

VOL. VI

AUGUST, 1935

NO. 11

# 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**

EAST LIVERPOOL, OHIO, U. S. A.

## AVOID NOISE!

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## EXPERIENCE IS BETTER THAN EXPERIMENT

Be guided by the experience of thousands who have used the LYNCH HI-FI ANTENNA SYSTEMS with extremely gratifying results.

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continue to maintain their superiority . . . . technically, mechanically and electrically. Competitors have tried to copy LYNCH antenna principles but they have been unable to duplicate LYNCH performance.

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—saves 90% of installation time

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**LYNCH STANDARD HI-FI ASSEMBLED ANTENNA** **\$8.50**  
Complete with 50 feet of Lynch Giant Killer Cable. List

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Complete with high grade twisted pair instead of Lynch Giant Killer Cable. List

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**ARTHUR H. LYNCH, Inc., 227 Fulton St., New York, N.Y.**  
**PIONEER OF NOISE-REDUCING ANTENNA**



THE  
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**RECEIVER**  
*for the*  
**AMATEUR**

Designed for reliable reception under adverse conditions, the HRO receiver offers the amateur superlative performance. Its circuit is notable in the use of Two Presel-ector Stages, giving remarkable image-frequency suppression and weak signal response. The first stage has been designed to give maximum gain to limit background noise. Air-dielectric condensers are used throughout for padding the H. F. circuits, and for tuning the two high-gain Litz-wound I. F. stages. A Single Signal (Crystal) Filter is standard equipment, permitting reception under conditions that are otherwise hopeless. Nine tubes are used, not including the rectifier.

**Outstanding Features;**

- Nine Tubes, not including Rectifier.
- Two Preselctor Stages.
- Two I. F. Stages with Litz-Wound Coils.
- Air-dielectric Padding and Tuning Condensers throughout in I. F. and R. F. Circuits.
- Strictly Single Control Tuning.
- Calibrated Band Spread.
- Four-Gang Precision Condenser with preloaded worm-drive tuning, 20 to 1 ratio.
- Direct Reading Micrometer Dial, 500 divisions over a scale length of 12 feet.
- Single Signal Crystal Filter built in.
- Automatic or Manual Volume Control.
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- Beat Frequency Oscillator.
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The mechanical design includes such details as ganged plug-in coils, precision worm-drive condensers, and micrometer dial. The latter spreads the tuning range over 500 divisions, numbered every tenth division, and has a scale length of twelve feet.

The new HRO receiver is on display at your dealers. He will be glad to demonstrate its many features. If more convenient, the coupon below will bring a booklet describing it in detail.

**NATIONAL COMPANY, Inc., Malden, Mass.**

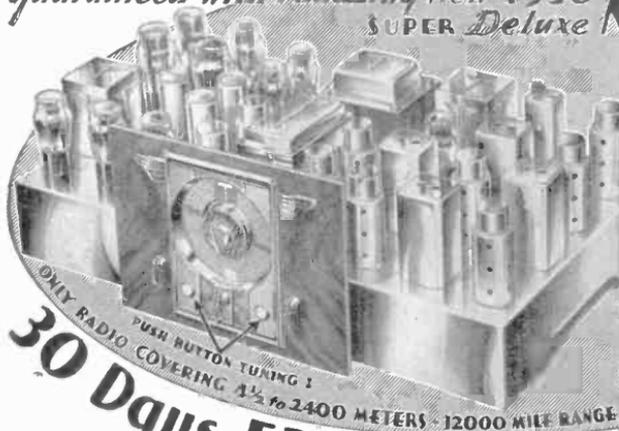
Gentlemen: Please send me immediately your bulletin describing the HRO receiver, and your General Catalog No. 240. I enclose 6 cents to cover mailing costs.

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Exciting World-Wide Entertainment... Glorious New Acousti-Tone  
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**18 Tube**  
**SIX-IN-ONE**

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**30 Days FREE Trial!**

EVERYWHERE,  
radio enthusiasts are saying:  
"Have you seen the new 18-tube, 6-band, Acousti-Tone V-Spread Midwest?" It's an improvement over Midwest's 16-tube set, so popular last season. This amazingly beautiful, bigger, better, more powerful, super selective, 18-tube radio . . . is not obtainable in retail stores . . . but is sold direct to you from Midwest Laboratories at a positive saving of 30% to 50%. Out performs \$250 sets. Approved by over 120,000 customers. Before you

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buy any radio write for FREE 40-page catalog. Never before so much radio for so little money. Why pay more? You're triply protected with: *One-Year Guarantee, Foreign Reception Guarantee and Money-Back Guarantee.*

## 80 ADVANCED 1936 FEATURES

Midwest's brilliant performance made possible by scores of advanced features, many of them exclusive. Only Midwest tunes as low as 4½ meters and as high as 2400 meters. . . 6 bands. . . 18 tubes . . . push button tuning. . . acousti-tone V-spread design. . . pre-aged adjustments. . . Fidel-A-Stat. . . Triple Calibration. . . etc. See pages 12 to 20 in FREE catalog. Six bands. . . offered for the first time! E,

A. I. M. H and U. . . makes this super deluxe 18-tube set the equivalent of six different radios. . . offer wave bands not obtainable in other radios at any price! Now, 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!

**MIDWEST RADIO CORP.**

DEPT. 44-B

CINCINNATI, OHIO U.S.A.

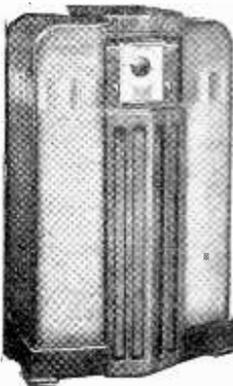
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Cable Address "MIRACO All Codes"

# Direct from MIDWEST LABORATORIES

## Acousti-Tone V-Spread Design

(Pat. Pending)  
Send for FREE 40-page catalog illustrating new 1936 Midwest models and chassis in four colors. Full Scope High Fidelity Console, at left, shows dispersing vanes and exclusive V-front that propel High Fidelity waves uniformly to the ear.



## METAL TUBES

This Midwest is furnished with the new glass-metal counterpart tubes. Set sockets are designed to accept glass-metal or METAL tubes, without change.

Write for FREE facts.

## DEAL DIRECT WITH LABORATORIES

No middlemen's profits to pay—you buy at wholesale price direct from laboratories... saving 30% to 50%... increasing costs

# SAVE UP TO 50%

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 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.



## PUSH-BUTTON TUNING

Now, offered for first time! Simply pushing Silencer Button hushes set between stations... while pressing Station Finder Button automatically indicates proper dial position for bringing in extremely weak stations.

## Full-Scope High Fidelity... Split-Hair Selectivity

Now, get complete range of audible frequencies from 30 to 16,000 cycles as being transmitted by four new High Fidelity Broadcasting stations—W1XBS—W9XBY—W2XR—and W6XAL. Bring in distant, weak foreign stations, with full loud speaker volume, on channels adjacent to powerful locals.

## Delighted With Super Performance

Davison, Mich. A radio engineer confirmed my opinion—that no other make of radio will compare with my Midwest for tone, selectivity, volume, ease of tuning and wider range. It is great entertainment. R. F. Collier.



## Praises World-Wide Reception

Maysville, Ky. My friends envy my Midwest, and say it beats theirs in price and performance. It is amazingly sensitive and brings in Holland, Spain, etc. Its full, rich, non-fading tone denotes super quality and advanced workmanship. W. E. Purdon, Rural Route No. 1.



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Check here, if interested in a Midwest Auto Radio.

## MIDWEST RADIO CORP.

Dept. 44-B

CINCINNATI, OHIO, U. S. A.

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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## This Beautiful Globe for only \$2.75



F. O. B. Indianapolis, Indiana

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.

### PLEASE SEND POSTAGE

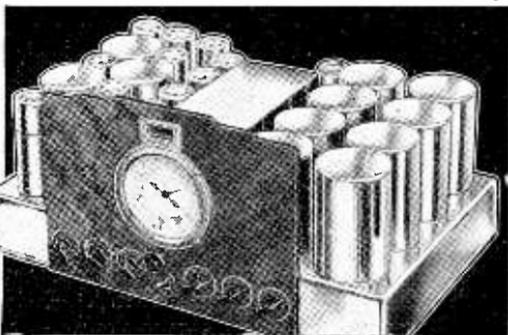
This new price does not include postage. Readers are requested to send the necessary postage when ordering. The shipping weight is eight pounds. In cases where more than enough postage is sent, we will return all not used.

Address your letters to—

**INTERNATIONAL SHORT WAVE CLUB, East Liverpool, Ohio**

*We knew it was good, But*  
 . . . It's nice to have others tell us.

When the first Silver MASTERPIECE IVs went into action a short time ago, our feelings were those of a proud parent. We knew, after the most rigid tests in our own laboratories, that the new MASTERPIECE IV could outperform any other all-wave receiver in existence, at any price. Now, reports pouring in from enthusiastic owners prove beyond a shadow of a doubt that



## SILVER MASTERPIECE IV

Is Definitely the Finest Radio of All Time!



### 25 NEW EXCLUSIVE FEATURES!

The Silver MASTERPIECE IV introduces 25 entirely new engineering advancements and refinements, including: *Lowest Inherent Noise* of any radio made today . . . *Two Tuned R.F. Stages* on all 5 tuning bands . . . *All R.F. and I. F. Circuits air tuned thruout* . . . *Controllable Selectivity* . . . *Double High Fidelity* on both foreign and local . . . *Complete Professional Flexibility* . . . *19 Tubes* that do the work of 23. *And in addition*—MASTERPIECE IV retains those important basic features which made its three predecessors the choice of critics, engineers, musicians, professionals, the world over.

Alfred G. Luoma of Chicago, winner of an International DX Contest and champion DXer, writes "The MASTERPIECE IV certainly deserves its name . . . It far surpasses anything on the present market. The tone quality is excellent . . . With antenna disconnected I heard Europeans without the slightest trace of noise. Heard Alaska the first night." Arthur Maitland of the Lamb's Club, New York City, says "The tone is beautiful; as fine as I have ever heard—and I have heard most all of them, even the \$900.00 ones. In one evening heard 51 stations on D band" (25, 31 and 49 meter broadcast bands—just off Times Square in d. c. New York). William Seaman, of Hamburg, Pa., writes "Say IS the Four a Masterpiece!"

Wouldn't YOU like to try this champion distance-getter, this superb musical instrument, in your own home? Send for details, TODAY.

### 10 DAY TRIAL :- 5-YEAR GUARANTEE

Send the coupon today for FREE 32-page Book, with complete description of the MASTERPIECE IV, also details of 10 DAY TRIAL OFFER and 5 YEAR GUARANTEE.

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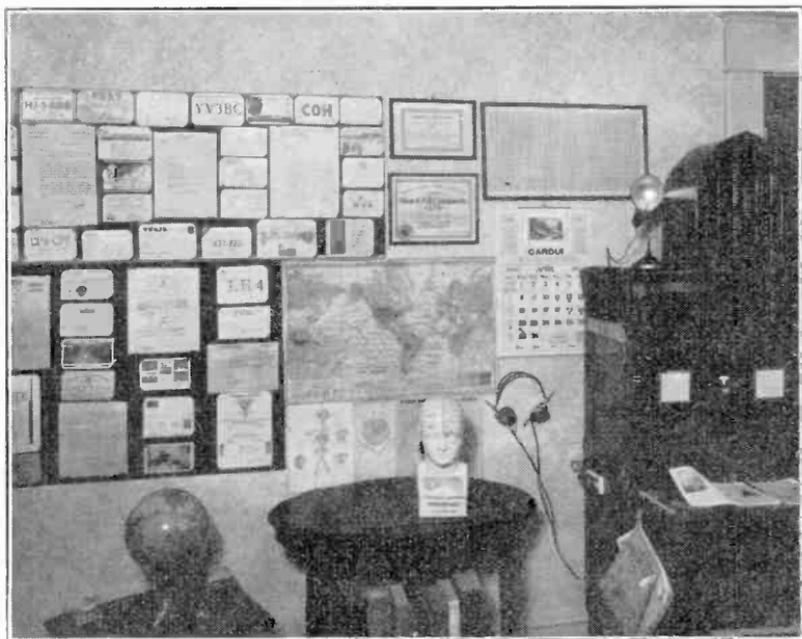
McMURDO SILVER CORP.,  
 3351 N. Paulina St., Chicago, U.S.A.

Send Free "Blue Book" with complete specifications of Silver MASTERPIECE IV, also details of 10 Day Trial offer.

Name.....

Address.....

City..... State..... 8sw



### RADIO DEN OF DR. PUGH

We are doing something unusual this month, using a photograph of a radio den without showing the owner. But, Dr. J. S. Pugh, who sent the above photograph tells us it has been years since he had a photo taken of himself. Regardless of this, Dr. Pugh is well-known to members of this club, through his letters of information and the many members he has helped the club get. Dr. Pugh lives in Dallas, Texas. He has several receivers, and is quite a verification fan. Some of these are shown in the photo. You will also notice his certificate in the Heard-All-Continents Club and his membership certificate in the International Short Wave Club in this picture.

Dr. Pugh joined us in February, 1931, and has been an active member all these years. His efforts to get members of the club merits wide praise. His reports have also been of great help.

### BOOK OF ADDRESSES

Every month dozens of members write to us asking for the address of some station. We have a book of addresses, with other helps and hints, for sale for only Five Cents.

### BIRTHDAY DX CONTEST

We will celebrate the sixth anniversary of the founding of this organization next October with a special Birthday DX Contest. Here are the details in brief: Many short wave broadcast stations have been asked to broadcast special programs some time in October, to celebrate our Birthday. These programs will last from one to three hours. The manager of each station has been asked to pick the time and date, so that no one can say the programs were arranged to favor certain people in certain parts of the world. Listeners who wish to take part in the contest merely listen to these programs and send reports to us. Members and non-members alike may take part. Listeners showing the best reception of these programs will be awarded valuable prizes. These prizes have been donated by friends of the club. Complete details of the programs and the prizes will be in the September issue.

