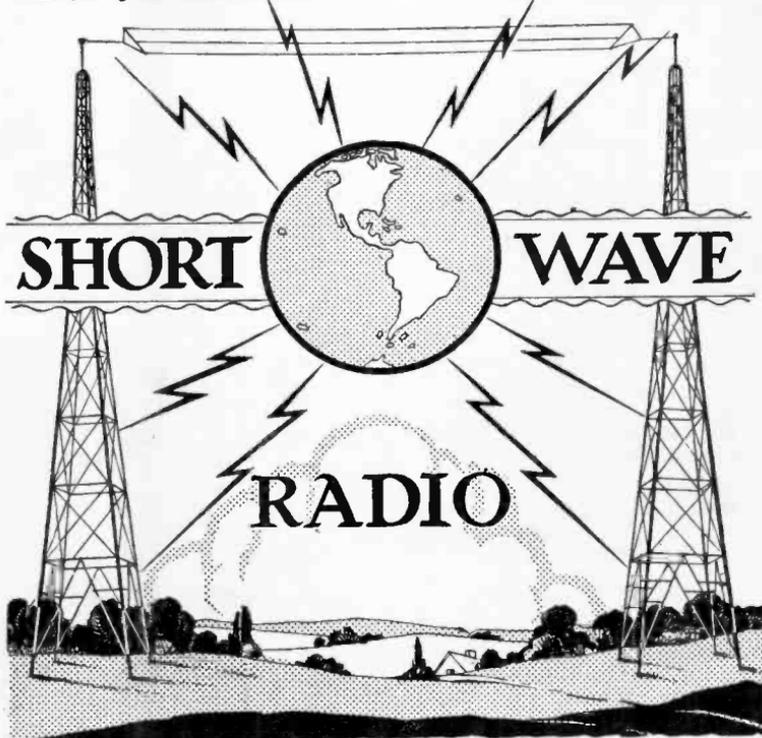


VOL. VI

JULY, 1935

NO. 10

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.

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(INTERNATIONAL SHORT WAVE RADIO, DEC. 1934)

WATCH THE "LEADERS" FOLLOW LYNCH

For more than two years Arthur H. Lynch
has been emphasizing the fact that

**"No Radio Can Be Better
Than Its Aerial"**

LYNCH

HI-FI

TRADE MARK REGISTERED

(High-Fidelity)

ANTENNA SYSTEMS

are as superior to all other antenna systems as
the present high-fidelity radio receivers are
superior to the noisy, squealing sets of years
ago. The "leaders" are just beginning to
realize they have been playing a game of
Rip Van Winkle.

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to demonstrate a LYNCH Antenna—
or write us for free literature.

Then **COMPARE!**

**WHEN BETTER AERIALS ARE MADE
LYNCH WILL MAKE THEM . . .**

AND OTHERS WILL TRY TO COPY THEM

*Write for Free Bulletin on LYNCH
PATENTED and GUARANTEED
Noise-Reducing Antennas for Home, Auto Use.*

**ARTHUR H. LYNCH, INC., 227 Fulton St., N. Y.
PIONEER OF NOISE-REDUCING AERIALS**



NATIONAL

Communication Type HRO RECEIVER



THE Communication Type 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 Preselctor 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.

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.

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.
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- Electron Coupled Oscillators.
- Beat Frequency Oscillator.
- Signal Strength Meter, calibrated in S units.

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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 (ALL FIVE WAVE BANDS)

**30 DAYS
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SAVE UP TO 50%

Direct from Midwest Laboratories

THE almost magical performance of this super radio is startlingly human! As domestic and foreign stations are brought in, many automatic adjustments are instantly being made inside the set. It might be said that a number of "Invisible Hands" enable you to bring in and hold any station you desire from the whole world of broadcast... regardless of fading and interfering conditions. Before you buy any radio, write for the new FREE Midwest "Fifteenth Anniversary" catalog and see how you can save from 1/3 to 1/2 by buying direct from Midwest Laboratories. Learn why Midwest outperforms sets costing up to \$200.00 and more. Now save 30% to 50%. Never before so much radio for so little money! Midwest gives you triple protection with: One-Year Guarantee, Foreign Reception Guarantee, Money-Back Guarantee.

ONLY RADIO COVERING
 9 TO 2,400 METERS.
 12,000 MILE TUNING RANGE

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 WORLD'S GREATEST
 RADIO VALUE

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The Midwest 36-page Catalog pictures a complete line of beautiful, artistic deluxe consoles and chassis in four colors. Write for new FREE Catalog . . . TODAY!

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Increasing costs are sure to result in higher radio prices soon. Buy before the big advance—NOW—while you can take advantage of Midwest's sensational values. No middlemen's profits to pay! You can order your Midwest High Fidelity radio from the new Midwest catalogue with as much certainty of satisfaction as if you were to select it in our great radio laboratories. You save 30% to 50% when you buy this popular way... you get 30 days FREE trial... as little as \$5.00 down puts a Midwest radio in your home. Foreign Reception, One-Year and Money-Back GUARANTEES protect you. Write for FREE catalog NOW... TODAY!

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 50%**

MIDWEST RADIO CORP.

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Established 1920

Cable Address Miraco. . . . All Codes

Only Midwest Gives You These Exclusive Features!

HERE are a few reasons why Midwest is generally accepted as the world's most "Universal" set. They explain why it is so popular in Africa, Spain, and other countries where reception conditions vary widely—illustrate why so many police, army, navy and consular officials as well as listening posts prefer it—prove why many "hams," who own a number of sets, use the Midwest in preference to any other.

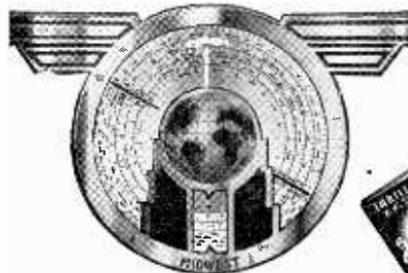
FIDEL-A-STAT

Three Taps
No Gap
No Stop

Absolutely new and exclusive with Midwest, this feature represents the only new departure in controlling potentials since about 1863. With the Midwest Fidel-A-Stat, the full beauty and rhythmic nature of modern music, together with the beautiful "lace work" of flutes, violins, piccolo and other reed instruments, may be brought out and accentuated to any degree desired. You'll be amazed and pleasantly surprised the first time you use this startlingly different control.



Only Midwest Gives you Multi-Function Dial



This dial is not an ordinary airplane dial. It is a many purpose unit that performs many functions. Send for FREE Miniature Dial showing many outstanding advantages: Dial calibrated in Kilocycles, Megacycles & Meters... Slow-Fast, Smooth-Action Tuning... Station Group Locator... Silent Shadow Tuning, Etc.

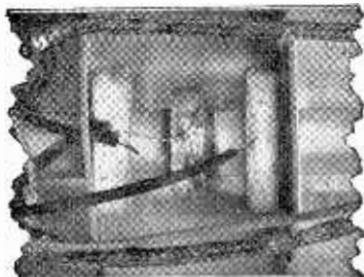
EXPERIENCED RADIO MAN PRAISES MIDWEST
Trenton, N. J.—I am firmly convinced that I have received the most for my money in my 15 years' experience. My Midwest -16 brought in 12RO, Rome; EAQ, Madrid; FYN, France; GSA, GSB, Daventry; VK2ME, Sydney, etc. It has remarkable selectivity! With WCAU at 1170 KC and WOAI at 1190 KC both 50,000-watt stations, transmitting at their peak about 9 P.M., I have cut between these stations and received KOB, New Mexico, at 1180 KC with loud speaker volume—and no interference. R. M. Scheid, Jr., 28 Boudinot Street.



50 ADVANCED FEATURES

Exclusive "Invisible Hands" features include: High Level Automatic Volume Control Action, Discriminating Automatic Tone Control, Multi-Function Dial, Micro-Tenuator, Fidel-A-Stat, etc. Only Midwest covers a tuning range of 9 to 2400 meters (33 Megacycles to 125 KC)—enabling you to easily and successfully tune in even low-powered foreign stations up to 12,000 miles away—with crystal-clear loud speaker, High Fidelity reception.

Micro-Tenuator--Midwest Expanding and Contracting I.F. Transformer



(U. S. Patent Pending
Serial No. 721,240)

This feature makes you master of your set's sensitivity. The "Electromagnetic Shield" is under your complete control at all times by means of the Micro-Tenuator lever on the front panel. By turning this lever entirely to the left, the "Electromagnetic Shield" cuts the coupling between the primary and secondary so low that the sensitivity of the set is barely sufficient to bring in local stations and powerful nearby stations. Send Coupon or 1c post card.



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Without obligation on my part, send me your new FREE catalog, FREE Miniature Dial, and complete details of your liberal 30-day FREE trial offer. This is NOT an order.

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Check here, if interested in Midwest World-Wide Battery Radio.
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Hi-Fi Allwave Noise Reducing Systems, Ready-to-Hang-to-Your-Masts, or Kits to Assemble Your Own

LYNCH MATERIALS USED EXCLUSIVELY

FOUR WIRE CAGE SYSTEMS

HI-FI DUPLEX CAGE ANTENNA

No. 886 — Doublet cage (41 ft. flat top) with 35 ft. Giant Killer cable lead-in. Complete with new Hi-Fi Duplex Antenna and receiver couplers and Double Lightning Arrester.



FOR LOCATIONS WHERE SPACE IS LIMITED.

Shipping weight, 10 pounds.
List Price...\$23.00
Your net cost. **\$13.75**
Kit Lynch materials to build 886. List Price, \$16.75.
You Net Cost **\$9.95**

HI-FI SIMPLEX CAGE ANTENNA

No. 887—Inverted L 41 ft. flat top cage with 35 ft. Giant Killer cable lead-in. Complete with new Hi-Fi Receiver Coupler and Double Lightning Arrester. Shipping weight, 10 pounds.



List Price...\$19.50
Your net cost. **11.75**
Kit Lynch materials to build 887. List price \$13.25.
Your net cost. **\$7.95**

Each additional 5 feet of Giant Killer Cable Lead-in, attached, List Price, 40c Net Cost.....25c

Other sizes of Antenna Systems, including 78 ft. cages, Doublet or Inverted L, Transposed or Giant Killer Cable Lead-in built to order. For estimate, send sketch of location, showing space available, heights and sources of interference. Mention make of receiver.

SINGLE WIRE FLAT TOP SYSTEM

HI-FI DUPLEX SINGLE WIRE ANTENNA

No. 896 — Doublet single wire (78 ft. flat top) with 35 ft. Giant Killer cable lead-in.

Complete with new Hi-Fi Duplex Antenna and receiver couplers and Double Lightning Arrester.



For Locations Permitting 78" or 114. Flat Top.

Shipping weight, 8 pounds.
List Price...\$15.50
Your net cost. **\$9.25**
Kit Lynch materials to build 896. List price, \$12.50.
Your net cost. **\$7.50**

HI-FI SIMPLEX SINGLE WIRE ANTENNA

No. 897—Inverted L (78 ft. flat top) with 35 ft. Giant Killer cable lead-in.

Complete with new Hi-Fi Receiver Coupler and Double Lightning Arrester. List Price, \$12.00.

Shipping weight, 8



pounds.
Your net cost. **\$7.20**
With 114 ft. Flat Top.....\$7.74 Net
Kit Lynch materials to build 897. List price, \$9.00.
Your net cost. **\$5.40**
For 114 ft. Flat Top.....\$5.94

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

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

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PR-1?

PR-12 originally designed for 12 tubes. The PR-1? will have additional tubes and many new features. The outstanding receiver of the year is now ready. Delivery definitely assured on and after July fifteenth. We pay shipping charges. Send now for new free descriptive literature on this new wonderful receiver.

We also have the RCA-ACR 136, RME 9-D, Sargent, McMurdo Silver, and many other receivers in stock

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Manufacturers of "MARINE" Transmitters

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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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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—

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HIS LATEST AND GREATEST ACHIEVEMENT...

SILVER MASTERPIECE IV

... With 25 New Exclusive Features

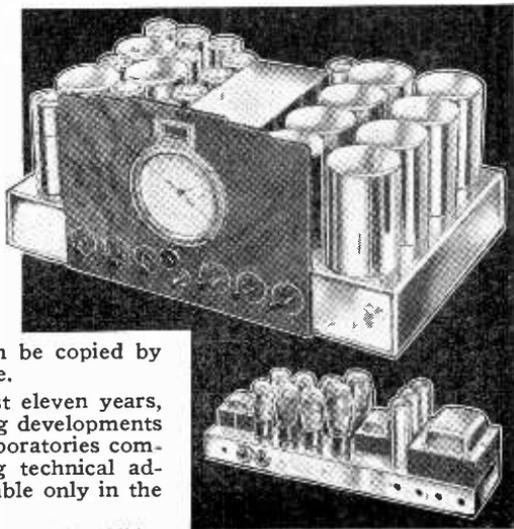
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Once more, McMurdo Silver renders distinguished service to radio. This time it's the Silver MASTERPIECE IV, with an amazing array of new "firsts" that will again be copied by other makers in the years to come.

