, Leetsdale, Pa.; H. S. Bradley, Hamilton, N. Y., and L. J. Neiderle, Praha, Czechoslovakia. This station was called IRG by some members.

ICK, Tripoli, on 31.71 meters or 9.46 mc., was reported one Friday at 4:00 P.M. calling Rome by Fred Karpen, Johnstown, Pa.

OPM and OPL, Leopoldsville, Belgian Congo. The programs from OPM on Saturdays were finished long ago according to letters from the station. They phone Belgium irregularly on 29.58 meters or 10.14 mc. OPL also phones Belgium in the mornings. It was reported between 9:30 and 10:00 A.M. almost daily by Frank Grey, Berwyn, Illinois, and Fred Karpen, Johnstown, Pa.

CR7AA, Lourenco Marques, Mozambique, is now on 48.09 meters according to E. Orchard, Weymouth, England, who reports them between 1:50 and 2:00 P.M. CNR, Rabat, Morocco, is no longer broadcasting. This comes direct from the station. They still phone Paris and was reported by J. Repoux, Le Pecq, France, at 9:18 A.M. once.

The Egyptian phones SUV and SUZ are both heard in America. SUV on 29.83 meters, 10.05 mc., phones London, around 3:00 to 6:00 P.M., calling in English and then using inverted speech. This comes from members Charles Miller and Lee Williams. Kenneth Moots also says they worked ETA from 3:00 to 4:35 P.M. one Saturday. SUZ on 21.70 meters or 13.83 mc. calls London daily at 11:00 A.M. They have also been heard between 9:30 A.M. and 12:30 P.M. Charles Miller, Robert Rossi, A. Novak and K. Moots send reports.

ASIA

VUB, Bombay, India, on 31.36 meters or 9.57 mc., has changed schedule. According to reports, they broadcast Wednesday, Thursday and Saturday from 11:30 A.M. to 12:30 P.M. and Sundays from 8:30 to 10:30 A.M. No American has reported this station in months. Robert Bradshaw, Liverpool; A. Browell, Wallasey; A. Gaver, Overseal, all of England and Bengt Lindbergh of Pitea, Sweden, report this. VWY, Poona, India, on 17.10 meters or 17.54 mc., was heard phoning London from 7:45 to 8:00 A.M. by Charles Miller, Covington, Ky., and Fred Karpen, Johnstown, Pa.

PNI, Makasser, D.E.I., on 34.19 meters or 8.77 mc. can be heard again calling Bandoeng, Java, reported by Fred Karpen, Johnstown, Pa., who had them one Saturday at 6:00 A.M.

XGN, Shanghai, China, on 17.00 meters or 17.64 mc., phoning London from 7:00 to 9:00 A.M. Mondays, Wednesdays and Saturdays is reported by Mr. Karpen.

ROU, Omsk, Siberia, on 20.28 meters or 14.79 mc. phoning Moscow from 7:00 to 9:00 A.M. is also reported by Mr. Karpen.

JZB, Shinkio or Shinkyu, Manchukuo, on 29.80 meters or 10.065 mc., phoning JVO, Japan, from 10:30 P.M. until 3:00 A.M. is reported by member Sam Solito, Leetsdale, Pa.; Ashley Walcott, San Francisco, and Wm. Sparks, San Francisco. This station is owned by the Manchukuo

Telephone and Telegraph Company, and they have JZA on 15.68 mc., and JZC on 5.83 mc. we are told.

The Philippines. A new station, HKP on 34.44 meters or 8.71 mc., was reported broadcasting records from 6:30 to 7:00 A.M. and asked for reports to be sent to Philippine International Telephone according to Dr. F. E. Hall, Winchendon, Mass. A. Antognini, Greenfield, Calif., reports a station KDB near 34.40 meters sending music at 10:00 A.M. Station KAX on 15.01 meters or 19.98 mc., and station KAY on 20.03 meters, 14.98 mc. sent the inaugural address of President Quezon between 7:30 and 8:00 P.M. according to Ashley Walcott, San Francisco; Fred Karpen of Johnstown, Pa.; Wade Chambers, Tulsa, Oklahoma, and L. D. Brewer, Phoenix, Arizona.

ZPD, Suva, Fiji Islands, on 22.95 meters or 13.07 mc. is still broadcasting from 12:30 to 1:30 A.M., but has faded out badly. Andrew Shassetz, Monarch, Wyoming, reports they sent a special program at 4:45 P.M. one Friday, too.

ZBW, Hong Kong, China. This station announced they were going to move this winter to a new wavelength, but reports show they are still broadcasting on 34.29 meters or 8.75 mc. In the Eastern part of America they are heard best between 5:30 and 7:00 A.M., on the West part 7:00 to 10:00 A.M. H. S. Campbell, Charles Miller, Dr. E. F. Hall, A. Novak, F. L. Stitzinger, Ed. Schmeichel, Wm. Sparks, F. A. Beane, A. Antognini send reports.

FZR, the phone at Saigon on 18.51 meters or 16.21 mc., sends out cards giving different wavelengths and they do move around a bit. Ed Lips of Pittsburg, has one now giving the frequency as 16.24 mc. They work Paris almost daily around 8:00 to 8:30 A.M. John B. Keenan, Sydney, Australia, also reports this.

From the chief engineer of the Kokusai Kenwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo, Japan, comes the following list of telephone stations now in use in Nazaki, Japan. They verify, letters are to be sent to the above address.

JVA—15.86 m. (18.91)	JVB—15.63 m. (18.19)	JVC—16.05 m. (18.69)
JVD—18.91 m. (15.86)	JVE—19.15 m. (15.66)	JVF—19.20 m. (15.62)
JVG—20.12 m. (14.91)	JVH—20.55 m. (14.60)	JVI—22.12 m. (13.56)
JVJ—24.44 m. (12.27)	JVK—24.96 m. (12.02)	JVL—25.73 m. (11.66)
JVM—27.93 m. (10.74)	JVN—28.14 m. (10.66)	JVO—28.93 m. (10.37)
JVP—39.95 m. (7.51)	JVQ—40.16 m. (7.47)	JVR—40.60 m. (7.39)
JVS—42.92 m. (6.99)	JVT—44.44 m. (6.75)	JVU—51.81 m. (5.79)
JVV—52.56 m. (5.73)	JZD—17.74 m. (16.91)	JZE—23.04 m. (13.02)
JZF—35.29 m. (8.50)	JZG—47.39 m. (6.33)	JYT—19.03 m. (15.76)
JYK—22.06 m. (13.60)	JYS—30.49 m. (9.84)	JYR—38.07 m. (7.88)

The broadcasts from Japan take place now on Mondays and Thursdays from 4:00 to 5:00 P.M. over JVN and JVM. Also over JVN and sometimes JVH from Midnight to 1:00 A.M. and Tuesdays and Fridays from 2:00 to 3:00 P.M. over JVM and JVP. Remember all of these. In addition to these regular broadcasts, nearly all of the above mentioned stations may be heard sending music while testing. From about 4:00 to 7:40 A.M.,

members may be able to hear musical programs coming over stations JVT, JVP, JVN, JVM, JZB or JVL. And, too, these stations may be heard phoning almost all day long, with better reception to be had from around 5:00 P.M. until 7:40 A.M. Try for JVN around Midnight, 2:00 A.M. and 6:00 A.M. Try JVM about the same time. Try JVT around 7:00 to 8:30 A.M. Try JVE around 8:00 A.M. Try JVL around 4:00 to 9:00 A.M. phoning JIB and JZB, also JVO around the same time.

Edward Kroeger says these stations have a new address which is Broadcasting Corporation of Japan, Hibiya, Tokyo, Japan, but we believe this is for broadcasting only. We also have reports from Dr. Pugh, P. Cabot, C. Lopez, G. C. Gallagher, John Keenan, H. S. Bradley, William Fell, A. J. Hayward, R. L. Peck, J. B. Wooten, H. Campbell, John Tinnon, Charles Miller, J. Reese, Frank Hilburn, Sam Solito, Joe Childs, Dr. E. F. Hall, Chas. Hodge, Ed. Davenport, Ed. Lips, Lee Williams, A. Novak, Ed. Houlgate, J. Wojtkiewicz, J. Lucke, Jr., Wm. Sparks, S. B. Thompson, Fred Karpen, R. Braunholdt, XDX, L. D. Brewer, H. J. Davison and Ashley Walcott.

On the island of Taiwan, once called Formosa, the Japanese have three telephone stations, JIA, JIB, and JIC. JIB on 28.49 meters or 10.53 mc. was phoning JVN or JVL from 10:30 P.M. to 2:00 A.M. when heard by Sam Solito, Leetsdale, Pa. It was heard at 10:00 P.M. and 8:00 A.M. by Ashley Walcott, San Francisco, California. And at 1:00 A.M. by Wm. Sparks, San Francisco. JIC on 50.93 meters or 5.89 mc. was working JVV at 8:15 P.M. when logged by Ashley Walcott.

Java. A letter from J. H. Hardeman of Jjimahi, Java, to G. C. Gallagher, San Francisco, says the NIROM headquarters at Batavia does not verify reports, but they will start issuing cards soon. YDA5 on 49.02 meters has been taken off the air. YDB on 49.6 meters or 6.05 mc., has moved to 74.00 meters nights and 31.00 meters day. He says PLP and PMN relay NIROM programs Sundays and will soon be heard daily. PLV is seldom used. Station PK3BR does not exist. YDA is on 98.68 meters nights and 49.67 meters day. Mr. Hardeman is an officer of the NIROM, the broadcasting committee that controls broadcasts in Java.

The 31.00 meters station mentioned, however is not on that wave, but on about 31.4 meters or 9.56 mc. according to John Keenan, Sydney, Australia, on 31.36 meters. 5:50 to 8:00 A.M. according to Dr. E. P. Hall, Winchendon, Mass., and on 9.60 mc. between 6:00 and 7:00 A.M. according to Robt. Rossi, Philadelphia and H. J. Davison, Bayamon, P. R.

The program from Java has stopped for the time being, it seems. But last month we had the following reports: PMA on 15.50 meters or 19.35 mc., was heard Tuesdays, Thursdays and Saturdays 10:00 to 10:30 A.M. broadcasting and between 9:00 and 10:00 A.M. phoning. PLE was heard on 15.92 meters or 18.83 mc. at 6:00 P.M. and 8:50 P.M. phoning KWJ. 10:30 A.M. PMN on 29.25 meters or 10.25 mc. was broadcasting Sundays PLP on 27.26 meters or 11.00 mc. was the best station, heard broadcasting Sundays 5:50 to 8:00 A.M. and several times a week between 10:00 and 5:50 to 10:30 A.M., also several days each week around 10:00 to 10:30 A.M. PLV on 31.85 meters or 9.42 mc. was heard phoning daily at 10:00 A.

M. E. Browell, J. Edwards, A. J. Hayward, T. W. Moss, Shokichi Yoshimura, H. S. Campbell, Charles Miller, J. Repoux, Dr. E. F. Hall, Dr. R. C. Kash, Ed Lips, Albert Novak, Wm. Sparks and Fred Karpen send helpful reports; while James Alexander of Auckland, New Zealand, says PMY on 58.30 meters or 5.15 mc. is not owned by the NIROM, and the address is Nilmy Building, Bandoeng, Java. They broadcast most every day 6:00 to 10:00 A.M.

AUSTRALIA

VK2ME, Sydney, on 31.28 meters or 9.56 mc. broadcasts Sundays 1:00 to 3:00 A.M., 4:00 to 9:00 A.M. and 9:00 to 11:00 A.M. during December.

VK3ME, on 31.55 meters or 9.51 mc. has been on the air three hours daily excepting Sundays for several weeks. This is one more hour than previous. The time is 4:00 to 7:00 A.M. and the reports came from XDX, Philadelphia, and Ashley Walcott, San Francisco, while Robert Rossi, Philadelphia, says they moved to 9.49 mc.

VK3LR, Melbourne, on 31.31 meters or 9.58 mc., broadcasts from 3:15 to 7:30 A.M. daily. But they are also heard from 10:00 P.M. until 3:00 A.M. testing with stations in Geneva and elsewhere. J. Wojtkiewicz, Ed. Lips and H. S. Campbell report this.

VIZ3, the phone at Fiskeville, on 26.09 meters or 11.50 mc. has been testing with CJA4, Canada, between 7:00 and 8:00 A.M. this past month. These tests are uninteresting at present. XDX and Sam Solito send reports. The address is Box 1271L, Melbourne.

Amateur station VK4GU at Wilston, Brisbane, Australia, on 40 meters or near 7.00 mc. was broadcasting and calling club-member Sgt. Dent of Bombay, India, at 8:40 A.M. once according to William Fell, Apia, Samoa, Pacific Islands.

VJI, Cloncurry, Australia, on 34.00 meters or 8.82 mc., is owned by Inland Missions and is used irregularly to communicate with a number of small transmitters distributed throughout the sparsely populated districts of Australia. These transmitters use code, while VJI sometimes uses voice. John B. Keenan of Sydney indicates that this is a very unusual station, and these station are used almost entirely to relay messages of mercy. Calls for Doctors, news of epidemics and similar calls are received and relayed by VJI. It is such a low-powered station, however, that only two people have ever reported it to the I.S.W.C.

New Zealand. ZLT, Wellington, on 27.15 meters or 11.05 mc. works phone with Sydney almost nightly from 10:00 P.M. to 8:00 A.M. ZLT2 on 40.60 meters or 7.39 mc., is sometimes used. We called this station ZLR, but letters say it is ZLT2. Such letters have come to Bob Everard, Sandy Beds, England, and Sam Solito, Leetsdale, Pa.

THE WEST INDIES

A VRR-4 at Stony Hill, Jamaica, between 25.6 and 26.00 meters phoning WNC, Florida, at 10:15 to 10:45 A.M. is reported by John Schauer, Pen-

sacola, Florida. A VPRR on 11.57 mc. at 6:10 P.M. is reported by H. J. Davison, Bayamon, P. R. This is a new phone station.

VP2CD at St. John's, Antigua, B. W. I., on 7.063 mc. broadcasting from 4:00 to 5:00 P.M. is reported by H. J. Davison, while Robert Rossi, Philadelphia, says it was on 21 meters or 14.00 mc., between 5:00 and 7:00 P.M. This is an amateur station, not a regular broadcaster.

CO9WR, Sancti Spiritus, Cuba, on 25.42 meters or 11.80 mc., is owned by Messrs. V. E. Weiss and O. Ramirez, has 100 watts power and the schedule is 4:00 to 6:00 P.M. and 9:00 to 11:00 P.M. according to J. M. Encalada, Jr., of Havana. However, Mrs. Irving Heglund of Lake Worth, Florida, heard them signing off at 11:00 A.M. once; J. B. Wooten, Mobile, Alabama, reports them at 10:00 A.M. one Tuesday; while Sam Solito, Leetsdale, Pa., reports them between 4:00 and 7:00 P.M. often.

COCD, "La Vox del Aire," on 48.92 meters or 6.13 mc., at Havana, Cuba, has 250 watts and the address is Hotel Palace or 25 y G Street, Vedado. The schedule is 11:00 A.M. to Noon and 7:00 to 10:00 P.M.; Sundays Noon to 4:00 P.M. J. M. Encalada, Jr., sends this, too.

CO9GC on 48.79 meters or 6.15 mc. has 50 watts power, is owned by Emilio Graw Medina, address Reparto Los Olmos, Santiago de Cuba. Mr. Encalada tells us this. The schedule is shown in our list.

CO9JQ, Camaguey, Cuba, is on 34.60 meters or 8.665 mc., with 100 watts power and the owner is Rafael Grimany. The address is General Gomez No. 4, and the schedule is 5:30 to 6:30 P.M. and 8:00 to 9:00 P.M. Mr. Encalada sends this.

COCO, Havana, Cuba, on 49.90 meters or 6.01 mc. is a commercial station. The owner is Luis Casa Romero, the power 300 watts and the address is San Miguel 86, Havana. The schedule is daily 9:30 A.M. to 1:00 P.M.; 4:00 to 7:00 P.M.; Saturdays 11:00 P.M. to Midnight and Sun-

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days 8:00 to 10:00 P.M. J. M. Encalada, Jr., sends this, too. P. M. Horton, Baton Rouge, La., says it was heard one Thursday at 11:00 P.M.