Stations CJRO, CJRX, W1XAL, W2XE, W3XAU, W8XAL, HJ1ABD, TIRCC, EAQ, P11J, PCJ, HC2RL and HIZ have signed up for programs so far, but there will be more. The judges are men of great renown and no contest could be fairer. The total expense incurred by the listener will amount only to what postage is needed to send reports to us at East Liverpool. Stations will send us details of their programs and any person found sending in false reports will be eliminated.

For prizes we now have a complete Silver Masterpiece receiver as first prize, donated by McMurdo Silver. A Velocity Microphone, donated by Amperite. Six variable condensers, ten call-books, a National PW-1 dial condenser set, a model F-106 set of headphones, a Brandes headphones and an Acme headphone, a ten dollar credit slip, a ribbon battery, two short wave coil sets, three antenna kits, a phone receptor, and an amplifier are also to be given out. This is only the beginning. The complete list will be given next month.

There is one thing we must impress on our readers. The person who believes they have no chance of winning is just foolish. We doubt if any one person will be able to hear all of the stations that will take part. Prizes will not be awarded for the number of stations heard, but on the completeness of the reports and the accuracy of same. For instance: if a person should hear one program for one full hour and another hears two stations for only fifteen minutes, the first person would have a higher grade. So, even if you miss several stations entirely, your chances of winning will still be very good, especially since we have many prizes. No matter if you hear but one station, it is best to send in a report. In sending in a report, give the exact time of each thing you hear and mention everything you hear.

FLASH. Just before going to press we have been notified by Hallcrafters, Inc., that they will contribute one of their new Super-Seven Receivers, complete, as one of the prizes. Emmett Riggle, of Massillon, has secured a beautiful Drip-O-Lator from a local store for a prize. Alpha Wire Company offers another antenna kit. A radio Hand-Book is offered by the publishers of Radio. We also have arranged programs with YV6RV, YV5RMO, HJ5ABC, 2RO, HVJ, and two stations at Daventry, England. October will be the greatest DX month in history, if we are not

mistaken. Whether you expect to win one of these prizes or not, this celebration will afford many listeners a grand opportunity to log new stations.

### BOOSTERS

Once again we take this opportunity of thanking those who have helped the club. We appreciate very much the excellent co-operation we are getting from members and non-members alike. Without this help we would be lost. We thank the stations that sent special programs last month, the members who sent in news and mentioned the club to their friends, the firms that recommended the magazine to their customers and all others who helped us in any way.

We offer special thanks to those firms that came through so quickly with their contributions to our Birthday DX Contest and to the stations that offered their help. We also have special thanks to offer A. B. McDonough, of Wellington, New Zealand, W. D. Martin, Honolulu, Hawaii, Chester D. Myers, Cedar Rapids, Iowa, and Harry Jackson, of Perth, Australia. We also have a special thank you for Philco of London, England, and Philco Midland Distributors, of Birmingham, England.

The following members have secured new members for us during the past month: August Fischer, New Orleans, La.; John F. Romer, Richmond, Va.; Clyde Brusco, St. Clair Flats, Mich.; W. D. Martin, Honolulu; Mr. Kelsall, Louisville, Ky.; J. W. Quint, Uxbridge, England; T. R. McNamee, Detroit, Mich.; C. Schniller, Stamford, Conn.; J. P. Tollman, Omaha, Nebraska; J. E. Hunter, Barkingside, England; J. D. Collinswood, March, England; Ernest Eckel, Port of Spain, Trinidad; Benjamin S. Wells, Berkeley, Calif.; Oswaldo Berruecos, Orizaba, Mexico; Wade Chambers, Tulsa, Okla.; Robie Kepton, Arlington, Mass.; F. F. Rook, Old-Lyme, Conn.; Wm. Darby, Dublin, Ireland; John Morgan II, Philadelphia, Pa.; C. Cramp, Leicester, England; R. N. Shaw, Wauchope, Australia; DX Radio Sales, Beverly Hills, Calif.

### MEMBERSHIP CONTEST

The winners in the Membership contest, which will end for all members in North America on August 1st, and for others outside of North America on August 15th, will be announced in the next issue. This contest is for a Midwest sixteen-tube receiver. J. W. Cope of Canada, is now in first place, L. E. Hansen, Durban, Africa, in second, and J. W. Martin in third. It is a strange thing but these contests are always won by members outside of the United States.

### LONDON CHAPTER DX CONTEST

We have a letter which informs us that our London, England, Chapter is conducting a DX contest, beginning September first. The contest is open for British short wave listeners only. Prizes are to be awarded those who get the most verifications before December first. The first prize is a Midwest All-wave Receiver, and there will also be trophies, globes, certificates of merit and other prizes. For complete details on this contest, we suggest that every British reader write to Arthur E. Bear, 10 St. Mary's Place, Rotherhithe, London, S E 16, England.



### JAMES W. ALEXANDER

Across the seas we go this month to meet Club-Member James W. Alexander, of Mt. Eden, Auckland, New Zealand. Situated in an ideal place for short wave reception, Mr. Alexander has given this club many helpful reports and has several times broken the news to us of new stations coming on the air. A very regular reporter, these magazines generally carry quite a lot of news from him. As many as ten reports have been received in one month.

Mr. Alexander is not an old-time member of the club, having joined us in 1934, but since his membership has been received, he has been quite active. He is one of the outstanding short wave fans of New Zealand and is quite well known all over the world for his short wave work.

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### SPECIAL PROGRAM

Station HJ1ABD, Cartagena, Colombia, on 41.20 meters, 7.28 mc. will broadcast a special program for the International Short Wave Club on Thursday, July 25th, starting at 9:00 P. M. Special artists have been secured for this program. One feature will be an eight-year-old artist who is making a reputation all over South America for her work. She is very anxious to receive reports on her broadcast. We urgently request members to tune for this program and send her a letter. The address is Station HJ1ABD, Post Office Box 252, Cartagena, Colombia.

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### CLUB MEMBERS' SUPPLIES

Stationery with club emblem printed on it, 50c per hundred sheets. Club seals (or stickers, as some call them), 30c per hundred. A booklet with the addresses of stations and how to write for verifications in several languages at 5c each. Lapel buttons, with the club emblem, suitable for wearing anywhere, and which will mark you as a member when you happen to meet other members, 25c each. A world atlas, containing seven maps, and much interesting information, for 25c each. For any of these things, just send to the Club Headquarters at East Liverpool, Ohio.

Some firms offer a discount to I. S. W. C. members. Use our stationery when sending in an order or writing to a station.

# 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.

## STRATOSPHERE BROADCAST

Most everyone knows that the 1935 stratosphere flight ended in failure when the balloon was broken up. The latest information is that they may make another try in September. For this proposed broadcast a station; W10XFH, an eight-watt portable, has been put in the balloon gondola. It operates on 22.99 meters or 13.05 mc. and will, of course, do some testing before the flight. The ground station is located at Rapid City, South Dakota, uses the call sign W10XFN and is on 47.24 meters or 6.35 mc. These two stations were heard testing with station W3XL Bound Brook, New Jersey. These tests usually took place around 10:00 P.M., but some heard them at other times. We have reports from members Alden Fowler, Miss V. Milner, J. Wojtkiewicz, Dr. Kash, Ed Lips, Cyril Gilnour, G. C. Gallagher, Stewart Ken McKinley and H. J. Davison.

Several members got verifications by writing to Rapid City. The verification shows the 1934 balloon about to take off. These are signed by Robert Morris of the National Broadcasting Company. Sam Solito, Leetsdale, Pa. and Ken McKinley, Vancouver, B. C., sent us their's to see.

## SPECIAL STATIONS

The Schooner "Effie Morrissey" is out at sea again. Members will remember this station from last year, under the call W10XDA. This year the call is W10XFP. They have been assigned the following frequencies: 1—6.425 mc.; 2—8.655 mc.; 3—12.862 mc.; 4—17.310 mc. But most of their voice tests will be on 14.20 mc. or 21.13 meters. On this wavelength they are working with amateur stations. Julius Ross is the operator this year, and we do not know yet where members should send for verifications.

This news comes from members S. Sternberg, Far Rockaway, N. Y.; D. Sopher, Steger, Ill.; Charles Miller, Covington, Ky.; James Coleman, Brooklyn N. Y.; H. S. Bradely, Hamilton, N. Y.; G. Van Honk, Erie, Pa.; Ed Lips, Pittsburgh, Pa.; Sam Solito, Leetsdale, Pa.; Mrs. Irving Heglund, Lake Worth, Florida, and Joseph Miller, Brooklyn.

KFZ and KJTY. It will interest members to know that Ed Lips, of Pittsburgh, has received a verification of station KFZ, signed by Guy Hutcheson, radio operator on the "Bear of Oakland," the ship that carried part of the expedition. Mr. Lips does not send us the complete address, though.

WWV, National Bureau of Standards at Beltsville, Maryland, sends frequency checks for calibration on 10.00 mc. from 2:30 to 3:30 P. M. and on 15.00 mc. from 1:15 to 2:15 P. M. Most of the time a continuous carrier wave is used, but sometimes voice is sent. This affords short wave fans a chance to check up on their receivers.—E. A. Burlson, Urbana, Ill.

K1EO, a portable station was used on the U.S.S. Dallas at San Diego. It was also used at the Midget Village in the San Diego Fair on 2.15 mc. and on the blimp "Volunteer" on 2.79 mc. to broadcast three special programs.—Willis Werner, San Diego, Calif.

### THE AMATEURS

Amateur stations from all parts of the world are now being heard on the 20 meter or 14.00 mc. amateur bands. Our reports show a total of 57 different amateur stations, all outside of the United States, heard during the past month. One outstanding thing to note is that many Australian stations can now be heard. Some of these may be heard at 9:00 P. M. and some right up till 1:00 A. M. on the east coast of the U. S. A. Stations VK2EP, VK2HP, VK2QN, VK2BQ, VK2YW, VK2KX, VK4ZL and VK5JC are reported. For those fans striving for a higher H-A-C rating, and wanting more Australians, now is your chance to get them. Costa Rica, Hawaii, Barbados, Belgium, Hawaii, Argentina, England, Canada, Newfoundland, Puerto Rico, Cuba, Mexico, France, Spain, Czechoslovakia, Switzerland (HB9T), Dominicana, Tunis (FT4AG), Canary Islands (EA8-AD), Brazil, Ecuador and British Guiana are all reported. Many ask us if these stations are on voice. Yes, they are. All stations listed in this magazine are voice stations.

For addresses of these amateur stations we suggest Radio Amateur Call-Book. This magazine contains the call-signs, owners, addresses, etc., of over 50,000 amateur stations throughout the world. We sell it for \$1.25. Reports on these amateur stations came from members Jas. B. Wooten, S. Sternberg, Charles Miller, James Grundy, John Wojtkiewicz, Frank Grey, Radio Twins, Emmet Riggle Ed Lips, H. S. Bradley, Bob Jackson, James Coleman, Nick Gaug, Cyril Gilmour, Abe Federling and Robert Hughes.

### AFRICA

A letter from the Secretary, General Post Office, Salisbury, Southern Rhodesia, to H. Louw, Woodstock, Cape Town, South Africa, says that

they are now broadcasting on 50.00 meters or 6.00 mc. and 48.80 meters or 6.147 mc., Tuesdays 1:15 to 3:15 P. M., and Fridays 10:00 A.M. to 10:45 A.M. and 11:00 A.M. to noon, E.S.T. The power rating is 500 watts. The Bulawayo station now on 48.8 meters was on 31.00, but was moved. These stations do not get out very good.

VQ7LO, Nairobi, Kenya Colony. Schedule now is 5:45 to 6:15 A.M. daily excepting Saturdays and Sundays, 11:30 A.M. to 2:30 P.M. every day; Saturdays till 3:30 P.M. and Tuesdays and Thursdays 8:30 to 9:30 A.M. All E.S.T. A. J. Hayward, Trowbridge, England.

ZTJ, Johannesburg, South Africa. 49.20 meters, 6.09 mc. Oliver Amlie, Philadelphia, says the schedule is Monday to Saturday 11:45 P.M. to 12:30 A.M., 3:30 to 7:00 A.M. and 9:00 to 11:45 A.M., noon to 4:00 P. M. and Sundays 8:00 to 10:15 A.M.

EA8AB, Radio Club Tenerife, Alvarez de Lugo 1, Santa Cruz de Tenerife, Canary Islands. 41.60 meters, 7.211 mc. Is broadcasting between 5:00 and 7:00 P.M. again.—E. Orchard, Weymouth, England.

African Phones. The best African station is the phone station SUZ, Cairo, Egypt, on 21.70 meters, 13.83 mc. Was heard at 2:45 P.M. phoning England—Alden Fowler, Greensburg, Ind. From 11:00 A.M. to noon.—Charles Miller, Covington, Ky. From noon to 12:35 P.M.—P. A. Portmann, Woodside, N. Y. From 11:00 A.M. to noon.—J. Miller, Brooklyn. Along with SUV on 29.83 meters, 10.05 mc. from 3:00 to 4:00 P.M.—Fred Heller, Philadelphia.

OPM, Leopoldsville, Belgian Congo, on 29.58 meters or 10.14 mc. is reported between 11:30 P.M. and 2:00 A.M. (mornings), by members J. Miller, Brooklyn; Wade Chambers, Tulsa, Okla.; P. A. Portmann, Woodside, N. Y.; Ed Lips, Pittsburgh, Pa. They broadcast a musical program one Saturday from 3:20 to 4:25 P.M.—Charles Miller, Covington, Ky. Also heard between 2:30 and 3:45 P.M. by Mr. J. Miller, Brooklyn. OPL, on 14.97 meters, 20.04 mc. can be heard daily from 11:38 A.M. to noon, phoning Belgium according to Emmett Riggle, Massillon, Ohio. Nick Gaug, New York City, says they broadcast a special Holiday program July 21st. Sam Solito, Leetsdale, Pa., reports them sending music once from 3:55 to 4:06 P.M. A station OZQ on 34.9 meters, 8.80 mc. was heard calling London at 9:00 A.M. and another OZ station was heard on 29 meters at 8:45 A.M., according to Bob Everard, Standon, England.

Rabat, Morocco. We have a letter from a member in Africa saying that the broadcasts from this station has been discontinued for some time. Another member in Brooklyn reports reception of these broadcasts this month. In order to avoid trouble, we will not mention names. But we believe the stations have been closed down, even if they do send out letters to people who write them. No one, in Europe, Africa or North America, has reported these programs for some time with this one exception.