The same genius which, in the last eleven years, has produced more new engineering developments in radio than all other American laboratories combined, now introduces 25 startling technical advancements and refinements, available only in the new Silver MASTERPIECE IV.

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Already proven the champion of champions as a distance getter, the Silver MASTERPIECE IV brings you world-wide all-wave reception with full-range high fidelity and tone quality so real, so thrilling, you will realize that here, at last, is the superlative musical instrument—the finest radio of all time. Mail coupon TODAY for Free 32-page book and complete details.



The Silver MASTERPIECE IV introduces so many entirely new engineering features that they cannot even be summarized here. Mail the coupon for a free copy of the completely descriptive and analytical "Blue Book"—a presentation of radio so perfected that it will be a revelation to you.



reception conditions . . . entirely at our risk. Ask for details of amazing 10 DAY FREE TRIAL and 5 YEAR GUARANTEE.

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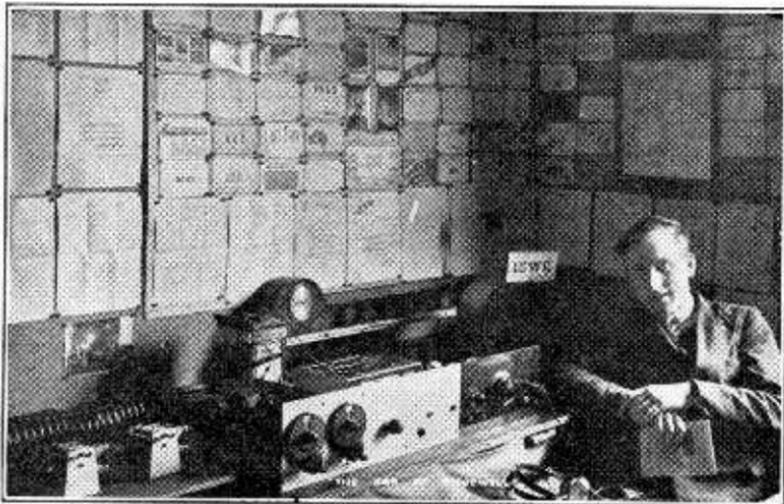
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Send Free "Blue Book" with complete specifications of Silver MASTERPIECE IV, and details of FREE TRIAL OFFER.

Name.....

Address.....

City..... State..... 7SW



FRANCIS A. BEANE

We take great pride this month in presenting to the members of this club a photograph of Mr. Francis A. Beane, of Ridgewell, Halstead, Essex, England, and his radio den. His work in behalf of the International Short Wave Club would require pages and pages of space to describe. As a short wave fan, he has earned a world-wide reputation and many radio clubs are bidding for his membership.

Mr. Beane now uses a home-built, five-valve (tube) super-het receiver, and also a three-valve (tube) set. A few of his verifications from stations can be seen in the photo. In his hand is a copy of our magazine. Above his head can be seen his merit certificate in the Denton Contest and directly above it, his Heard-All-Continents Club certificate. Mr. Beane joined the I.S.W.C. in 1932, when British short wave fans were very scarce. His efforts to spread information about the club has resulted in many memberships. For years members have been reading his reports in these magazines.

ANOTHER SHUT-IN

Last month we mentioned two members who were unfortunate enough to be confined to their beds. Another one is E. A. Burlison, The Outlook, Urbana, Illinois. We would be very proud indeed to bring sunshine to these people by publishing a "Shut-In Society" list. Anyone who happens to be unfortunate enough to be confined to their homes on account of illness will be eligible to join. An exchange of letters, and letters from others not so unfortunate may make life a bit more bright.



MR. HENRY T. MERSHON

All through the pages of this magazine you will find the name of H. T. Mershon of Pueblo, Colorado. His reports have been found in nearly every issue of this magazine for the past year. For this reason we are very proud to show this photograph of Mr. Mershon at the dials of one of his receivers. As a DX (distant station) fan, Mr. Mershon takes his hat off to few. A short wave set in his office and one at his home keeps him in constant contact with short wave stations everywhere. As a matter of fact, he get two copies of the club magazine each month, one at his home and one at his office. This indicates how much interest he has in short waves.

In the years that we have been publishing this magazine, thousands of QSL cards have found their way into our hands. The finest one we have ever seen, with no exceptions, is the one used by Mr. Mershon to send reports to stations. On his card is found three views of his radio den. Antenna towers, information on his receivers, location and other such things, fill out the card.

Tell your friends that the rules of the special Birthday DX Contest, along with the list of prizes to be awarded, and the list of stations that will broadcast DX programs, will be published in the September issue.

INTERNATIONAL DX CONTEST

We are happy to announce our plans for what we believe will be the greatest DX contest ever held. This contest will be different from the general run of DX contests, and because it is different, will appeal to just about every short wave listener. It will not require a great deal of time, and the costs of entering will be almost nothing. There will be no such things as sending for verifications, waiting for months for the prizes to be awarded and getting an ornamental prize. Reports will be sent to the headquarters of the Club. Prizes will be awarded December 24th. The prizes will be useful radio equipment.

In October, the International Short Wave Club will start on the seventh year of its existence. It is the oldest and largest short wave club in the world. To celebrate this mile-stone, a number of stations will broadcast special Birthday programs during the month. A list of these stations, with the time of the broadcasts, will be published in the September issue. Listeners who wish to take part in the contest will need only to listen to these programs and send reports on them to the headquarters of the club. A committee of famous radio men will read these reports and judge the best. Prizes will be given to the persons sending in the best reports on the entire group of stations. You do not send for verifications. Reports should be sent to headquarters of the club at East Liverpool, Ohio.

Just about every short wave broadcast station will be asked to cooperate. Each will choose their own time on the air, so that listeners in any one particular part of the world will not be favored, unless it is by chance. Friends of the club are donating some very beautiful prizes for this contest, and advance letters indicate that there will be a great many awards. In a recent contest, 101 prizes were to be awarded and only 34 people took part, leaving 67 prizes which could have been easily won if so many listeners had not believed it would be useless to take part. We hope that listeners will take warning from this and make sure and take part in this contest.

Reports of each broadcast should be sent on a separate piece of paper. Neatness will not be considered in judging the reports. Completeness and accuracy are the main features to be considered. Stations will send details of the program to headquarters for checking and any person sending in a false report on one station will be eliminated from the contest, thus making it fair and square. The judges will be men of great character and reputation and be far above suspicion. Taking everything into consideration, every short wave listener in the world should take part in this contest. We request members to pass this information along to their friends. Remember, the details of the programs and awards will be printed in the SEPTEMBER issue.

INDIAN RADIO AMATEUR LEAGUE

There has been formed recently an organization in India under the above title. D. R. D. Wadia was named President, Sgt. H. J. Dent, Vice-President, J. J. Mehta, Secretary, B. M. Tanna, Recording Secretary, and J. C. Shah, Treasurer. All are members of the International Short Wave Club. They plan to publish their own magazine. Their address is not given in the literature we have received.

CHAPTER NEWS

During the summer months, interest in the Chapters is always at low tide. However, there are many interesting things in store for those who attend these meetings.

The Philadelphia Chapter. The first meeting of this Chapter was held June 21, and it was met with great enthusiasm. A temporary election was held. Fred B. Heller, Jr., was made President and George Zehner, Secretary. Regular officers will be elected later. This chapter was organized through the efforts of Mr. Heller and Mr. Frank J. Ballantine. The next meeting will be held on Friday, July 12, at 7:00 P.M., E.D.S.T., at 438 Market Street. A special invitation is extended to members in cities and towns out-side of Philadelphia.

The London, England, Chapter. Meets at Cavendish Grove, Wands-worth Road, London, SW-8, at 8:00 P.M. each Friday excepting the second in each month. Several times of late this Chapter has conducted 5-meter tests from the tallest building in London, and this has created quite a lot of publicity for the Chapter. Several Field Days are planned. Nominations for President of the Chapter are open and an election will be held early in August.

The New York Chapter. Meets at Plaza Bridge Club, 70 Eighth Ave., Brooklyn for the summer. For details, write to 1622 44th St., Brooklyn.

The Cincinnati Chapter. For details of this Chapter write to Charles Miller, 309 View Place, Covington, Ky.

The Leicester Chapter. Meets the first and third Wednesdays of the month at Foresters Institute, Leicester, England.

The Manchester Chapter. Meets at the British Legion Hall, Long Street, on the first and third Tuesdays of each month.

The New Jersey Chapter has discontinued meetings until September.

SPECIAL BROADCASTS

Station HJ1ABD known as "Ondas de la Heroica" at Cartagena, Colombia, on 41.20 meters, 7.281 mc., will broadcast special programs to members of this organization the last Thursday of each month at 9:00 P. M., E.S.T., or the last Friday 0200 G.M.T. These will be real programs using artists especially picked for the occasion. The work of club-member Elden Lagonterie, of Cartagena, made these programs possible, and we wish to express our sincere thanks to him for his efforts. The number of report received on these program will decide how long they will be carried on and we hope members will tune these programs in and send reports. The address is Estacion HJ1ABD, Ondas de la Heroica, Cartagena, Colombia S. A.

At this time we want to apologize for a rather bad blunder made last month. Station CO9WR, Sancti-Spiritus, Cuba, offered to broadcast a special program on June 15th, but was undecided whether it would be on 29.40 meters or 25.42 meters. In waiting, we overlooked publishing the information altogether. Our sincere apologies to both Dr. Cancio, of CO9WR, and to the members.

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

The most interesting thing in store for short wave fans at this time is the proposed broadcast from the stratosphere, which will be made soon by Captain Stevens, through the National Broadcasting Company and the National Geographic Society of Washington, D. C. Two stations will be used, one an 8-watt portable, which will go up in the gondola of the balloon, will be on 22.99 meters or 13.05 mc. and will use call W10XFH. The second will be a ground station at Rapid City, South Dakota, which is on 47.24 meters or 6.35 mc. and is known as W10XFN. When the balloon goes up, station W10XFH will send the words of Captain Stevens to W10XFN and W10XFN will relay them to W3XAL, W3XL, and other stations affiliated with the N.B.C.

Station W10XFN has been testing with station W3XL, Bound Brook, New Jersey, for the past three weeks, usually between 8:30 and midnight, but it has also been heard at noon, 3:00 P.M., 7:00 P.M. and other times. According to reports, W10XFH will test with W10XFN around midnight to 1:00 A.M. Mr. Sweeney, the operator who was with Admiral Byrd, has charge of these stations. Rob't Woods, Sand Springs, Oklahoma, reports that he has already received a verification of W10XFN from Mr. Sweeney, by writing to Rapid City. Last year, members will recall that verifications came from the National Geographical Society.

W10XFN has been reported by members Harold Lamont, Ashley Walcott, C. D. Ward, Jr.; John Schauer, G. W. Twomey, J. P. Tollman, Al Hague, W. Jasiorkowski, Rob't Muncie, Raymond Mens, Alden Fowler, Robert Rossi, W. D. Martin, J. H. Miller, Jom Palmer, G. C. Gallagher and James Keith. W10XFH is reported by Fred Karpen.

The new super-liner Normandie made quite a splash last month, so far as short waves were concerned. This station was heard on all four of the ship bands, or we might say near 17, 23, 34 and 68 meters; or 17, 13, 8.50 and 4.1 megacycles. The exact waves used were altered for best reception at the land stations. Two or three special broadcasts took place, and the ship worked a station W2XBJ for these, which is the experimental call of stations like WQO, WEL and others at Rocky Point, New York. Hundreds of regular phone calls were also put through, these being taken care of by stations WOO, New Jersey; GBC, England, and a new French station. The ship was heard at all hours of the day and night, of course. Reports came to us from members H. Mershon, J. Pickering, J. V. Robbins, Jim Palmer, F. L. Stitzinger, R. Lawton, W. D. Flagg, W. Jasiorkowski, Nick Gaug, H. S. Campbell, Alf Mann, W. J. Bird, H. S. Bradley, M. Van Bergen, Warren Roseland.