COCH, Havana, Cuba, on 31.80 meters or 9.42 mc., has 150 watts power, the owner is Francisco de Zayas Bazan, and the address B Street, No. 2-B, Vedado, Havana. They broadcast week-days 8:00 A.M. to 7:00 P.M.; Sundays 11:00 A.M. to Noon and 8:30 to 9:30 P.M. Mr. Encalada got this direct from the station, too. This station is reported between 7:00 and 8:00 A.M. by members J. Wojtkiewicz, Philadelphia; Floyd Edwards, Mayfield, Ky., and Frank Grey, Berwyn, Illinois.

HI4D, Santo Domingo, Republic of Dominicana, on 45.50 meters or 6.61 mc. Either this station has changed wavelength, or we have a new station on the air. A station on about 46.4 meters or 6.47 mc. using the call-sign HI4D, HI4B or HI4V, giving their address as apartado 771, and identifying sign "La Voz de Mariano" has been reported by several. They said they were on 6.25 mc. but they were not heard there. The time was between 2:00 and 3:00 P.M. and 5:30 and 6:45 P.M. The station comes in between HJ4ABJ and HJ5ABD on the dials. We have reports from P. Quintano Cabot, Cifuentes, Cuba; Luis Ferrera Calvo, Ensenada, P. R.; H. Lamont, Elmhurst, N. Y.; Sam Solito, Leetsdale, Pa.; Dr. Hall, Winchedon, Mass.; Robert Rossi, Philadelphia, and H. J. Davison, Bayamon, P. R.

HI1A, Santiago de Caballeros, R. D., is on 48.50 meters or 6.19 mc. and the schedule is 11:40 A.M. to 1:40 P.M. and 7:40 to 8:40 P.M. Ed. Houlgate, London, Ont., reports it once at 10:15 P.M., and J. Wojtkiewicz, Philadelphia, reports it at 9:15 P.M.

HIZ, Santo Domingo, R. D., on 47.50 meters or 6.31 mc. say they are on the air daily at 11:30 A.M. and 5:30 P.M. according to H. Rappaport, Brooklyn, but do not say how long they stay on. Sam Solito, Leetsdale, Pa., reports them from 5:00 to 8:30 P.M. often and until 10:00 P.M. once. Lee Williams, Clarksburg, W. Va., reports them at 10:30 P.M. Ed. Houlgate, London, Ontario, reports them signing off at 8:45 P.M. J. W. Brauner of Williamsville, N. Y., reports them at 8:35 P.M. George Zehner, Jr., of Philadelphia, reports them at 10:10 P.M. on 6.40 mc. instead of 6.31 mc.

HIX, Santo Domingo, on 50.17 meters or 5.98 mc., say they are on the air Sundays at 7:40 A.M.; Tuesdays and Thursdays at 11:10 A.M., 4:40 P.M. and 8:10 P.M. Also other days at 11:10 A.M. and 4:40 P.M. This was received from the station by George Zehner, Jr., Philadelphia. Abe Federer, Bronx also got such a card showing the power as 200 watts.

HI1J, San Pedro de Macoris, R. D., is causing an argument. Sam Solito, Leetsdale, Pa., gives the wave as 51.90 meters or 5.78 mc. and the time 5:00 to 9:30 P.M. Dr. R. C. Kash, Sevierville, Tenn., reports them on 5.86 mc. at 9:30 P.M. George Loury, Brampton, Ontario, says they announce the wave as 51.15 meters or 5.86 mc. and they are heard from 6:00 to 8:40 P.M. every night. W. D. Flagg, Holyoke, Mass., gives the wave as 5.86 mc.

ZFD, the telephone station at Hamilton, Bermuda, on 29.03 meters or 10.33 mc. was heard testing and broadcasting near 11:30 A.M. by John Wojtkiewicz, Philadelphia, and W. D. Flagg, Holyoke, Mass.

HH2S, Port Au Prince, Haiti, on 49.65 meters or 6.04 mc. is reported

again after months of silence. Was heard 8:30 to 8:45 P.M. saying they were on the air every evening excepting Sundays by Carl Cochrane, West Pittsburg, Pa. Was relaying station HHK on 6.18 mc., not 6.04 mc., when logged by Robert Rossi, Philadelphia. Was on 48.55 meters when heard by Harold Lamont, Elmhurst, N.Y. HH2T, a sister station on 25.93 meters or 11.57 mc. was logged one Tuesday 5:30 to 6:00 P.M. by W. D. Flagg, Holyoke, Mass., and between 9:00 and 10:00 P.M. by L. D. Brewer, Phoenix, Arizona.

SOUTH AMERICANS

LSL, Buenos Aires, Argentina. on an announced wavelength of 29.27 meters or 10.25 mc., was heard relaying station LR1 between 5:30 and 6:45 P.M. by members R. K. Peck, Silver Springs, Md.; Robert Rossi, Philadelphia; Dr. F. E. Hall, Winchendon, Mass.; J. Wojtkiewicz, Philadelphia; J. Lucke, Jr., Chicago, Illinois; Fred Karpen, Johnstown, Pa.; Ken McKinley, Vancouver, B. C., and H. J. Davison, Bayamon, P. R. This station is owned by Compania Internacional de Radio.

LSX, Buenos Aires, on 28.98 meters or 10.35 mc. has been active this month. They have tested several times with W2XAF around 6:00 to 7:00 P.M., worked with WET, New York, around the same time and relayed station LR4 between 5:00 P.M. and 7:00 P.M. David McKie, R. K. Peck, Sam Solito, Joe Childs, Albert Novak, John Wojtkiewicz, R. Barlett, Ken McKinley, Robert Rossi, Eric Butcher and J. B. Wooten send reports. Mr. Peck says LSI on 30.61 meters or 9.80 mc. also was heard between 5:15 and 5:445 P.M.

OAX4G, Lima, Peru, on 48.00 meters or 6.25 mc. sends a letter saying they broadcast nightly now from 7:00 to 10:30 P.M. and on Wednesdays from 6:00 to 10:30 P.M.

OCJ2, Lima, Peru, a telephone station on 20.19 meters or 14.86 mc. was broadcasting around 5:30 to 7:30 P.M. several times early in the month, relaying the Catholic Eucharistic Congress programs. They were also heard at 8:00 A.M., 11:00 A.M., and 3:00 P.M. They said reports should be sent to All-American Cables, Box 2336. We have reports from

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VP3MR, Georgetown, British Guiana. Albert Larkman, London, England, has a letter from this station giving the wave as 42.37 meters or 7.08 mc. and the time of broadcasts as Sundays 9:00 to 11:30 A.M., Mondays from 5:00 to 6:00 P.M., and 8:00 to 9:00 P.M., Wednesdays from 8:00 to 9:00 P.M., Thursdays from 6:15 to 8:00 P.M. and Saturdays from 8:00 to 9:00 P.M. This is local time, which is 40 minutes ahead of E.S.T. Robert Rossi, Philadelphia, also has a letter saying they now have 300 watts. The letter is signed by A. E. Gagan, our old friend of VRY days. Mr. Rossi reports the station from 7:30 to 8:45 P.M. while Albert Novak, New York City, reports it from 8:50 to 9:33 P.M. one Thursday. This station does not get out very good on account of code interference.

CEC, Santiago, Chile. This station, on 28.12 meters or 10.67 mc., was all mixed up in our list last month. They broadcast daily from 7:00 to 8:00 P.M. and on Thursdays and Sundays (not Saturdays) from 8:30 to 9:00 P.M. The address is Compania Internacional de Radio, Calle New York 52, Santiago. We have reports from P. Q. Cabot, N de Las Casas, Sam Solito, H. S. Campbell, Joe Child, Robert Rossi, Geo. Van Honk, Wm. Sparks, Ken McKinley, L. D. Brewer and Dr. R. C. Kash. Fred Karpen, Johnstown, Pa., also says a CETE is heard on 6.44 mc. daily from 9:00 to 11:00 P.M. broadcasting.

HJ1ABB, Barranquilla, Colombia, on 46.51 meters or 6.45 mc. broadcasts 4:30 to 10:30 P.M. daily but was reported at 6:30 to 7:00 A.M. once by L. D. Brewer, Phoenix, Arizona, and at 11:15 P.M. by J. Wojtkiewicz, Philadelphia. They test with W2XAF quite often around 6:00 P.M.

HJ1ABK, Barranquilla, on 42.43 meters or 7.07 mc. A letter from Clemente Vassallo G, Box 580, says he has this station on the air Sundays 3:00 to 6:00 P.M. and works amateurs other evenings. It is really heard on 7.25 mc. according to H. S. Bradley, Hamilton, N. Y., who reports this.

HJ1ABJ, Santa Marta, on 49.95 meters or 6.006 mc. A card says they broadcast 6:30 to 10:30 P.M., but they are heard from 6:00 to 11:00 P.M. daily excepting Wednesdays according to Sam Solito, Leetsdale, Pa.

HJ1ABR is a station reported on 5.75 mc. around 9:00 P.M. by Robert Rossi. Anyone know this one?

HJ1ABE. There are two stations using this call. The one in Sincelajo, Bolivar, on 7.10 mc., tells H. S. Bradley, Hamilton, N. Y., that he bought this station from the owners of the other station at Cartagena and got the call-sign with the station. But the other station at Cartagena on 49.05 meters or 6.11 mc. continues to use the call. They broadcast daily 7:30 to 9:00 P.M. and Mondays 10:30 P.M. to Midnight.

HJ1ABC, Quibdo, on 49.95 meters or 6.01 mc. is reported at 10:00 P.M. by H. S. Bradley while Robert Rossi, says it is on 5.96 mc. from 7:00 to 9:30 P.M.

HJN, Bogota, Colombia, has moved to somewhere near 50.26 meters or 5.97 mc., although some say this is not the true wave. They broadcast nearly every night now from 6:00 to 11:00 P.M. George Zehner, Jr.; J. W. Brauner, A. Centanino, Frank Grey, Sam Solito, George Loury, Abe

Federing, Lee Williams, Carl Foresteiri, Ed. Houlgate, Harold Lamont, J. Lucke, F. L. Stitzinger and G. Van Honk, report this.

HJ2ABC, Cucuta, on 50.26 meters or 5.97 mc., broadcasts from 6:00 to 9:30 P.M. but was heard until 10:20 P.M. once by J. Reese, New York City.

HJ2ABD at Bucaramanga is on 50.10 meters or 5.99 mc. They have a transmitter built by Marine Radio of Richmond Hill, New York. Robert Rossi, Philadelphia, says the address is Calle 2A, Num 1205 and the owner is Sociedad Radio Bucaramanga, while Sam Solito, Leetsdale, Pa., says it is owned by Club-member Hector McCormick and it is heard from 7:50 to 9:00 P.M. N de Las Casas of Caracas, Venezuela, also reports it.

HJ3ABF, Bogota, on 48.62 meters or 6.17 mc. uses six gongs and announces "La Voz de Bogota" according to Ed. Houlgate, London, Ontario. They are supposed to sign off at 11:00 P.M. but are heard until 11:40 P.M. by P. Quintano Cabot. C. Lopez Ona and Sam Solito.

HJ4ABA, Medellin, Colombia. This one is on 25.62 meters or 11.71 mc. and the schedule is 11:30 A.M. to 1:30 P.M. and 6:30 to 10:30 P.M. according to a card received by George Zehner, Jr., Philadelphia. However reports show it is heard at other times. J. Tinnon, Haverford, Pa., had them at 5:20 P.M. C. Lopez Ona, Havana, Cuba, had them at 3:30 P.M. J. Wojtkiewicz, Philadelphia, had them at 5:00 P.M. A. J. Hayward, Trowbridge, England, also got the same schedule on his card. The station has 100 watts power and is known as "la voz de la Montana."

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, HJ4ABE, Medellin, on 50.60 meters or 5.93 mc., is one of the best South Americans. It is heard from 6:00 to 10:30 P.M. by many. Carlos Lopez Ona had it once at 11:40 P.M. giving news.

HJ4ABD, Medellin, Colombia. This station was on two places on the dials last month. Part of the time they were on 49.45 meters or 6.06 mc. and part of the time on 52.17 meters or 5.75 mc. Some claimed they were not on either of these wavelengths, but at least they are a good guess. We will still list them on the last wave until we find where they settle down. Members J. Wojtkiewicz, Frank Grey, G. C. Gallagher, G. Van Honk and Carl Foresteiri send letters.

Here is another case of two stations using the same call. The call HJ4ABC is being used by a station on 46.44 meters or 6.46 mc., owned by Lamus and Rivera, Apartado 39, Ibague. They sent cards to J. W. Brauner, Williamsville, N. Y., and Abe Federing, Bronx, N. Y. This one is heard between 7:30 and 11:00 P.M. The other station is on 49.34 meters, 6.08 mc., at Periera. This one is also heard nightly. We have helpful letters from H. S. Bradley, Hamilton, N. Y., and Sam Solito, Leetsdale, Pa.

HJ5ABC, Cali, Colombia, on 48.78 meters or 6.15 mc. sends out a paper now saying they have 150 watts power and broadcast daily excepting on Saturday and Sunday from 7:00 to 10:00 P.M. and every day from 11:00 A.M. to Noon and Sundays Noon to 2:00 P.M. Ralph Brady, Brooklyn; Sam Solito, Leetsdale, Pa.; Eric Butcher, Cokeville, Wyoming; Ed. Houlgate, London, Ont. and J. C. Coleman, Brooklyn, have such papers.

HJ5ABE, Cali, on 21.26 meters or 14.10 mc. said they were going on long waves soon, but they seem to be on this wave yet. They usually broadcast 7:00 P.M. to Midnight, but have been reported from 1:30 to 2:15 P.M. by R. K. Peck, Silver Springs, Md., and from 11:00 A.M. to 3:00 P.M. often by Charles Miller, Covington, Ky.

Prado, Rio Bamba, Ecuador, on 45.31 meters or 6.62 mc. broadcasts Thursdays from 9:00 to 11:30 P.M., but was heard talking to someone at 2:00 A.M. once by Ken McKinley.

HCK, Quito, Ecuador, on 50.93 meters or 5.89 mc. is still broadcasting between 8:00 and 11:00 P.M. often, but reported at 6:55 P.M. by J. Lucke, Jr.; at 11:30 P.M. by Sam Solito; and also by Ed. Houlgate and Max Horlick.

HCETC, Quito, on 44.00 meters or 6.82 mc. announces as "Teatro Bolivar," and usually signs off Thursdays at 9:30 P.M. according to A. Pernet, Colon, Panama.

HC2TC, Quito, on 37.61 meters or 7.976 mc., broadcasts Thursday and Sundays at 8:00 P.M. according to a letter received by F. Henning, Worthing, England.

HCJB, Quito, has moved again. But they seem to do this quite often and so we still list them at 36.50 meters or 8.21 mc. They broadcast daily excepting Mondays 7:30 to 9:30 P.M. and sometimes later. They are reported on 8.59 mc., 8.61 mc. and several other places. Robert Rossi and Sam Solito help a lot with their reports.

HC2AT, Guayaquil, Ecuador, on 35.71 meters or 8.404 mc., has 15 watts power and broadcasts 8:00 to 11:00 P.M. This is owned by Mr. F. E.

Gahan of the American Trading Company, Cassilla 872, and will increase power soon according to John Oram, Bournemouth, England.

HC2CW, Guayaquil, is on almost the same wave and we wonder if it isn't the same station. They say they are on 35.69 meters or 8.404 mc. and broadcast daily 8:00 to 11:30 P.M. This one is known as "Onda del Pacifico." Their address is Box 1166. Sam Solito says they are on 8.37 mc. We also have reports from Max Horlick and Dr. R. C. Kash.

HC2ET, Guayaquil, on 65.22 meters or 4.60 mc. announce a new schedule. It is Wednesdays and Saturdays 9:15 to 11:00 P.M. according to A. Pernet, Colon, Panama.

YVQ, Maracay, Venezuela, on 44.96 meters or 6.67 mc. still broadcasts Saturdays 8:00 to 9:00 P.M. Charles Ward, Brooklyn, says the address is Ministerio de Fomento, Servicios de Radiodifusion. About fifty members report reception.