### AUSTRALIA

VK3LR, Melbourne. Broadcasts daily excepting Sundays, 3:30 to 7:30 A.M. according to cards from the station director. But, can be heard as early as 10:00 P.M. at times, and from that time on till 7:30 A.M.

They broadcast a football game every Friday at 11:30 P.M. according to W. D. Martin, Honolulu. Some members say the wave is 31.34 meters, some say 31.31 meters, and the announcer says plainly 31.34. We thank members Robt. Hughes, F. L. Stitzinger and G. C. Gallagher for their reports.

VK2ME, Sydney, 31.28 meters, 9.59 mc. Broadcasts every Sunday. Schedule is supposed to be from Midnight to 2:00 A.M., 4:30 to 8:30 A.M. and 10:30 A.M. to 12:30 P.M. Oliver Amlie, Philadelphia, says they have discontinued the 10:30 A.M. to 12:30 P.M. broadcast but Wm. Darby, Dublin, Ireland, reports excellent reception of the station on this part of their schedule. Fred Heller, Philadelphia, says they go on at 4:30 A.M. now. Mr. Amlie also says they broadcast Mondays 12:01 to 3:00 A.M.

VK3ME, Melbourne, 31.55 meters, 9.51 mc. We have three different schedules for this station now. One is Wednesdays and Saturdays 5:00 to 7:00 A.M. Another is Wednesdays, Thursdays, Fridays and Saturdays at that time. Now A. J. Hayward, of Trowbridge, England, says Mondays and Saturdays or Mondays to Saturdays.

VK4FB, on 7:20 mc. or 41.68 meters, and VK4GU on 42.00 meters, 7.14 mc. are testing with music Sunday mornings between 3:15 and 4:00 A.M., oftentimes calling the I.S.W.C.—W. D. Martin, Honolulu.

VIZ-3 on their given wave of 25.93 meters or 11.56 mc. Has been testing lately with CJA-4 Canada, around midnight to 1:00 A.M., but also reported at 7:30 P.M., 10:00 P.M. and 11:00 P.M. Reported this month by Alden Fowler, Nick Gaug, Ed Lips, G. Van Honk, A. Antognini, Fred Karpen, Sam Solito, W. D. Martin and Donald Teague. Charles Miller claims that they were on 11.495 mc., but moved to 11.485 mc.

VLK--VK2ME, Sydney, 28.51 meters, 10.52 mc. Has been testing with station W2XAF, New York, around 6:30 to 8:00 A.M., usually on Mondays and Tuesdays. Reported by members Jas. B. Wooten, Mobile, Ala.; Warren Rosenlund, Worcester, Mass.; Frank Grey, Berwyn, Ill., Fred Karpen, Johnstown, a. and Robt. Woods, Sand Springs, Okla.

## ASIA

RV15, Khabarovsk, U.S.S.R. 70.65 meters, 4.25 mc. This station has not sent out verifications for years, but many got them in 1928 and 1929. A report sent by Robert Lucas, of Brooklyn, brought a reply from the Comite de Radiodiffusion et Radiofication, Petrovka 12, Moscow, U. S. S. R., the same group that now verifies stations RNE, RV59 and others. We believe that the Soviet has now formed a radio group to supervise all radio activities in that country, and this is the name of that organization. W. D. Martin, Honolulu, tells us that RV15 can be heard now after their regular programs, from about 10:30 to 11:30 A.M. calling Moscow.

Siam. S. Sternberg, Far Rockaway, New York, says an HSJ Siam, on 29.50 meters, 10.17 mc., was heard working OPM, Africa at 12:15 A.M. Shokichi Yoshimura, Moji, Japan, reports HSP Bangkok, Siam, on 16.92 meters, 17.75 mc. phoning Berlin at 4:30 to 5:20 A.M.

A letter from La chef du Service Radiotelegraphique de La Indo-China, Siagon, Indo-China, says they have a transmitter on 27.50 meters, 10.91 mc. with 2500 watts power which they use to phone Hanoi, Tonkin.

Hanoi uses a 5000 watt station on 32.10 meters, 9.35 mc. This is from Ernest Orchard, Weymouth, England. Will some of our Far East members check up on these stations, please? A station FZR2 on 31.19 meters, or 9.62 mc. is reported at 9:20 A.M. phoning, by G. C. Gallagher, San Francisco.

YDA, Bandoeng, Java, 49.02 meters, 6.12 mc. is still the best heard Java broadcast station. Try for them around 5:00 to 6:00 P.M. in Eastern U.S.A., and up till 10:00 A.M. in the West. The NIROM stations on other waves are not getting in to the U.S.A., with very few exceptions.

PLP, Bandoeng, Java, 27.26 meters, or 11.00 mc., is a telephone station, but for the past few weeks has been relaying programs. These take place just about every Tuesday from 10:00 to 10:30 A.M., but have been heard Mondays, Thursdays and Sundays, too. We have reports from Shokichi Yoshimura, Moji, Japan; A Antognini, Greenfield, Calif.; H. Mer-shon, Pueblo, Colo.; G. C. Gallagher, San Francisco, and a few others who add to their reports. J. Stewart, Houston, Texas, says they are heard every Saturday and Sunday from 7:00 to 9:00 A.M. Sam Solito, Leetsdale, Pa., reports them once from 5:51 to 7:30 A.M. and once 5:40 to 8:10 A.M. with programs. J. Miller, Brooklyn, reports them phoning from 5:00 to 6:00 A.M. Donald Teague, Santa Paula, Calif., reports PLP with PMN on Sundays. Fred Heller, Jr., Philadelphia, Pa., reports PLP, and PMN both just about every day from 4:00 to 9:00 A.M. G. C. Gallagher reports ~~PLP~~, PMN, PK3BR on 3.04 mc. and PKYDA on 6.12 mc. on these 10:00 A. M. broadcasts.

PLV, Bandoeng, Java, 31.86 meters, 9.42 mc. Another phone station broadcasting. Seems to be every Tuesday and Thursday from 10:00 to 10:30 A.M. Reported by Donald Teague, G. C. Gallagher; J. W. Cope, of Kelowana, B. C. and A. Antognini. PLV and PMC on 18.18 mc. at 6:30 to 7:5 A.M. is reported by W. D. Martin, Honolulu. PLV at 5:30 A.M. phoning. Japan is reported by J. Miller, Brooklyn.

PLE, Bandoeng, Java, 15.93 meters, 18.83 mc. Another phone station. Sent three special programs last month, once at 6:00 to 7:40 A.M., once 10:00 to 10:30 A.M., once 9:55 to 10:30 A.M. and again at 10:00 to 10:30 A. M. These are reported by members Fred Karpen, Johnstown, Pa.; Sam Solito, Leetsdale, Pa. and some of the following: The Radio Twins, Delaware, Ohio, reports PLE at 7:00 P.M. phoning. H. S. Campbell, Upland, Calif., reports them at 7:45 P.M. working Japan. L. D. Brewer, Phoenix, Arizona, reports them working Holland at 7:00 to 7:30 A.M. and at 12:30 A.M. Wade Chambers, Tulsa, Oklahoma, heard them at 6:30 to 7:30 P.M. G. C. Gallagher, San Francisco, reports them at 3:45 to 9:00 P.M. and at 7:00 A.M. A. Antognini, Greenfield, Calif., heard them at 11:35 P.M.

PMA, Bandoeng, on 15.5 meters is heard by many phoning Holland from 7:00 to 11:00 A.M. S. Sternbery reports a new one, a PMD on 7.985 mc., working France at 2:15 A.M. We fail to see this one listed by manager of these stations, in a recent letter showing every short wave station in the Netherland East Indies. W. D. Martin tells us reports on PNI, Makassar, should be sent to Mr. Van de Ven, at Bandoeng, Java.

VPD or VP1A, Suva, Fiji Islands. This station uses the call VPD nearly always now. They broadcast on 22.95 meters, 13.07 mc., from 12:30 A.M. to 1:30 A.M. It can be heard now all over the United States and

most every place else. Reports have come from members Galagher, Martin, Amlic, Radio Twins, Foresteiri, Fowler, Campbell, Stitzinger, Riggle, Heller, Kash, McMenamy, Brewer, Chambers, Antognini, Grey, Solito, Miller, Teogue. A. Antognini says they broadcast several times at 5:00 A.M. and once at 8:00 to 9:00 A.M. H. S. Campbell claims they are on 29.79 meters or 10.07 mc. from 11:30 P.M. to 12:30 A.M. and then move to this other wave. The call on 10.07 mc. is VPN according to his letter.

ZBW, Hong Kong, China. R. Sanger, of Hong Kong, who first sent us news of this station tells us now that the call ZCK is not used, but the long wave station call ZBW is also used on short waves. Verification cards show three views of the station, gives the address as Box 200 and says the approximate broadcast times are 11:30 P.M. to 1:15 A.M. and 4:00 A.M. to 10:00 A.M. Such cards have been received by members Shokichi Yoshimura, Moji, Japan; H. S. Northey, Coimbatore, South India, and Radio Twins, Delaware, Ohio. J. Miller, Brooklyn, also sends us these details. This station is usually on 34.29 meters or 8.75 mc., but these cards say they may also be on 55.46 meters. Reports follow: Sam Solito, Leetsdale, Pa., from 6:15 to 7:03 A.M. H. Mershon, Pueblo, Colorado, near midnight. At 11:15 P.M., H. S. Campbell, Upland California. 5:30 to 8:30 A.M., G. C. Gallagher, San Francisco.

ZLT, Wellington, New Zealand. 27.15 meters, 11.05 mc. This station phones Australia from about 11:00 P.M. to 10:00 A.M. The address is Radio Inspectors Office, Hope Gibbons Bldg., 7-11 Dixon Street, Wellington C1, New Zealand.—Ed Lips, Pittsburgh, Pa.

VWY, Poona, India, 17.10 meters, 17.54 mc. A letter says they call London daily at 8:00 A.M. and if no calls are ready, they close down. Listeners should try for this station at exactly 8:00 A.M.—Emmett Riggle, Massillon, Ohio. Heard between 7:00 and 8:30 A.M. one Monday—Fred Karpen, Johnstown, Pa.

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The Philippines. Station KTO, Manila, on 18.47 meters, 16.24 mc. is reported phoning by several. A. Walcott, San Francisco, and H. S. Campbell Upland, Calif., report it 2:00 A.M. W. D. Martin, Honolulu, reports it working XGN China, at 5:40 P.M., XGW China, at 7:15 P.M. and KWU California, at 7:30 P.M. The Radio Twins, Delaware, Ohio; Wade Chambers, Tulsa, Okla.; Fred Karpen, Johnstown, Pa., and A. Antognini, Greenfield, Calif., report it between 6:30 and 8:00 P.M. while G. C. Gallagher, San Francisco, reports it at 2:00 A.M. KAX on 19.98 mc. worked Japan at 7:00 P.M., according to Mr. Walcott. A KPR on 27.52 meters or 10.90 mc. working KWV California, at 10:30 to 11:45 A.M. is reported by W. D. Martin and A. Antognini, Greenfield, Calif. KAY Manila, on 20.03 meters, 14.98 mc. at 11:00 A.M. is reported by Mr. Gallagher and at 10:10 A.M. by Mr. Antognini. KAZ on 30.09 meters, 9.97 mc. is also heard at 10:15 A.M. by Mr. Antognini.

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)

An overseas program, consisting of music, news in Japanese and English and such features, is broadcast every night from midnight to 1:00 A.M., E.S.T., over station JVH on 20.55 meters, 14.60 mc. and also each Monday and Thursday from 4:00 P.M. to 5:00 P.M. This is reported by members W. D. Martin, N. G. McCroden, Frank Hilburn, A. B. Baadsgaard, J. W. Cope, Ken McKinley, Lee Erhard, G. C. Gallagher, Sam Solito, Charles Miller, The Radio Twins, Dr. J. S. Pugh, Dr. R. C. Kash, Carl Scherz, W. A. Dean, Joseph Miller and Robert Woods.

So many of the Japanese phone stations are heard now that it is a task to mention all reports. But we believe it will help others to know what stations are being heard, and in what sections they are being heard. H. S. Campbell, Upland, Calif., reports JVF at 11:50 P.M., JVH at midnight, JVN at 1:40 A.M., JVE at 3:30 A.M., JVM at 12:30 to 12:40 A.M., relaying a baseball game one Saturday. Alden Fowler, Greensburg, Ind., reports JVM at 6:00 to 7:00 A.M., JVF with a special program at 9:00 P.M., July 4th. Ashley Welcott, San Francisco, reports JVH at 1:00 A.M. and JVM at 8:30 P.M. Bob Evarard, Standon, England, reports JVH at 6:00 and 9:00 A.M. N. G. McCroden, Albuquerque, New Mexico, reports JVH and JVF at 4:00 P.M. The Radio Twins, Delaware, Ohio, reports JVF and JVH at 9:00 P.M. F. S. Anderson, Jr., Richmond, Va.; Frank Grey, Berwyn, Ill.; Emmett Riggle, Massillon, Ohio, all report JVM from

4:00 to 7:30 A.M. Willis Werner, San Diego, Calif., reports JVF with a special program July 3rd, and JVH at midnight. Donald Teague, Santa Paula, California, reports JVH at midnight and 2:00 A. M. and JVL 9:00 P. M. to midnight. W. D. Martin, Honolulu, Hawaii, reports JVF and JVH at 5:00 P. M., JVH at midnight, JVN at 5:15 to 5:45 P. M. Fred Heller, Jr., Philadelphia, Pa., reports JVM and JVN from 4:00 to 7:40 A.M. Alf. Mann, Middlesborough, Engand, reports JVH at 7:50 A. M. L. D. Brewer, Phoenix, Arizona, reports JVA from 5:00 to 6:00 P.M., JVF at the same time, JVN 5:00 to 5:45 P.M. and 3:00 to 8:00 A.M., JVM at 8:00 A.M. and JVH at midnight. G. VanHonk, Erie, Pa., reports JVM at 7:00 A.M. Wade Chambers, Tulsa, Okla., reports JVM 1:30 to 2:15 A.M., JVF at 1:00 A.M. and JVH at 2:40 A.M. G. C. Gallagher, San Francisco, Calif., reports JVM and a JYS on 30.40 meters, 1:30 to 2:15 A.M. relaying JOAK, JVL at 1:30 to 2:15 A.M.; JVF at 1:00 A.M. A. Antognini, Greenfield, Calif., reports JVH at midnight, JVM at 4:50 A.M., JVE at 11:25 P.M. Fred Karpen, Johnstown, Pa., reports JVF at 9:00 P.M. Ken McKinley, Vancouver, B. C. reports JVH at 5:30 P.M. Joseph Miller, Brooklyn, reports JVH at 4:30 P.M. and A. J. Hayward, Trowbridge, England, reports JVH at 7:15 A.M.