THE AMATEURS

We are being continually scolded for not giving more space to the foreign amateur stations now being heard on the 20 meter or 14 megacycle bands. It is a great thing to tune in some distant small-powered amateur station and we realize it. But, we find out that it is often times a case where two members will hear the same station and send us two different call letters for it. For an illustration, a station in Holland was reported last month as PAOIDW, PAOIGW, PAOICW and PAOIEW. There are stations using these call-signs in Holland. Just which one it was that was heard is almost known (PAOIDW) but if we said it was that, the others would certainly take the time to tell us we are all wrong. So, in order to avoid any misunderstanding, we list the countries heard and not the stations, as a rule. Several out-standing stations should be mentioned. A VK2EP in Australia is heard by many around Midnight. PAOIDW, Holland, and ON4AU, ON4ZA, Belgium, are heard in the afternoons and evenings. Others heard are in Cuba (CO), Colombia (HJ), Canada (VE), Newfoundland (VO), Costa Rica (TI), Panama (HP), Puerto Rico (K4), Spain (EA), Portugal (CT), Argentina (LU), Mexico (XIN), England (G), Norway (LA). Station LAIG tells G. S. Richardson of London, Ont., that he positively will verify no reports unless an International Postal Reply Coupon is sent. Others are Belgium (ON), Barbados (YP), Ecuador (HC), British Guiana (VP), Haiti (HH). Forty-seven members sent reports on these stations this month, so for this issue we will skip the names and use the space for other things.

ASIA

ZBW or ZCK, Hong Kong, China, on 34.29 meters, or 8.75 mc. This station is reported by quite a few Americans now around 5:00 to 6:30 A.M., none of them saying it is very loud. This station, which uses ZCK as the short wave call, always announces ZBW, the long wave call. It is also testing on 55.40 meters, but not often. They broadcast daily from 11:30 P.M. to 1:15 A.M. on Mondays and Thursdays; 3:00 to 7:00 A.M. on Tuesdays, Wednesdays and Fridays from 6:00 to 10:00 A.M., and Satur-

days up to 11:00 A.M. Verifications are reported by Radio Twins, Delaware, Ohio; W. D. Martin, Honolulu, and Sgt. H. J. Dent, Bombay, India. Their address is Post Office Box 200, Hong Kong.

HSJ, Bangkok, Siam, on 16.92 meters, 17.75 mc., is testing with JVG, Japan, with music around 3:00 to 4:30 A.M.—W. D. Martin, Honolulu.

FZS and FZR, Saigon, Indo-China. Letters say FZS is used for phone work around 5:00 to 8:30 A.M. and FZR is used from 8:30 A.M. on. FSZ is on 16.33 or 18.35 mc., and FZR is on 18.51 meters or 16.21 mc. FZS on 25.02 meters, 11.99 mc., at 10:00 A.M. is reported by L. D. Brewer, Phoenix, Arizona.

YBG and YBF, Sumatra. Letter says either YBG on 28.76 meters, 10.443 mc., or YBF on 30.21 meters, 9.93 mc., is used to phone PMN, Java, (29.25 meters) between 8:30 P.M. and 6:00 A.M., E.S.T.—J. Miller, Brooklyn, N. Y. Station YBG has been reported by many, YBF never.

ZLT, Wellington, New Zealand. A letter says they are on 11.05 mc. (27.15 meters) not 10.99 mc., as we list it—Chas. Eggenweiler, Los Angeles, California. This station phones Sydney, Australia, after Midnight, usually up to 10:00 A.M.

The Philippines. Stations KTP on 36.90 meters or 8.13 mc.; KAY on 20.03 meters, 14.98 mc.; KTO on 18.47 meters, or 16.24 mc., and KAZ on 30.09 meters, 9.97 mc., are included in this report. KTP phones Japan at 7:00 A.M.—H. Mershon, Pueblo, Colo. KAY working Berlin at 5:00 A.M. and working JVE, Japan, at 3:00 A.M.—W. D. Martin, Honolulu. KTO working Japan at 2:00 A.M.—G. C. Gallagher, San Francisco. At 5:00 A.M.—W. D. Martin. Phoning KWU between 5:00 and 8:00 P.M. (evening)—Wade Chambers, Tulsa, Okla.; Fred Karpen, Johnstown, Pa.; and H. S. Campbell, Upland, California. KAZ at 10:30 A.M. working KWU—A. Antognini, Greenfield, California.

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 relays 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.

VUC, Calcutta, India, enters the news again. It is on 49.10 meters, 6.11 mc., but is seldom heard. W. D. Martin of Honolulu and H. S. Campbell of Upland, California, report it near Midnight to 1:00 A.M.

VUB, Bombay, India, on 31.36 meters, or 9.57 mc., this station broadcasts Wednesdays and Saturdays from 11:00 A.M. to 12:30 Noon, but is seldom heard. The broadcasts on Sunday Mornings at 7:00 A.M. seem to have been concluded.

VPD or VP1A, Suva, Fiji Islands, on 22.95 meters, or 13.07 mc. The broadcast schedule of this station is daily excepting Sundays from 12:30 A.M. to 1:30 A.M. They announce the call as VPD, but when experiment-

ing, use VPIA. Anyone in the United States with a fair receiver and a fair location should be able to get this station now. The owners are the Amalgamated Wireless, Ltd., Suva. Some news received on it follows: Testing with VLK around 1:00 A.M.—W. D. Martin, Honolulu. Starts each program with "Song of the Islands" and ends it with "God Save the King"—H. Mershon, Pueblo, Colo. Verification card is something like that of VK2ME, showing outline map of Australian Territory and giving details on the Fiji Islands—Russell Bills, Elkhart, Ill. Heard once at 6:52 to 7:08 P.M. testing with records—Ernest Orchard, Weymouth, England. Is on 13.00 and not 13.07 mc.—James Keith, Northport, Washington. Heard on the regular schedule by members L. Henderson, Don Gross, Ashley Walcott, H. S. Campbell, J. B. Wooten, W. Jasiorkowski, Chas. Miller, Dr. R. C. Kash, P. A. Portmann, W. Chambers, J. Miller, Fred Karpen, A. B. Baadsgaard, W. H. Jessen, Mario Cassina, G. C. Gallagher.

Java Phones. Station PLP on 27.26 meters or 11.00 mc. is broadcasting just about every Sunday morning from 3:30 to 5:30 A.M., relaying the programs of station YDA—Ashley Walcott, San Francisco, Calif. It is heard from 4:00 to 8:00 A.M. by W. D. Martin, Honolulu. Station PMN also broadcasts these programs from 8:00 to 10:00 A.M. with PLP according to James Keith, Northport, Washington. Luther Henderson, Fort Worth, Texas, reports PLP also. Station PLV on 31.86 meters or 9.42 mc., broadcasts Tuesdays from 10:00 to 10:30 A.M. as well as worked Australia on phone—J. L. Davison, Oakland, California; A. Antognini, Greenfield, California. Heard often with music around 7:00 to 7:30 A.M.—G. C. Gallagher, San Francisco, California. PMA on 15.50 meters, 19.35 mc., sending music and testing with Holland for phone work around 10:00 to 10:30 A.M. is reported by members W. D. Flagg, Holyoke, Mass., and J. Miller, Brooklyn. PLE on 15.93 meters, 18.83 mc., is heard in the evenings, between 7:00 and 8:00 P.M.—W. Chambers, Tulsa, Okla., and Fred Karpen, Johnstown, Pa. Station PMY, Bandoeng, on 58.30 meters,

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or 5.15 mc., is not a phone station, but is a privately owned broadcast station and is heard between 6:00 A.M. and Noon—H. Jackson, Perth, West Australia, reports this.

Java Broadcasts. A new NIROM station is reported on 25.11 meters, or 11.97 mc., relaying the same program as YDA. It is heard only on Sundays so far, from 4:30 to 10:30 A.M.—L. G. Chavez, Los Angeles. Station YDA on 49.02 meters, 6.12 mc., continues to be the best Java station, although stations on 63.27 meters, 8.41 mc., and 98.68 meters, 3.04 mc., are heard in the far West.

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)

Some reports follow: Ashley Walcott, San Francisco—JVM saying that a special broadcast would come over JVH at 8:30 P.M., E.S.T. W. D. Martin, Honolulu—JVF at 1:00 A.M., JVG working Siam at 4:30 A.M., JVH working IRW, GBL and DFD from 3:45 to 4:00 A.M., JVL at 2:30 A.M. working JIB, JVO at 2:30 A.M. working JZB at 2:30 A.M., JVH at 8:30 P.M., JVE at 2:00 A.M. working KAX, at 3:00 with KAY and at 3:30 with HSJ. JVM with a baseball game at 12:30 A.M. H. S. Campbell, Upland, California—JVN at 2:00 A.M., 4:00 A.M. and 12:15 A.M. JVF at 4:15 P.M. and 12:48 A.M. JVO at 1:34 A.M. JVE at 1:45 A.M. and 6:50 P.M. Frank Grey, Berwyn, Illinois—JVF at 3:30 P.M., JVM at 7:00 A.M. H. Mershon, Pueblo, Colo.—JVM at 1:30 A.M. and 4:30 A.M., JVE at 1:50 A.M. and 11:45 P.M. Alden Fowler, Greensburg, Indiana—JVH at 7:00 A.M. Charles Miller, Covington, Ky.—JVM from 4:00 to 7:40 A.M. W. Jasiorkowski, Milwaukee—JVM, 3:00 to 7:44 A.M. and JVF at 3:50 P.M. Radio Twins, Delaware, Ohio—JVM from 4:00 to 7:00 A.M. L. Henderson, Ft. Worth, Texas—JVM at 7:00 A.M., JVN at 7:00 A.M., JVF at 3:45 P.M. A. Antognini, Greenfield, California—JVM at 5:10 A.M. and JVN at 10:15 P.M. A. J. Hayward—Trowbridge, England—JVH from 7:00 to 9:00 A.M. Wade Chambers, Tulsa, Okla.—JVF at 1:02 A.M., JVE at 2:30 A.M. J. Miller, Brooklyn, N. Y.—JVH at 7:00 A.M., JVF at 4:30 P.M. and JVM at 5:00 A.M. Fred Karpen, Johnstown, Pa.—JVH at 7:00 A.M., JVM at 1:00 and 7:00 A.M. W.H. Jessen, Eugene, Oregon—JVH at 8:30 P.M., G. Van Honk, Erie, Pa.—JVM at 6:00 to 7:00 A.M. G. C. Gallagher, San Francisco, California—JVF at 10:00 P.M. Also JYS on 9.84 used again.

Special broadcasts. As promised, the special Overseas programs from Japan were started last month. These take place on JVH starting at 8:00

P.M., E.S.T. As the conditions change, however, stations JVM or JVP may carry it. Listen for JVH at 8:00 P.M. for special English programs.

AUSTRALIA

VK2ME, Sydney, on 31.28 meters, 9.59 mc. The schedule now is Sundays from 12:00 to 2:00 A.M., 5:00 to 9:00 A.M. and 11:30 A.M. to 1:30 P.M. This comes from W. D. Martin, Honolulu; Robert Hughes, Trowbridge, England, and Oliver Amlie, Philadelphia, who reports that he has sent out over 175 reports to Australian stations in the past two months. James Keith, Northport, Washington, reports this station at 9:00 to 10:30 A.M. one Tuesday.

VK3ZX, an amateur station owned by Oliver G. Oppenheim, 33 Saturn St., Caulfield, Victoria, is broadcasting on 41.6 meters, 7.21 mc., with 25 watts each Sunday from 1:30 to 3:00 A.M., E.S.T.—Sgt. H. J. Dent, Bombay, India. We have been informed that this station closed down in April. A station VK4FB owned by Fred Beech, Bennetts Road, Coorparoo, Brisbane, Queensland, is broadcasting on 7.208 mc., around 3:00 A.M. on Sundays. Many of these programs are dedicated to the ISWC—W. D. Martin, Honolulu. They are heard nearly every Sunday from 3:45 to 4:15 A.M. calling ISWC members.

VK3LR, Melbourne, 31.31 meters, 9.58 mc. Schedule now is Mondays to Fridays from 3:15 to 5:00 A.M. relaying 3AR; 5:00 to 7:30 A.M. relay-

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ing 3LO. Fridays from 10:30 P.M. to Saturdays 2:00 A.M. relaying 3AR; 3:15 to 5:00 A.M. relaying 3AR and 5:00 to 7:30 A.M. relaying 3LO.—R. Lawton, Whitefield, England. Is reported broadcasting as early as 10:00 P.M. and as late as 8:00 A.M. by many, so they must not be sticking to this schedule. W. D. Martin, G. C. Gallagher, and Robert Hughes sent helpful reports.

VIZ-3, Rockbank, Near Melbourne, still working station CJA4, Canada, between 6:00 and 11:00 P.M. Announced frequency as 11.50 mc, or 26.00 meters, according to two members. Another said it was 11.485 mc., so they may be using two waves. Reports have come from members Jasiorkowski, Miller, Wooten, Antognini, Miller, Karpen, Van Honk, Gallagher.

Station VLK on 28.51 meters, 10.52 mc., using the call VK2ME has been testing with W2XAF, New York, quite often around 7:00 A.M.

SOUTH AMERICANS

OAX4B, Lima, Peru. 48.00 meters, 6.23 mc. Schedule is Wednesdays 7:00 to 10:30 P.M. Heard till midnight—W. Jasiorkowski, Milwaukee. OAX4D, Radio Dusa, Lima, Peru, 51.90 meters, 5.78 mc. Schedule is Wednesdays and Saturdays 8:00 to 11:30 P.M. Correct address is Casilla 2336—Dr. R. C. Kash, Seiverville, Tenn.