YV2RC, Caracas, Venezuela, remains on 51.72 meters or 5.80 mc., and broadcasts 5:15 to 10:00 P.M. We listed this correctly last month, but had it in the wrong place in the list. We have about thirty reports. YV3RC, Caracas, is still on 48.78 meters or 6.15 mc. from 4:30 to 9:30 P.M.

YV5AM, the amateur broadcaster on 42.55 meters or 7.05 mc., has 15 watts power only. They sometimes work amateurs around Midnight and broadcast around 6:00 to 10:00 P.M. Ed. Lips, Pittsburg, says they will have 200 watts soon. H. S. Bradley says the member reporting a YV6RM was hearing YV5AM. J. M. Tinnon and J. Wojtkiewicz also help.

YV4RC, Caracas, on 47.10 meters or 6.37 mc., gives the address as Box 983 and uses the identification "La Voz del Aguila" (the voice of the Eagle). The schedule is 6:00 to 9:30 P.M., but reported until 10:00 P.M. by A. Pernet, Colon, Panama. Robert Rossi, Philadelphia, and A. Franceschi Calvani of Rio Caribe, Venezuela, report this.

YV5RMO, Maracaibo, Venezuela, on 51.28 meters or 5.85 mc. give their schedule as 5:00 to 9:30 P.M., but can be heard phoning other stations until way past Midnight. Their card says 5.65 mc., not 5.85 mc., and Jimmie Reese, J. Wojtkiewicz, Sam Solito, J. Roth and Hyman Cohen help.

YV8RB, Barquisimeto, Venezuela, "La Voz de Lara" on 51.60 meters or 5.88 mc. seems to have moved to about 51.11 meters or 5.87 mc. as they are reported close to HRN, Honduras, now. They are heard between 8:00 and 10:00 P.M. Kenneth Moots, Kansas City, Mo.; A. Pernet, Colon, Panama; Carlos Lopez Ona, Havana, Cuba; A. Centanino, Freeport, Pa.; Sam Solito, Leetsdale, Pa.; Abe Federing, Bronx, N. Y.; Carl Forestieri, New York City; S. J. Nicholl, Salop, England, and J. W. Brauner, Williamsville, New York, all send reports.

YV1ORSC, San Cristobal, "La Voz de Tachira" is on 52.45 meters or 5.72 mc. and is reported now between 6:00 P.M. and 11:30 P.M., although for a long time it was heard only from 9:00 P.M. on. We have reports from V. J. Fitzsimmons, Jersey City, N. J.; H. S. Bradley, Hamilton, N.Y.; Robert Rossi, Philadelphia, Pa.; J. M. Tinnon, Haverford, Pa.; Charles Miller, Covington, Ky.; Geo. Lowrey, Brampton, Ontario; Abe Federing, Bronx, N. Y.; Lee Williams, Clarksburg, W. Va.; A. Novak, New York City; C. Forestieri, New York City and F. L. Stitzinger, Erie, Pa.

CENTRAL AMERICANS

Station HRN, Telgucigalpa, Honduras, is on 51.11 meters or 5.87 mc., broadcasting daily 6:30 to 8:00 P.M. and 8:30 to 10:00 P.M. and Sundays 9:30 P.M. to Midnight. It is reported by hundreds now. We are not sure of the address, since many ask us for it, but Robert Rossi says it certainly is not owned by the Tropical Radio Telegraph as we once printed.

HRY, Honduras, was on 47.24 meters or 6.35 mc., testing between 8:30 and 9:00 P.M. when heard by W. D. Flagg, Holyoke, Mass., and Ernest Reese, Niagara Falls, N. Y. It was reported on 47.50 meters testing with "Pacific Cables" at 7:00 P.M. when logged by George Van Honk, Erie, Pa. Charles Eggenweiler, West Los Angeles, California, reports it from 7:35 to 7:42 P.M. HRY is a new station.

HRP1, San Pedro Sula, Honduras, has moved again it seems. Robert Rossi, Philadelphia, gives the wavelength as 6.36 mc. now. E. Reese, Niagara Falls, N. Y., gives it as 6.35 mc. and said it was logged between 7:30 and 9:10 P.M.

TI5HH, San Roman, Costa Rica, on about 54.74 meters or 5.48 mc. is broadcasting 3:30 to 4:00 P.M. and 8:00 to 9:00 P.M. they say, but they have been reported between 8:00 and 11:30 P.M. by members N de Las Casas, Caracas, Venezuela; J. M. Tinnon, Haverford, Pa.; Frank Grey, Berwyn, Illinois; Robert Rossi, Philadelphia; and P. Quintano Cabot, Cifuentes, Cuba.

TI2M, San Jose, Costa Rica, on 44.00 meters or 6.82 mc. known as "La Voz Nicaraguense" broadcasts Thursdays and Fridays 9:00 to 11:00 P.M. according to A. Pernet, Colon, Panama.

TI8WS, "Ecos del Pacifico" at Puenta Arenas, C. R., seems to be moving. This station has 120 watts power, is owned by Abel Salazar F and broadcasts 6:00 to 7:00 P.M. and 8:00 to 9:00 P.M. The address is Box 75. They were on 39.68 meters or 7.56 mc., but Robert Rossi says they moved to 46.30 meters or 6.48 mc. F. L. Stitzinger, H. S. Bradley and Frank Grey report it on 7.56 mc.

TIPG, San Jose, C. R., is on 46.86 meters, 6.41 mc., and have 1000 watts power. The address is box 225. Cards say they broadcast 6:00 to 11:00 P.M. and on Wednesdays and Saturdays from 9:00 to 10:00 P.M. using English. H. Rappaport, F. L. Stitzinger, George Zehner, Bob Everard, Dr. Saylor, Eric Butcher and J. Wojtkiewicz send this.

TIRCC, San Jose, on 45.81 meters or 6.55 mc., say in a letter that they broadcast from Noon to 2:00 P.M. and 6:00 to 7:00 P.M. daily and on Thursdays and Sundays from 6:00 to about 11:00 P.M. Robert Rossi, Dr. J. S. Pugh, F. A. Beane and R. K. Peck.

TIEP, San Jose, on 44.71 meters, 6.71 mc., broadcasts from 5:00 to 10:00 P.M. irregularly but J. Wojtkiewicz reports it at 2:20 A.M. once. Robert Rossi also reports a TIFA, San Jose, on 47.92 meters or 6.26 mc., often between 7:00 and 9:00 P.M.

TG2X, Guatemala City. There is something strange about this one. A card from the Secretary de la Policia Nacional gives the power as 500 watts, the wave as 50.51 meters or 5.94 mc., and the schedule 4:00 to 6:00 P.M. and at 9:00 P.M. The identification is "La Voz de Policia Nacional"

and they relay long wave station TGW. Now, we have letters showing reception of the station at 6:30 A.M., at 9:00 P.M., 11:30 P.M. and 12:30 A.M., and once from 5:00 to 7:00 A.M. So, the schedule is not kept. Over the air the station announcer stated that a TG1X was on 31.75 meters or 9.45 mc., and it is owned by the Ministry of Public Works and is on the air from 12:30 to 2:00 A.M. F. Henning, Worthing, England, sent this. A station TGWA is on 25.00 meters or 12.00 mc. according to Sam Solito, Leetsdale, Pa., while TGW is on 50.00 meters or 6.00 mc. according to some others. Now, how many stations are really on the air of this bunch or are they all just TG2X. No one reports reception that points to anything but TG2X on 50.51 or 5.94 mc. We have reports from R. Rossi, H. S. Bradley, F. Grey, J. Wojtkiewicz, Dr. Saylor, George Lowry, Joe Brauner, G. Van Honk, Paul Horton, Lee Williams, Abe Federer, A. Novak, Carl Forestieri, J. Lucke, Jr., F. L. Stitzinger, Ken McKinley, Dr. F. E. Hall, Eric Butcher and perhaps some others.

Station YNVA, owned by Victorino Arguello is somewhere between 34.88 meters or 8.60 mc. and 34.62 meters or 8.67 mc. according to reports. It is at Managua, Nicaragua and broadcasts between 8:00 and 10:30 P.M. with 100 watts. Robert Rossi, Philadelphia, sends word that his verification came from A. Reuben Dario and not Sr. Arguello, and it says 34.92 meters or 8.59 mc. We give up. A station YNE, Puerto Cabezas, Nicaragua, was on 32.54 meters or 9.22 mc. and said they were on 27 meters also and asked for reports to be sent to Santa Cruz Steamship Company, Box 830, New Orleans, La., according to H. Lamont, Elmhurst, N. Y. A station YNRB was on 34.88 meters or 8.60 mc. between 8:30 and 9:15 P.M. one Wednesday according to W. D. Flagg, Holyoke, Mass.

HP5F, Colon, Panama, on 49.34 meters or 6.08 mc., "La Voz de Colon," on the Carlton Hotel, broadcasts from 11:45 A.M. to 1:15 P.M. and 7:45 to 10:00 P.M. daily. The address is Box 405. This comes from Anselmo Pernet, Colon. W. D. Flagg and K. Moots report it on schedule, while P. Quintano Cabot reports it one Saturday from 11:00 P.M. to Midnight.

HP5B, Panama City, on 49.75 meters or 6.03 mc., "Miramar Club," has a new schedule. It is 7:00 to 10:30 P.M. daily. Mr. Pernet sends this. Sam Solito reports the station at 1:30 A.M. one Thursday.

XEVI, Mexico City, on 50.17 meters or 5.98 mc. A letter shows the address is Box 2874, and the schedule Mondays, Wednesdays and Fridays from 2:00 to 3:00 P.M.; Tuesdays and Thursdays from 7:00 to 8:00 P.M.; Thursdays 8:00 to 9:00 P.M.; Saturdays 8:00 to 9:00 P.M. and Sundays Noon to 1:00 P.M. This was received by Eric Butcher, Cokeville, Wyo. The announcer always says 50 meters or 6.00 mc., but he is wrong. The station is heard at other times, too. They sign off with "Ah, Sweet Mystery of Life." Carlos Lopez Ona, Havana; G. C. Gallagher, San Francisco; Max Horlick, Youngstown, also send help.

XEUW, Vera Cruz, Mexico, on 49.83 meters or 6.02 mc. Letters from this station say they relay XEU and they are on the same street as station XEFT, but must not be confused with them. The schedule is 8:00 P.M. to 12:30 A.M. the next day. Their address is Independencia 98, Vera Cruz, Mexico, and their identification is "El Eco de Sotavento Desde Vera Cruz." On December 1st and 15th from 3:00 to 5:00 A.M. they will send special



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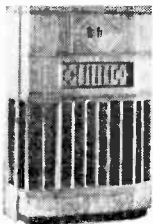
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DX programs. This comes from Lee Williams, Clarksburg, W. Va., and Ed. Houlgate, London, Ontario.

XEFT, Vera Cruz, on 49.02 meters or 6.12 mc. sends a card saying they broadcast daily 11:00 A.M. to 4:00 P.M.; Saturdays 6:30 P.M. to Midnight; Sundays 9:00 P.M. to Midnight and other days 7:30 P.M. to Midnight. Lee Williams got this card, too. Carl Forestieri says they are on 6.13 mc., between COCD and W8XK. Eric Butcher and Charles Miller also help.

XBJQ, Mexico City, on 27.26 meters or 11.00 mc. was off the air most of last month. They broadcast from about 4:15 until as late as 2:00 A.M. and the address is Box 2825. Hundreds report it. XAM, a phone station at Merida, Yucatan, is back again. It is on 26.09 meters or 11.50 mc. and works Mexico City. The times shown in reports were 5:30 to 7:45 P.M. and the reports came from J. Wojtkiewicz, Philadelphia; W. D. Flagg, Holyoke, Mass.; G. Van Honk, Erie, Pa.; Sam Solito, Leetsdale, Pa.; XDR, Mexico City, on 31.85 meters or 9.42 mc. was working XAM at 10:00 and 10:25 A.M. when reported by A. Antognini, Greenfield, California, and Edward Houlgate, London, Ontario.

THE EUROPEANS

The program from Zeesen, Germany, this month follows:

12:30 A.M. to 2:15 A.M.—DJN on 31.45 (9.54) and DJA on 31.38 (9.57 and DJQ on 19.63 (15.28).

3:45 A.M. to 7:15 A.M.—DJB on 19.74 (15.20) and DJN on 31.45 (9.54)

8:00 A.M. to 11:30 A.M.—DJB on 19.74 (15.20)

8:00 A.M. to 11:30 A.M.—DJN on 31.45 (9.54) and DJA on 31.38 (9.56) and DJE on 16.89 (17.70)

12:00 Noon to 4:30 P.M.—DJD on 25.49 (11.77) and DJC on 49.83 (6.02)

4:30 P.M. to 5:30 P.M.—DJB on 19.74 (15.20) irregularly.

5:05 P.M. to 9:15 P.M.—DJA on 31.38 meters (9.57 mc.)

5:05 P.M. to 10:45 P.M.—DJC on 49.83 (6.02) and DJN on 31.45 (9.54)

Several new German broadcast stations are reported. A DJJ on 29.90 meters or 10.032 mc. (announced) has been broadcasting between 2:00 and 4:00 P.M. almost every day. Ed. Houlgate, Robert Rossi, P. Quintano Cabot, Chas. Miller, XDX, W. D. Flagg, Ed. Schmeichel and S. B. Thompson report it. Also H. J. Davison.

A DJI on an announced wave of 31.02 meters or 9.675 mc. has been broadcasting from 5:00 to 7:00 P.M. most every night. We are told this is DGU, a phone, being used under a new call. Robert Rossi, J. H. George, W. D. Flagg, W. R. Anderson, and XDX report this. DGU is reported broadcasting, so it must be the same station, reported by the following: Charles Ward, A. Schessetz, A. Centanino, Peter Kecks, Jas. B. Wooten, H. E. Mack and maybe others. Special programs were sent from Germany by stations DJB and DIQ, which was on 29.15 meters or 10.29 mc. One of these programs originated in Roumania. There is no use mentioning the time and date. Some of the above members report this, as well as Lee Williams, Albert Novak, G. Van Honk and Charles Miller.

Station DJM, on 49.34 meters or 6.08 mc. has been testing. It was heard between 3:00 and 4:00 P.M. by E. Orchard, Weymouth, England, and F. A. Beane, Ridgewell, England. The phones are reported as follows: DHO on 14.99 meters or 20.02 mc. sent a program from Noon to 2:00 P.M. when logged by Fred Karpen, Johnstown, Pa. DFD, Nauen, says on a card that they are on 20.46 meters or 14.665 mc. This from Charles Miller. DAF, Nordenland, near Emdem, Germany, on 52.91 meters or 5.67 mc. gives weather reports at 3:15 A.M., 9:15 A.M. and 11:30 A.M., sometimes on voice sometimes in code, according to T. W. Moss, Exeter, England. An SZO, Emdem, and an ZSO, Karlsruhe, on 36.81 meters or 8.15 mc. talked with each other from 6:15 to 6:45 P.M. when logged by W. D. Flagg, Holyoke, Mass. These may be ships or dirigibles.

The programs from Daventry this month are scheduled as follows according to word direct from the operators:

2:15 A.M. to 4:15 A.M.—GSD on 25.53 (11.75) and GSB on 31.55 (9.51)
 6:00 A.M. to 8:45 A.M.—GSG on 16.86 (17.79) and GSF on 19.82 (15.14)
 9:00 A.M. to 10:15 A.M.—GSE on 25.29 (11.86) and GSF on 19.82 (15.14)
 10:15 A.M. to 12:00 Noon—GSF on 19.82 (15.14) and GSB on 31.55 (9.51)
 12:15 P.M. to 4:00 P.M.—GSD on 25.53 (11.75) and GSB on 31.55 (9.51)
 12:15 P.M. to 2:15 P.M.—GSI on 19.66 (15.26)
 2:30 P.M. to 4:00 P.M.—GSL on 49.10 (6.11)
 4:15 P.M. to 5:45 P.M.—GSC on 31.32 (9.58) and GSB on 31.55 (9.51)
 6:00 P.M. to 8:00 P.M.—GSA on 49.59 (6.05) and GSC on 31.32 (9.58)
 10:00 P.M. to 11:00 P.M.—GSC on 31.32 (9.58) and GSL on 49.10 (6.11)

Raymond Miller, Philadelphia, says GSF replaces GSD on the first program, but the list does not say this. C. E. Johnstone, Taylor Ridge, Illinois, sends us help. E. Orchard, Weymouth, England, reports GCL on 16.02 meters or 18.775 mc. and a GCP on 27.79 meters or 10.778 mc. testing between 9:00 and 11:30 A.M. Chas. Miller says GAQ, Rugby, phones ZSS, Africa on 15.81 meters or 18.97 mc. at 8:00 A.M. J. M. Tinnon, Haverford, Pa., and Fred Karpen, Johnstown, Pa., report the return of the phone GDW on 61.98 meters or 4.84 mc. phoning the U.S.A. nights.