JIA, JIB and JIC. One letter from the International Telephone Company of Japan, located at Chureki, Taihoku, says they have 10 kw. power and handle traffic between Tokyo and Taihoku, and sometimes relay station JFAK. JIA is a test call, JIB is used in Summer and JIC in winter. JIA is on 19.06 meters, or 15.74 mc. JIB is on 28.49 meters, or 10.535 mc., and JIC is on 50.93 meters or 5.89 mc. This comes from Eric Butcher, Cokeville, Wyoming. Another letter says that JIB is used all the year round, JIA is seldom used and JIC is used winter nights only. The Radio Twins, Delaware, Ohio, have this letter. A. Antognini, Greenfield, California, reports JIB at 5:15 A.M. this month. A letter from Tokujiro Seki, an operator at these stations to Sam Solito, Leetsdale, Pa., is very interesting, telling about the earthquakes, April 21st.

### CENTRAL AMERICANS

TIRCC, San Jose, Costa Rica, 45.81 meters, 6.55 mc. This station is owned by a Catholic Church, operated by Amandos Cespedes Marin, of

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NRH fame, and the address is Apartado 1064, San Jose. This station has a powerful harmonic on 13.10 mc. that can be heard at great distances. E. Orchard, Weymouth, England, and Fred Brooks, Port-of-Spain, Trinidad, report it on both waves from 6:00 to 7:15 P.M. Charles Miller, Covington, Ky., says they sign off nightly near 7:00 P.M. with Ted Lewis' recording "Good Night." XDX Philadelphia, reports it Sunday 7:45 to 10:00 P.M., Sam Solito, Leetsdale, Pa., reports it 8:20 to 9:15 P.M., Sundays. A letter to Emmett Riggle, Massillon, Ohio, gives the schedule 6:00 to 7:00 P.M., and one to J. C. Coleman, Brooklyn, says they broadcast Sundays, 11:00 A.M. to 2:00 P.M., 6:00 to 7:00 P.M. and 8:00 to 9:00 P.M. and week-days noon to 2:00 P.M., 6:00 to 7:00 P.M.

TIPG, owned by Perry Girton, San Jose, was on exactly the same wave as TIRCC for some time, but decided to move. This month they have tested on several waves and are still moving around. We will list them this month at 46.87 meters or 6.40 mc., as they were on this wave as we go to press. These tests took place between 9:00 and 11:55 P.M. as a rule. The station calls itself "La Voz de la Victor." We have reports from Carl Foresteiri, New York City; Alden Fowler, Greensburg, Ind.; J. Stewart, Houston, Texas; Ken McKinley, Vancouver, B. C.; G. C. Gallagher, San Francisco, Calif.; Dr. R. C. Kash, Sevierville, Tenn.; Sam Solito, Leetsdale, Pa. The address of this one is Apartado 225.

A TI5HH in Costa Rica, is on 41.90 meters, 7.16 mc. daily from 10:00 P.M. to 12:30 A.M. according to Fred Karpen, Johnstown, Pa., while Frank Grey, Berwyn, Illinois, says TI5JJ Costa Rica is on 42.00 meters calling I.S.W.C. members between 6:00 and 7:00 P.M., Saturdays.

HP5B, Panama City. 49.75 meters, 6.03 mc. This station gives their schedule now as noon to 1:00 P.M. and 8:00 P.M. to 10:30 P.M. and address as Box 910.—James Coleman, Brooklyn. Dr. R. C. Kash reports them working amateurs from 11:00 P.M. to 12:30 A.M. Station HP5J, Panama City on 31.28 meters or 9.59 mc., creeps through interference at times and is heard between 7:30 P.M. and 10:00 P.M. The new station at Colon, HP5H, supposed to go on the air in May, has not been put on the air yet. The one called HP5O at Colon, which was supposed to open June 20th, has not been heard. HP5H is supposed to go on 49.40 meters or 6.07 mc.

TGF, Guatemala City. This is a phone station on 20.71 meters, 14.48 mc. that works WNC Florida, on phone in the daytime. J. Stewart, Houston, Texas, says they are also on 8:60 mc. phoning Panama City, at 10:00 A.M.

YN1GG, Managua, Nicaragua, "La Voz del Lagos," is still bringing us confusing reports and we are inclined to believe they just roam around and have no set wave. Pedro Quintana Cabot, Cifuentes, Cuba, reports them on 6.38 mc. from 8:00 to 10:00 P.M. while P. A. Portmann, Woodside, N. Y., reports them on 6.40 mc. and not 6:45 P.M. from 7:00 to 9:00 P.M.

### THE WEST INDIES

COCD, the new station at Havana, Cuba, is on 48.92 meters or 6.13 mc. and relays station CMCD. This station is known as "La voz del Aire S. A." and their address is Calle 25 y B, Vedado, Havana. It is heard between

W8XK and W2XE. Most members report it between 7:00 P.M. and 11:15 P.M., but some reports say from 5:00 P.M. up to midnight. We have reports from F. Wade, London, England; Wilfred Siddle, Birmingham, Ala.; Pedro Quintana Cabot, Cifuentes, Cuba; Alden Fowler, Greensburg, Ind.; Carl Foresteiri, New York City; Dr. R. C. Kash, Sevierville, Tenn.; Ken McKinley, Vancouver, B. C.; G. C. Gallagher, San Francisco, Calif.; Bob Jackson, St. Louis, Mo.; J. Stewart, Houston, Texas; Frank Grey, Berwyn, Ill. and Sam Solito, Leetsdale, Pa.

COH, Havana, on 31.80 meters, 9.43 mc. still broadcasts from 10:00 A. M. to noon, 4:00 to 6:30 P.M. and 8:00 to 10:00 P.M. J. V. Robbins, Wellandport, Ontario, says they can sometimes be heard better on their first harmonic on 15.90 meters or 18.86 mc. G. Van Honk, of Erie, says he has received a letter from a station CMHD, at Caibarein, Cuba, which says nothing about short waves but verifies reception on 315 meters. This station was reported near 51 meters.

Ernest Eckel, Port-of-Spain, Trinidad, sends word of a new amateur radio club there. Stations VP4TC, VP4TH, VP4TF and VT4TG are all operated on voice, but all are amateurs.

HIZ, Santo Domingo, Republic of Dominicana. 47.50 meters, 6.31 mc. Known as "La Voz de Los Muchachos," according to Pedro Quintana Cabot, Cifuentes, Cuba, who reports them from 5:00 to 7:00 P.M. The station gives their schedule as daily 5:00 to 6:00 P.M. and Saturday night from 11:00 P.M. to 1:00 A.M. Some report it at other times, however. We have reports from G. C. Gallagher, San Francisco; Bob Everard, Standon, England; J. M. Keck, Newark, N. J.; Dr. R. C. Kash, Sevierville, Tenn. (who reports them regularly 6:30 to 9:00 P.M.) Abe Federing, Bronx, N. Y.; A. Walcott, San Francisco; Fred Karpen, Johnstown, Pa.

HIX, Santo Domingo. 50.17 meters, 5.98 mc. One card sent to J. Reese New York City gives their schedule as Tuesdays and Fridays 8:00 to 10:00 P.M. and Sundays 7:00 to 10:00 A.M. It also gives the power as 200 watts, and the wave as 50.16. Another card says daily 11:10 to 4:10 P.M., Tuesdays and Fridays 8:10 to 10:10 P.M. and Sundays at 7:10 A.M. This was sent to J. C. Coleman, Brooklyn. J. W. Keck, Newark, N. J., reports them at 10:30 P.M.

HI4D, Santo Domingo, on 45.50 meters, 6.61 mc. Schedule calls for broadcasts from 11:55 to 1:40 P.M. and 4:40 to 7:40 P.M., but Dr. Kash, of Sevierville, Tenn., reports them from 8:30 to 9:30 P.M.

HII, the new phone station at Santo Domingo, is reported on several waves and using different calls. Sometimes it is HII, sometimes HIR. Many report it working WNC Florida, on 19.94 meters, 15.04 mc. A Walcott reports it on 14.92 mc. at 10:00 A.M. Fred Heller, Jr., calls it HIR and says it is on at 5:00 P.M. daily. Wade Chambers, says it was using the call HII on about 29.80 meters at 8:40 P. M. once.

HI3C, La Romana, Republic of Dominicana, known as "La Voz del Rio Dulce," sends a card to John Wojtkiewis, Philadelphia, says they have 15 watts power, the wave is 43 meters and schedule is daily 12:30 to 2:00 P.M. and Saturday midnight to 2:00 A.M. Other cards we have seen says 7:30 to 9:30 P.M.

HI1J, San Pedro de Macoris, R. D., is reported this month on 5.86 mc.

at 8:35 P.M., by H. S. Campbell, Upland, Calif., while others last month reported it on 5.78 mc. or 51.91 meters. H11A same city, on 48.50 meters or 6.19 mc. sent a special program July 12th at 6:30 A.M. to celebrate the withdrawal of the U. S. Marines.—H. J. Davison, Bayamon, P. R.

### SOUTH AMERICANS

PRF5, Rio de Janeiro, Brazil, 31.56 meters, 9.50 mc. This station broadcasts daily 5:30 to 6:15 P.M. Was also heard working Buenos Aires at midnight by Samuel Sternberg. PRA8, Radio Club Pernambuco, Pernambuco, Brazil, on 49.67 meters, 6.04 mc. broadcasts daily 2:30 to 8:00 P.M. We received some booklets and newspapers from this station last month. John Shanks, Russellville, Tenn. and W. H. Chippendale, Concepcion, Paraguay, send us reports. Stations PPU on 15.57 meters and PPZ on 16.51 meters are reported phoning Europe by many every day.

Here is the list of Colombian stations we received last month from that country.

Call Sign	City	Meters	Meg.	Owner	Power
HJ1ABB	Barranquilla	46.51	6.45	Elias J. Pellett B.	100 watts
HJ1ABD	Cartagena	41.28	7.2	I. Villarreal	180 watts
HJ1ABE	Cartagena	48.98	6.13	J. M. Fuentes L.	180 watts
HJ1ABG	Barranquilla	49.60	6.04	Jimeno G & Cia	150 watts
HJ1ABJ	Santa Marta	49.95	6.00	Julio Sanchez I.	50 watts
HJ2ABA	Tunja	48.60	6.17	P. Sanchez	50 watts
HJ2ABC	Cucuta	50.90	5.89		50 watts
HJ2ABD	Bmanga	50.85	5.90	Sociedad Radio	50 watts
HJ3ABD	Bogota	40.55	7.40	Alford Radio	50 watts
HJ3ABF	Bogota	48.62	6.17	Uribe & Moreno	50 watts
HJ3ABH	Bogota	49.83	6.01	M. J. Gaitan	1000 watts
HJ4ABA	Medellin	25.60	11.71		100 watts
HJ4ABB	Manizales	49.15	6.10	A. Estrada	300 watts
HJ4ABC	Pereira	48.00	6.25		50 watts
HJ4ABE	Medellin	50.60	5.93		1000 watts
HJ4ABL	Manizales	49.40	6.07	A. Estrada	50 watts
HJ5ABC	Cali	48.78	6.15	R. Angulo	15 watts
HJ5ABD	Cali	46.30	6.48		15 watts
HJ5ABE	Cali	42.46	7.05	J. T. Calderon N.	

H. S. Bradley, Hamilton, N. Y., says stations HJ1ABH at Cienga, on 48.00 meters, HJ3ABK Bogota, on 7.25 mc. and HJ4ABG Medellin, on 7.15 mc. are also on voice. Abe Federing of Bronx, says he has a letter from HJ1ABH saying they broadcast Tuesdays and Fridays from 7:00 to 9:00 P. M. Stations HJN on 49.40 meters, 6.07 mc. and HKE on 41.55 meters, 7.22 mc. are also broadcasting.

HKV, owned by the War Department, Bogota, on 34.10 meters, 8.79 mc. is heard sending music between 6:00 and 11:00 P.M., irregularly. This is reported by members Pedicora, Cabot and Everard. The one called KKPQ or something like that, was not reported this month. We believe these are the same. Chas. Miller, Covington, Ky., says the phone HJA3

was heard on 10.04 mc. at 3:15 P.M. one Thursday. Another station with a call like HKD3 or HJD2 on about 21.00 meters, or 14.15 mc. is reported working amateurs by members Abe Federer, Bronx, N. Y. and F. S. Anderson, Jr., Richmond, Va. And Dr. Kash, of Sevierville, Tenn., wants to know what Colombian is on 31.20 meters, 9.61 mc. calling itself "La Voz de Colombia," and heard from 8:30 to 9:00 P.M.

HJ1ABJ, Santa Marta has moved again. They are now on about 50.00 meters, or 6.00 mc. They have 100 watts power. Reports show reception from 6:30 P.M. to 11:35 P.M. These are from members Portmann, Shanks, Miller, Kash, Gross Solito and Siddle.

HJ1ABB, Barranquilla, 46.51 meters, 6.45 mc. Their card says 300 watts on 6.447 mc. relaying HJ1ABA, 11:45 A.M. to 10:00 P.M. Elias J. Fellette is owner, Box 715 is address.—E. A. A. Hardwick, Misterdon, England. They tested with W2XAF from 10:20 to 10:45 P.M., July 3rd.—Bob Jackson, St. Louis, Mo. Heard 7:00 to 8:00 A.M., Mornings.—Dr. R. C. Kash, Sevierville, Tenn. Sent special program at midnight to 1:00 A.M. once.—G. C. Gallagher, San Francisco.