CEC, Santiago, Chile. A phone station. 18.91 meters or 15.86 mc. Scheduled to start at 11:00 A.M. but heard at 10:00.—L. D. Brewer, Phoenix, Arizona.

Venezuela. A card from YV6RV, Velencia, says they broadcast 12:00 noon to 1:00 P.M. and 6:00 to 10:00 P.M.—Robert Hughes, Trowbridge, England (Venezuela Time is given and it is one-half hour ahead of E.S.T.) YVQ on 44.96 meters, or 6.67 mc., relayed a special program from YV1RC, Caracas, from 8:30 up to 10:30 P.M. once—Dr. R. C. Kash, Sevierville, Tenn.; W. Jasiorkowski, Milwaukee, Wisconsin; J. Pickering, Hightstown, New Jersey, and G. C. Gallagher, San Francisco, California. Stations YV2RC and YV3RC are remaining on their correct schedules and we have many letters about them. Newspapers we have seen state that a YV9RC at El Valle, Caracas, will open up soon on 46.88 meters, or 6.40 mc.

Brazil. A letter from Cia Radiotelegraphica Brasileira, Caixa Postal 500, Rio de Janeiro, Brazil, says PPH on 25.15 meters, 11.93 mc., was relaying station PRA3 in April. It was heard between 5:00 and 7:00 P.M.—H. S. Bradley, Hamilton, N. Y. Station PSH on 29.45 meters, 10.22 mc. sent broadcasts from 7:00 to 8:00 P.M. once—Pedro Quintana Cabot, Cifuentes, Cuba. PSZ on 38.50 meters, or 7.78 mc., sending music one Monday evening—W. D. Flagg, Holyoke, Mass. Station PSE on 20.09 meters working WKP, New York, at 6:10 P.M. Said they had to broadcast every day until 6:15 P.M., so must be associated with PRF5—J. H. Miller, Brooklyn. PRF5, Rio de Janeiro, on 31.56 meters, or 9.50 mc., and PSK on 36.65 meters, or 8.19 mc., sent special program from 10:50 to 1:50 A.M. once—W. D. Martin, Honolulu. Heard after regular programs, which are scheduled for 5:45 to 6:15 P.M. on PRF5—Dr. R. C. Kash, G. C. Gallagher, E. A. Burleson, and J. B. Wooten.

The following list of Colombian stations should be of great help to every short wave fan: It is from the official list sent out by the Colom-

bian Government, with a few alterations made according to recent reports received by us.

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.	

Stations HJ1ABA, HJ3ABD, HJ3ABE, HJ3ABH, HJN, HJ4ABK are all heard on long waves above 200 meters. Stations HJ1ABC, HJ1ABF, HJ1ABH, HJ1ABI, HJ1ABK, HJ1ABL HJ2ABB, HJ3ABK, HJ3ABL,

HJ4ABG, HJ4ABJ, are all short wave stations, but are not operating on voice. The above information is the most complete and accurate news ever given out on the Colombian stations. HKE, on 41.5 meters, 7.2 mc., with 15 watts and HJN on 49.40 meters, 6.07 mc., with 250 watts are both broadcasting.

HJ5ABE, Cali. Here is a strange thing. This station broadcasts on 42.46 meters, or 7.085 mc., almost daily from 6:00 to 10:00 P.M. With very careful tuning, two members were able to hear it there. The first harmonic of the station falls on 21.26 meters, or 14.10 mc., and it is heard all over the entire world. How it is that a station can not be heard on the regular wave and is heard on the harmonic, is one of the mysteries of radio. This station uses a three-toned musical note identification. They always announce the 7.085 frequency. It has been reported by members H. S. Bradley, G. W. Twomey, Jasiorkowski, F. L. Stitzinger, W. D. Flagg, W. J. Davison, W. D. Martin, Fred Heller, Fred Karpen, Carl Weber, Harold Lamont, Alden Fowler, Al Leonhardt, J. Pickering, J. B. Wooten, Charles Miller, Robert Rossi, Dr. R. C. Kash, H. Mershon, P. A. Pertmann, Roger Legge, Carl Cochrane.

HJ4ABB and HJ4ABL. We were slightly confused on these stations last month. When station HJ4ABB moved, it took the same wavelength as HJ4ABL was using and HJ4ABL moved too. These stations are at Manizales, owned and operated by the same people. HJ4ABB is now on 49.15 meters or 6.10 mc. and HJ4ABL is on 49.45 meters or 6.065 mc.

HJ4ABB has been heard testing as late as Midnight, and running programs between 6:00 and 11:30 P.M. HJ4ABL is heard broadcasting from 5:30 to 7:30 P.M. and Saturday nights from 10:30 P.M. up to 1:00 A.M. The address is Box 50. We thank the following for their help: W. D. Martin, W. E. Doty, Jr., Charles Miller, Walter Jasiorkowski, Dr. R. C. Kash, F. L. Stitzinger, Don Gross, Jas. B. Wooten, John Shanks, Mario Cassina, Wilfred Siddle.

HJ4ABA, Medellin, on 25.60 meters, 11.71 mc. A card signed by E. Cuartes, manager, gives the schedule as 11:30 A.M. to 1:00 P.M., and 6:30 P.M. to 10:30 P.M. These have been received by members Charles Miller, Covington, Ky.; Radio Twins, Delaware, Ohio. Has been heard as follows: At 1:15 P.M.—W. D. Flagg, Holyoke, Mass. Working USA amateurs from 3:15 to 5:00 P.M.—H. J. Davison, Bayamon, P. R.; F. A. Beane, Ridgewell, England; Al Hague, New York City; P. A. Portmann, Woodside, New York.

HKPQ and HKV. The War Ministry Department of Colombia, which put station HKV on the air recently, has put another one on. It is reported as HKCQ by most listeners, but several say they announced it as "H for Harry, K for King, P for Paul and Q for Queen. "This station was heard working amateurs, sending music and talking with other Colombians on an announced frequency of 8.746 mc. It was heard as early as 6:00 P.M., but usually worked around 9:30 to 11:30 P.M. Station HKV on 34.10 meters, or 8.79 mc., was heard there for some time, but it moved to 5:30 mc., according to W. Jasiorkowski, Milwaukee. Other reports on HKV and HKPQ came from H. J. Davidson, Wilfred Siddle, James Taylor, Cyrus Will, G. C. Gallagher, F. A. Beane, Martin Irons, J. B. Wooten, H. Esquivel, H. S. Campbell, H. Mershon, Dr. H. S. Saylor, Pedro Quintana Cabot, W. D. Martin, A. Antognini, Wade Chambers, J. Miller, Jim Palmer, J. V. Robbins.

HJ3ABH, Bogota, on 49.85 meters, 6.015 mc., La Voz la Victor. Card gives power as 1200 watts, schedule as week-days from 11:30 A.M. to 2:00 P.M.; 6:00 to 11:00 P.M. and Sundays 12:00 to 2:00 P.M. and 4:00 to 9:00 P.M. The wave is given as 5.97 mc. (but it has moved again)—Charles Miller, Covington, Ky.; Radio Twins, Delaware, Ohio, and Dr. R. C. Kash, Sevierville, Tenn. Address is Box 565—H. S. Bradley, Hamilton, N. Y. Is back on 49.83 meters or 6.015 mc.—W. Jasiorkowski, Milwaukee, Wisconsin; Mario Cassina, Corona, N. Y.; J. Miller, Brooklyn, N. Y.; F. L. Stitzinger, Erie, Pa. Has strong harmonic on 24.94 meters—Pedro Quintana Cabot, Cifuentes, Cuba.

HJ4ABE, Medellin, La Vaz de Antioquia. Two different schedules sent out by this station. It relays HJ4ABK on 50.6 meters, 5.93 mc., daily 10:00 to 11:00 A.M. and 5:00 to 9:30 P.M.—Jimmie Reese, New York City. Another shows 11:00 A.M. to Noon and 6:00 to 10:30 P.M.—Lewis Evans, Oklahoma City.

HJ2ABC, Cucuta, on 50.93 meters, 5.89 mc., has moved to 5.97 now—W. Jasiorkowski, Milwaukee. HJ4ABC, Pereira, was on 48.00 meters, 6.25 mc., moved to 49.34 meters, 6.08 mc., with more powerful station and works other stations until Midnight—W. Jasiorkowski. New Bogota station on 49.6 mc., from 6:00 to 11:00 P.M. and once at 12:30 A.M.—W. Jasiorkowski. An HJ1ABG on this wave is heard daily from 6:00 to 11:00

P.M. and up to Midnight on Saturdays—Jasiorkowski.

HJ1ABB, Barranquilla, on 46.51 meters, 6.45 mc. Card gives schedule as 11:45 A.M. to 1:00 P.M. and 5:30 to 10:00 P.M.—W. Jasiorkowski. Heard as early as 4:00 P.M. and as late as Midnight by many. Works with W2XAF now at 10:00 P.M. on Mondays—H. J. Davidson, Bayamon, P. R., and Ken McKinley, Vancouver, B. C.

HKB, "Del Ejercito de Colombia" broadcasting a program for HP5B and TIGP from 11:00 to Midnight on 10:62 mc.—P. Quintana Cabot, Cifuentes, Cuba.

HJ1ABJ, Santa Marta, moved to 49.95 meters, 6.006 mc., and broadcasting with more power between 7:00 and 10:30 P.M.—W. Jasiorkowski, Milwaukee, Mario Cassina, Corona, N. Y., and H. J. Davison, Bayamon.

An HJ4ABI, Medellin, on 42.80 meters or 7.00 mc., and 14.10 or 21.28 mc. testing evenings. Also a new phone at Cali, called HJC will be used soon to work WNC, Florida—W. D. Flagg, Holyoke, Mass.

HJ1ABE, Cartagena, was on 49.02 meters, moved to 48.98 meters, or 6.13 mc., and heard 7:30 to 9:30 P.M. daily and Mondays 10:30 to 11:30 P.M.—W. Jasiorkowski, Milwaukee, Wisconsin. Testing with other stations after 10:00 P.M. Heard between W8XK and W2XE now—F. L. Stitzinger, Erie, Pa.

HJ5ABC, Cali, has new powerful transmitter on 48.78 meters, 6.15 mc., and broadcasts daily 11:00 A.M. to Noon; Mondays, Tuesdays, Wednesdays and Fridays from 7:00 to 10:00 P.M. and Sundays Noon to 2:00 P.M. Arthur W. Lunn, Jr., Maplewood, New Jersey.

The Argentines. There are no regular broadcasters on short waves in Argentina, but the phones are oftentimes used to relay stations. This report covers LSN on 30.30 meters, 9.90 mc.; LSL on 37.97 meters, 7.98 mc.; LSK on 40.21 meters, 7.46 mc.; LSY on 16.55 meters, 18.12 mc.; LSM on 15.68 meters, 19.13 mc.; LSL on 19.02 meters, 15.81 mc.; LSN on 20.65 meters, 14.53 mc.; LSQ on 29.13 meters, 10.30 mc.; LSX on 28.98 meters, 10.35 mc. On June 12 in celebration of the signing of the peace treaty in the Chaco War, stations LSN, LSX, LSQ, LSL and LSK along with PSH, Brazil, and HKB, Colombia, broadcast a special program from 6:45 to 7:30 P.M. Members F. A. Beane, Ridgewell, England; XDX, Philadelphia; J. Edwards, Brooklyn; J. B. Wooten, Mobile, Ala.; W. Jasiorkowski, Milwaukee; W. D. Flagg, Holyoke, Mass.; J. Miller, Brooklyn; A. Antognini, Greenfield, California; H. S. Campbell, Upland, California, and Chas. Lamn, Philadelphia, report this. LSX sent a special program June 2nd from 7:00 to 7:15 P.M.—W. D. Flagg, Holyoke, Mass.; Fred Karpen, Johnstown, Pa. Around 4:00 to 6:00 P.M. on Sundays broadcasting—G. Van Honk, Erie, Pa. At 10:35 P.M. once—A. Antognini, and H. J. Davison. Stations LSN, LSL and LSK sent opera program once from 10:05 to 10:54 P.M.—H. P. Bennett, Chicago, Illinois. Announced that LSN was moving to 40.21 meters or 7.46 mc., at 10:52 P.M., then was heard there until 2:00 A.M.—W. Jasiorkowski, Milwaukee. Heard at 1:50 A.M.—W. D. Martin, Honolulu. Also heard by J. V. Robbins, Williamsport, Ont.; P. A. Portmann, Woodside, N. Y.; W. H. Jessen, Eugene, Oregon.

LSY testing with WQV at 12:40 P.M.—Alden Fowler, Greenburg, Ind. Sent special to USA, June 16th, from 12:45 P.M.—W. Jasiorkowski.