On Christmas Day from 11:00 to 13:45 G.M.T. or 6:00 to 8:45 A.M., E.S.T., GSG will use an aerial directed North and South, while GSF will use one directed East and West. From 14:00 to 15:05 G.M.T. or 9:00 to 10:05 A.M., E.S.T., GSG will use one directed East and West, GSF North and South and GSD East and West. These stations will relay a special program in which His Majesty King George will address the Empire.

EAQ, Madrid, Spain, on 30.40 meters or 9.87 mc., still broadcasts daily from 5:00 to 9:30 P.M. This is reported by Many.

CT1AA, Lisbon, Portugal, has moved to about 31.09 meters or 9.65 mc. and they are right near 2RO, Rome, now. They broadcast Tuesdays, Thursdays and Saturdays from 4:00 to 7:00 P.M. J. B. Wooten, A. Centanino, W. R. Anderson, Paul M. Horton and H. J. Davison report this.

CTV, Monsanto Radio, Lisbon, Portugal, was testing on about 26.91 meters or 11.15 mc. at about 2:00 P.M. when reported by Bob Everard, Sandy Beds, England, and A Gower, Overseal, England. Flavio Mascarenhas, Rio de Janerio, Brazil, says they said they had a CTV2 on 20.04 meters and one on 17.58 meters.

LKJ1, Jeloy, Norway, has moved to 31.48 meters or 9.53 mc. according to David McKie, Glasgow, Scotland, and E. Browell, Wallasey, England. This is on the same wave as W2XAF. It is heard 11:00 A.M. to 6:00 P.M.

TFJ, Iceland, on 24.52 meters or 12.24 mc. Set your dials every Sunday for this station at 1:30 P.M. About 1:35 P.M. they will start testing and broadcasting a musical program. It lasts until 2:00 P.M. G. Van Honk, Erie, Pa.; H. S. Campbell, Upland, California; F. L. Stitzinger, Erie, Pa.; K. Moots, Kansas City, Mo.; S. B. Thompson, Philo, Ohio; R. Braunholdt, Evanston, Illinois; Harold Lamont, Elmhurst, N. Y.; and Miss Eileen Hofmaster, Sandusky, Ohio, send this tip. Ed. Lips, Pittsburg, reports them testing with GBC from 6:25 to 7:00 A.M. Fred Karpen, Johnstown, Pa., reports, TFK on 33.15 meters or 9.05 mc. calling London from 4:00 to 5:00 P.M. one Wednesday.

Italy. A letter from "the Official Voice of Rome" tells us that we have been wrong in regards to the Italian phones. IRG is a small code station. IRJ was working Japan but they have changed their call to IQA and it is on 20.37 meters or 14.47 mc. now. The new IRJ works phone on 22.70 meters or 13.22 mc. now. Bob Everard, Sandy Beds, England, however, claims he has a letter saying IQA is on 20.51 meters. Others send all sorts of waves. Anyhow, we thank Sam Solito, J. Tinnon, H. S. Bradley, A. Novak, Charles Miller and Mr. Everard. IQA is heard between 7:00 A.M. and 2:00 P.M., while IRJ is heard from about 5:00 to 7:00 A.M. Another new Italian phone is IRY on 18.61 meters or 16.12 mc. which was heard between 7:00 and 10:00 A.M. by members Charles Miller, Dr. Hall, Robert Rossi, G. Van Honk and Fred Karpen. Two of these members also report it as late as 2:00 P.M. calling "Asmara," Africa. IRM another phone on 30.52 meters or 9.83 mc. sent many special tests and programs to the Rocky Point stations last month, one at 3:00 P.M. and several between 5:30 and 6:15 P.M. Charles Ward, Sam Solito and Fred Karpen report these.

2RO, Rome, Italy. Believe it or not, we have four schedules for this station and every one of them is supposed to come from the station. So, do not blame us if we are wrong. Three of them have to be. We understand they broadcast on 25.40 meters or 11.80 mc. daily, 8:15 to 9:00 A.M., 9:15 A.M. to 11:15 A.M., noon to 1:00 P.M. and 1:45 to 2:30 P.M. Then they go to 31.13 meters or 9.64 mc. from 2:30 to about 5:30 P.M. and daily 6:00 to 6:15 P.M. giving news. On Mondays, Wednesdays and Fridays on 31.13 they broadcast an American hour from 6:15 to 7:30 P.M. and from 7:30 P.M. to 9:15 P.M. a program for South America. Word comes that this last program will be changed to Tuesdays, Thursdays and Saturdays after December 3rd, but we must remember that 7:30 P.M. Monday E.S.T., is Tuesday in Italy, and this may mean they will be heard at the same time after all. Carl Forestieri, Sam Solito, Ed4 Houlgate, Douglas Vance, Ed Davenport, J. M. Studholme, Angelo Centanino and Robt. Rossi send help.

SPW, Warsaw, Poland. This station was broadcasting on 22.00 meters or 13.63 mc. from 11:30 A.M. to 12:30 P.M. early last month, but suddenly dropped out of the air. They used French, English, German and Polish. We thank Bengt Lindbergh, E. Browell, Flavio Mascarenhas, John

Oram, T. W. Moss, F. Henning, S. J. A. Nichol and F. A. Beane.

ORK, Brussels, Belgium. On 29.04 meters or 10.33 mc. this station still broadcasts daily 1:30 to 3:00 P.M., so they must not have changed schedule after all. They increased their power to 15 kw. One member says it is heard till 4:00 P.M. We thank J. Reese, Max Horlick, Ed Schmeichel, Carl Eder and Charles Ward.

PCJ, Eindhoven, Holland. On 19.71 meters or 15.22 mc., this station broadcasts almost daily now from about 7:30 to 11:00 P.M. E. Orchard, Weymouth, England, also reports it back on 31.28 meters again, from 9:30 to 11:30 A.M. This happened two mornings. Station PHI on 25.57 meters or 11.74 mc. broadcasts daily excepting Tuesdays and Wednesdays 7:30 to 10:30 P.M. PCJ and PHI sent a special program to the U.S.A. from 2:15 to 3:00 P.M. once. M. VanBergen, Lin Groves, A. Centanino, Ed. Houlgate, K. Moots, Fred Karpen, H. J. Davison send this news. PDK, a phone station on 28.80 meters or 10.42 mc. sent special programs to the East Indies between 8:00 and 10:40 A.M. last month according to E. Orchard and F. A. Beane, both of England. PI1J, Dordrecht, Holland, on 42.35 meters or 7.08 mc. broadcasts 11:10 to 12:10 P.M. on Saturdays according to E. Browell and a letter direct.

Russia. Letters sent out by the station directors says that RNE broadcasts Sundays 6 to 10 A.M. and 4:00 P.M., Mondays 4:00 P.M., Wednesdays 6:00 A.M. and 4:00 P.M. and Fridays 4:00 P.M. Many have letters and programs. However, the afternoon programs are now coming over station RW59 on 50.00 meters or 6.00 mc. This station goes on the air around 1:00 P.M. and stays on until 5:00 P.M. some days and until 6:00 P.M. other days. This news comes from J. R. McAllister, Struthers, Ohio; E. Orchard, Weymouth, England; F. A. Beane, Ridgewell, England, and W. D. Flagg, Holyoke, Mass.

Russian phones. RIM, Tashkent, on 19.67 meters or 15.26 mc. and RKI, Moscow, on 19.94 meters or 15.04 mc. and RNE all work each other from about 5:00 to 10:00 A.M. This is reported by members Ed. Lips, A. Centanino, G. Van Honk, K. Moots and Max Horlick. RNE and RKI also sent a special program to the U.S.A. one Wednesday from 9:00 to 9:30 A.M. This comes from A. Centanino, Fred Karpen and W. D. Flagg. RIO, Bakou, on 29.50 meters or 10.17 mc. still tests between 11:00 P.M. and 3:00 A.M. with station RNE. P. Q. Cabot, Sam Solito, Albert Novak, J. Lucke, Jr., H. Rappaport, K. Moots, and Fred Karpen reports this. RIR, Tiflis, on 29.76 meters or 10.08 mc. is reported phoning at 12:00 Midnight, 8:00 A.M. and 10:00 A.M. Sam Solito, Robert Rossi, K. Moots and Charles Miller reports this. Another station on 18.82 meters at 6:00 A.M. calling Moscow and one on 18.34 meters around 7:00 A.M. is reported by John Keenan, Sydney, Australia.

The schedule now used by the Pontoise stations is as follows: On 19.68 meters or 15.25 mc. from 7:00 A.M. to 11:00 A.M.; on 25.23 meters or 11.90 mc. from 3:00 to 4:00 A.M. and 11:15 to 6:00 P.M.; on 25.63 meters or 11.70 mc. from 6:30 to 9:30 P.M. and 10:30 P.M. to 1:00 A.M. This comes from R. Bartlett, St. Pierre Island; H. S. Bradley, Hamilton, N. Y., reports a new French phone on 20.53 meters or 14.61 mc. phoning Argen-

tina, at 2:00 P.M. We have a letter that Pontoise on 19.68 meters or 15.25 mc. phones Japan and ships using inverted speech between 5:00 and 7:00 A.M. while the broadcasts are carried by a station on 24.48 meters. Mrs. Irving Heglund, Lake Worth, Florida, and John B. Keenan, Sydney, Australia, report this.

Switzerland. We believe everyone knows stations HBL, HBP broadcast Saturdays from 5:30 to 6:15 P.M. Most everyone knows about the phone stations used at times, and about the special programs on the first Monday of each month. All of these stations should be addressed to Radio Suisse, S. A. Quai de la Poste, Geneva. HB9B, Radio Club Basle, Postpact 1, Basle, say they broadcast the first Monday of the month from 3:10 to 4:15 P.M. on 21.37 meters or 21.37 mc. and not 14.236 mc. H. S. Bradley, Hamilton, N. Y., has this letter.

NORTH AMERICAN

W1XAL, Boston, is on 25.42 meters or 11.79 mc. Sundays from 4:00 to 7:00 P.M. and Tuesdays and Thursdays 7:15 to 9:00 P.M. on 49.67 meters or 6.04 mc. says R. L. Hobbs, J. M. Studholme, and Hyman Cohen. Mrs. Irving Heglund reports it one Friday at 9:30 P.M. H. J. Davison, Bayamon, P. R., tells us it is on the air almost daily at 6:00 P.M.

W3XAL, Bound Brook, New Jersey, is on 16.88 meters or 17.78 mc., from 9:00 A.M. to 5:00 P.M. daily and on 49.18 meters or 6.10 mc. on Mondays, Wednesdays and Saturdays from 6:00 P.M. to 12:45 A.M. Many report this. W3XL on 46.70 meters or 6.42 mc. was heard by many members testing with the stratosphere stations. One member also reports it on 14.99 meters, but there is something wrong with this report.

W9XF, Chicago, is on a new schedule. It is on 49.18 meters or 6.10 mc. Mondays, Wednesdays and Saturdays from 1:00 to 2:00 A.M. and on Sundays, Tuesdays and Thursdays from 9:00 P.M. to 2:00 A.M. S. J. A. Nicholl, Salop, England, and Wm. Sparks, San Francisco, help.

W9XAA, Chicago. They expect to have a transmitter on 25.30 meters or 11.83 mc. by the last of October, but it isn't on the air yet. They are still on 49.34 meters, but no one knows when.

W2XE, Wayne, New Jersey, has a new wave. They are now on 16.89 meters or 17.76 mc., from 11:00 A.M. to 1:00 P.M.; on 19.64 meters or 15.27 mc. from 1:00 to 6:00 P.M.; on 25.36 meters or 11.83 mc. from 6:00 to 8:00 P.M. and on 49.02 meters or 6.12 mc. from 8:00 to 11:00 P.M. This news comes from H. J. Davison, Bayamon, P. R., and Ashley Walcott, San Francisco, California.

W9XBS, Chicago, on 46.73 meters or 6.42 mc. seems to be on the air Thursdays and Sundays Noon to 5:00 P.M., but it is also reported at 6:00 P.M. and at 10:00 P.M. We thank Max Horlick, Lee Williams, Jr., R. K. Peck, and J. R. Studholme.

Stratosphere broadcast. The station used in the gondola of the balloon, W10XFH was on 22.95 meters or 13.05 mc., just as we said in several past issues. It was heard all over the U.S.A. fine. W10XF, the ground station was on 6.35 mc., and it was not heard near so well. A station WUFF on a plane piloted by Capt. Beasley was also used on 6.55 mc. Stations

W9XF, W8XAL, W3XAL, W3XL, W8XK and W2XAF were all linked up with this special broadcast. We have reports of reception from members Solito, Papernow, Wooten, Gallagher, Shassetz, Lucke, Bartlett, Walcott, Brewer, Pickering, Miller, Ward, Reese, Williams, Ray, Woods, Lips, Butcher, Schmeichel, Stitzinger, Karpen and Chambers. No matter what anyone tells you, the balloon itself was only on 22.95 meters or 13.05 mc., and reception on any other wave was of some other station.

W8XAL, Cincinnati, Ohio. We now have a schedule contradicting the one given last month. It is now 6:30 A.M. to 8:00 P.M. and 11:00 P.M. to 2:00 A.M. T. St. John Porcher and S. J. A. Nicholl send this.

VE9DN, Drummondville, has returned to the air. It is on 49.96 meters or 6.00 mc., and broadcasts Saturdays from about 11:30 P.M. until around 3:00 A.M. G. C. Gallagher, San Francisco; Frank Grey, Berwyn, Illinois; Ed. Schmeichel, Chicago, and George Zehner, Jr., Philadelphia, report it.

VE9BK, Vancouver, B. C., Canada. This was reported as a new station last month. Bob Morrison, Vancouver, has a letter from Radio Sales Service, 780 Beatty Street, Vancouver, saying this one has been used for about eight years, has 250 watts and use the following schedule: Weekdays from 11:30 to 11:45 A.M., 3:00 to 3:15 P.M., 8:00 to 8:15 P.M. and Saturdays from 7:30 to 7:45 P.M., E.S.T. VE9CS, Vancouver, on 49.40 meter or 6.07 mc., is on the air daily from 6:00 to 7:30 P.M.; Tuesdays 11:30 P.M. to 1:30 A.M.; Sundays 10:45 A.M. to 9:00 P.M. and 10:30 P.M. to 1:00 A.M. The address is 734 Davie St. This is from W. J. Ray, Oakland, Calif. VE9CA, Calgary, Canada, on 49.75 meters or 6.03 mc. is reported by G. C. Gallagher on the air again at 12:30 A.M. A station at Goderich, Ontario, Canada, operated by some radio club is roaming around on the dials between 31 and 50 meters, usually on 50.00 meters or 6.00 mc. Several members report it. This station has no license it is said. CGA3, a new phone at Drummondville, is reported on 22.58 meters or 13.28 mc. by J. Wojtkiewicz at 12:00 Noon, and a CJA3 on almost the same wave is reported at 11:30 P.M. by Max Horlick. It is one of these two calls.

The China Clipper, a new airplane, using the call WOEK was heard calling Bolinas on 6.425 mc. by Wm. Sparks, San Francisco. Several stations were heard calling the Clipper, but this is the only report on the plane itself. FNSK on the ship Normandie sent several programs last month on 4.56 mc. around 10:30 to 11:45 P.M. This is from Dr. Saylor and H. J. Davison. The ship Albert Ballin has changed to "Hansa" according to Paul Damai, Calumet City, Illinois.

Army planes and airports by the dozens have been reported this month. They are around 46.90 meters and 48.00 meters. The calls all sound funny and they may be heard at any time. So we will pass over them quickly. We also have reports on stations used by the Coast Guards, CCC Camps, National Parks and such places. These all fall between 48.00 meters and 200 meters, and all work irregularly. WOU, Green Harbor, Mass., on 2.506 mc. works fishing ships and was logged from 7:25 to 7:45 P.M. by Joseph Zapf.