HJ1ABE, Cartagena. Moved to 48.98 meters, 6.13 mc. Schedule is daily 7:30 to 9:00 P.M. and Monday nights starting at 10:30 P.M. G. C. Galagher reports them once from 11:00 P.M. to 12:30 A.M. Ken McKinley reports them one Thursday till midnight. W. D. Martin, Honolulu, reports them sending news of an airplane crash at Medellin, at 12:15 A.M. once.

HJ3ABH, Bogota, 49.85 meters, 6.01 mc., broadcasts week-days 6:00 to 11:00 P.M. and Sundays 4:00 to 9:00 P.M. Once one of best South Americans, it is seldom heard now. Dr. R. C. Kash, reports them once from 11:00 P.M. to midnight working amateurs.

HJ4ABA, Medellin, on 25.60 meters, 11.71 mc. Still a very good station. Heard between 6:30 and 10:30 P.M. Reported by many, and Dr. Kash reports them at noon to 1:00 P.M.

HJ4ABB, Manizales, on 49.15 meters, 6.10 mc., seems to have no regular schedule, like HJ4ABL, which is owned by the same people and operated on 49.45 meters, 6.06 mc. The only reports we have on HJ4ABB are from J. B. Wotten and G. C. Gallagher, who reports it at 11:00 P.M., and W. D. Martin, Honolulu and Wilfred Siddle, Birmingham, Alabama, who says a special English program was broadcast one Sunday 10:30 P.M. to midnight. Bob Everard mentions the station but gives no dope. HJ4ABL is heard by a great many just about every night.

HJ4ABC, Periera. This station has moved, but we are not sure where they went. They were on 48.00 meters. Dixon Russell, Baltimore, Md., says they are on 49.36 meters at 8:00 P.M. Sam Solito, Leetsdale, Pa., has a letter saying they have a new transmitter with 180 watts power on 48.90 meters or 6.135 mc. and he heard them from 9:36 to 10:20 P.M.

HJ4ABE, Medellin. 50.60 meters, 5.93 mc. A card gives the schedule now as 11:00 A.M. to noon, and 6:00 to 10:30 P.M., which is one hour later on all schedules that what we have it.—A. J. Hayward, Trowbridge, England

HJ5ABC, Cali, was on 42.70 but moved. This station, known as "La Voz de Colombia," sends us a folder saying they have a new transmitter

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on 48.85 meters, 6.15 mc, and they broadcast daily 11:00 A.M. to noon, Mondays, Tuesdays, Wednesdays and Fridays, 7:00 to 10:00 P.M. and Sundays noon to 2:00 P.M. Wilfred Siddle, Birmingham, Alabama, says they are on 48.78 meters between CJRO and YV3RC.

HJ5ABE, Cali. Owned by Jose T. Caldron, Box 50. This station is heard daily up till midnight at times, on 21.26 meters, 14.10 mc. For a long time they announced their wave as 42.46 meters, but they were reported on this other wave. Of course, everyone said it was their first harmonic, but now the station announcer says he is on 14.10 mc. Harmonic or no harmonic, the place to get them is 21.26 meters, 14.10 mc. and the time is from 7:00 P.M. to midnight, and even up to 2:00 A.M. We thank the following members: Miller, DeMyer, Twomey, Siddle, Shanks, Kash Lips, Brewer, VanHonk, Grey, Solito, Davison, Federling.

PRADO, Rio Bamba, Ecuador, 45.31 meters, 6.62 mc. Schedule calls for Thursdays 9:00 to 11:30 P.M. Was heard at 1:00 A.M. testing by W. D. Martin, Bob Everard and G. C. Gallagher. Heard on 14.10 mc. by P. Quintano Cabot.

HC2AT sends us a card saying they have closed down indefinitely.

HCJB, Quito, 36.50 meters, 8.21 mc. "La Voz de los Andes," sends a card giving the power as 250 watts, and schedule daily excepting Mondays 7:15 to 10:15 P.M.—E. A. A. Hardwick, Misterton, England. Signs off daily at 11:15 P.M. with regular program and then phones other station till around 1:00 A.M.] according to Sam Solito, Leetsdale, Pa.

HC2JSB, Guayaquil. Letter from Juan S. Behr, the owner, says they are on 38.19 meters, 7.87 mc., daily 9:15 to 2:15 P.M. and 7:15 to 11:15 P.M. This comes from Carl Foresteiri, New York City, and Charles Miller, Covington, Ky.

VP3MR, Georgetown, British Guiana, 42.37 meters, 7.08 mc. A new station. H. S. Bradley Hamilton, N. Y., has a letter from them giving their schedule as Sundays 7:45 to 10:15 A.M., Mondays 3:45 to 4:45 P.M. and 6:45 to 7:45 P.M., Wednesdays 6:45 to 7:45 P.M., Thursdays 5:00 to 6:45 P.M. and Saturdays 6:45 to 7:45 P.M. Quite a mixed up schedule, we would say. Lionel F. Stetson, Chicago, reports them broadcasting a military band each Monday at 5:00 P.M. Mr. Stetson also reports a YP2BG in the same city on 41.00 meters, 7.135 mc., broadcasting daily 4:30 to 6:00 P.M., 6:30 to 8:00 P.M. and 9:00 A.M. Sundays only. The Address is 1 Wellington St., Georgetown, British Guiana.

PZH, Paramaibo, Surinam, Dutch Guiana. On 42.00 meters, 7.14 mc. A new crystal controlled station broadcasting daily until 5:00 P.M., and on Mondays and Thursdays 6:40 to 9:00 P.M. Address is Mr. S. Moback, P. O. Box 150, Paramaribo, Suriname, Dutch Guiana. This news is from Samel Sternberg, Far Rockaway, N. Y.

CEC, Santiago, Chile, 28.12 meters, 10.67 mc. This station is a regular telephone station but lately has been broadcasting almost every Sunday between 7:30 and 9:00 P.M., and once was heard on Thursday. Members should try on Sundays around 8:00 to 8:40 P.M. We have reports from F. S. Anderson, Richmond Va.; A. B. Baadsgaard, Ponoka, Ata.; Abe Federling, Bronk, N. Y.; G. Van Honk, Erie, Pa.; G. C. Gallagher, San Francisco,

Calif.; Dr. R. C. Kash, Sevierville, Tenn. (who says they are on nearly every day and use a bugle call and a four-gong signal), and Donald Teague, Santa Paula, Calif.

ZP10, Radio Prieto de Asuncion, Paraguay. This station broadcasts between 10:00 A.M. and noon and 6:00 and 8:00 P.M. on a wavelength between 36 and 37 meters according to W. H. Chippendale, Concepcion, Paraguay. For some reason, no one reports it any distance. Mr. Chippendale offers some solution to this by saying that none of the Colombian stations can be heard at his location. A station CX1AM, Uruguay, on 41 meters sending music at 12:10 midnight is reported by Bob Everard, Standon, England.

LSX, Buenos Aires, Argentina, on 28.98 meters, 10.35 mc. hasn't been so active since Admiral Byrd came back. W. H. Chippendale, Paraguay, reports them sending program material to the U. S. A. from 6:00 to 9:00 P.M. once. A Antognini, Greenfield, Calif., reports them once at 10:30 A.M. (morning). Mr. Chippendale also tells us there are some Federal stations between 38.9 and 43.00 meters heard at all hours of the day and night, operated something like the U. S. police stations. They give a message and quickly close down.

YV2RC, Caracas, Venezuela, on 49.08 meters, 6.112 mc. has a new transmitter and has been testing it after the regular broadcast schedule. They have been heard from 7:00 P.M. to 12:45 A.M., and members Ed Lips, Pittsburgh, Pa.; Fred Karpen, Johnstown, Pa.; Ken McKinley, Vancouver, B. C., and Donald Teague, Santa Paula, Calif., report this.

YV8RB, Barquissimeto, Venezuela. H. S. Bradley told us this station was on 51 meters around 11:00 P.M. Charles Hart, radio operator on the S. S. Trujillo, has received a letter from them saying they opened up on July 5th, are on 51.60 meters or 5.88 mc., have 400 watts power, are known as "La Voz de Lara" and broadcast between 6:00 and 10:00 P.M. Seems like we should get some reports on this station now.

YV6RV, Valencia, Venezuela. 46.01 meters, 6.52 mc. Unnoticed by us, we have been listing this station as YV6RC. J. Coleman calls our attention to it. Enrico Scala, of Long Beach, N. Y., has a card saying they broadcast from noon to 1:00 P.M. and 6:00 to 10:00 P.M. Dr. R. C. Kash, Sevierville, Tenn., says he hears YV5RMO, Maracaibo on 51.28 meters, 5.85 mc., from noon to 1:00 P.M. They also broadcast from 5:00 to 9:00 P.M. A station YV5AM, an amateur is on 40 meters around midnight, according to Bob Everard.

YVQ, Maracay, Venezuela, a phone station on 44.96 meters or 6.67 mc., sent a special program to the U.S.A. on July 4th. And one member said July 3rd, from 7:00 to 10:00 P.M. The July 4th program was from 8:00 to 9:00 P.M. and we thank members Radio Twins, Delaware, Ohio; Fred Heller, Jr., Philadelphia; H. J. Davison, Bayamon, P. R., and Lee Williams, Carksburg, W. Va. for help.

### THE EUROPEANS

The schedule sent us for the Daventry, England, stations for August follows:



EAQ, Madrid, Spain, on 30.40 meters, 9.87 mc. Is still one of the most reliable Europeans. The schedule is daily 5:15 to 7:30 P.M. and Saturdays 1:00 to 3:00 P.M. according to their own booklet. They sent a special program to the U.S.A., June 29th from 3:30 P.M. and on June 26th from 2:00 to 2:45 P.M., according to members J. B. Wooten, Mobile, Alabama, and A. J. Hayward, Trowbridge, England. EHY, Madrid, a phone on 14.38 meters or 20.86 mc. also relayed the June 29th program according to Charles Pedicora, Brooklyn, and Bob Everard, Standon, England. EHY keeps a daily phone schedule on 29.79 meters with YVR Venezuela at 4:00 P.M. according to J. Miller, Brooklyn. Alf. Mann, Middlesborough, England, also helps as does Thomas Dagger, Blackpool, England.

CT1AA, Lisbon, Portugal, broadcasts Tuesdays, Thursdays and Saturdays from 4:30 to 7:00 P.M. on 31.25 meters, 9.59 mc., but was heard last month on a new wavelength of about 25.34 meters or 11.83 mc. According to reports they were heard by some from 3:30 to 6:00 P.M. and by others 4:30 to 7:00 P.M. Reports differ as to the wave, too, but the station announced the above one. J. B. Wooten, Mobile, Ala.; Chas. Pedicora, Brooklyn; Robt. Hughes, Trowbridge, England; G. Van Honk, Erie, Pa.; Martin Irons, Jamaica, N. Y.; XDX, Philadelphia; Fred Karpen, Johnstown, Pa., and Sam Solito, Leetsdale, Pa., heard them between 3:30 and 7:00 P.M. Thomas Dagger, Blackpool, England, says they were on 49.40 meters, 6.072 mc., too.

CT1GO, Parede, Portugal. Has gone on a new wave according to a letter received by Joseph Miller, Brooklyn. They say they are on 25.21 meters or 11.90 mc., Tuesdays, Thursdays and Fridays, 1:00 to 2:15 P.M. and Sundays 10:00 to 11:30 A.M.. They are also on 48.92 meters or 6.132 mc. daily excepting Tuesdays and Sundays 7:20 to 8:30 P.M. and Sundays 11:30 A.M. to 1:00 P.M. We will bet they will not stay on 25.21 meters on, as this is the same wave as Pontoise and they are on at the same time. Better still, we bet it is a mistake and they mean 24.21 meters and not 25.21. CSL, Lisbon, on 48.82 meters, or 6.14 mc., will increase power

France. Just about everyone knows the schedule of the Pontoise stations. We might say they have added the time from 3:00 to 4:00 A.M. recently. The waves used then are 25.60 meters and 25.23 meters. Recent reports have come from W. D. Martin, Wade Chambers, A. A. Hardwick and XDX. A new French phone on 24.5 meters is reported working the ship "Normandie" from 3:00 to 3:45 P.M. by Cyril Gilmour, Kingston, Ont. FTE, St. Assise, a phone on 16.44 meters, 18.25 mc. is reported at 4:30 P.M. by Samuel Sternberg.

Switzerland. We have HBP on 38.47 meters or 7.80 mc., HBL on 31.27 meters, 9.59 mc., HBO on 26.35 meters, 11.39 mc., HBJ on 20.61 meters or 14.56 mc. and HBH on 16.22 meters or 18.48 mc. HBP and HBL broadcast every Saturday from 5:30 to 6:15 P.M. P. R. Dawkins, of Salisbury, England, reports them once at 5:00 P.M. with a special program for Brazil and Dixon Russell, Baltimore, Md. and George Van Honk, Erie, Pa., reports them from 6:40 to 7:25 P.M. one Monday. Samuel Sternberg, Far Rockaway N. Y., and A. Antognini, Greenfield, Calif., report HBO and HBL testing with VK3LR from 11:35 P.M. to round 1:00 A.M. Fred Heller, Jr., Philadelphia, and L. D. Brewer, Phoenix, Ariz., reports HBO and HBJ sending special programs to the U.S.A. Sundays around noon. HBH and

HBJ at 5:30 to 6:00 A.M. is reported by Shokichi Yoshimura, Moji, Japan.

TFJ, Iceland. Was on 24.52 meters working London, from 11:37 to 11:45 A.M. and 5:10 to 5:15 A.M., and called Chelmsford, England, 6:07 to 6:26 P.M. according to Bob Everard, Standon, England. Alf Mann, Middlesborough, gives the wave as 25.00 meters and the time as 12:40 P.M.

LKJ1, Jeloy, Norway. Schedule is 5:00 to 8:00 A.M. and 11:00 A.M. to 6:00 P.M. daily. E. Orchard says it moved from 31.34 to 31.51 meters Jimmy Reese, New York City, claims to have heard it at 4:30 A.M.