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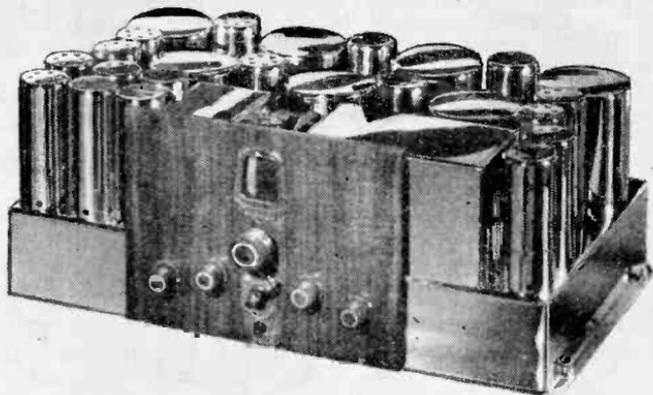
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Another one sent June 9th at 12:30 P.M.—Fred Karpen, Johnstown, Pa. LSN sent special on 20.65 meters—Geo. Zehner, Jr., Philadelphia. LSM working Madrid at 1:00 P.M. and at noon—W. D. Flagg and Alden Fowler. LSL working Brazil and Madrid at 4:15 P.M.—J. Pickering. At 8:00 A.M.—J. Miller. The amateur LU8AB that was broadcasting last winter sends a card to H. G. Schram, Ripon, Wisconsin, saying he is on 3.55 mc., 7.10 mc. and 14.20 mc.

VP3MR, Georgetown, British Guiana. An amateur on 42.46 meters, or 7.06 mc., broadcasts almost daily 7:00 to 8:00 P.M., E.S.T., or 5:45 to 6:45 P.M. their time—Martin Irons, Jamaica, New York.

CWG, Montevideo, Uruguay, worked an Argentine one Wednesday on 26.50 meters, 11.32 mc., on phone—W. Jasiorkowski.

HC2RL, Guayaquil, Ecuador, on 45.00 meters, 6.67 mc. Letter from station gives schedule as 5:45 to 7:45 P.M., Sundays, and 9:15 to 11:15 P.M., Tuesdays. The address is Box 759, not 795—Carroll C. Foltz, North Baltimore, Ohio. This station is heard however later than scheduled. As long as we listed it that way we kept getting reports of earlier and later broadcasts.

PRADO, Rio Bamba, Ecuador, on 45.31 meters, 6.62 mc. Scheduled for Thursdays 9:00 to 11:30 P.M. Tested one Tuesday at 3:00 A.M.—W. D. Martin, Honolulu. Most every night testing with Bogota—Jim Palmer, Cleveland, Ohio.

HCJB, Quito, Ecuador, "La Voz de Andes," on 36.50 meters, 8.21 mc. Broadcast schedule is 7:30 to 9:45 P.M. daily except Mondays, but heard testing most every night until 11:30 P.M. Uses four note chime. Thanks to members Irons, Flagg, Jasiorkowski, Robbins and Gallagher for their help.

HC2JSB, Guayaquil, on 38.17 meters, 7.87 mc. Letter says they broadcast on 38.60 meters daily 7:00 to 9:00 A.M., 11:00 A.M. to 2:00 P.M. and 7:00 to 11:00 P.M. Owner and director is Juan S. Behr—F. L. Stitzinger, Erie, Pa. Another says 9:00 A.M. to Noon and 7:00 to 11:00 P.M.—Dr. R. C. Kash, Sevierville, Tenn. Still another says 9:00 A.M. to 2:00 P.M.—W. Jasiorkowski, Milwaukee. Is not exactly on 38.60, but roams around.

AFRICA

CR7AA, Radio Laurenco Marques, Portuguese Africa. Letter says they will increase power and go on 48.92 meters, 6.13 mc. Was on 84.67 meters with 150 watts—R. Ogden, Brooklyn, N. Y.

CR6AA, Lobito, Angelo. A card gives the power as 500 watts, wave as 41.8 meters, or 7.177 mc., and schedule Wednesdays and Saturdays from 2:45 to 4:45 P.M. and address as Estacao Radio Difusora CR6AA, Caixa Postal 103 and 118, Lobito, Angelo, Portuguese West Africa—A. R. Ogden, Brooklyn, N. Y.

Rabat. We are inclined to believe that the programs from Radio-Rabat have been discontinued. Even members in Europe and Africa now report failure to hear these programs.

VQ7LO, Box 777, Nairobi, Kenya Colony. This station has moved to 49.02 meters, 6.12 mc.—Many report this. Heard at Midnight in Australia

and Hawaii by members H. Jackson and W. D. Martin. Schedule is daily 11:30 to 2:30 P.M. and 5:45 to 6:15 A.M.; Tuesdays and Thursdays from 8:30 to 9:30 A.M.; Saturdays from 11:30 A.M. to 3:30 P.M.; Sundays from 11:00 A.M. to 2:00 P.M.—Guy R. Bigbee, Ft. Benning, Georgia. Nothing is said in letters about a Midnight broadcast, but it is heard.

EA8AB, Tenerife, Canary Islands, is on 7.558 mc. Sent special program June 14, 11:00 P.M. to 12:30 A.M.—Luther Henderson, Ft. Worth, Texas. Card says they are on this wave, but give no schedule—T. W. Moss, Exeter, England. Was supposed to have closed down months ago.

FZT, Radio Tananarive, Madagascar, was talking with station FTN, France, on 24.43 meters, 12.28 mc., from 2:30 to 2:45 P.M., one Saturday—W. D. Flagg, Holyoke, Mass.

OPM, Leopoldsville, Belgian Congo, 29.58 meters, 10.14 mc. Letters from this station say they work phone 9:00 to 11:00 A.M. and 3:00 to 6:00 P.M. However, it is heard between Midnight and 2:30 A.M. better than any other time according to reports. J. Miller, Brooklyn, first reported this. Others are Edward Houlgate, London, Ont.; Walter Jasiorkowski, Milwaukee, Wisconsin. Mr. Houlgate heard them calling a OQS.

SUZ, Cairo, Egypt, is a phone station on 21.70 meters, 13.83 mc. Phones London 11:00 A.M. to 1:00 P.M.—Charles Miller, Covington, Ky.; J. Miller, Brooklyn. At 7:30 A.M.—H. Mershon, Pueblo, Colo. Working Rome 4:00 to 6:30 P.M.—W. Jasiorkowski, Milwaukee. From 6:50 to 7:10 A.M.—A. J. Hayward, Trowbridge, England.

CENTRAL AMERICANS

TIRCC and TIPG, San Jose, Costa Rica. Since these stations are closely related we will run both in one paragraph. These are two separate stations, both supposed to be on 45.81 meters or 6.55 mc., but one is slightly off wave. TIRCC is called Radioemisora Catalica Costaricense. Address is Apartado 1064 and has 500 watts. The schedule is supposed to be Noon to 2:00 P.M. and 6:00 to 7:00 P.M. daily, but it is heard all the way up to 11:30 P.M. many times. Amando Cespedes Marin does the English announcements. They also have a very powerful harmonic on 22.90 meters or 13.10 mc., and sometimes it is heard better than the other wave. This station is reported by members J. B. Sessions, H. S. Bradley, W. D. Martin, W. Stephens, DeLand, Florida; Charles Miller; J. B. Wooten; P. Quintana Cabot; P. A. Portmann; J. Miller, Robert Base, Baltimore, Md.; W. Jasiorkowski; John Shanks, Mario Cassina; G. C. Gallagher; Dr. R. C. Kash; and J. V. Robbins, Williamsport, Ont. TIPG, owned by Perry Girton, San Jose, moved to about 6.40 mc. according to W. Siddle, Birmingham, Ala., and was heard working amateurs at 10:30 P.M. by Charles Miller, Covington, Ky.

TI5HH, San Ramon, Costa Rica, known as "la Voz de San Ramon" sends a letter saying they have 150 watts power on 7.15 and 5.50 mc. (54.55 meters) but gives no schedule. Herrera Hermanos is the owner. Heard on 7.15 mostly from 9:00 to 11:30 P.M.—H. S. Bradley, Hamilton, New York.

TI5JJ on 40.71 meters, 7.37 mc., sends a special program each Saturday around 6:00 P.M., often calling ISWC members—Frank Grey, Berwyn, Illinois, and W. Jasiorkowski, Milwaukee.

Mexico. XECR on 40.65 meters, 7.38, is supposed to broadcast on Sundays 6:00 to 7:00 P.M. but is usually heard until 8:00 P.M. They send a picture card as well as the slip of paper mentioned last month. Thanks to members K. Albrecht, Alden Fowler, Dr. R. C. Kash and Cyrus Will for their help. XEBT, Mexico City, on 50.00 meters, or 6.00 mc., usually broadcasts from 7:00 to 11:00 P.M., but may stay on longer. On June 8, they sent a special program from Midnight to 2:00 A.M. dedicated to the editors of short wave publications—G. C. Gallagher, San Francisco, California, and The Radio Twins, Delaware, Ohio.

Panama. A station HP50 in Colon, Panama, was supposed to be opened June 12. It is located on the postoffice building at Sixth Street and Balboa Avenue, and operated by Jose Jaen and Enrique Torres. This news came from Joseph R. Thomas, Coco Solo, Canal Zone. Mr. Thomas also sends us word that a HP5H at Colon will be heard on 49.40 meters, or 6.07 mc. It is located in the Carleton Hotel. It will be operated by the owners of HP5J, Panama City. HP5J is on 31.28 meters, 9.59 mc., from 11:45 A.M. to 1:00 P.M. and 7:30 P.M. to 10:00 P.M. Their address is Box 910.

Guatemala. TGX, Guatemala City, is on 52.36 meters, 5.73 mc., almost daily 7:00 to 9:15 P.M.—W. Jasiorkowski, Milwaukee. Is roaming around from 50 to 53 meters—John Shanks, Russellville, Tenn. TGW is on 50.42 meters, 5.95 mc., and was heard announcing as TGW from 2:30 to 5:30 A.M. one Tuesday—W. D. Martin, Honolulu.

Nicaragua. YNLF, Managua, is on 50.34 meters, 5.96 mc., Tuesdays and Saturdays from 7:00 to 8:00 P.M.—W. D. Flagg, Holyoke, Mass. YN1GG, "La Voz de Los Lagos," say they are on 6.40 mc.—J. Shanks, Russellville, Tenn.

Central American phones. This will also include West Indies and South Americans. WNC, Florida, on 15.055 mc., works many phones in Central, South America and the West Indies, starting daily at 9:50 A.M. to call them all. Here is some late dope. RXC is now HPF, Panama City, and is on 14.485 mc.—W. D. Flagg. HRM, Tela Honduras, and HRF, Tegucigalpa, Honduras, are both on the air and on 14.485 mc.—Flagg. TIU, Cartago, Costa Rica; YNA, Managua, Nicaragua, are both on 14.485 mc. also. A station HII, Santo Domingo, R. D., is on 14.94 mc.—Flagg. The station in Santo Domingo is HIR according to the owner of HI7G—J. Pickering, Hightstown, New Jersey (heard HIR at 4:00 P.M.). HRM at 7:07 P.M.—W. Chambers, Tulsa, Okla. A new phone HPD, Panama, is on 10.20 mc. and said they were on 42.00 meters—Roger Legge, Jr., Binghamton, N. Y. Regular reports also came from WNC contacts from J. Miller and Mr. Legge.

THE WEST INDIES

COCD, Havana, Cuba. A new station. A letter from COCD, known as "La Voz del Aire" says they relay CMCD on 48.92 meters, 6.13 mc., but gives no schedule. Their address is either 25 y G, Vedado, Havana, Cuba, or Apartado 22.94. Heard really on 6.23 mc. All this is from Wilfred

Siddle, Birmingham, Alabama. This station is reported by others from 6.13 mc. up to 6.60 mc., and the time from 6:00 P.M. up to Midnight. It is usually heard, however, around 6.13 mc., and from 10:30 to Midnight. Try on Saturday night. Reports have come from W. Jasiorkowski, Milwaukee, Wis.; Rene Valdes, Brooklyn, N. Y.; F. L. Stitzinger, Erie, Pa., and Mario Cassina, Corona, N. Y. Jhon Shanks, Russellville, Tenn., reports a CMHD, Caibarien, Cuba, on 49.00 meters, or 6.12 mc., and Dr. R. C. Kash, Sevierville, Tenn. also reports CMHD, but both may be mistaking COCD for this one.

CO9WR, Sancti Spiritus, Cuba. This station has moved to 25.42 meters or 11.80 mc., and is relaying CMHB daily, usually 4:00 to 6:00 P.M. and 9:00 to 11:00 P.M. J. B. Wooten, Mobile, Ala.; Dr. R. C. Kash, Sevierville, Tenn.; and John Shanks, Russellville, Tenn.