We have about 200 reports on the telephone stations in the United States and Canada. Space forbids us to mention them all. There are

about ten in Rocky Point, N. Y.; twenty in Lawrenceville, New Jersey; six in Bolinas, California; six in Dixon, California; and two in Ocean City, New Jersey. You might find these on the air at any time. KIO, Hawaii, on 25.63 meters or 11.71 mc. was active last month relaying programs. KEJ, Bolinas, on 9.01 mc. broadcasts Saturdays and Sundays from about 9:00 P.M. to 1:00 A.M. A station WQO on 44.61 meters or 6.725 mc. at Ocean Gate, New Jersey, is a new one reported.

THE AMATEURS

Set your dials near 20.97 meters or 14.30 mc. most any time after 2:00 P.M. and then tune around a bit and you can log many amateur stations from all parts of the world. This month we have reports on stations in Africa, Europe, South America, Central America, West Indies, Australia and one Asian station.

SPECIAL REPORTS

The International Short Wave Club boasts of the greatest number of real Short Wave DX fans of any organization. Not only that, but we have the best DXers in the world. It seems that some of them never miss a thing. Sometimes a member will report so many stations that it is hard on the editor and the readers to write them all down, particularly when the news is given by others. For an illustration, members will note the name of W. D. Flagg of Holyoke, Mass., in many places in this issue. On top of all this news, Mr. Flagg sent us an eight page letter reporting seventy-six stations. Without taking any credit away from Mr. Flagg, we are acknowledging his letter and several others in this section of the magazine. He helps us with his information on the following stations: OCJ2, CEC, OAX4D, OAX4G, PSH, LSX, LSL, LSN, LSG, LSQ, HJ1ABE; HJN, HJA-3, HJ3ABI, ABH, ABD, ABA, HCJB, YV2RC, HCK, HC2RL, HC2ET, YV3RC, YV1ORSC, CO9WR, CO9JQ, COCH, HIZ, WYYA, WWK, a lot of lighthouse stations, a lot of aircraft stations, a lot of Government Forestry Service Stations, many Canadians, TG2X, several Mexicans, about all the Costa Ricans, ETA and SIZ in Africa, JVN and JVM, CT1AA, HAS3, HAT44, FTM, TYA2, IRM, IRG, 2RO and many German stations.

Another "magazine" letter comes from Ed. Schmeichel of Chicago, who reports 51 stations. Members can see that five or six such letters would fill the magazine. Mr. Schmeichel reports HCK, CEC, CP7 working LSL one Wednesday at 10:00 A.M. on 19.62 meters, LSX, LSL, OCJ2, OAX4D, YV2RC, YVQ, YV1ORSC, YV5AM, HJN, TG2X, XEUW, many Colombians, many West Indian stations, IQA, IRY, RIO, RIM, TYA, TFJ, DDGU, ORK, PCJ, PHI, VWY, JVN, JVM, JVT, PLE, PLV, PLP, PMA, KTO; KKQ; ETA, SUZ, OPL and many others.

William Sparks, San Francisco, California, in addition to the news printed in other places in this issue, reports on the following stations: 2RO, PCJ, HBL, IRM, six German stations, SUV, Prado, YV2RC, TIEP, TG2X, COCO, COCD, XBJQ, XEUW, XEBT, HJ4ABE, CFU, VDO, many Bolinas stations, and stations KIIY, KINT on 2.726 mc.; KIIQ on 2.15 mc.;

KBAY and KBAT on 4.15 all working during the recent fire near Los Angeles. He also reports many Alaskan stations from 2.604 to 4.61 mc.

Kenneth Moots, Kansas City, Mo., sends a letter reporting DIQ, OCJ2, LSN, LSX, HJN, HJB, XEFT, many Colombians, YV8RB, JVN and JVM. Herman Rapport, Brooklyn, N. Y., reports 37 stations including CJRX at 6:00 P.M., TIEP, CEC, JVN, JVT, HRN, COCD, COCH, CO9JQ; YV5RMO; HC2CW, PLP, DJJ, HI4C, DJB, VK3LR, YVQ, HKV, and HJ3ABF. Perdo Quintano Cabot, Cifuentes, Cuba, reports COCD, LSX, LSL, YV1ORSC, ORK, TG2X, XEUW, JVH and others.

W. H. Jessen, Eugene, Oregon, reports KIO, KKH, KKP, WVD, JVN, JVP, JVT, JVF, JVH, JVM, JYS, PLE, PLV, HJ4ABE, YV2RC, XBJQ; Pontoise, 2RO, HBL and EAQ. Robert J. Hughes, Trowbridge, England, reports PLP, PMN, VK2ME, VK3LR, the new schedule of W8XK, W3XAL, W2XAD, W2XAF, W1XAL, CRCX, also stations EAQ, 2RO, DJB, TFI and many amateurs.

A. Gower, Overseal, England, reports ETA, SUZ, YV5RMO, YVQ, RNE, VUB, HSP, TFJ, 2RO and CRCX. F. A. Beane, Ridgewell, England, reports GMBJ sending a special program on 22 meters once. RNE, HBJ and HBO, 2RO, YV2RC, HJ4ABD, HCJB, TG2X, YNLF, HIIJ, VK3LR, JVP, PMN and VQ7LO.

Wade Chambers, Tulsa, Oklahoma, reports 23 stations in his letter. He gives news on GSB, GAA, DJA, DIQ, ORK, RIO, HBL; 2RO; JVF; JVM, JVN, PLE, KTO, VLK, ZLT, LSX; CEC; LSL; PSA and HII. Sam Solito, the King DXer of Leetsdale, Pa., reports JVF, DGU, LSQ, GCA, YV1ORSC, JVM, DJD, DGU and others. Still another letter from W. D. Flagg, Holyoke, Mass., reports 13 more stations, including 2RO, HJ2ABD, HJ1ABJ, Prado one Wednesday at 11:00 P.M., WEZ, W8XK, and ZFA, Bermuda, on 5.02 mc. broadcasting a special program to the U.S.A. at 10:30 P.M. one Tuesday.

A. Antognini, Greenfield, California, lists 38 stations in his report. It includes JVF, YV4ABA, RNE, XBJQ, JVL, COCH, KTO, KKP, PLP, DJA, DJN, XEVI, GCB, 2RO, WQO, CJA, VIZ3, CRCX, JVM, PLV; PHI; XAM, XDR, RIO, JVD, GSI and several others. R. K. Peck, Silver Springs, Maryland, reports 31 stations including helpful reports on LSL, HJ3ABF, YV1ORSC, CT1AA, HRN, DJJ, YVQ, VK3LR, KKP, DGU, HI1A, PRF, DIQ.

LATE REPORTS

The following reports were received too late to be used in the regular news section. Wilfred Sidle, Birmingham, Alabama, reports a YV12RM in Maracay, Venezuela, on 6.30 mc. which went on the air late in November for the first time. They use English and Spanish and were heard between 11:15 and 11:30 P.M. He also reports a letter from V. Barrios Ferrer Director of Education, Quibdo, saying they operate station HJ1ABC, "La voz de Choco," daily 11:00 to 11:30 P.M.; Sundays and Wednesdays from 9:00 to 11:00 P.M.; Sundays 2:00 to 4:00 P.M. and two days a week 10:00 to 11:00 P.M. A letter from HJ4ABC, Ibague, says they are on 6.451 mc.

daily from 8:00 to 10:00 P.M. Mr. Siddle also reports HC2AT, HC2CW, XEVI, TG2X and PCJ.

Robert Stuart, Bernardsville, New Jersey, reports CEC, W9XF, using many languages, and Prado. V. J. Fitzsimmons, Jersey City, reports W4XB broadcasting what will be a regular feature now from 2:00 until 6:00 A.M. on Saturdays. Dr. R. C. Kash, Sevierville, Tenn., reports YV10RSC at 7:30 P.M.; HJ4ABC and COCH at 11:00 P.M. Ashley Walcott, San Francisco, reports HJN, JVu at 5:00 A.M. and JZC at that time. Also a letter from WXY, Nome, Alaska, saying they work WVD, Washington, on 8.10 mc. Sam Aria, Los Angeles, reports JVN and TG2X. Joseph B. Sessions, Bristol, Conn., reports the Java station near 31.4 meters; VIZ3 and VK3LR. F. A. Beane, Ridgewell, England, reports W3XL, TFF, PCJ, WEA and W8XX.

Ralph Brady, Brooklyn, N. Y., who took the place of Al Leonhardt as Chapter Secretary reports the YV12RM on 47.50 meters at 10:00 P.M.; HJN on 50.50 meters. Robert Rossi, Philadelphia, also reports YV12RM but says it is at Maracaibo and the address is Avenida, Bolivar Num. 125. The time was 10:25 P.M. He also reports TI5HH. J. Leesburg, Can., reports 2RO, DJE, and DJ. G. C. Gallagher, San Francisco, Calif., reports TG2X, YV12RM from 10:00 to 11:30 P.M., a station in Medellin called Radio Philco on 6.135 mc. around 2:00 A.M., HRY, Honduras on 6.35 mc. and a station something like YV9RV on 6.35 mc. between 8:00 P.M. and 11:00 P.M.

T. R. McNamee, of Detroit Mich., reports the new YV12RM at Maracay on 47.49 meters 8:30 to 9:15 P.M. He also sends two memberships. Dr. Kash reports HIX from 7:00 to 9:00 P.M. Saturday as well as Tuesday and Thursday. Also HCK. J. Childs, Philadelphia, reports JV2RC, YV10RSC and this new YV12RM at 11:00 P.M. Carl Weber, Camden, N. J., reports DJI, DJJ, a DIP, JVN and JVM. Ralph Brady, Brooklyn, reports DJJ and DJI also. L. D. Brewer, Phoenix, Arizona, reports KTO, KAY, KAX, KAZ, W4XB, XEVI and COCO.

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**Operates WITHOUT PRE-AMP
HIGH IMPEDANCE—2000 OHMS**

THIS MICROPHONE IS HIGH ENOUGH IN IMPEDANCE TO OPERATE DIRECTLY INTO GRID . . . BUT NOT HIGH ENOUGH (ONLY 2000 OHMS) TO INTRODUCE SERIOUS LOSSES IN LINE UP TO 200'.

Replaces condenser and crystal mikes. No changes necessary. Eliminates input transformer and its losses. Eliminates hum trouble and feedback

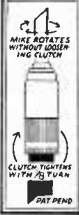
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HUM TROUBLE**



MODEL RB-H. for speech and music. LIST \$42.00 with coupling. MODEL RS-H. for speech, but can also be used for music. LIST \$32.00 with coupling. Write for Bulletin H.

New! POSITIVE AND SMOOTH ACTION STANDS

Positive, non-sliding, ball-bearing clutch! Will never wear out . . . never require adjustment. WILL NOT "CREEP". Tighten with only 1/8 turn of clutch. Mike can be rotated without loosening clutch. SMOOTH, PNEUMATIC-LIKE ACTION up and down. A model for every purpose. WRITE FOR ILLUSTRATED BULLETIN S.



MIKE ROTATES WITHOUT LOSING THE CLUTCH
CLUTCH TIGHTENS WITH 1/8 TURN
PAT. PEND.

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AMPERITE HIGH LEVEL VELOCITY MICROPHONE

Pedro Quintano Cabot, Cifuentes, Cuba, reports LSX, TGW heard on 25.00 meters or 6.00 mc. at 9:00 P.M.; YV12RM, Maracay, on 6.29 mc. from 9:45 to 10:30 P.M.; Prado on 3.96 mc. (must be harmonic); TI5HH on 5.48 mc.; HCETC; HJN; XEXA on 6.19 mc. at 7:00 P.M. and a KDE, Honolulu, on 7.52 mc. Dr. R. C. Kash reports HJ4ABD on both of their waves, changing from one to the other. C. H. Hodge, Long Beach, Calif., reports a whole flock of stations. J. V. Robbins, Wellandport, Ontario, reports RV59 on 6.00 mc. again daily from 1:00 to 6:00 P.M.; DGU relaying programs on 31.08 meters evenings; EAQ; ETB and W4XB. Fred Atherton, Rutland, Vermont, reports EAQ, HAT4, DJJ, TIPG, HJ4ABA, and YV2RC.

SPECIAL PROGRAM

The new station XEVI, Mexico City, on 50.17 meters or 5.98 mc. will broadcast a special program for I.S.W.C. members on December 27th, starting at 7:00 P.M., E.S.T., which is equal to December 27th starting at 2400 GM.T. Reports should be sent to Apartado 2874, Mexico City, Mexico. The I.S.W.C. would also like to know how this broadcast is heard.

CHRISTMAS GIFTS

Here are some Christmas suggestions. Why not give your short wave friends a membership in the Club? Each issue of the magazine will remind him or her of your friendship. Or, if they happen to be members, give them one of those beautiful world globes or a supply of Club stationery.

MORE ADDRESSES

Here are a few more addresses that may be useful to members. We welcome letters giving station addresses that have not appeared in the magazine or are not in our booklet "Helps and Hints."

HJ1ABD, P. O. Box 252, Cartagena, Colombia.

HJ3ABH, P. O. Box 565, Bogota, Colombia.

TFJ, TFK, P. O. Box 547, Reykjavik, Iceland.

YV1ORSC, La Voz del Tachira, San Cristobal, Venezuela.

CT1GO, Radio Club Portuguese, Parede, Portugal.

TYA, 79 Boulevard Haussmann, Paris 8E, France.

PZH, P. O. Box 18, Paramaribo, Suriname, Dutch Gulana, S. A.

CO9WR, P. O. Box 85, Sancti Spiritus, Cuba.

HH2T, P. O. Box 103, Port-au-Prince, Haiti.

CEC, Cia International de Radio, S. A., Santiago, Chile.

All Russians, Comite de Radiodiffusion et radiofication, Petrovka 12. Moscow, U. S. S. R.

XECR, Secretaria de Relaciones Exteriores, Mexico City, Mexico.

XECW, Calle del Bajio No. 120, Mexico City, Mexico.

XEFT, Ave Independencia 28, Vera Cruz, Mexico.

W8XK, Grant Buiding, Pittsburgh, Pa., U. S. A.

W3XAU, 1622 Chestnut St., Philadelphia, Pa., O. S. A.

W1XAL, The University Club, Boston, Mass., U. S. A.

COCH, General Electric, Calle B, No. 2, Vedado, Havana, Cuba.

A PAGE FOR BEGINNERS

A new radio season is at hand. In the next few months thousands of short wave sets will be purchased by people who know nothing about tuning for short wave stations. Last winter thousands of such receivers were sold. Many people tried out the short waves for a time and gave it up because they did not get the results they expected. It is surprising how a person can spend so much time without getting results when another person can step right in and tune in many stations on the same receiver.

Knowing where and when to tune for short wave stations is at least 75 percent of the job of tuning. Most American-made receivers today are calibrated in megacycles on the dials. There you will find numbers like 6 and 7, and evenly marked spaces in between. The 6 on the dial represents 6.00 mc. and the 7 represents 7.00 mc. This means that stations broadcasting between 6.00 and 7.00 mc. will be found in between these two numbers. The second column in our station list shows the frequencies used by stations in megacycles, and the first column in our Hourly Guide shows megacycles, too. Looking at these lists we find many stations listed between 6.00 mc. and 7.00 mc. All of the stations shown between VP3MR on 7.08 mc. and XEBT on 6.00 mc. should be found between 6 and 7 on the dial.

As a further explanation, we find that the first space mark next to the 6 on the dial, and going toward 7 would be 6.10 mc., the second 6.20, the third 6.30, etc. On 6.10 mc. we find listed stations W3XAL, W9XF and HJ4ABB. There is where you will find these stations on the dial. By keeping a log of the stations heard and an accurate station list such as published in this magazine, it is quite simple to tune in many stations on the short waves. Of course some stations may never be heard in some places, due to the wavelength used and the time of day the station works. But the general idea of tuning is to locate the place the station should be heard on the dial by the above method and then tune at the time the magazine tells you.