PI1J, Dordrecht, Holland. A card says they are on 42.35 meters, 7.08 mc. Saturdays with 50 watts power. In summer it is 10:10 to 11:10 A.M. and winter 11:10 to 12:10 noon. This is from T. W. Moss, Exeter, England. Must be 10:10 to 11:10 A.M. now.

PHI, Huizen, Holland. 16.88 meters, 17.77 mc. The schedule now is Mondays, Thursdays and Fridays 7:30 to 9:30 A.M. and Saturdays and Sundays 7:30 A.M. to 10:00 A.M. This comes from Wilfred Siddle, Birmingham, Ala. But they are not always signing off right on time, we must add.

PCJ, Eindhoven, Holland. They say the schedule is Tuesdays 3:00 to 6:00 P.M. and Wednesdays 7:00 to 10:00 A.M. and the wave is 19.71 meters or 15.22 mc. But XDX, Philadelphia, says they also relay PHI programs nearly every day. And A. Fowler, Greenburg, Ind., says they are heard Wednesdays 8:00 to 11:00 A.M., and Fred Karpen tells us they use a lady announcer now.

2RO, Rome, Italy. The station gives the following schedule. On 25.40 meters, or 11.81 mc. dealy, 8:15 to 10:15 A.M. and 2:30 to 5:00 P.M., and on 31.13 meters, 9.54 mc. Mondays, Wednesdays and Fridays 6:00 to 9:15 P.M. But last month they did not stick to this. Part of the time they were on 25.40 meters up till 7:30 P.M., and sometimes they were on that wave at 1:00 A.M. Sometimes they broadcasted between 5:00 P.M. and 6:30 P.M. on 31.13 meters and sometimes on 25.4 meters. So, we are not exacty sure of their schedule now, even though they send it to us. We have reports on these tests from members XDX, Robert Woods, P. Quintana Cabot, W. D. Martin, F. S. Anderson, Jr., Martin Irons, G. Van Honk, Wade Chambers, J. Stewart, Fred Karpen, H. J. Davison, Peter Hecks, F. L. Stitzinger, J. V. Robbins, Carl Foresteiri, E. A. Burleson, John Wojtkiewicz, Jacques Favereau and Robt. Hughes.

IRJ, Rome, on 22.7 meters, 13.21 mc., was testing several times from 7:00 to 9:00 P.M., according to Fred Heller, Jr., Philadelphia. An IRX or IRS on 49.4 or 6.07 mc. was broadcasting 10:30 to 11:30 A.M.—W. D. Martin, Honolulu.

Russia. Since all these stations work each other, we must use them under one head. The Comite de Radiodiffusion et Radiofication, Petrovka 12, Moscow, U.S.S.R. is now in charge of all radio activities and verifications come from them. In reports this month we have RNE on 25.00 meters, 12.00 mc. at Moscow; RKI on 19.94 meters or 15.04 mc. at Moscow; RIO on 29.50 or 10.17 mc. at Bakou; RV15 Khabarovsk on 70.65 or 4.25 mc.; RIM at Tashkent on 19.68 meters or 15.25 mc. and three new ones; one RTZ at Irkutsk, Siberia, and one on 24.5 meters called RKK or RFBY, and one on 18.79 meters at Khabarovsk. RNE broadcasts daily 1:00 to 6:00

P.M.; Sundays 6:00 to 7:00 A.M., 10:00 to 11:00 A.M. and Wednesdays 6:00 to 7:00 A.M. They also phone stations at other times. The station RKK calls RIM but no time is mentioned, and the RRR1 on 18.79 calls Moscow almost daily 4:00 to 5:30 A.M. according to Joseph Miller, Brooklyn. RTZ is on 20.29 meters, 14.785 mc., around 10:30 P.M. and is reported by H. S. Bradley, Hamilton, N. Y. RKI uses 15.04 mc, 15.06 mc. and 15.08 mc., changing when wanted, according to Charles Miller, Covington, Ky. It was phoning RIM at 8:30 A.M. according to W. D. Martin, who adds that he gets a Russian on 13.10 mc. at 7:00 P.M. and RIM was heard at 11:00 A.M. Fred Karpen, Johnstown, Pa., heard RIM and RKI between 6:00 and 9:30 A.M. RIO at 3:00 A.M. is also reported by Mr. Martin. He also says RV15 phones Moscow almost daily at 10:30 A.M.

### THE NORTH AMERICANS

CJA4, Drummondville, Canada, on 26.29 meters, 11.41 mc. This is the wave they give. They are testing with VIZ-3 Australia, between 8:00 P.M. and 1:30 A.M., usually around 1:00 A.M. Reports have come from members Campbell, Martin, Everard, Fowler, McKinley, Gallagher, Antognini and Robbins.

VE9CS, Vancouver, B. C., on 49.40 meters, 6.07 mc. A letter gives their power at  $1\frac{1}{2}$  to  $2\frac{1}{2}$  watts and they relay CKCF. This is the world's smallest station. The address is Radio Service Engineers, 734 Davie St., and this comes from W. D. Martin, Honolulu. They broadcast around midnight as a rule, and Bob Morrison, Vancouver, sends a helpful report.

VE9CA, Calgary, Alberta. 49.67 meters, 6.03 mc. We thought this station had gone, but G. C. Gallagher, San Francisco, reports them relaying CFCN, from 10:00 to 11:00 P.M. once and at 1:30 A.M.

VE9HX, Halifax. A letter to Wade Chambers, Tulsa, Okla., says this station is being rebuilt.

VE9GW, Bowmanville, Ont. On 49.22 meters or 6.09 mc. Members J. Coleman, Brooklyn, N. Y., and Wm. Neal, Southington, Conn., have letters from station giving the schedule as Thursdays, Fridays, Saturdays and Sundays, 1:00 to 9:00 P.M., E.D.S.T. or noon to 3:00 P.M., E.S.T. We are not sure if part of the schedule was left off or not, as it was Thursdays, Fridays and Saturdays, 7:00 A.M. to 4:00 P.M. and Sundays noon to 8:00 P.M.

W1XAL, Boston, Mass. On 25.42 meters or 11.79 mc. The schedule is supposed to be Sundays 5:00 to 7:00 P.M. and Tuesdays and Thursdays 7:30 to 9:00 P.M. But, they were heard on 19.67 meters or 15.25 mc., between 8:30 and 11:00 A.M., several days, by members J. B. Wooten, Mobile Ala.; Mrs. Irving Heglund, Lake Worth, Florida, and Robt. Woods, Sand Springs, Okla., while Oliver Amlie, Philadelphia, had them one Sunday 3:45 to 5:15 P.M., on their 25.42 meter wave.

W4XB, Miami, Florida. 49.67 meters, or 6.04 mc. In reply to many questions, this station is really on the air, but it certainly is not doing so good. Pedro Quintana Cabot, Cifuentes, Cuba; Mrs. Irving Heglund, Lake Worth, Florida and Wilfred Sidle, Birmingham, Alabama, report it very poorly. They are heard 8:00 P.M. to midnight.

W2XE, Wayne, New Jersey. This station dropped their 25.36 meter wave and was on 19.64 meters or 15.27 mc. from 10:00 A.M. to 5:00 P.M. Members Martin, Hughes and Hayward reports them this month. Mrs. Irving Heglund of Lake Worth, Florida, tells us they are back on 25.35 meters now, announcing the schedule for that wave as 5:00 to 7:00 P.M., E.S.T. H. J. Davison, Bayamon, P. R., also says they have a strong harmonic on 12.24 mc.

W2XAD on 19.56 meters or 15.33 mc. broadcasts daily 2:00 to 3:00 P. M., and Sundays 10:30 A.M. to 4:00 P.M. W2XAF on 31.48 meters or 9.53 mc] broadcasts daily 5:30 to 11:00 P.M. and Sundays 4:15 P.M. to midnight. This comes direct from the station directors and also from members W. D. Martin, H. J. Davison, and A. J. Hayward.

W3XAL, Bound Brook, New Jersey, has a new schedule, but we are not sure who is right about it. Some say Eastern Standard Time, others Eastern Daylight Savings Time. We believe they are on 16.88 meters daily except Sunday 8:00 to 10:00 A.M., E.S.T. and on 49.18 meters Mondays, Wednesdays and Saturdays 1:00 to 11:00 P.M., E.S.T., but we may be just one full hour off: We thank members W. D. Martin, Cyril Gilmour, Ken McKinley and Mrs. Irving Heglund.

WVD, Seattle, Washington. On 34.68 meters or 8.65 mc. This station has been testing with stations in Alaska. around 11:00 P.M. to 2:30 A.M. and is reported this month by members H. S. Campbell, Wade Chambers and G. C. Gallagher. A station WXH, Ketchikan, Alaska, on 50.08 meters or 5.995 mc. was reported at 12:45 A.M. by Ken McKinley, Vancouver, B. C.

Station WOO, Ocean Gate, New Jersey, was heard calling a GOKZ. Who is this?—J. B. Wooten, Mobile, Ala. The commercial stations at Rocky Point, and Bolinas, California, carried many programs to distant places last month. There are too many of these to mention. A rebroadcast from some distant place is a daily feature in the United States now. We might say that KKQ, Bolinas, can be heard most every night between 8:15 and midnight carrying some program.

### LAST MINUTE REPORTS

Too many members are holding off their reports too long. Since we started this last minute report section, some seem to think it just as well to hold their reports for this section. But don't do it, a we want reports early in order to get the news in the magazine.

James Lucke, Jr., Chicago, Ill., reports COCD at 8:25 P.M., RNE at 6:00 P.M., VPD on schedule, W10XFN at 9:35 P.M. and several amateurs on 20 meters. H. S. Campbell of Upland, Calif. reports all of his reception from July 9th to the 23rd. This includes many stations, and he says that W9XF Chicago, was heard on 9.62 mc. This could not be a harmonic. Holloway Frost, Bronxville, New York, reports HVJ at 1:00 P.M., OCJ-2 at 1:00 P.M. and this new HI phone on both 20 meters and up about 30 meters. Emmett Riggle, Massillon, Ohio, reports ZBW on time and says that a ZTY (not ZTJ) Johannesburg South Africa, on 49.2 meters, broadcasts week-days 11:30 P.M. and 12:30 A.M., 3:30 A.M. and 7:00 A.M., E.S.T.

J. C. Coleman, Brooklyn, has letters from HJ5ABE and HJ1ABG. HJ5ABE says 11:00 A.M. to noon and 6:00 to 10:30 P.M. HJ1ABG says

12:00 to 1:00 P.M. and 6:00 to 10:30 P.M., except Sundays when they are on from 1:00 to 3:00 P.M. Dr. R. C. Kash, Sevierville, Tenn., says HJ5ABE verified on 14.10 mc., gave address as Apartado 50, but does not give a schedule. He also says CEC broadcasts Sundays only from 8:30 to 9:00 P.M. Dellner Sopher Steger, Ill., reports this W9XBS Chicago, on 6.425 mc., between 11:30 A.M. and 12:30 P.M. and again 2:00 P.M. to 4:00 P.M.

Thomas Reed, Stoke-On-Trent, England, says the Reykjavik, Iceland, stations, was heard on 24.52 meters at 4:45 P.M. There isn't much doubt about this station now excepting the exact frequency and the schedule. Fred C. Brooks, Port-Of-Spain, Trinidad, reports 2RO on 25.4 meters at 6:30 P.M. HJ1ABJ, HJ3ABH, H11J, all on their regular schedule. W3XL testing with W10XFN at 8:00 P.M., W2XAF testing with Sydney, Australia, at 6:30 A.M. and YVQ with a program at 8:30 P. M.

F. A. Beané, Ridgewell, England, reports PMN, Java, on 29.25 meters and PLP on 27.26 meters, broadcasting from 6:30 to 6:40 P.M. and LSY on 14.1 meters with a special program from 1:00 P.M. to 2.15 P.M. L. D. Brewer, Phoenix Arizona, reports HCJB on their new wave. PLP and PMN broadcasting up to 10:00 A.M. one Sunday, VPD on schedule, JVH Japan, and the midnight program and a lot of phones.

Warren Rosenlund, Worcester, Mass., reports COH from 7:50 to 8:30 P.M. (off schedule), PRF5 at 5:30 P.M., 2RO on schedule. Richard Kamba, Berwyn Ill., reports COCD at 9:00 P.M., HJ4ABE signing off at 10:10 P.M. Ashley Walcott, San Francisco, Calif., sends a six-page type-written letter about a lot of lighthouse, fire prevention, and forest and park stations he is hearing. This will have to wait because we do not have the space to use it just now. W. D. Martin, Honolulu reports JVF at 1:00 A.M., JVH with their programs at midnight, JVN and JVM broadcasting at 4:00 A.M., a station HJ1ABH, Colombia, around 7:00 to 8:00 P.M., COCD at Midnight, W3XAL signing off at midnight and W9XF Chicago, coming on at 12:30 A.M., and says that the address of PMY is Millmy-Building, Bandoeng, Java. Mr. Martin also wants to contribute a globe of the world as one of the prizes in our Birthday DX Contest. It was fine of him to do this without being asked.

### BELIEVE IT OR NOT

In a copy of a magazine sent to us from South Africa we find the following articles advertised, many with full pages. Taking them in the order they appear in the magazine are: Electric Light Bulbs, a shaving cream, a vanishing cream, a perfume, an electric kitchen, bicycles, a health resort, refrigerators, health insurance, ladies corsets, an electric meter, tooth paste, a skin soap, mixed paint, kidney and liver pills, a course in psychology, a free character reading, fountain pens, correspondence school, a garage service, writing paper, a course in speech making, pianos, electric stoves, a motor oil, another tooth paste, electric sweepers, electric mixers, a college, railway passenger insurance, wedding rings, a printing firm, another tooth paste, a travel advise service, another electric stove, and a department store. Less than one third of the advertising appearing in the magazine concerns radio—and, we have a tough time coaxing American merchants to advertise short wave sets in a short wave magazine.

## REPLACEMENTS FOR ALL REGULATORS OR BALLAST TUBES

Standardize on Amperite  
Regulators. There's an  
Amperite for every cur-  
rent or voltage problem  
in any set.

Write for CHART CV.



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CURRENT AND VOLTAGE  
REGULATORS

AMPERITE Co.