CO9GC, 48.79 meters, 6.15 mc., has moved slightly and also added time. They say they are on now from 12:01 to 2:00 A.M. in addition to regular schedule shown in our station list. We thank members Gerald Taylor, Oxford, England; Frank Grey, Berwyn, Illinois; Dr. R. C. Kash, Sevierville, Tenn.; W. Jasiorkowski, Milwaukee, Wis.; and John Shanks, Russellville, Tenn. Some comments made are from W. D. Martin, Honolulu, who says they send a booklet on how to make cocktails and F. A. Beane, Ridgewell, England, who says he heard them at 6:40 P.M.

COH, Havana, Cuba, 31.80 meters, 9.43 mc. The schedule is 10:00 A.M. to Noon; 4:00 to 6:00 and 8:00 to 10:00 P.M. The address is Calle B, No. 2, Vedado, Havana—E. A. A. Hardwick, Misterdon, England. Heard once testing from 1:00 to 3:00 P.M.—K. Albrecht, Hartford, Conn.

COC, Havana, 49.90 meters, 6.01 mc. Schedule is supposed to be 9:30 A.M. to 12:30 Noon, 4:00 to 7:00 P.M. and Saturdays only at 11:30 P.M. Was heard 7:00 to 8:00 P.M. Sunday—Dr. R. C. Kash. One Saturday at Noon to 1:30 P.M.—Fred Karpen.

ZFS, Nassau, Bahamas. Back on the air again on 66.50 meters, 4.512 mc., working WND, Florida, daily—W. D. Flagg, Holyoke, Mass.

HI1A, San Pedro de Macoris, Republic of Dominicana, on 48.50 meters, 6.19 mc., has moved again, this time to 6:17 mc.—Charles Miller, Covington, Ky. HI1J, same city, was never on 51.15 meters as they say, but is on 51.90 meters, 5.78 mc.—W. Jasiorkowski, Milwaukee. Heard Tuesdays and Fridays 7:00 to 8:00 P.M.—W. D. Flagg, Holyoke, Mass. Heard 8:00 to 10:00 P.M.—Jasiorkowski. HIX, Santo Domingo, R. D., say they are on 50.16 meters, 5.88 mc., Tuesdays and Fridays, 8:10 to 10:10 P.M. and Sundays 7:40 to 9:40 A.M.—Luther Henderson, Ft. Worth, Texas. HIZ, in the same city, near 47.5 meters sent a special program one Saturday at 11:00 P.M.—W. Siddle, Birmingham, Alabama. Also heard at 7:30 P.M.—G. Van Honk, Erie, Pa. HIH, San Pedro de Macoris, was heard off schedule, from 11:00 to 11:50 P.M. once by Dr. R. C. Kash, and at 9:00 P.M. to Midnight by John Shanks.

HH2T, Port-Au-Prince, Haiti. After a big splash two months ago, this station almost faded out of the news. They say they are on 25.93 meters, 11.57 mc., but they are heard on 25.45 meters, according to John Shanks and Dr. Kash. They also are supposed to be on 31.44 meters, 9.545 mc., and 49.41 meters, or 6.07 mc., but not one report came into our hands this month on these. Their address is Box 103.

THE NORTH AMERICANS

W2XAD on 19.56 meters, 15.34 mc., and W2XAF on 31.48 meters, 9.53 mc. These stations announce a new schedule, starting June 30, but we can not quite figure it out. W2XAD will be used from 10:30 A.M. to 4:00 P.M. and W2XAF from 4:30 P.M. to Midnight. This comes from Charles B. Lamm, Philadelphia. H. J. Davison, Bayamon, Puerto Rico, says this is for Sundays only. John Carr, Bronx, New York, says it is Eastern Daylight Time, and Sundays only and 4:15 P.M. instead of 4:30 P.M. George Diamond of Jamaica, New York, also says Sundays only and they will be on the air daily as in the past. W2XAF is reported working with VK2ME, Australia, from 9:30 to 10:30 A.M. now instead of at 7:00 A.M.—W. H. Jessen, Eugene, Oregon.

W2XE, Wayne, New Jersey, announces new schedule. They relay station WABC, New York, on 19.64 meters, 15.27 mc., daily from 10:00 A.M. to 5:00 P.M. and on 49.02 meters, 6.12 mc., from 5:00 to 10:00 P.M. The 11.83 mc. wave will not be used. We thank the following for this information: W. Jasiorkowski, Milwaukee; Gerald Taylor, Oxford, England; J. B. Wooten, Mobile, Ala.; W. D. Flagg, Holyoke, Mass.; Edward Weppler, Dowagiac, Michigan; Robert Hughes, Trowbridge, England.

W1XAL, Boston, Mass., 25.42 meters, 11.79 mc. Broadcasting Sundays from 5:00 to 7:00 P.M.; Tuesdays and Thursdays 7:30 to 9:00 P.M. This is from Paul Honkavaara, Palmer, Michigan; Wm. Darby, Dublin, Ireland. This station announces that starting next November they will broadcast a course in radio training.

W4XB, Miami, Florida, 49.67 meters, 6.04 mc. Schedule is daily Noon to 2:00 P.M. and 5:30 P.M. to Midnight—Wilfred Siddle, Birmingham, Alabama. No reports received this month on this station.

W8XK, Pittsburgh, Pa. This station, after making tests early in the month, settled down to the following schedule, according to Dwight Myer, Plant Manager: On 13.91 meters or 21.54 mc., from 7:00 to 9:00 A.M. On 19.71 meters or 15.21 mc., from 9:00 A.M. to 7:00 P.M. On 25.26 meters or 11.78 mc., from 5:00 to 9:00 P.M. On 48.86 meters, or 6.14 mc., from 9:00 P.M. to 1:00 A.M.

We also have helpful reports from B. Lindbergh, Pitea, Sweden; Max Horlick, Youngstown, Ohio; Robert Hughes, Trowbridge, England; W. D. Martin, Honolulu, Hawaii, and Charles Lamm, Philadelphia.

W3XAU, Philadelphia, Pa. Schedule is daily on 31.28 meters, 9.59 mc., from Noon to 6:45 P.M. and on 49.50 meters, or 6.06 mc., from 7:00 to 10:00 P.M. Is really on 31.28 meters according to members Weppler Stephens, Tollman, Honkavaara, Mershon, Wooten, Flagg, Fowler, Van Bergen, Robbins, Will, Gilmour, Henderson, Jasirowski, Horlick, and Diamond.

W3XL, Bound Brook, New Jersey, is heard testing with station W10XFN, Rapid City, South Dakota, for the proposed stratosphere broadcast near 10:00 P.M. nightly. Is on 46.7 meters, 6.42 mc. Reported by members Nance, Brewer, Mershon, Burleson, Wooten, Horlick, Robbins, Stephens, Davison, Weppler, Williams, McKinley, and others whose name appear in the W10XFN news.

KIO, Kauhuku, Hawaii, 25.68 meters, 11.68 mc., was heard again sending programs to the U.S.A. for rebroadcasting. Heard usually between 8:30 and 10:30 P.M. Relayed KGU mostly and that call was heard most of the time. Reported by Frank Grey, J. L. Davison (Okland, Cal.) W. D. Martin, A. Antognini, G. C. Gallagher and Issac Marks of New York City. The Hawaiian phones were heard too often to mention.

Canada. VE9CS, Vancouver, B. C., on 49.40 meters, 6.07 mc., is supposed to have only two watts power, but W. D. Martin, Honolulu, says it reaches him as good as any North American. Heard up to 12:15 A.M. usually, once until 1:00 A.M. H. S. Campbell, Upland, California, heard it at 12:20 A.M. CJRX and CJRO, Winnipeg, Manitoba, are supposed to broadcast from 7:00 to 10:00 P.M. and 10:30 to 11:00 P.M., but they are heard until Midnight by J. V. Robbins, Williamsport, Ont. Heard one Sunday at 5:10 P.M.—Francis Worrell, Ann Arbor, Michigan. CJA4, the phone station at Drummondville that has been working VIZ-3, Australia, nearly every night between 6:00 and 11:00 P.M. and heard by hundreds, say they are on 26.29 meters, 11.413 mc., according to W. D. Martin, Honolulu; Edward Wepler, Dowagiac, Michigan, and James Keith, Northport, Washington.

Phone Stations. There are about eighty phone stations in North America, counting those at Rocky Point, N. Y.; Bolinas and Dixon, Calif. and Lawrenceville, New Jersey. We can not mention them all. Some are heard daily for hours at a time. Others merely relay some special programs. The only outstanding news we have is that a new one, called → KKR on 19.41 meters, or 15.45 mc., is sending program material to the Philippines, usually around 3:00 P.M. and sometimes later. L. Brewer, Phoenix, Arizona, and W. D. Martin, Honolulu, called it KKR while James Pickering, Hightstown, New Jersey, Called it KKL.

WVD at Seattle, Washington, was heard again on 34.80 meters, or 8.62 mc., calling Alaska at 11:30 P.M. by W. D. Martin, Honolulu, and at 2:30 A.M. by H. Mershon, Pueblo, Colorado. L. D. Brewer, Phoenix, Arizona, reports WXA, Alaska, on 34.09 meters, 8.80 mc., at 6:00 to 7:00 P.M., but this may be WVD calling WXA.

Some odd stations. W. D. Flagg, Holyoke, Mass., reports the following stations: ~~WOX~~, St. George, Staten Island, N. Y., on 2.59 mc. working fishing boats and WOU, Green Harbor, Mass., on 2.53 doing the same thing. A W6XGI, Riverhead, L. I., on 13.90 mc. at 3:30 to 4:15 P.M. WWHP on 2.42 mc., WSX on 2.66 mc., WWAH on 3.20 mc., WWU on 3.38 mc., all heard afternoons and evenings (We believe these are lighthouse stations); Government CCC Camps, SP175, Camp Peru, Maine; PF114, Camp Wildwood, New Hampshire; HP115, Saco, Maine; PF116, Camp Tripoli, New Hampshire, all between 3.18 and 3.24 mc. are heard late afternoons. Edward Wepler, Dowagiac, Michigan, reports WMI, Lorraine, Ohio, phoning Great Lake ships on 2.60 mc. Also station calls "Radio New York" and Cape May Air Station" on 2.70 mc. calling 139 and 288 at 10:15 to 10:45 P.M. These are government owned Life-Guard stations.

THE EUROPEANS

OER2, Vienna, Austria, 49.42 meters, 6.07 mc. Supposed to be broadcasting special programs for South America now from 7:00 to 10:00 P.M.—R. Lawton, Whitefield, England. Has increased power, and heard on same wave as W9XAA—Jean Repoux, Nanterre, France.

LKJ1, Jeloy, Norway, moved from 31.41 meters to 31.35 meters or 9.57 mc., to get away from DJN—E. Orchard, Weymouth, England. Not on 48.00 meters now.

HAS-3 and HAT-4, Budapest, Hungary. HAS-3 on 19.52 meters, 15.37 mc., broadcasts Sundays from 9:00 to 10:00 A.M. HAT-4 on 32.88 meters, 9.12 mc., broadcasts Sundays from 6:00 to 7:00 P.M. Many have letters from this station. Wade Chambers, Tulsa, Oklahoma, says HAS was on 21.93 meters, 13.67 mc., telephoning, but gives no time.

HVJ, Vatican City, 19.84 meters, 15.11 mc., is broadcasting daily from 10:30 to 10:45 A.M.; Saturdays from 10:00 to 10:45 A.M. Was reported from 9:00 to 9:15 A.M. once by F. A. Beane, Ridgewell, England.

France. Station FTK, a phone on 18.89 meters, 15.88 mc., calling itself "Radio Splendide Paris" was sending a program to PSE one Sunday from 11:15 to 11:45 A.M.—W. D. Flagg, Holyoke, Mass. Station FTN on 24.47 meters, or 12.26 mc., was heard calling Montevideo from 12:30 to 1:00 and 3:00 P.M., and calling Madagascar from 2:45 to 3:00 P.M.—W. D. Flagg. A new phone station has come into service, but we do not have exact details and can not list it yet. Here are reports: Is at St. Nazaire, on 24.50 meters calling the Normandie—J. Pickering, Hightstown, New Jersey. On 24.55 meters,—Edward Houlgate, London, Ont. On 24.59 meters, 12.20 mc.—J. V. Robbins, Wellandport, Ont. Heard working the Normandie—H. S. Bradley, Hamilton, N. Y.

Special broadcasts from France. The stations at Pontoise, on 25.63 meters, or 11.71 mc., and 25.23 meters, or 11.90 mc., were heard last month broadcasting programs to Asia from 3:00 to 4:00 A.M. One member later on said 19.68 meters was used. Reports on these programs have come from R. Bartlett, St. Pierre, Miquelon; L. D. Brewer, Phoenix Arizona; W. D. Martin, Honolulu, Hawaii; Jean Repoux, Nanterre, France A. Antognini, Greenfield, California. Incidentally, we have letters from many members who have sent reports on the French broadcast stations to both 98 Bis Blvd. Haussmann, Paris 8, and to 103 Rue de Grenalle, Paris, and received replies. So either address will do.