As for identifying station, the same method is used. Most foreign stations use English at times. So, listen for English announcements. But if you happen to log a strange station, find out exactly the wavelength used by the number on the dial and then look in the list for a station on that wave. For example, if you log W2XE on 15.27 mc. and Pontoise or 15.25 mc. and get a station at 1:00 P.M. in between them, it is certainly GSI on 15.26 mc. One of the most important things in successful short wave tuning is an accurate and up-to-date list. If you do not have it, you just can not enjoy reception fully. And we beat any other list published by two months or more for changes in wavelength and schedules. Many people will spend more than one hundred dollars on a receiver and hesitate to spend a dollar for this booklet which will show them how to get results. It is up to those who have been helped by our work to spread the news to these new short wave listeners.

Reports should reach us not later than the 24th of each month to be used in the following issue. Our January issue closes December 24th.

A Poor Antenna is an Obstacle to GOOD Reception

No matter what the cost of the receiver IT CAN'T BE BETTER
THAN THE ANTENNA IT USES

Treat Yourself with a Noise-Reducing Lynch Antenna for Christmas!

TWO EXTRA SPECIALS on Hi-Fi Duplex (Doublet) Systems

LYNCH JUNIOR, 41 ft. single wire flat top, with 50 ft. of twisted pair lead-in. List \$6.75, **YOUR NET PRICE... \$4.05**
(Shipping weight, 4 lbs.)

With 100 ft. twisted pair lead-in, List \$8.25, Your Price \$4.95.

LYNCH SENIOR, same as Junior but with 50 ft. GIANT KILLER CABLE, List \$8.50, Your Net Price... **\$5.10**
(Shipping weight, 4 lbs.)

With 100 ft. Giant Killer Cable, List \$11.50, Your Net Price \$6.90.

CAGE ANTENNA SYSTEMS FOR LIMITED SPACE



No. 886 Hi-Fi Duplex (doublet), illustrated, cage (41 ft.) with 50 feet Giant Killer cable lead-in. Complete with new Hi-Fi duplex antenna and receiver couplers and double light-

ning arrester, screw-eye, nail-it knobs and lead-in tube. List Price...\$23.00, Your net cost

\$13.75

Shipping weight, 8 pounds.



No. 887 Hi-Fi Simplex (inverted L) 41 ft. cage with 50 ft. Giant Killer cable lead-in.

Complete with new Hi-Fi receiver coupler and double lightning arrester, screw-

eye, nail-it knobs and lead-in tube. List Price...\$19.50, Your net cost

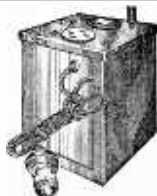
\$11.75

Shipping weight, 8 pounds.

The Double Section Amplivox Line Filter WILL Cut Out the Annoying Power Line Noises

or Your Money!
Back in 5 Days!

One section is designed to suppress the noises on the high frequency end of the line, the other on the low frequency end. When inserted between the radio receiver and the electric outlet socket or between any noise producing equipment (vacuum cleaners, motors, electric fans, refrigerators, etc.) and the electric outlet socket, it will suppress the disturbance. List price \$6.75. **YOUR NET PRICE... \$3.95**



LEARN THE CODE!

(Shipping weight, 6 lbs.)

TWIN practice sets consisting of two individual units. Each unit contains a telegraph key, special buzzer and flash lamp. Permits signaling by flashes, buzzer or telegraph sounder

method. Requires two small flashlight cells. Complete with the code embossed on panel, less batteries.

YOUR NET PRICE... \$1.98

LYNCH ANTENNA SUPPLIES—HI-FI Couplers, Kits and Giant Killer Cable

List Price	Net Price
\$3.00 Giant Killer Cable, 50 feet.....	\$1.80
\$1.00 Light Hi-Mho Wire, 100 feet....	.60
\$1.50 Heavy Hi-Mho Wire, 100 feet....	.90
\$6.75 HI-FI Duplex Antenna Coupling Kit, of antenna coupler, receiver Vario-coupler and 50 ft. of Giant Killer cable.....	\$4.05

List Price	Net Price
\$3.50 Hi-Fi Antenna Coupler.....	\$2.10
\$2.50 Hi-Fi Receiver Vario-Coupler....	1.50
\$2.75 Kit 10 Cage Spreaders.....	1.65
\$1.25 Kit 8 Commercial Insulators.....	.75
\$2.00 Kit 8 Navy Type Insulators.....	1.20
\$1.25 Double Lightning Arrester.....	.75

LYNCH FILTERADIO LINE BALANCER (Filter), list \$5, your net price \$3.00

SOL PERLMAN, E.E. CONSULTING ENGINEER ON ANTENNA PROBLEMS TO LYNCH
TECHNICAL ADVISOR OF THE NEW YORK CHAPTER OF THE CLUB

227 FULTON STREET, NEW YORK, N. Y.

Phone, COrtland 7-7848

FREE and Constant Source of Electricity from the Air!

Special Attention of Readers in Rural and DC Areas and in Foreign Countries—Forget Your Battery Troubles!

THE WINCHARGER (Wind Generator) KEEPS THE STORAGE BATTERY ALWAYS CHARGED, even when receiver is used 10 hours a day. Your only expense is a few cents a year for distilled water. Works in the lightest breeze of wind, yet will not overcharge in strong gales. The WINCHARGER'S Aerofoil Propeller takes advantage of the lowest wind to charge your battery at a maximum rate of 8 amperes. An automatic cutout switch is provided to prevent overcharging. Easily mounted on roof, garage or barn.

UTILITY MODEL, for one storage battery. List price \$29.50, YOUR NET PRICE (Shipping wt. 49 lbs.).... **\$18.95**

DE LUXE MODEL, for charging up to three batteries (22 amperes), complete with tower. List price \$44.50, YOUR NET PRICE (Shipping wt. 76 lbs.).... **\$26.75**

We can supply equipment for WINCHARGER to eliminate dry B batteries of battery operated sets, or to operate directly any A. C. receiver. When inquiring give make and model of receiver and voltage and cycle rating.

Announcing our **NEW** —————

METAL TUBE AMPLIRAD PRE AMPLIFIER SELECTOR (BOOSTER)

Completely self-powered, no external batteries or power supply required, wave switch system 13 to 200 meters; no plug-in coils; uses two high gain R.F. new metal pentode 6K7 tubes and 5Z4 new metal rectifier tube. Suitable for ANY TYPE OF ANTENNA. Standard model for A. C. 110-120 volts, 50-60 cycles, D.C. and Battery Models to Special Order.

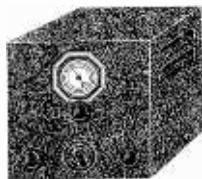
Will Increase Sensitivity, Boost Selectivity, Strengthen Signal by adding R. F. Amplification to Your Receiver.

Will Reduce Noise Level, Decrease Interference and Repeat Points (Image Frequency).

Shipping weight 15 lbs.

AMPLIRAD PRE-SELECTOR BOOSTER, List Price \$42.50. YOUR NET PRICE (less tubes)..... **\$24.95**

Set Hygrade Sylvania New METAL TUBES, List Price \$5.50; YOUR NET PRICE..... **\$3.85**



Locate Stations "On the Nose," No Skipping or Guess Work with New and Improved Beat Oscillator (Station Finder)

Our No. 756 is electron coupled, of same type as that used in most expensive Custom Built receivers. Snapping a toggle switch is the entire operation. Uses one tube powered from receiver. **WILL PICK UP FOR YOU EVERY STATION THAT YOUR RECEIVER IS CAPABLE OF BRINGING IN. NO MISSING OR SKIPPING.** Uses one 24A or 36 powered from receiver. (Mention receiver when ordering). Shipping weight 2 lbs. List Price \$11.25. YOUR NET PRICE (Less Tubes).... **\$6.75**

SOL PERLMAN, E. E., W2JCU CONSULTING ENGINEER on Antenna Problems to A. H. Lynch Co. Technical Advisor of the New York Chapter of the I. S. W. C.

297 FULTON STREET, NEW YORK, N. Y.

Phone, Cortland 7-7848

"ON-THE-AIR"

The time given is in Eastern Standard. Add five hours for G. M. T. Mary down the dial readings of the stations heard on the margin of the paper and it will guide you to the location of other stations on your dials.

B—Stands for Broadcast Station. These stations broadcast programs, usually relaying some long wave station.

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
B-13.92	-21.54	-W8XK, Pittsburgh, Pa., relays KDKA,	7:00 to 9:00 A.M.
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 Janeiro, Brazil.	Phones WKK, WLK, daytime.
T-14.27	-21.03	-LSN, Buenos Aires, Arg.	8:00 A.M. to 4:00 P.M. WKK and WLK.
T-14.38	-20.86	-EHY-EDM, Madrid, Spain.	Phones South America, mornings.
T-14.72	-20.38	-GAA, Rugby, England.	Phones LSL and PPU near 8:00 A.M.
T-14.97	-20.04	-OPL, Leopoldville, Belgian Congo.	Phones ORG, mornings.
T-14.99	-20.02	-DHO, Nauen, Germany.	Phones PPU and LSM mornings.
T-15.14	-19.18	-WKN, Lawrenceville, N. J.	Phones GAU, daytime.
T-15.24	-19.69	-CEC, Santiago, Chile.	Phones LSR, HJY near 11 A.M. and 4 P.M.
T-15.39	-19.50	-LSQ, Buenos Aires, Argentina.	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, Rio de Janeiro, Brazil.	Phones FTM, 10:30 A.M. to 3:00 P.M.
T-15.58	-19.25	-DFA, Nauen, Germany.	Phones 10:00 A.M. to 2:00 P.M. irregularly.
T-15.62	-19.21	-ORG, Brussels, Belgium.	Phones OPL, mornings.
T-15.68	-19.13	-LSM, Buenos Aires, Argentina.	Phones EAQ, DHO, GAA, mornings.
T-15.88	-18.89	-ZSS, Klipkeuval, S. Africa.	Phones GAS, 6:30 to 7; 10 to 10:45 A.M.
T-15.93	-18.83	-PLE, Bandoeng, Java.	Phones Holland 6 to 11 A.M. KWX irregularly.
T-16.06	-18.68	-OCI, Lima, Peru.	Testing with HJY near 2:00 P.M.
T-16.11	-18.62	-GAU, Rugby, England.	Phones New York mornings.
E-16.22	-18.48	-HBH, Geneva, Switzerland.	Used for special programs.
T-16.25	-18.46	-HJY, Bogota, Colombia.	Phones CEC, LSR, 11 A.M. and 4:00 P.M.
T-16.30	-18.40	-PCK, Kootwijk, Holland.	Phones Java near 7:00 A.M.
T-16.35	-18.35	-WLA, Lawrenceville, N. J.	Phones England 8:00 A.M. to 4:00 P.M.
T-16.35	-18.35	-FZS, Saigon, Indo-China.	Phones Paris 5:00 A.M. irregularly.
T-16.38	-18.31	-GAS, Rugby, England.	Phones New York mornings.
T-16.39	-18.30	-YVR, Maracay, Venezuela.	Phones Germany, 10:00 A.M.
E-16.42	-18.27	-ETA, Addis Ababa, Ethiopia.	Used irregularly.
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.
T-16.50	-18.18	-CGA, Drummondville, Canada.	Phones England, daytime.
T-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	-18.04	-GAA, Rugby, England.	Phones Argentina, 10:00 A.M. to 2:00 P.M.
T-16.82	-18.05	-PCV, Kootwijk, Holland.	6:00 to 9:00 A.M. Java.
B-16.86	-17.79	-GSG, Daventry, England.	6:00 to 8:45 A.M.; 9:00 to 10:45 A.M.
B-16.87	-17.78	-W3XAL, Bound Brook, N. J.	9:00 A.M. to 5:00 P.M. daily.
T-16.89	-17.76	-IAC, Piza, Italy.	Phones ships early mornings.
B-16.89	-17.76	-DJE, Nauen, Germany.	7:00 to 11:30 A.M., irregular.
T-16.85	-18.27	-17.80 to 16.42	-Ships. Heard in daytime.
T-16.92	-17.75	-HSP, Bangkok, Siam.	Works Germany, 4:30 to 6:30 A.M.
T-17.00	-17.64	-XGN, Shanghai, China,	phones London 7 to 9 A.M., Mon. Wed. Sat.
T-17.10	-17.54	-VWY, Poona, India.	Phones GBU, 2:00 to 8:00 A.M.
T-17.12	-17.52	-DFB, Nauen, Germany.	Phones LSM and YVQ near 9:00 A.M.

Meters	Meg.	STATION	TIME
T-17.37-17.27		DAF, Norden, Germany.	Phones ships, irregularly.
T-17.52-17.12		WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.44-16.30		WLK, Lawrenceville, N. J.	Phones England.
T-18.47-16.24		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-18.61-16.12		IRY, Rome, Italy,	phoning 7:00 A.M. to 1:30 P.M.
T-18.71-16.04		KKP, Kauhuku, Hawaii.	Phones KWU 1:00 to 7:00 P.M.
T-18.89-15.88		FTK, St. Assise, France.	Phones Saigon 8:30 to 11:00 A.M.
T-18.91-15.86		CEC, Santiago, Chile.	Phones OCG 11 A.M., 1 and 4:40 P.M. irreg.
T-19.02-15.81		LSL, Buenos Aires, Arg.	Phones GAA 8 A.M. to 1 and FTM 1-2 P.M.
T-19.06-15.74		JIA, Chureki, Taihoku, Japan.	Phones Tokio, irregularly.
T-19.15-15.66		JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A. M.
T-19.20-15.61		JVF, Nazaki, Japan,	phones U.S.A. near 5:00 A.M. and 8:00 P.M.
T-19.47-15.41		KWO, Dixon, California.	Phones Hawaii in place of KWU.
E-19.50-15.46		KKR, Bolinas, California.	Tests irregularly.
B-19.52-15.37		HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A.M.
T-19.54-15.35		KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
B-19.56-15.33		W2KAD, Schenectady, N.Y.	Daily 2-3 P.M., Sun. 10:30 A.M. to 4 P.M.
B-19.63-15.28		DJQ, Zeesen, Germany.	12:30 to 2:15 A.M.
B-19.64-15.27		W2XE, Wayne, N. J.	11:00 A.M. to 6:00 P.M. daily.
B-19.66-15.26		GSJ, Daventry, England.	12:30 to 2:15 P.M. irreg.
T-19.68-15.25		RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
B-19.68-15.25		Pontoise, France,	7:00 to 11:00 A.M. daily.
B-19.71-15.22		PCJ, Eindhoven, Holland.	7:00 A.M. to 11:00 A.M., irregular.
B-19.71-15.21		W8XK, Pittsburgh, Pa.	relays KDKA 10 A.M. to 7:00 P.M.
B-19.74-15.20		DJB, Zeesen, Germany.	3:45 to 11:30 A.M. daily.
B-18.82-15.14		GSF, Daventry, England,	from 6:00 A.M. to Noon.
B-19.84-15.11		HVJ, Vatican City.	10:30 to 10:45 A.M. daily.
T-19.91-15.07		WNC, Hialeah, Florida.	Phones HJB, RXC and YVQ, daytime.
T-19.94-15.04		RKI, Moscow, U.S.S.R.	Phones RIM near 7:00 A.M.
B-19.94-15.04		HII or HIR, Santo Domingo, R. D.,	phones WNC daytime.
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-20.06-14.96		HJB, Bogota, Colombia.	Phones Hialeah, daytime.
T-20.19-14.86		OCJ2, Lima, Peru.	Phones HKB-HJY-LSN, daytime.
T-20.29-14.79		ROU, Omsk, Siberia,	phones Moscow 7:00 to 9:00 A.M. irregularly.
T-20.29-14.79		RTZ, Irkutk, U.S.S.R.	Heard around 7:00 to 9:00 P.M., phoning.
T-20.37-14.73		IQA, Rome, Italy,	phones 8:00 to 11:00 A.M. irregularly.
T-20.42-14.69		PSF, Rio de Janeiro, Brazil.	7 A.M. to 6 P.M. LSL, WLK, WOK.
T-20.45-14.67		GBL, Rugby, England.	Phones JVH 1:00 to 7:00 A.M.
B-20.55-14.60		JVH, Nazaki, Japan.	Phones Europe from 4:00 to 8:00 A.M.
T-20.56-14.59		WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64-15.54		HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65-14.53		LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.69-14.50		TIR and TIU, Cartago, Costa Rica.	Phones many stations daytime.
T-20.69-14.50		YNA, Managua, Nicaragua.	Phones Hialeah, daytime.
T-20.69-14.50		HPF, Panama City.	Phones Florida daytime.
B-20.71-14.48		HRM, Tela, Honduras.	Phones WNC irregularly in daytime.
T-20.71-14.48		TGF, Guatemala City.	Phones Florida daytime, irregularly.
T-20.73-14.47		WMF, Lawrenceville, N. J.	Phones England daylight.
T-20.75-14.46		GBW, Rugby, England.	Phones WNC 6:00 A.M. to 6:00 P.M.
E-20.80-14.41		DIP, Nauen, Germany.	Experimenting 12:00 to 2:00 P.M.
E-20.97 to 21.26		14.30 to 14.11	—Amateur phones heard in daytime.
B-21.26-14.10		HJ5ABE, Cali, Colombia.	7:00 P.M. to midnight, irregular.
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.
E-21.91-13.69		KKZ, Bolinas, California.	Used irregularly.
T-21.98-13.65		HJY, Bogota, Colombia.	Phones irregularly.
B-22.00-13.63		SPW, Warsaw, Poland.	Broadcasts 11:30 A.M. to 12:30 noon.
T-22.09-13.58		GBB, Rugby, England.	Phones Canada and Egypt, daytime.
T-22.35-13.42		GCT, Rugby, England.	Phones JVH 3:00 to 8:00 A.M.
T-22.40-13.38		IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:00 P.M. irregularly.
T-22.40-13.39		WMA, Lawrenceville, N. J.	Phones England, daytime.