551 BROADWAY NEW YORK

## CHAPTER NEWS

The Second Annual Convention of the I.S.W.C. in England will be held on Sunday, August 25th, at 7:00 P. M., at the R.A.C.S. Hall, Wandsworth Road, London. Many features are arranged for this affair and members all over England and nearby countries are expected to attend. For complete details write to Mr. Bear, of London. The recent combined meeting of the various chapters which was held in Manchester on June 30th, was a great success. After a meeting at which many officers spoke, the members visited places of interest.

The London chapter now meets at R.A.C.S. Hall, Wandsworth Road, every Friday excepting the second in each month. On June

22nd, the members visited the International Telephone Exchange and saw how London was connected with the rest of the world by telephone. Many such features are in store.

The Manchester, Leicester, New Jersey, Cincinnati, New York and all other chapters failed to send us their scheduled meetings for August.

The Philadelphia Chapter will meet at 438 Market Street, Second Floor, on August 16th, at 7:30 P.M. Their first meeting was a success in spite of the terrible weather existing at the time. They send a cordial invitation to all members to attend.

**FOR SALE or TRADE**—Lincoln R-9 commercial receiver, 9 to 200 meters, metal cover, tubes, chassis, power-pack and speaker. A-1 condition. Late custom all-waves or Philco considered. Give all details first letter. Esca Forgy, Shamrock, Texas.

**FOR SALE**—Brand new HRO receiver with Jensen speaker to match for sale at 10% under amateur's price. Reason for selling, deafness. Also model ACR-136. F. Joseph Lamb, 6343 Wight Street, Detroit, Mich.

**FOR SALE**—Peak Pre-selector complete with tubes. First class condition. \$17.60 F. O. B. Cincinnati. Harold Stout, 1416 Joseph St., Bond Hill, Cincinnati, Ohio.

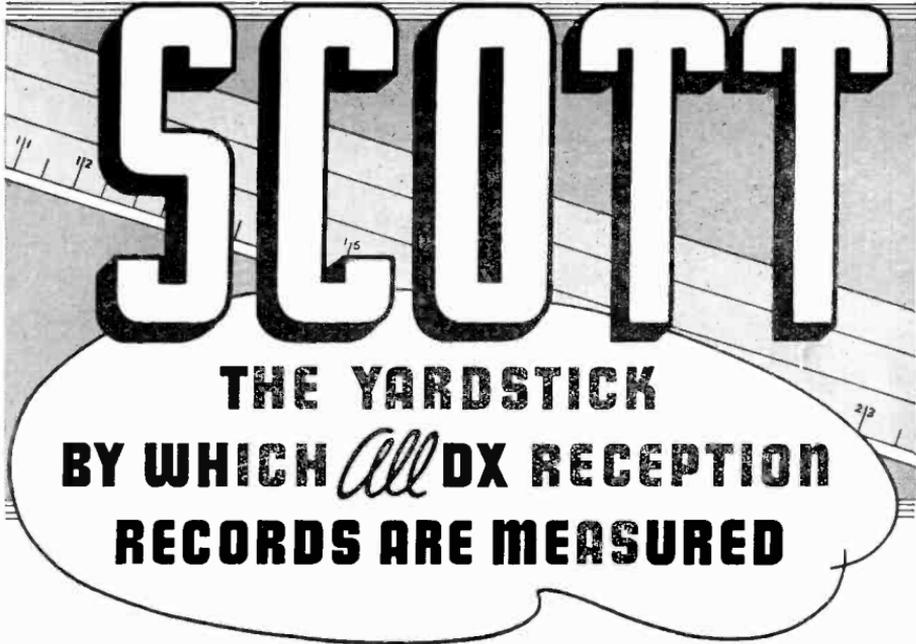
**FOR SALE**—Scott Deluxe with Tasman console. Perfect condition. Heard 211 foreign stations. Dr. R. C. Kash, Sevierville, Tenn.

**WANTED**—Silver Masterpiece III. Must be reasonable. Arch Foster, 128 East South Street, New Castle, Pa.









# SCOTT

THE YARDSTICK  
BY WHICH *All* DX RECEPTION  
RECORDS ARE MEASURED

THE new SCOTT AllWave brings in foreign stations with volume enough to shake the floor — with less annoying extraneous noises, the bugbear of short wave reception. SCOTT'S high *Usable* Sensitivity is the explanation. You will never know what reception of foreign programs really is like until you own a SCOTT.

Here is such hair-line Selectivity that you cut right through powerful adjacent wave length stations and bring in new, exotic foreign stations you have never heard before—from the most romantically remote continents of the globe! Hardly a week passes but DX enthusiasts apply for verification of some sensational new SCOTT record.

## FULL RANGE HIGH FIDELITY

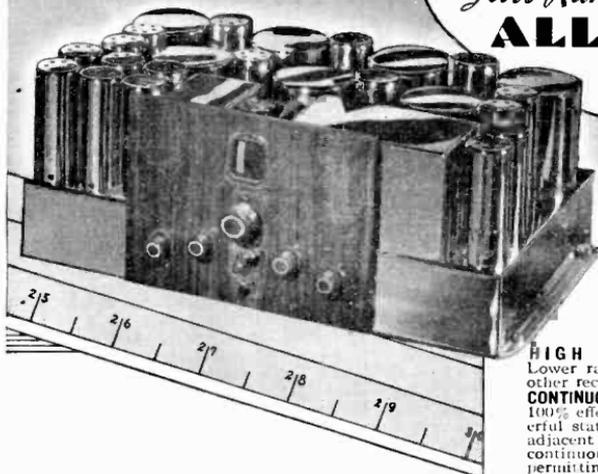
SCOTT sheer engineering genius raises ordinary high fidelity reproduction to new pinnacles of brilliance not even approached by any other receiver! Only fractions of the overtones of violins, oboe, bass clarinet and human voice come through all other receivers. Every singing overtone, every delicate shade of interpretation actually live for you at a slight touch of the dial. Half your enjoyment of the marvelous high fidelity programs is cut off unless you have a SCOTT *Full Range* Hi-Fidelity AllWave receiver.

Many other revolutionary features are yours with a SCOTT—exclusive features

# SCOTT

*Full Range Hi-Fidelity*

## ALL-WAVE



absolutely necessary for your real enjoyment of distant broadcast band and short wave reception.

The SCOTT is custom made. The fine things are always custom made. The untiring genius of SCOTT engineers has been crowned with triumph through the years! No other manufacturer dares to challenge the astounding distance logs SCOTT owners have achieved!

Fully guaranteed for five years (tubes excepted). Sold (in the U.S.A. only) direct from laboratories on 30-day trial. Mail the coupon now—*today*—and we will send you full details about the most thrilling DX receiver in the world.

**HIGH USABLE SENSITIVITY**  
Lower ratio of noise to signal than any other receiver built today.

**CONTINUOUSLY VARIABLE SELECTIVITY**  
100% effective where field strength of powerful station is 5000 times that of distant adjacent wave length station. Selectivity continuously variable from 2 to 16 K. C. permitting highest possible fidelity under all reception conditions.

**TREMENDOUS RESERVE POWER**  
Six times average power. 35 watts strictly class "A".

**SHORT WAVE STATION LOCATOR**  
Simply press button; when distant station is tuned in locator gives clear whistle. Release button; station comes in and whistle disappears.

**FULL AUTOMATIC VOLUME CONTROL**  
Keeps station at predetermined volume; prevents distant signals from fading in and out. Efficient operation over 13 to 555 meters.

**FULL RANGE HI-FIDELITY**  
Covers full tonal range of human ear; doubles that of any other receiver, 25 to 16,000 cycles.

## SEND COUPON for DETAILS

E. H. Scott Radio Laboratories, Inc.  
4450 Ravenswood Ave., Dept. 8N5,  
Chicago, Ill.

Send complete details of new Scott Full Range Hi-Fidelity AllWave and particulars of 30-day trial offer.

Name.....

Address.....

City..... State.....

## "ON-THE-AIR"

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

Meter	Meg.	STATION	TIME
B	13.92-21.54	W8XX, Pittsburg, 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	FSA, 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	15.14-19.81	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	15.37-19.52	IRW, Rome, Italy.	Phones Argentina mornings.
T	15.39-19.50	LSQ, Buenos Aires, Argentina.	Heard testing near 2:00 P.M.
T	15.50-19.35	FTM, St. 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	15.68-19.13	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, Bogoto, Columbia.	Phones CEC, LSR, 11 A.M. and 4:00 P.M.
T	16.30-18.40	PKC, 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 5:09 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.
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, Ruby, 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, Darenty, 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.	Daily 8:00 to 10:00 A.M.
B	16.88-17.77	PHI, Huizen, Holland.	7:30 to 10:30 A.M. exc. Tues. and Wed.
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 to 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	17.10-17.54	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.

Meter	Meg.	STATION	TIME
T-17.37	-17.27	DAF, Norden, Germany.	Phones ships irregularly.
T-17.52	-17.12	WOO, Ocean Gate, 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., irreg.
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 OCJ 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.
E-19.14	-15.67	WAE, Brentwood, N. Y.	Testing irregularly afternoons.
T-19.15	-15.6	JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A. M.
T-19.20	-15.61	JVF, Nasaki, 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.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii 2:00 to 7:00 P. M.
B-19.52	-15.37	HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A. M.
B-19.56	-15.34	W2XAD, Schenectady, N. Y.,	10-30 A. M.-4 P. M. Sun. Daily 2-3 P. M.
B-19.63	-15.28	DJQ, Zeesen, Germany.	Daily 8:00 to 11:30 A. M.
B-19.64	-15.27	W2XE, Wayne, New Jersey,	relays WABC 10 A. M. to 5 P. M.
B-19.66	-15.26	GSI, 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.	6:00 to 10:00 A. M. daily.
B-19.71	-15.22	PCJ, Eindhoven, Holland.	7:00 A. M. to 11:00 A. M., irreg.
B-19.71	-15.21	W8XK, Pittsburg, Pa.,	relays KDKA 10 A. M. to 7 P. M.
B-19.73	-15.20	DJB, Zeesen, Germany.	Daily 3:45 A. M. to 11:30 A. M.
B-19.82	-15.13	GSF, Daventry, England.	6:00 A. M. to noon, 4:15 to 5:45 P. M.
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-20.42	-14.69	PSF, Rio de Janerio, 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.
T-20.55	-14.60	JVH, Nazaki, Japan.	Phones Europe 4:00 to 8:00 A. M.
T-20.56	-14.59	WMN, Lawrenceville, N. J.	Phones England daylight.
E-20.60	-14.56	HBJ, Geneva, Switzerland.	Experimenting.
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	HPE, 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-20.97	-14.26	-14.30 to 14.11	-Amateur phones heard in daytime.
T-21.20	-14.20	W1OXFP, The Schooner "Morrissey"	Irregular.
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.
T-22.09	-13.58	GBB, Rugby, England.	Phones Canada and Egypt daytime.
T-22.35	-13.42	GCI, Rugby, England.	Phones JVH 3:00 to 8:00 A. M.
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England daytime.
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. irregularly.
T-22.50	-13.34	-13.34 to 12.35	-Ships. Heard in daytime.
T-22.58	-13.28	CGA3, Drummondville, Canada.	Phones ships and England daytime.
E-22.76	-13.18	DGG, Nauen, Germany.	Phones Asia mornings irregularly.
E-22.95	-13.07	VPIA, Suva, Fiji Islands.	Daily except Sat and Sun., 12:30-1:30 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.  
 B-23.38-12.83-RABAT, Morocco. Broadcasts Sunday 7:30 to 9:00 A.M.  
 T-23.45-12.80-IAC, Piza, Italy. Works ships mornings.  
 T-23.47-12.78-GBC, Rugby, England. Phones ships irregularly.  
 B-24.20-12.40-CT1GO, Parede, Portugal. Tu., Th., Fri., 1-2:15 P.M., Sun. 10-11:30 A.M.  
 T-24.20-12.40-DAF, Norden, Germany. Phones ships irregularly mornings.  
 T-24.40-12.30-PLM, Bandoeng, Java. Phones VK2ME near 6:30 A.M.  
 T-24.41-12.29-GBU, Rugby, England. Phones America evenings.  
 T-24.69-12.15-GBS, Rugby, England. Phones New York.  
 T-24.88-12.06-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. 6-7 A.M.  
 T-25.02-11.99-FKZ, Saigon, Indo-China. Phones Paris mornings.  
 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, 3-4 A.M. 10:00-1:15 P.M., 2-5 P.M.  
 B-25.27-11.87-W8XK, Pittsburg, Pa., relays KDKA 5:00 to 9:00 P.M.  
 B-25.28-11.86-GSE, Daventry, England. 11:00 A.M. to noon.  
 B-25.40-11.81-2RO, Rome, Italy, 8:15 to 10:15 A.M. and 2-30 to 5-00 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. Schedule not known.  
 B-25.49-11.77-DJD, Zeesen, Germany. Noon to 4:30 P.M., 5:00 to 10:30 P.M.  
 B-25.53-11.75-GSD, Daventry, England. 12:15-2:15 A.M., 12:15-8 P.M., 10-11 P.M.  
 B-25.60-11.72-CJRX, Winnipeg, Canada. 7:00 to 10:00 P.M., 10:30 to 11:00 P.M.  
 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. 3 to 4 A.M., 6 to 9 and 10 P.M. to 12 Midnight.  
 E-25.63-11.71-KIO, Kauhuku, Hawaii. Heard in the evenings testing.  
 E-25.73-11.66-PPO, Rio de Janeiro, Brazil. Used irregularly in evenings.  
 B-25.93-11.57-HH2T, Port-au-Prince, Haiti. Heard irregularly, evenings.  
 E-25.95-11.56-VIZ-3, Australia. Testing with CGA4 or CJA-4, 6 to 10 P.M., irreg.  
 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-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.  
 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.  
 T-28.12-10.67-CEC, Santiago, Chile. Broadcasts 7:30 to 9:00 P.M. Sundays.  
 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. Y. Tests irregularly with Europe.  
 T-28.44-10.55-WOK, Lawrenceville, N. J. Phones Brazil and Argentine 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. Vesting near 6:00 A.M.  
 T-28.80-10.42-PDK, 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.  
 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. 6:15 to 7:15 P.M. daily. Wed., 10 P.M.  
 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.  
 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.  
 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 8:00 to 10:00 A.M.  
 T-29.58-10.14-OPM, Leopoldville, Belgian Congo. Phones ORK 9-11 A.M., 3-6 P.M.  
 T-29.79-10.07-EHY, Madrid, Spain. Phones YVR near 4:00 P.M. irregularly.  
 T-29.83-10.05-ZFB, Hamilton, Bermuda. Phones U.S.A. and ships daytime.