2RO, Rome, Italy. This station has changed schedule completely. They are on 25.40 meters, 11.81 mc., daily from 8:15 to 10:15 A.M.; 2:30 to 5:00 P.M. and on 31.13 meters or 9.635 mc., Mondays, Wednesdays and Fridays from 6:00 to 7:30 P.M. and 7:45 to 9:15 P.M. This means that the American Hour comes over on 31.13 meters from 6:00 to 7:30 P.M. We have the following to thank: H. Mershon, Pueblo, Colo.; A. Antognini, Greenfield, California; Fred Kapen, Johnstown, Pa.; M. Cassina, Corona, N. Y.; Luther Henderson, Ft. Worth, Texas; W. Jasiorkowski, Milwaukee, Wisconsin; Marco A. Pizzati, New Orleans, La.; H. J. Davison, Bayamon, P. R.; Jas. B. Wooten, Mobile, Ala.; J. Shanks, Russellville, Tenn.; F. Worrell, Ann Arbor, Michigan; G. Van Honk, Erie, Pa.; J. Keith, North-

port, Washington; XDX, Philadelphia, Pa.; Robert Hughes, Trowbridge, England; J. Miller, Brooklyn, N. Y.; F. L. Stitzinger, Erie, Pa.

IAC, Coltana Radio, Piza, Italy. They have a new 60 kw. station, and work Italian ships irregularly on 16.95 meters (17.70 mc.); 23.32 (12.86) 35.23 (8.51); and 58.88 (4.35)—August Ulrich, Stapleton, N. Y. IRM on 30.52 meters, 9.83 mc., sending music to SUX, Egypt, 5:00 to 5:30 P.M.—H. S. Campbell, Upland, California; J. V. Robbins, Wellandport, Ont. IRW on 15.37 meters, heard phoning JVH, Japan, and mentioned an IRR on 13.26 mc.—F. A. Beane, Ridgewell, England. IRJ on 22.70 meters, or 13.104 mc., phoning JVH, Japan, 4:50 A.M.—J. R. Pickering, Hightstown, New Jersey. Nick Gaug, New York City. Sending music to Egypt on 22.90 meters one Monday from 5:00 to 6:00 P.M.—Fred Karpen, Johnstown,

RNE, Moscow, 25.00 meters, 12.00 mc., is broadcasting now daily from 1:00 to 6:00 P.M. Heard in the USA usually from 3:00 to 5:00 P.M. Reported by Martin Irons, Jamaica, N. Y.; Pedro Quintana Cabot, Cifuentes, Cuba; W. D. Martin, Honolulu; Alden Fowler, Greensburg, Ind.; XDX, Philadelphia. W. D. Flagg, says they relay other European stations at times. J. Miller, Brooklyn, says they can be heard until 6:00 P.M. at times. English programs, according to letters from the station, take place Sundays, Mondays, Wednesdays and Fridays from 4:00 to 5:00 P.M.; Wednesdays from 6:00 to 7:00 A.M. and Sundays from 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M.—Edward Houlgate, A. Antognini, Cyrus Will, Stuart Fuller, all send us this.

Russian Phones. A new Russian on 14.79 mc., was heard sending music from 8:00 to 11:00 A.M. several times—Fred Karpen, Johnstown, Pa. RK1, 19.94 meters, 15.04 mc., can be heard working Tashkent, Irkutsk, and Bakou daily from 8:00 to 11:00 A.M.—W. D. Flagg. RKI verifies through Inna Marr, chief editor, Radio Center, Solankia 12, Moscow, U.S.S.R.—Norman Burns, Buffalo, N. Y. An unknown station on 18.85 meters phoning 4:30 to 5:00 A.M.—J. Pickering, Hightstown, New Jersey. Powerful one on 10.27 mc. at 2:30 A.M.—W. D. Martin, Honolulu.

PCJ and PHI, Holland. According to reports, station PHI on 16.88 meters, 17.77 mc. broadcasts daily excepting Tuesdays and Wednesdays from 7:30 to 10:30 A.M. and on Sundays oftentimes runs over until 11:00 A.M. PCJ on 19.71 meters, 15.22 mc., relays PHI on Sundays only, and broadcasts Tuesdays from 3:00 to 6:00 A.M. and Wednesdays 7:30 to 11:00 A.M. Fred Karpen says they broadcast Tuesdays and Wednesdays both from 3:00 to 6:00 A.M.

CT1AA, Lisbon, Portugal, 31.25 meters, 9.59 mc. Reports differ as to the exact time of broadcasts. Signed off at 4:05 once—K. Albrecht, Hartford, Conn. Heard until 7:00 P.M.—W. Jasiorkowski, Milwaukee. Heard once on 25.02 meters, at 5:00 P.M.—Stuart Fuller, Providence, R. I. The other Portuguese stations CSL, Lisbon, on 48.82 meters, 6.14 mc., and CT1GO, Parede, on 24.20 meters, 12.40 mc., and on 48.40 meters, 6.20 mc., are both keeping their regular schedules.

CT2AJ, Azores Islands, is on 74.98 meters or 4.01 mc. Heard one Saturday 6:00 to 7:30 P.M. broadcasting—Fred Karpen, Johnstown, Pa.

Switzerland. HBL is on 31.27 meters, 9.59 mc. HBH is on 16.20 meters, 18.52 mc. HBJ is on 20.60 meters, 14.56 mc. An HBO is reported

11:30 P.M. to 1:30 A.M.—GSD on 25.53 (11.75) and GSB on 31.55 (9.51)
 6:00 A.M. to 8:45 A.M.—GSG on 16.86 (17.79) and GSF on 19.82 (15.14)
 9:00 A.M. to 10:45 A.M.—GSG on 16.86 (17.79) and GSF on 19.82 (15.14)
 10:45 A.M. to 12:00 noon—GSE on 25.28 (11.86) and GSF on 19.82 (15.14)
 12:15 P.M. to 4:00 P.M.—GSD on 25.53 (11.76) and GSB on 31.55 (9.51)
 12:15 P.M. to 2:15 P.M.—GSI on 19.66 (15.26) Experimental.
 2:30 P.M. to 4:00 P.M.—GSL on 49.10 (6.11) Experimental.
 4:15 P.M. to 5:45 P.M.—GSF on 19:82 (15.14) and GSD on 25.53 (11.76)
 6:00 P.M. to 8:00 P.M.—GSD on 25.53 (11.75) and GSC on 31.32 (9.58)

10:00 to 11:00 P.M.—GSD on 25.53 (11.75) and 31.32 (9.58). Tests have been conducted recently with GSE and GSD from 8:30 to 10:00 P.M., so we may hear of them moving up the 10:00 to 11:00 P.M. schedule. F. L. Stitzinger, Erie, Pa., and John Carr, Bronx, New York, report these tests.

A new British phone station is GBL, Rugby, on 20.45 meters, 14.67 mc., and it works Japan, usually JVH, 2:30 to 5:00 A.M.—J. R. Pickering, Hightstown, New Jersey, and W. D. Martin, Honolulu. The new address of the British phones is Engineer-in-chief, Radio Section, General Post Office, Armour House, London, ECl, England—Mr. Martin.

LAST MINUTE REPORTS

From G. D. Kruger, Whittier, Calif., comes a report that JVH, Japan, is broadcasting English nightly from Midnight to 1:00 A.M. He also adds that he had CR7AA on 7.17 mc., one Friday from 1:30 to 2:00 P.M. He must mean CR6AA, Lobito, and this station is supposed to broadcast Wednesdays and Saturdays from 2:45 to 4:45 P.M., not in the morning.

Edward Weppler, Dowagiac, Michigan, reports VIZ-3, CJA-4, FNSK on the Normandie, OCJ-2, Peru, on 14.485 mc., and a special program from Germany over DFC and DJD.

Lee Williams, of Clarksburg, West Virginia, reports W10XFN and W10XFH. J. B. Wooten, Mobile, Alabama, reports the new W2XAD—W2XAF schedule, saying it is Sunday only. George Van Honk, Erie, Pa., reports TIGP on 47 meters now instead of 45.38. He also reports W3XL and W10XFN. Also VIZ-3 and CJA4 from 6:00 to 8:00 P.M. Station LSX testing with W2XAF on June 24th at 8:00 to 9:00 P.M. Ken. McKinley, Vancouver, B. C., reports W3XL, W10XFN, W10XFH and a WUFB testing; JVH broadcasting at 1:00 A.M. and VPD at 1:15 A.M. Dr. R. C. Kash, Sevierville, Tenn., reports TIRCC signing off at 9:15 P.M. with Ted Lewis' "Good Night Song." HCJB verifies stating they have but 250 watts power and on 36.5 meters.

H. Mershon, Pueblo, Colorado, reports DJB sending a special program June 24th from 12:20 to 1:15 P.M.

We have verifications here from members William Robas and Francis Osborn which they can have by sending us their addresses. The mailing list is far too large to look through to find these. We forwarded over 100 verifications to members last month, believe it or not.

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It will help us a lot if the members who send questions to be answered would kindly enclose a self-addressed and stamped envelope, or postal card. Please write your complete address on the card or envelope. Some members have asked us as many as five hundred questions in one year and never sent a penny postage. We must demand a self-addressed card or envelope from such people in the future.

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. Label buttons, with the club emblem, suitable for wearing anywhere, and which will mark you as a member when you appear 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.

CONTEST FLASH

Although requests for broadcasts and contributions for the Big Birthday DX Contest were only sent out on June 19, on June 26 we had programs arranged with stations CJRO, CJRX, W3XAU and W1XAL. We have a Masterpiece IV, complete with tubes, amplifier, twin speakers and everything else, donated by McMurdo Silver. National Co., Inc., sent us a condenser-dial set. Sprague Products sends six short wave variable condensers. Bud Radio sent a coil form. Trimm Mfg. Co. sends a pair of headphones. Sol Perlman gives an antenna kit. Arthur H. Lynch offers an antenna kit. Crowe Name Plate Mfg. Co., sends a dial.

FOR SALE—Custom Built Scott Fifteen complete with cabinet. Laboratory seals unbroken. Glenn Watt, Chanutte, Kansas.

BEST STATIONS AND HOURLY GUIDE

A. M.
P. M.
1 2 3 4 5 6 7 8 9 10 11 N
1 2 3 4 5 6 7 8 9 10 11 M

Meg. Meters Station Country Day Write Local Time Here.....

17.79.	16.86	-GSG	England.	Daily	6 7 8 9 10 s	
17.78.	16.87	-W3XAL	U. S. A.	See List	8 s	2 3
17.77.	16.88	-PHI	Holland	Irreg.	3 8 9 s	
15.34.	19.56	-W2XAD	U. S. A.	Daily		2 s
15.27.	19.64	-W2XE	U. S. A.	Daily	10 11 N	1 2 3 4 s
15.25.	19.68		France.	Daily	6 7 8 9 s	
15.22.	19.71	-PCJ	Holland.	Irreg.	8 9 10 1/2	
15.21.	19.72	-W8XK	U. S. A.	Daily	10 11 N	1 2 3 4 5 6 s
15.20.	19.73	-DJB	Germany	Daily	1 s 4 5 6 4	
15.18.	19.82	-GSF	England.	Irreg.	6 7 8 9 10 11 s	4 s
15.11.	19.84	-HVJ	Vatican	Daily	1/2	
16.04.	19.94	-RKI	Russia.	Sat., Sun.	7 s 9 10 s	1 2 3 4 5 s
12.00.	25.00	-RNE	Russia.	Daily	6 s 9 10 s	
11.90.	25.20		France.	Daily	3 4	10 11 N 1 2 3 4 s
11.87.	25.27	-W8XK	U. S. A.	Daily	11 s	5 6 7 8 s
11.85.	25.28	-GSE	England.	Irreg.	8 9 1/2	
11.81.	25.40	-2RO	Italy.	Daily		2 3 4 s
11.76.	25.51	-DJD	Germany	Daily		N 1 2 3 4 5 6 7 8 9 4
11.75.	25.53	-GSD	England.	Irreg.	1 s	N 1 2 3 4 5 6 7 s 10 s
11.72.	25.60	-CJRX	Canada.	Daily		7 8 9 10 s
11.71.	25.60	-HJ4ABA	Columbia.	Daily		N s 6 7 8 9 10 s
11.71.	25.63		France.	Daily	3 4	6 7 8 9 10 11 s
10.74.	27.93	-JVM	Japan.	Daily	4 5 6 s	
10.33.	29.04	-ORR	Belgium.	Daily		2 s
9.87.	30.40	-EAQ	Spain.	Daily		5 6 7
9.64.	31.13	-2RO	Italy.	Irreg.		2 3 4 s 6 7 8 4
9.60.	31.25	-CTIAA	Portugal.	Tu., Th., Sat.		3 4 5 s
9.59.	31.27	-HBL	Switzerland.	Saturday		2 3
9.59.	31.28	-VK2ME	Australia.	Sunday	1 s	1/2 N 3
9.58.	31.31	-VK3LR	Australia.	Daily	3 4 5 6 4	
9.58.	31.30	-GSC	England.	Daily		6 7 s 10 s
9.57.	31.36	-W1XK	U. S. A.	Daily	6 7 8 9 10 11 N	1 2 3 4 5 6 7 8 9 10 11
9.57.	31.38	-DJA	Germany.	Daily	8 9 10 s	5 6 7 8 4