Meters	Meg.	STATION	TIME
T-22.48	-13.35	YVQ, Maracay, Venezuela.	Phones Florida, daytime.
T-22.49	-13.34	KPJ, Manila, P. I.	Phones Java 1:00 to 6:00 A.M., irregular.
T-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.
T-2p.70	-13.22	IRJ, Rome, Italy, phones	Japan irregularly 5:00 to 8:00 A.M.
E-22.76	-13.18	DGG, Nauen, Germany.	Phones Asia mornings, irregularly.
B-22.95	-13.07	VPD, Suva, Fiji Islands.	Daily, except Sun., 12:30 to 1:30 A.M.
T-23.00	-13.04	German ships.	11:15 A.M. and 1:30 P.M.
T-23.36	-12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	-12.83	CNR, Rabat, Morocco.	Phones St. Assise 5:00 to 8:00 A.M.
T-23.45	-12.80	IAC, Piza, Italy.	Works ships mornings.
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.
E-24.52	-12.24	TFJ, Reykjavik, Iceland.	Phones GSC irregularly.
T-24.56	-12.22	TYA, Pontoise, France.	Phones the Normandie, irregularly.
T-24.69	-12.15	GBS, Rugby, England.	Phones New York.
T-24.88	-12.09	PDV, Kootwijk, Holland.	Tests near 7:30 A.M.
B-25.00	-12.00	RNE, Moscow, U.S.S.R.	Daily 1:00 to 6:00 P.M. Sun. 6-7 A.M., 10-11 A.M., Wed. 6:00-7:00 A.M.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
E-25.10	-11.95	ETB, Addis Ababa, Ethiopia.	2:00 to 6:30 P.M. irreg. Wed. at 5 P.M.
E-25.11	-11.97	KKQ, Bolinas, California.	Heard irregularly, evenings.
T-25.12	-11.95	FTA, St. Assise, France.	Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M.
B-25.23	-11.90	Pontoise, France,	3:00 to 4:00 A.M. 11:15 to 6:00 P.M.
B-25.27	-11.87	W8XK, Pittsburgh, Pa.,	relays KDKA 5:00 to 9:00 P.M.
B-25.29	-11.86	GSE, Daventry, England,	9:00 to 10:15 A.M.
B-25.36	-11.83	W2XE, Wayne, N. J.	Relays WABC 6:00 to 8:00 P.M.
B-25.40	-11.80	2RO, Rome, Italy,	8:15 A.M. to 2:30 P.M.
B-25.42	-11.80	CO9WR, Sancti Spiritus, Cuba,	4-6 and 9-11 P.M.
B-25.42	-11.79	W1XAL, Boston, Mass.,	Sundays 4:00 to 7:00 P.M.; daily at 6 P.M.
B-25.49	-11.77	DJD, Zeesen, Germany.	12:00 Noon to 4:30 P.M.
B-25.53	-11.75	GSD, Daventry, England.	2:15 to 4:15 A.M.; 12:15 to 4:00 P.M.
B-25.57	-11.74	PHI, Huizen, Holland.	Daily, except Tues, and Wed., 8:30-10:30 A.M.
B-25.60	-11.72	CJRX, Winnipeg, Canada.	8:00 P.M. to Midnight.
B-25.62	-11.71	HJ4ABA, Medellin, Colombia.	11:30-1:00 P.M., and 6:30-10:30 P.M.
B-25.63	-11.70	Pontoise, France,	6:30 to 9:30 P.M. and 10:30 to 1:00 A.M.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
E-25.73	-11.66	PPQ, Rio de Janeiro, Brazil.	Used irregularly in evenings.
B-25.93	-11.57	HH2T, Port-au-Prince, Haiti.	Heard irregularly, evenings.
E-26.09	-11.50	VIZ3, Fiskville, Australia.	Phones CJA4 irregularly.
E-26.09	-11.50	XAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P.M.
T-26.29	-11.41	CJA-4, Drummondville, Ont.,	phones VIZ-3 6:00 to 11:00 P.M., Irreg.
T-26.35	-11.39	HBO, Geneva, Switzerland.	Used irregularly.
T-27.15	-11.05	ZLT, Wellington, New Zealand.	Phones VLK 1:00 to 7:00 A.M.
T-27.26	-11.00	PLP, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10-10:30 A.M.
B-27.26	-11.00	XBJQ, Mexico City	5:00 P.M. to 2:00 A.M. next day, often.
T-27.35	-10.97	OCI, Lima, Peru.	Phones HJY, evenings.
E-27.65	-10.85	DFL, Nauen, Germany.	Irregular.
T-27.67	-10.84	KWV, Dixon, California.	Phones Hawaii, daytime.
T-27.86	-10.77	GBP, Rugby, England.	Phones VLK 11:00 P.M. to 8:00 A.M.
T-27.93	-10.74	JVM, Nazaki, Japan.	Heard 1:30 to 7:00 A.M. and 7 to 11 P.M.
T-28.09	-10.68	WNB, Lawrenceville, N. J.	Phones Bermuda, daytime.
B-28.12	-10.67	CEC, Santiago, Chile,	daily 7 to 8 P.M. Thurs., Sun., 8:30 to 9 P.M.
T-28.14	-10.66	JVN, Nazaki, Japan.	Phones Europe 3:00 to 8:00 A.M.
E-28.28	-10.61	WEA, Rocky Point, N. J.	Tests irregularly with Europe.
T-28.44	-10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentina, irregularly.
E-28.49	-10.53	JIB, Tawian, Japan.	Heard irregularly.
T-28.51	-10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A.M. GBP.
E-28.79	-10.42	XGW, Shanghai, China.	Testing near 6:00 A.M.
T-28.80	-10.42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.M.
T-28.80	-10.40	YBG, Medan, Sumatra.	5:30-6:30, 12:30-1:30 A.M., 7:30-8:30 P.M.

Meters	Meg.	STATION	TIME
E-28:85	-10.40	KEZ, Bolinas, California.	Used irregularly.
E-28.91	-10.38	WCG, Rocky Point, N. Y.	Tests irregularly.
B-28.98	-10.35	LSX, Buenos Aires, Argentina.	Irregular.
E-29.03	-10.33	ZFD, St. Georges, Bermuda.	Heard afternoons, irregularly.
B-29.04	-10.33	ORK, Brussels, Belgium.	1:30 to 3:00 P.M. daily.
E-29.13	-10.30	LSQ, Buenos Aires, Argentina.	Used for special tests.
E-29.15	-10.29	DIQ, Nauen, Germany.	Used irregularly.
T-29.25	-10.26	PMN, Bandoeng, Java.	Near 5:30 A.M. daily. VLK.
E-29.27	-10.25	LSL, Buenos Aires, Argentina.	testing 5:30 to 7:00 P.M.
T-29.45	-10.22	PSH, Rio de Janeiro, Brazil.	Sending music, evenings.
T-29.50	-10.17	RIO, Bakou, U.S.S.R.	Phones Moscow 8-10 A.M., 10 P.M. to 1 A.M.
T-29.58	-10.14	OPM, Leopoldville, Belgian Congo.	Phones ORK 9-11 A.M., 3-6 P.M.
T-29.76	-10.08	RIR, Tiflis, Siberia.	Phones Moscow 5:00 to 8:00 A.M., irregularly.
T-29.79	-10.07	EHY, Madrid, Spain.	Phones YVR near 4:00 P.M., irregularly.
T-29.80	-10.06	JZB, Shinkyo, Manchukuo,	phones JVO 10:00 P.M. to 3:00 A.M.
T-29.83	-10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships, daytime.
T-29.83	-10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
T-30.09	-9.97	KAZ, Manila, P. I.	Phones PLV near 2:00 A.M.
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.
T-30.40	-9.87	WON, Lawrenceville, N. J.	Phones England evenings.
B-30.40	-9.87	EAQ, Madrid, Spain.	Daily 5:15 to 9:30; Sat. 1:00 to 3:00 P.M.
E-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.
E-30.61	-9.80	LSI, Buenos Aires, Argentina.	Used irregularly, evenings.
T-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.
T-30.90	-9.71	GCA, Rugby, England.	Phones Argentina around 6:00 P.M.
T-31.08	-9.67	DGU, Nauen, Germany.	Phones Egypt daily from 5 A.M. to 5 P.M.
B-31.09	-9.65	CT1AA, Lisbon, Portugal,	4:00 to 7:00 P.M. Tues., Thurs., and Sat.
B-31.13	-9.64	2RO, Rome, Italy, daily	2:30 to 6:15; Mon., Wed., Fri., 6:15-9:15 P.M.
B-31.27	-9.59	HBL, Geneva, Switzerland.	5:30 to 6:15 P. M., Saturday.
B-31.28	-9.59	W3KAU, Philadelphia, Pa.	Noon to 6:45 P. M.
B-31.28	-9.59	VK2ME, Sydney, Australia.	Sun. 1-3, 4:30-8:30 and 9 to 11 A.M.
B-31.29	-9.59	HP5J, Panama City, Panama.	11:45 A.M. to 1:00 P.M., 7:30 P.M. to 10:00 P. M.
B-31.30	-9.58	GSC, Daventry, England.	4:15-5:45; 6:00-8:00; 10:00-11:00 P.M.
B-31.31	-9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.
B-31.36	-9.57	W1XK, Boston, Mass. (Millis)	6:00 A.M. to Midnight.
B-31.36	-9.57	VUB, Bombay, India, Wed., Thurs., and Sat.	11:00 A.M. to 12:30 P.M.
B-31.38	-9.56	DJA, Zeesen, Germany.	12:30-2:15 A.M., 8-11:30 A.M., 5:00-9:15 P.M.
B-31.40	-9.56	YDB, Scebura, Java, heard around	5:30 to 8:00 A.M. with music.
B-31.45	-9.54	DJN, Zeesen, Germany.	12:30 to 2:15 A.M.; 3:45 to 7:15 A.M.; 8:00 to 11:30 A.M.; 5:05 to 10:45 P.M.
B-31.48	-9.53	LKJ1, Jeloy, Norway.	5:00-8:00 A.M., 11:00 A.M. to 6:00 P.M.
B-31.48	-9.53	W2XAF, Schenectady, N. Y.	Daily 4:00 P.M. to Midnight.
B-31.55	-9.51	GSB, Daventry, England,	2:15 to 4:15 A.M. and 10:30 A.M. to 8 P.M.
B-31.55	-9.51	VK3ME, Melbourne, Australia.	Daily except Sunday, 5 to 7 A.M.
B-31.56	-9.50	PRF5, Rio de Janeiro, Brazil.	Daily 4:45 to 5:45 P.M., also irreg.
T-31.71	-9.46	Tripoli, Africa.	Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.
B-31.80	-9.42	COCH, Havana, Cuba,	8:00 A.M. to 7:00 P.M.; 8:00 to 10:00 P.M.
T-31.86	-9.42	PLV, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10:00-10:30 A.M.
T-32.15	-9.33	CGA, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.33	-9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	-9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	-9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	-9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	-9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	-9.01	KEJ, Bolinas, California.	Tests irregular.
E-33.52	-8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.

Meters	Meg.	STATION	TIME
T-33.41-	8.98-	VWV, Poona, India.	Phones England near 8:30 A.M.
T-33.93 to	36.58-8.84 to	8:20-	Ships. Heard irregularly.
E-34.10-	8.79-	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19-	8.77-	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.29-	8.75-	ZBW, Hong Kong, China.	Daily 11:30 P.M. to 1:15 A.M., Mon. and Thurs. 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
E-34.35-	8.74-	WXV, Fairbanks, Alaska.	Works WXH between 10 P.M. and 4 A.M.
T-34.56-	8.68-	GBC, Rugby, England.	Phones ships irregularly.
B-34.62-	8.66-	CO9JQ, Camaguey, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68-	8.65-	WVD, Seattle, Wash.	Testing irregularly.
T-35.02-	8.57-	WOO, Ocean Gate, N. J.	Phones ships irregularly.
B-35.42-	8.47-	HCJB, Quito, Ecuador.	Daily except Monday, 7:30 to 11:30 P.M.
T-35.42-	8.47-	DAF, Norden, Germany.	Phones ships irregularly.
B-35.69-	8.41-	HC2CW, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
B-35.71-	8.40-	HC2AT, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
T-35.80-	8.38-	IAC, Piza, Italy.	Works ships, irregularly.
T-36.65-	8.19-	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
T-38.06-	7.86-	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.19-	7.84-	HC2JSB, Guayaquil, Ecuador.	9:15-2:15 P.M. and 7:15 to 11:15 P.M.
B-38.47-	7.80-	BBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
E-38.50-	7.78-	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M., irreg.
E-38.89-	7.71-	KEE, Bolinas, California.	Tests evenings irregularly.
T-39.34-	7.63-	RIM, Russia.	Phones RKI 6:00 to 8:15 A.M.
E-39.37-	7.62-	ETB, Addis Ababa, Ethiopia.	Heard 2:00 to 7:00 P.M., irregularly.
T-39.42-	7.61-	KWX, Dixon, California.	Phones Hawaii nights.
E-39.68-	7.56-	KWY, Dixon, California.	Phones Japan, irregularly.
T-39.89-	7.52-	KKH, Kauhuku, Hawaii.	Phones KWO evenings.
T-39.95-	7.51-	JVP, Nazaki, Japan.	Phones irregularly.
T-39.97-	7.50-	RKI, Russia.	Phones RIM 6:00 to 8:15 A.M.
B-40.55-	7.40-	HJ3ABD, Bogota, Colombia.	7:30 to 11:00 P.M.
T-40.60-	7.39-	ZLT2, Wellington, New Zealand,	phones Sydney 3:00 to 7:00 A.M. irreg.
B-40.65-	7.38-	XECR, Mexico City.	Sundays, 6:00 to 7:00 P.M.
T-40.71-	7.37-	KEQ, Kaulhuku, Hawaii.	Phones Dixon nights.
B-41.20-	7.28-	HJ1ABD, Cartagena, Colombia.	7:30 to 9:00 P.M.
B-41.55-	7.22-	HKE, Bogota, Colombia.	Mon. 6 to 7 P.M.; Tues., Fri., 8 to 9 P.M.
B-41.60-	7.21-	EA8AB, Santa Cruz, Canary Islands.	5:00 to 7:00 P.M., irregular.
B-41.80-	7.17-	CR6AA, Lobito, Angola, Africa.	Wed. and Sat. 2:30 to 4:30 A.M.
B-42.35-	7.08-	PI1J, Dordrecht, Holland.	Saturdays 11:10 A.M. to 12:10 Noon.
B-42.68-	7.08-	VP3MR, Georgetown, British Guiana,	around 4:45 to 8:40 P.M.
T-43.45-	6.90-	GDS, Rugby, England.	Phones New York nights.
B-43.48-	6.90-	HI3C, La Romana, R. D.	12:30 to 2:00 P.M., 7:30 to 9:30 P.M.
E-43.82-	6.84-	KEN, Bolinas, California.	Used irregularly.
B-44.12-	6.81-	HIH, San Pedro de Macoris, D. R.	Daily 7:30 to 9:00 P.M.; Sundays 3:00 to 4:00 A.M. and 4:15 to 6:00 P.M.
T-44.41-	6.75-	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44-	6.75-	JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftimes with music.
B-44.71-	6.71-	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M., irregularly.
E-44.96-	6.71-	YVQ, Maracay, Venezuela.	Broadcasts 8:00 to 8:30 P.M. Saturday.
B-45.00-	6.67-	HC2RL, Guayaquil, Ecuador.	Sun. 5:45-7:45, Tues. 9:15-11:15 P.M.
T-45.10-	6.65-	IAC, Piza, Italy.	Phones ships evenings.
B-45.31-	6.62-	PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.50-	6.61-	HI4D, Santa Domingo, R. D.	11:55 to 1:40 and 4:40 to 7:40 P.M.
B-45.81-	6.55-	TIRCC, San Jose, Costa Rica,	daily 6 to 7; Thurs., Sun., 6 to 11 P.M.
B-46.01-	6.52-	YV6RV, Valencia, Venezuela.	12:00-2:00 P.M. and 6:00-10:00 P.M.
B-46.30-	6.48-	HJ5ABD, Cali, Colombia.	7:00 to 10:00 P.M.
B-46.44-	6.46-	HJ4ABC, Ibaque, Colombia.	Around 8:00 to 10:00 P.M.
B-46.51-	6.45-	HJ1ABB, Barranquilla, Colombia.	4:30 to 10:00 P.M. daily.
B-46.54-	6.45-	HI4B, Santo Domingo, R. D.,	heard at 2, 3, 5 and 6 P.M.
E-46.73-	6.42-	W9XBS, Chicago, Illinois.	Heard irregularly broadcasting.
E-46.77-	6.41-	HJ4B, Barranquilla, Colombia.	Phones HJA2, irregular.
B-46.86-	6.41-	TIP3, San Jose, Costa Rica.	Noon to 2:00 P.M., 6:00 to 11:30 P.M.
B-47.10-	6.37-	YV4RC, Caracas, Venezuela.	4:30 P.M. to 10:30 P.M.
E-47.39-	6.35-	JZG, heard relaying JVT, JOAK	from 5:00 to 7:30 A.M., irregularly.
B-47.47-	6.32-	YV12RC, Caracas, Ven.,	heard nights.