Meter	Meg.	STATION	TIME
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 7:30 P.M., Sat. 1 to 3 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, Lawrenceville, 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-31.13	9.64	2RO, Rome, Italy.	Mon., Wed., Fri., 6:00 to 9:15 P.M.
B-31.25	9.59	CT1AA, Lisbon, Portugal.	Tues., Thurs. and Sat., 3:30 to 6:00 P.M.
B-31.27	9.59	HLB, Geneva, Switzerland.	5:30 to 6:15 P.M., Saturday.
B-31.28	9.59	W3XAU, Philadelphia, Pa.	Noon to 6:45 P.M.
B-31.28	9.59	VK2ME, Sydney, Australia.	Sun. 12-2, 4:30-8:30, 9:30-11:30 A.M.
B-31.28	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.	6:00 to 8:00 P.M., 10:00 to 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-31.34	9.57	LKJL, Jeloy, Norway.	5:00 to 8:00 A.M., 11:00 A.M. to 6:00 P.M.
B-31.36	9.57	W1XK, Boston, Mass.	(Millis) 6:00 A.M. to Midnight.
B-31.36	9.57	VUY-VUB, Bombay, India.	Wed. and Sat., 11:00 A.M. to 12:30 Noon.
B-31.38	9.56	DJA, Zeesen, Germany.	12:30-2:15 A.M., 5:05 to 9:15 P.M.
B-31.45	9.54	DJN, Zeesen, Germany.	12:30 to 2:15 A.M., 3:45 to 7:15 A.M.
B-31.48	9.53	W2XAF, Schenactady, N. Y.	Sundays 4:30-12, Daily 5:30-11 P.M.
B-31.55	9.51	GSB, Daventry, England.	12:15-2:15 A.M., 12:15 to 5:45 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Wed., Thurs., Fri., Sat., 5 to 7 A.M.
B-31.56	9.50	PRF5, Rio de Janeiro, Brazil.	Daily 5:30 to 6:15 P.M.
T-31.63	9.48	PLW, Bandoeng, Java.	Phones Australia 3:00 to 8:00 A.M. irregularly.
T-31.71	9.46	Tripoli, Africa.	Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.
B-31.80	9.43	COH, Havana, Cuba.	10 to 12 A.M.; 4:00 to 6:30; 8 to 10 P.M.
T-31.86	9.42	PLV, Bandoeng, Java.	Beds. Tues. and Thurs., 10:00-10:30 A.M.
T-32.15	9.33	CGA4, 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 irregularly.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly evenings.
T-33.41	8.98	VWY, Poona, India.	Phones England near 8:30 A.M.
T-33.93	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., irreg.
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	ZCK, Hong Kong, China.	Relays ZBW daily 11:30 P.M. to 1:15 A.M., Mon. and Thur., 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
E-34.68	8.65	WVD, Seattle, Wash.	Testing irregularly.
T-35.02	8.57	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-35.42	8.47	DAF, Norden, Germany.	Phones ships irregularly.
T-35.80	8.38	IAC, Piza, Italy.	Works ships irregularly.
B-36.50	8.21	HCJB, Quito, Ecuador.	Daily except Mon. 7:30 to 11:30 P.M.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
B-37.33	8.05	CNR, Rabat, Morocco, Africa.	Sunday 2:30 to 5:00 P.M.
E-37.97	7.	LSL, Buenos Aires, Argentina.	Heard afternoons and Evenings.
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.

Meter	Meg.	STATION	TIME
B-38.47	7.80	HBP, 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.
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	ZLR, Wellington, N. Z.	Phones Sydney from 3 to 5 A.M. irregularly.
B-40.65	7.38	XECR, Mexico City.	Sundays, 6:00 to 7:00 P. M.
T-40.71	7.37	KEQ, Kauhuku, 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	PIIJ, Dordrecht, Netherlands.	Saturday 10:10 to 11:10 A.M.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
B-43.48	6.90	H13C, 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, R. D.	12:10 to 1:40 P.M. and 6:40 to 7:40 P.M. daily; 3:00 to 4:00 A.M. and 4:00 to 5:00 P.M. Sundays.
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., oftines with music.
B-44.71	6.71	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M. irregularly.
T-44.96	6.67	YVQ, Maracay, Venezuela.	Testing near 10:00 P.M. irregularly.
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-45.38	6.61	REN, Moscow, U.S.S.R.	1.00 to 6:00 P.M.
B-45.50	6.61	HI4D, Santo Domingo, R. D.	11:55 to 1:40, and 4:40 to 7:40 P.M.
B-45.81	6.55	TIPG, San Jose, Costa Rica.	8:30 to 11:00 P.M., irreg.
B-45.81	6.55	TIRCC, San Jose, Costa Rica.	6:00 to 11:30 P.M. irreg.
B-45.95	6.53	HIL, Santo Domingo, R. D.	Saturdays 8:00 to 10:00 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-46.51	6.45	HJ1ABB, Barranquilla, Colombia.	4:30 to 10:00 P.M. daily.
B-46.51	6.45	YN1GG, Managua, Sicaragua.	7:00 to 10:30 P.M. irregularly.
E-46.70	6.42	W3XL, Bound Brook, New Jersey.	testing with W10XFN irregularly.
E-46.77	6.41	HJA3, Barranquilla, Colombia.	Phones HJA2, irregular.
B-46.87	6.40	TIGP, San Jose, Costa Rica.	8:30 to 11:00 P.M., irregular.
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-47.50	6.31	HIZ, Santo Domingo, R. D.	Daily 5:00-6:00 P.M., Sat. 11:00 P.M.
B-48.00	6.25	Army aircraft heard in daytime.	
B-48.00	6.25	HJ4ABC, Periera, Colombia.	Daily 9:30-11:00 A. M.; 7:00-8:00 P. M.
B-48.00	6.25	OAX4B, Lima, Peru.	Wednesdays 7:00 to 10:30 P.M.
B-48.40	6.20	CT1GO, Parede, Portugal.	Daily except Sat. and Mon. 7:20 to 8:30 P.M. and Sundays from 11:40 A.M. to 1:00 P. M.
B-48.50	6.19	HI1A, 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.	Daily from 6:00 to 11:00 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.	Mon., Wed., Fri., 7:00 to 10:00 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-48.82	6.14	CSL, Lisbon, Portugal.	1:30 to 7:00 P.M. irregularly.
B-48.85	6.15	CJRO, Winnipeg, Canada.	7:00 to 10:00 P.M., 10:30 to 11:00 P. M.
B-48.86	6.14	WSXK, Pittsburg, Pa., relays KDKA	9:00 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 P. M.
B-48.92	6.13	COCD, Havana, Cuba.	Heard 5:00 P.M. to 1:00 A.M., irregular.

Meter	Meg.	STATION	TIME
B-48.98	6.13	HJ1ABE, Cartagena, Colombia,	daily 7:30 to 9 P.M., Mon. 10:30 P.M.
B-49.02	6.12	VQ7LO, Nairobi, Africa.	5:45-6:15 A.M., 11:00 A.M.-2:00 P.M.
B-49.02	6.12	YDA, Bandoeng, Java.	Heard between 5:00 and 11:00 A.M.
B-49.02	6.12	W2XE, Wayne, N. J.	Relays WABC 5:00 to 10:00 P.M.
B-49.08	6.11	YV2RC, Caracas, Venezuela.	1:30 to 1:00; 5:15 to 10:00 P.M.
B-49.10	6:11	GSL, Daventry, England.	2:30 to 4:00 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	HJ4ABB, Manizales, Colombia,	8:00 to 11:30 P.M. irregularly.
B-49.18	6.10	W9XF, Chicago, Ill.	12 M. to 1:00 A.M. and 8:00 to 9:00 P.M.
B-49.18	6.10	W3XAL, Bound Brook, N. J.	Mon., Wed. and Sat., 4:00-11:00 P.M.
B-49.20	6.09	ZTJ, Johannesburg, Africa.	3:30 to 7:00 A.M.; 9:00 A.M. to 4:00 P.M.
B-49.22	6.09	VE9GW, Bowmanville, Canada.	Thur., Fri., Sat. 7:00 A.M. to 4:00 P.M., Sun. Noon to 8:00 P.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; Sun., 1:45 P.M. to 1:00 A.M.
B-49.40	6.07	HJN, Bogota, Colombia.	6:00 to 11:00 P.M. irregularly.
B-49.41	6.07	HH2S, Port-Au-Prince, Haiti.	Heard irregularly, evenings.
B-49.42	6.07	WER2, Vienna, Austria.	Noon to 5:00 P.M., week-days.
B-49.45	6.06	HJ4ABL, 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.	5:30 A.M. to 7:00 P.M., 10:00 P.M. to 1:00 A.M.
B-49.50	6.06	W3XAU, Philadelphia, Pa.	7:00 P.M. to 10:00 P.M.
B-49.65	6.04	HJ1ABC, Barranquilla, Colombia.	6:00 to 10:00 P.M.
B-49.67	6.04	W4XB, Miami Beach, Florida.	11:30-2:00 PM., 8:00-12 midnight.
B-49.67	6.04	PRAS, Pernambuco, Brazil.	2:30 to 8:30 P.M.
B-49.75	6.03	HP5B, Panama City, Panama.	12 to 1; 8 to 10:30 P.M.
B-49.83	6.02	DIC, Zeesen, Germany.	Noon to 4:30 P.M. and 9:30 to 10:30 P.M.
B-49.83	6.02	CQN, 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. 4-9 P.M.
B-49.90	6.01	COC, Havana, Cuba.	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M. and Saturdays at 11:30 P.M.
R-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., rregular.
B-50.00	6.00	XEBT, Mexico City.	6:00 P.M. to 3:00 A.M. irregularly.
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-50.25	5.98	XECW, Mexico City, Mexico.	4:00 to 4:30 and 10:30 to 12:00 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-50.30	5.96	YNLF, Managua, Nicaragua.	6:00 P.M. to 1:00 A.M., irreg.
B-50.93	5.89	HJ2ABC, Cucuta, Colombia.	11 A.M. to Noon; 6 to 9:30 P.M.
B-50.60	5.93	HJ4ABE, Medellin, Col.	10:00 to 11:00 A.M. and 5:00 to 9:30 P.M.
B-50.93	5.89	TGX, Guatemala City.	11:00 A.M. to 2:30 P.M., 6:00 to 10:00 P.M.
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-51.90	5.78	HI1J, San Pedro de Macoris, R. D.	7:00 to 9:30 P.M. irregularly.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
T-52.86	5.78	JVV, Nazaki, Japan.	Used irregularly.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M. irreg.
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.	Phones to ships irregularly.
T-61.15	4.90	CGA8, Drummondsville, Canada.	Phones ships and England irreg.
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 to 11 P.M.
T-66.50	4.51	ZFS, Nassau, Bahamas,	works WND evenings.

Meter Meg.	STATION	TIME
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.		

### HEARD-ALL-CONTINENTS CLUB

From North, South, East and West questions are pouring in about this organization. People who do not belong to the International Short Wave Club oftentimes write to us about it. Briefly, it is a group of people who have been able to prove that they have heard stations on all of the continents. To enter this rather exclusive group, a person must have verifications from at least one station in each of the following places: Asia, Africa, Australia, Europe, North America and South America.

These verifications, along with postage to cover their safe return to the sender, and five cents to pay for a certificate, must be sent to us at East Liverpool, Ohio. One verification from each Continent gives a Class A certificate, two gives a Class AA, three a Class AAA, etc.

Two important decisions were made last month. The new Fiji Islands' station will be counted as Australia, since Australia lies between that place and Asia. Of course, most everyone knows that when a station is on an island near a certain continent, it is counted with that continent. Japan and Java are counted with Asia. In regards to Central American and West Indian stations, these will be counted according to their respective distance from North and South America. If they are nearer North America, they are North American stations. If they lie nearer South America, they will be counted South American.

Since the last list of H-A-C members was printed, the following changes have been made: H. S. Bradley, Hamilton, N. Y., has entered the 7-A class; Ed. Lips, Pittsburgh, Pennsylvania; Nick Gaug, New York City; W. A. Dean, Hartford, Connecticut and T. W. Moss, Exeter, England, have entered the 5-A class; Arthur W. Lunn, Maplewood, New Jersey, is also in this class. New members in the Class 3-A are John Kirby, New York City; F. Edward Fellows, Short Hills, New Jersey; Sgt. H. J. Dent, Bombay, India; Roy Waite, Ballston Spa, N. Y.; D. R. D. Wadia, Bombay, India. New members in the Class AA group are Harry V. Miner, Wallston, Mass.; Frank Grey, Berwyn, Ill.; A. F. Larkman, London, England; Robert Rossi, Philadelphia, Pa.; W. E. Doty, New York City.

New members to the Class A group (one verification from each continent) are: Charles Hoffman, Terre Haute, Ind.; D. D. Lowmiller, Minneapolis, Minn.; Carlos Irizarry, Brooklyn, N. Y.; J. Arnold Klein, Felts Mills, N. Y.; Peter Lasorelle, Herkimer, N. Y., Wm. F. Seaman, Hamburg, Pa.; Howard Muir, Racine, Wis.; Rev. C. F. Mant, Honolulu, Hawaii, Luther Henderson, Ft. Worth, Texas; F. S. Anderson, Jr., Richmond, Virginia; W. C. Fleming, Augusta, Georgia; Lewis Evans, Oklahoma City, Okla.

Please remember that the September issue will be a special edition. Send reports to us as early as possible and no later than the twentieth this month.

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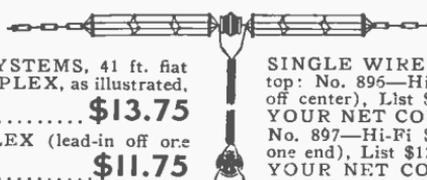
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