"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	W8XK, 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, Leopoldsville, 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	PKK, Kootwijk, Holland.	Phones Java near 7:00 A.M.
T-16.35	-18.35	WLA, Lawrenceville, N. J.	Phones England 8:00 A.M. to 4:00 P.M.
T-16.35	-18.35	FZS, Saigon, Indo-China.	Phones Paris 5:00 A.M. irregularly.
T-16.38	-18.31	GAS, Rugby, England.	Phones New York mornings.
T-16.39	-18.30	VYR, 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, Darentry, 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 8-9 A.M., Tue., Thurs, Fri. 2-3 P.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	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	-KWQ, 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.	12:30 to 2:00 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.	12:30 to 2:00 A. M. and 3:45 to 7:15 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	-HPF, Panama City.	Phones Florida daytime.
B-20.71	-14.48	-HRM, Tela, Honduras.	Phones WNC irregularly in daytime.
T-20.71	-14.48	-TGF, Guatemala City.	Phones Florida daytime irregularly.
T-20.73	-14.47	-WMF, Lawrenceville, N. J.	Phones England daylight.
T-20.75	-14.46	-GBW, Rugby, England.	Phones WNC 6:00 A. M. to 6:00 P. M.
E-20.97	to 21.26	-14.30 to 14.11	-Amateur phones heard in daytime.
B-21.26	-14.10	-HJ5ABE, Cali, Colombia (harmonic),	7:00 to 10:30 P. M. 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	-GCJ, 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	to 24.3	-13.34 to 12.35	-Ships. Heard in daytime.
T-22.58	-13.28	-CGA3, Drummondville, Canada.	Phones ships and England daytime.
E-22.76	-13.18	-DGC, Nauen, Germany.	Phones Asia mornings irregularly.
E-22.95	-13.07	-VP1A, 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	-HJA3, Barranquilla, Colombia.	Phones U.S.A. daytime.

Meter	Meg.	STATION	TIME
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	CTIGO, Parede, Portugal.	Tu., Th., Fri., 1-2:15 PM, Sun. 10-11:30 AM
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	FZS, 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	ZRO, 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	D1D, Zeesen, Germany.	Noon to 4:30 P.M., 5:00 to 10:30 P.M.
B-25.53	-11.75	GSD, Daventry, England.	11:30 P.M. to 1:30 A.M., 12:15-8:00 P.M. 10:00-11:00 P.M.
B-25.60	-11.71	HJ4ABA, Medellin, Col.,	11:30 to 1:00 and 6:30 to 10:30 P.M.
B-25.63	-11.71	Pontoise, France,	3 to 4 A.M., 6 to 9 and 10:00 P.M. to 12 Mid.
B-25.61	-11.70	CJRX, Winnipeg, Canada.	7:00 to 10:00 P.M., 10:30 to 11:00 P.M.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
E-25.73	-11.66	PPQ, Rio de Janeiro, Brazil.	Used irregularly in evenings.
B-25.93	-11.57	HH2T, Port-au-Prince, Haiti.	Heard irregularly, evenings.
E-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-27.26	-11.00	PLP, Bandoeng, Java.	Phones PNI from 5:00 to 7:00 A.M.
T-27.15	-11.05	ZLT, Wellington, New Zealand,	phones VLK 1:00 to 7:00 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.	Testing with HJY irregularly evenings.
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.	Testing 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.

Meter	Meg.	STATION	TIME
T-29.83	10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships daytime.
1-29.83	10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
1-30.09	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.
f-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	GCV, 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	ZRO, 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	HBK, 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, 5-9 A.M., 11:30-1:30 P.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	LKJ1, Jelo, 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	9.57	DJA, Zeesen, Germany.	8:00-11:30 A.M. and 5:15 to 9:15 P.M.
B-31.45	9.54	DJN, Zeesen, Germany.	3:45 to 7:45 A.M., 5:05 to 10:30 P.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.	11:30 P.M. to 1:30 A.M., 12:15 to 4 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Wed., Ther., 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.	Phones 7:40 to 9:40 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, Maraca, 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	to 36.58	8.84 to 8.20	Ships. Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing. 5:30 to 11:00 P.M., 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.
B-36.50	8.21	HCJB, Quito, Ecuador.	Daily except Mon. 7:30 to 11:30 P.M.
B-35.72	8.45	HC2AT, Guayaquil, Ecuador.	8:00 to 10:00 P.M. irregularly.
T-35.80	8.38	IAC, Piza, Italy.	Works ships irregularly.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
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.

Meter	Meg.	STATION	TIME
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.17	7.86	HC2JSB, Guayaquil, Ecuador.	8:15 to 11:15 P.M.
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	NECR, 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-41.80	7.17	CR6AA, Lobito, Angola, Africa.	Wed. and Sat. 2:30 to 4:30 A.M.
B-42.35	7.08	PI1J, Dordrecht, Holland.	Saturday, 11:10 A.M. to 12:10 Noon.
B-42.70	7.03	HJ5ABC, Cali, Colombia.	Mon., Tue., Wed. and Fri., 7:00 to 9:30 P.M.
B-43.01	6.97	HCETC, Quito, Ecuador.	Mon., Wed., Sat., 8:00-11:30 P.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. oitimes 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	HI1L, Santo Domingo, R. D.	Saturdays 8:00 to 10:00 P.M.
B-46.01	6.52	YV6RC, Valencia, Venezuela.	12:00-2:00 P.M., 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	6.42	HJ43, Barranquilla, Colombia.	Phones HJ42, 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, D. R.	Testing 7-10 P.M. and midnight.
E-48.00	6.25	Army aircraft heard in daytime.	
B-48.00	6.25	HJ4ABC, Pereira, 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	CTIGO, Paredes, 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 ti 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-48.79	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-48.92	6.13	ZGE, Kuala Lumpur, S. S.	Sun., Tues. and Fri., 6:40 to 8:40 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	COCD, Havana, Cuba,	heard between 10:00 P.M. and 12:30 A.M.

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	VO7LO, 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. 10:30 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. and 10:00 to 11:00 P.M.	
B-49.10	6:11	VE9HX, Halifax, N. S. 8:30 to 11:30 A.M. and 5:00 to 10:00 P.M.	
B-49.10	6:11	VUC, Calcutta, India. 9:30 A.M. to Noon, Sat., 11:45 P.M. to 3 A.M.	
B-49.15	6.10	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	HJ4ABL, Bound Brook, N. J. Mon., Wed. and Sat. 4:00 to 5:00 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	H2S, Port-Au-Prince, Haiti. Heard irregularly, evenings.	
B-49.42	6.07	OER2, Vienna, Australia. 1:00 to 6:00 and 7:00 to 10:00 P.M.	
B-49.45	6.06	HJ3ABL, 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	HJ1ABG, Barranquilla, Colombia. 6:00 to 10:00 P.M.	
B-49.67	6.04	W4XB, Miami Beach, Florida. 11:30-2:00 P.M., 8:00-12 midnight.	
B-49.67	6.04	PRAS, Pernambuco, Brazil. 2:30 to 8:30 P.M.	
B-49.75	6.03	HP5B, Panama City, Panama. 12 to 1; 8 to 10:30 P.M.	
B-49.83	6.02	DJC, 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.	
B-49.92	6.01	ZHI, Singapore. Mon., Wed., Thurs., 5:40-8:10; Sat., 10:40-1:10 A.M.	
B-50.00	6.00	KEBT, 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	KECW, 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-50.50	5.94	HJ1ABJ, Santa Marta, Colombia. 11:00 to 1:00; 7 to 9 P.M.	
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	CGAS, Drummondville, 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.

BOOSTERS

Nearly six years have passed since the club was organized. As time goes on, we realize more and more just how much friendship means to us. Without the assistance we are receiving we would never be able to continue. We certainly would never have been able to make the progress we have made in the past, if we had not had the help of many. It is a real pleasure to thank these people in this section of the magazine each month. We take pleasure now in thanking those who sent in reports, those who by word or deed helped us grow, the firms who mention the Club to their customers, the advertisers who took space with us, the stations that sent special programs to the club and others.

Those who sent in new members this month follow: W. H. Crown, London, England; Forrest D. Poole, Portsmouth, Ohio; Max Schiller, Mexico City; C. Cramp, Leicester, England; Jean Salles, Mexico City; F. Walters, Cartagena, Colombia; H. Beadley, Keighley, England; A. S. Ruth, Hanover, Pa.; J. W. Cope, Kelawana, B. C.; C. Eggenweiler, Los Angeles, California; Walter McMenamy, Beverly Hills, California; Mario Bruscia, New York City; R. Lawton, Manchester, England; Philco of England; W. G. Hughes, Trowbridge, England; J. W. Debenport, Childress, Texas; August Hanser, Kalamazoo, Michigan; W. D. Martin, Honolulu, Hawaii; D. Barnes, London, England; C. L. Scott, Los Angeles, California; G. Otto Johnson, Port-of-Spain, Trinidad; Jack Snyder, Wilkesburg, Pa.; John Swain, Honolulu, Hawaii.

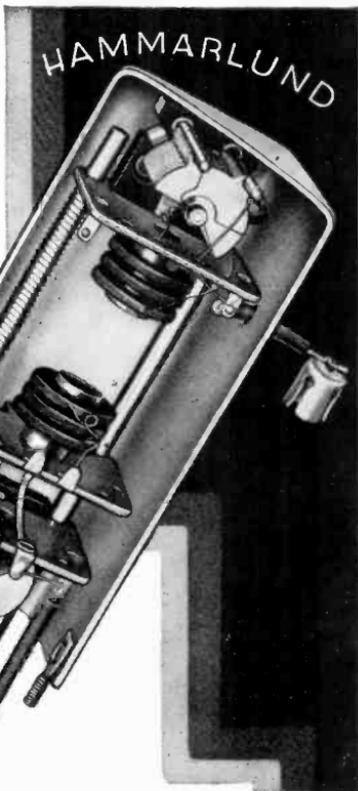
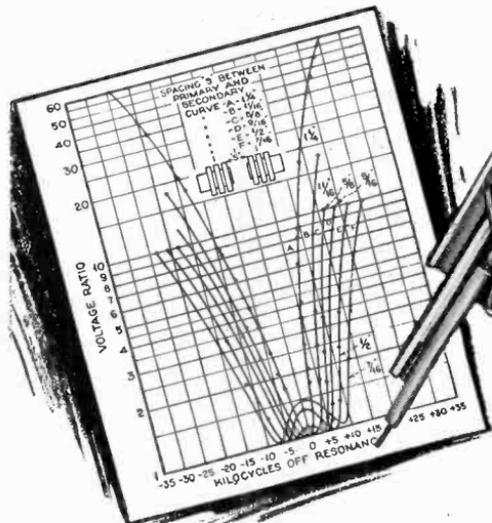
Special thanks this month goes to Philco Midland Distributors of Birmingham, England, for recommending the club in a booklet which they have prepared.

MAILING TIME

There seems to be a misunderstanding about the mailing of these magazines. Most publications pre-date their issues, so that they will have a longer life on the news-stands. For example a September magazine will be printed in June, mailed out in July and be on the stands around August first. Ours is not a news-stand magazine, and we do not pre-date it. We print the news received up to within a day, oftentimes, of the day the magazine is mailed out. If you happen to get some other magazine, and get a September issue before you get our August issue, do not think our magazine is late. Just compare the lateness of the news with the other magazine. This issue will compare with the September issue of many magazines for news. This magazine is published monthly. We mail it out as near the first day of the month as possible. This issue is the July issue and contains news received up until July 1. This same information will probably be found in the September and October editions of many other magazines. So, do not think your magazine is late because if it is dated for July and you already have the August issue of some other magazine.

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This means that your I. F. amplifier can be adjusted from needle-sharp selectivity to the flat-top curve required for high fidelity, or any degree of selectivity between—all without affecting tuning characteristics of the receiver.

The diagram illustrates the coupling

range of a single transformer. Additional transformers having this feature will obviously increase the overall selectivity of the I. F. amplifier.

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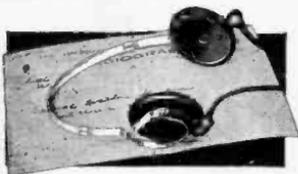
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