Meters	Meg.	STATION	TIME
B-47.50	6.31	HIZ, Santo Domingo, R. D.	Heard 5:00 to 9:30 P.M., irregularly.
E-48.00	6.25	Army aircraft,	heard in daytime.
B-48.00	6.25	OAX4G, Lima, Peru,	daily 7:00 to 10:30 P.M., Wed. at 6:00 P.M.
B-48.50	6.19	H1IA, Santiago de Caballeros, R. D.	11:40 to 1:40; 7:40 to 8:40 P.M.
B-48.60	6.17	HJ2ABA, Tunja, Colombia.	1:00-2:00 P.M. and 7:00 to 10:00 P.M.
B-48.62	6.17	HJ3ABF, Bogota, Colombia.	7:00 to 11:15 P.M.
B-48.78	6.15	YV3RC, Caracas, Venezuela.	10:30 to 1:30 and 4:30 to 9:30 P.M.
B-48.78	6.15	HJ5ABC, Cali, Colombia,	6:00 to 11:00 P.M.
B-48.79	6.15	CO9CG, Santiago, Cuba.	8:30-10:00 A.M., Noon-1:30 P.M., 3:30-4:30 P.M., 10:00-11:00 P.M.
B-48.85	6.14	CJRO, Winnipeg, Canada.	8:00 P.M. to Midnight.
B-48.86	6.14	W8XK, Pittsburg, Pa.,	relays KDKA 7:00 P.M. to 1:00 A.M.
B-48.92	6.13	ZGE, Kuala Lumpur, S. S.	Sun., Tues. and Fri., 6:40 to 8:40 A.M.
B-48.92	6.13	COCD, Havana, Cuba.	Heard 5:00 P.M. to 1:00 A.M., irregularly.
B-49.02	6.12	W2XE, Wayne, N. J.	Relays WABC 8:00 P.M. to 11:00 P.M.
B-49.02	6.12	XEFT, Vera Cruz, Mexico.	11:30 to 4:00 P.M., 7:30 P.M. to 12 M.
B-49.05	6.11	HJ1ABE, Cartagena, Colombia.	Daily 7:30-9:00; Mon. 10:30 P.M.
B-49.10	6.11	GSL, Daventry, England.	2:30 to 4:00 P.M. and 10:00 to 11:00 P.M.
B-49.10	6.11	VE9HX, Halifax, N. S.	8:30 to 11:30 A.M. and 5:00 to 10:00 P.M.
B-49.10	6.11	VUC, Calcutta, India.	9:30 A.M. to Noon, Sat. 11:45 P.M. to 3 A.M.
B-49.15	6.10	HJ4AB, Manizales, Colombia.	8:00 to 11:30 P.M., irregularly.
B-49.18	6.10	W3XAL, Bound Brook, N.J.	Mon., Wed. and Sat. 6 P.M. to 12:45 A.M.
B-49.18	6.10	W9XF, Chicago, Ill.,	Sun., Tues., Thurs., 9-2 A.M.; Daily 1-2 A.M.
B-49.20	6.09	ZTJ, Johannesburg, Africa.	3:30 o 7:00 A.M.; 9:00 A.M. to 4:00 P.M.
B-49.22	6.09	CRCX, Bowmanville, Canada.	5:30 to 11:30 P.M. daily, 11:45 A.M. to 11:30 P.M. Sundays.
B-49.31	6.08	VO7LO, Nariobi, Africa.	11:00 A.M. to 3:30 P.M., 5:45 to 6:15 A.M.
B-49.34	6.08	W9XAA, Chicago, Illinois.	No apparent regular schedule.
B-49.34	6.08	ZHJ, Penang, S. S.	Daily 6:40 to 8:40 A.M.
B-49.34	6.08	CP5, La Paz, Bolivia.	8:00 to 9:00 P.M. daily.
B-49.40	6.07	VE9CS, Vancouver, B. C.	Daily 6-7 P.M., Sun. 1:45 P.M. to 1:00 A.M.
B-49.41	6.07	HH2S, Port-Au-Prince, Haiti.	Heard irregularly, evenings.
B-49.42	6.07	OER2, Vienna, Austria.	9:00 A.M. to 5:00 P.M., week-days.
B-49.45	6.06	HJ4AB, Manizales, Col.,	11-Noon, 5:30-7:30 daily, Sat. 10:30 P.M.
B-49.50	6.06	OXY, Skamlebaek, Denmark.	Daily 1:00 to 6:00 P.M.
B-49.50	6.06	W8XAL, Cincinnati, Ohio,	6:30 A.M. to 8 P.M.; 11 P.M. to 2 A.M.
B-49.50	6.06	W3XAU, Philadelphia, Pa.	7:00 P.M. to 10:00 P.M.
B-49.55	6.05	HJ4ABD, Medellin, Colombia.	Heard 8:00 to 11:30 P.M.
B-49.59	6.05	GSA, Daventry, England.	6:00 to 8:00 P.M. daily.
B-49.65	6.04	HJ1ABG, Barranquilla, Colombia.	6:00 to 10:00 P.M.
B-49.67	6.04	HJ4ABC, Pereira, Colombia.	9:30 to 11:00 A.M., 7:00 to 8:00 P.M.
B-49.67	6.04	W4XB, Miami Beach, Florida.	11:30-2:00 P.M., 8:00-12 Midnight.
B-49.67	6.04	PRAS, Pernambuco, Brazil.	2:30 to 8:30 P.M.
B-49.67	6.04	W1XAL, Boston, Mass.,	7:15 to 9 P.M. Tues., Thurs.; 4-7 P.M. Sun.
B-49.75	6.03	HP5B, Panama City,	12 Noon to 1 P.M.; 7:00 to 10:30 P.M.
B-49.83	6.02	XEUW, Vera Cruz, Mexico,	8:00 P.M. to 12:30 A.M. irregularly.
B-49.83	6.02	DJC, Zeesen, Germany.	12 Noon to 4:30 P.M. and 5:05 to 10:45 P.M.
B-49.83	6.02	QCN, Macao, China.	Monday and Friday, 3:00 to 5:00 A.M.
B-49.85	6.01	HJ3ABH, Bogota, Col.	11:30 A.M. to 2, 6-11 P.M., Sun. 4:19 P.M.
B-49.90	6.01	COCO, Havana, Cuba.	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M.; Saturdays at 11:30 P.M.
B-49.92	6.01	ZHI, Singapore.	Mon., Wed., Thurs., 5:40-8:10; Sat. 10:40-1:10 A.M.
B-49.95	6.01	HJ1ABJ, Santa Marta, Colombia.	6:30 to 10:30 P.M., irregularly.
B-49.96	6.00	VE9DN, Drummondville, Canada,	Saturdays at 11:30 P.M.
B-50.00	6.00	RW59, Moscow, U.S.S.R.,	2:30 to 5:00 or 6:00 P.M. daily.
B-50.00	6.00	XEBT, Mexico City.	6:00 P.M. to 3:00 A.M., irregularly.
B-50.10	5.99	HJ2ABD, Bucaramanga, Colombia,	7:30 to 9:30 P.M. irregularly.
B-50.17	5.98	XEVI, Mexico City,	Tues. 7-8; Thurs. 7-8, 9-10; Sat. 8-9 P.M.
B-50.17	5.98	HIX, Santo Domingo, R. D.	Tues. and Fri., 8:10 to 10:10 P.M.; Sundays 8:40 to 10:40 A.M. and 2:40 to 4:40 P.M.
B-50.26	5.97	HVJ, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.26	5.97	HJN, Bogota, Colombia,	6:00 to 11:00 P.M. irregularly.
B-50.26	5.97	HJ2ABC, Managua, Colombia.	11:00 A.M. to Noon; 6:00 to 9:30 P.M.
B-50.30	5.96	YNLF, Managua, Nicaragua.	6:00 P.M. to 1:00 A.M., irregularly.

Meters	Meg.	STATION	TIME
B-50.51	5.94	TG2X, Guatemala City,	heard 4:00 P.M. to 2:00 A.M. irregularly.
B-50.60	5.93	HJ4ABE, Medellin, Colombia,	6:00 to 10:30 P.M.
B-50.93	5.89	HCK, Quito, Ecuador.	8:00 to 11:00 P.M. daily. Also other times.
T-50.93	5.89	JIC, Taiwan, Japan,	around 8:00 A.M. irregularly phoning Japan.
B-51.11	5.87	HRN, Tegucigalpa, Honduras.	6:30-10 P.M. daily, Sundays 11:00 P.M.
B-51.15	5.86	H11J, San Pedro de Macoris, R. D.	6:00 to 10:00 P.M., irreg.
T-51.26	5.85	WOB, Lawrenceville, N. J.	Phones Bermuda nights.
B-51.28	5.85	YV5RMO, Maracaibo, Venezuela.	11:00 A.M. to 12:30 P.M., 5-9 P.M.
B-51.50	5.82	TIGPH, San Jose, Costa Rica.	6:15 to 11:00 P.M., irregularly.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
B-51.60	5.88	YV8RB, Barquisimeto, Venezuela.	6:00 to 10:00 P.M.
B-51.72	5.80	YV2RC, Caracas, Venezuela.	10:30 to 1:00 P.M., 5:15 to 10:00 P.M.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
B-52.17	5.75	HJ4BD, Medellin, Colombia.	8:00 to 11:30 P.M.
B-52.45	5.72	YV1ORS, San Cristobal, Venezuela,	7:00 to 11:30 P.M. irregularly.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M., irreg.
B-54.74	5.48	TISHH, San Roman, Costa Rica,	3:30 to 4:00; 8:00 to 11:30 P.M.
E-55.56	5.40	HJA-7, Cucuta, Colombia.	Mondays 4:30 to 7:30 P.M., irregularly.
B-58.30	5.15	PMY, Bandoeng, Java.	6:00 A.M. to Noon.
T-59.08	5.08	WCN, Lawrenceville, N. J.	Phones England evenings.
T-59.76	5.02	ZFA, Hamilton, Bermuda.	Phones U.S.A. and ships at night.
T-60.26	4.98	GBC, Rugby, England.	Phones to ships, irregularly.
T-61.15	4.90	CGAS, Drummondville, Canada.	Phones ships irregularly.
T-61.98	4.84	GDW, Rugby, England,	phones U.S. A. nights.
B-62.63	4.79	VE9BK, Vancouver, B. C.	2:00-4:00 P.M., 7-9 P.M., 11 PM.-1:00 A.M.
T-63.13	4.75	WOO, Ocean Gate, N. J.	Phones ships irregularly.
B-65.22	4.60	HC2ET, Guayaquil, Ecuador.	Wed. and Sat. 9:00 to 11:00 P.M.
T-66.50	4.51	ZFS, Nassau, Bahamas.	Works WND evenings.
T-67.87	to 73.17	4.42 to 4.10	Ships. Heard irregularly.
B-70.65	4.25	RV15, Khabarovsk, U.S.S.R.	1:00 to 9:00 A.M.
T-73.21	4.10	WND, Hialeah, Florida.	Phones irregularly with VPN.
E-75	to 75.8	4.00 to 3.96	Amateurs on voice.

IN SYMPATHY

We have been informed by the postal department that member Stuart MacLean of Cornwall-on-Hudson has died. A few weeks ago Mr. MacLean wrote to us saying he was going to spend six months on a desert island in the Pacific and wanted letters from members, as he expected to see only one white person once each month.

Thousands of members will regret to learn that the youngest son of Joseph B. Sessions of our advisory board and one of the best-known short wave fans in the world, was killed in an accident late in October. We all sympathize with Mr. Sessions in his loss.

FOR SALE—Hammarlund Pro 1935 with AVC, volt-meter, special, amplifier, Jensen 12 speaker, extra tubes, plug-in coils from 9 to 550 meters. Price \$60.00. William Auer, 134 East 17th St., care Earle, New York City.

FOR SALE—McMurdo Silver Masterpiece III. Set in perfect condition, operating at present time, complete with speaker and extra set of tubes. Owner wishes to purchase Masterpiece IV. Will sacrifice for \$100.00. W. R. Donachy, 507 Larchwood Ave., Upper Darby, Pa.

FOR SALE—\$30.00 Philco short wave converter, model 4, Complete \$12.00 postpaid. Buckner, Box 25, Station E, Cincinnati, Ohio.

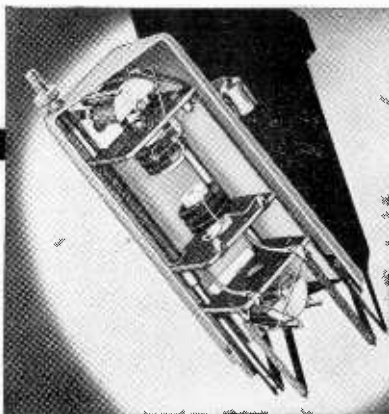
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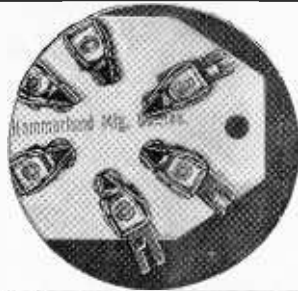
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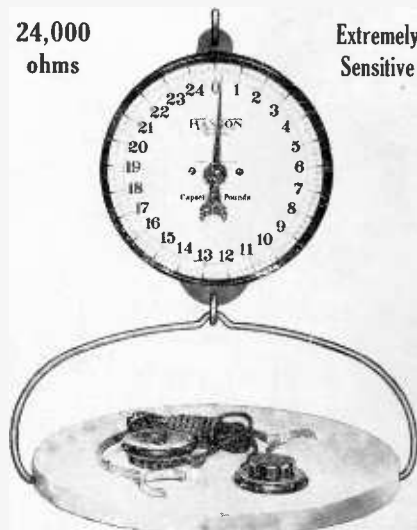
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