

VOL. VIII

NOVEMBER, 1936

NO. 2

# INTERNATIONAL



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

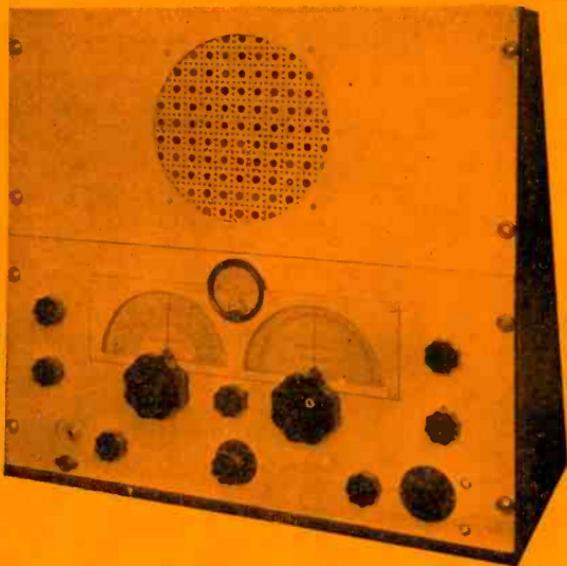
- Police Stations.
- Aircraft Stations.
- And Other Features.

THE VOICE OF THE  
**INTERNATIONAL SHORT WAVE CLUB**

EAST LIVERPOOL, OHIO, U. S. A.

# RME

# 69



**W**ITH a receiver which is designed to cover a frequency range from nine meters through to the end of the American broadcast band, and which performs with exceptional high efficiency, there is little wonder why so many short wave listeners are using the RME-69 Single Signal Super.

This instrument is available in a fine relay rack model design, either black or satin aluminum finish.

Bulletin 69 will give you details.

## RADIO MFG. ENGINEERS, INC.

306 FIRST AVENUE

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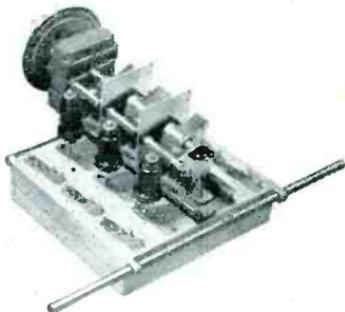
# NC-100

*"Automatic Coil-Shift"*

## RECEIVER



**N**EW in every sense of the word, the twelve-tube NC-100 Receiver includes every refinement for difficult short wave work. Unique among its many unusual features is the perfected Tuning Unit with its "Automatic Plug-In Coils," which combines the high electrical efficiency of plug-in coils with the convenience of the coil switch. Tuning from 540 KC. to 30 MC. in five ranges, each of the fifteen coils is shielded in its own compartment of cast aluminum. The turn of a knob on the front panel brings the desired range into position and plugs it in. Idle coils are isolated, leads are short, calibration is exact. There are no "dead spots" with the NC-100. Fully worthy of the advanced performance of the remarkable Tuning Unit are the other details of the superheterodyne circuit. Thorough use of low loss insulation and of air-dielectric condensers, together with carefully designed high-Q coils results in exceptionally high signal-to-noise ratio and high usable sensitivity. Complete panel controls, ranging from the precision Micrometer Dial (direct reading to one part in five hundred) to the tuning dial for the separate CW oscillator, make operation of the NC-100 as pleasant as it is precise. These are but a few of the many outstanding details of this remarkable receiver. Mail the coupon for a completely illustrated folder.



NATIONAL COMPANY, INC., MALDEN, MASS.

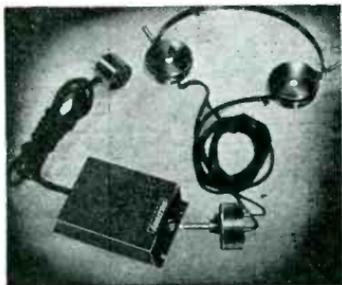
GENTLEMEN: Please send me your illustrated folder completely describing the NC-100 Receiver.

Name .....

Address ..... ISW-11-36

# YOUR RECEPTION WILL BE DOUBLED

*With Provision for Earphone Listening*



Just when the real S. W. DX stations in Asia, Australia, Africa, are rolling in before 8 A. M. or after 10 P. M., your receiver **MUST NOT** be operated because the loud speaker volume would disturb the family or neighbors.

**DO YOU WANT TO**—Listen at any time day or night? . . . Have clear reception without extraneous noises? . . . Identify stations easily? . . . Pick up weak stations that can't be heard on speaker . . . THEN take advantage of our offer and send for the "Missing Link."

## AMPLIVOX PHONE RECEPTOR

(A PHONE JACK AT YOUR FINGER TIPS)

*15-Day Trial—No Risk, No Obligation to Keep It!*

**OUR OFFER:** Use it for 15 days and if not fully satisfied return it and your original money order or check will be returned to you without "ifs" or "buts."

Suits ANY make or model of receiver. ANYONE INSTALLS IT IN A MINUTE WITHOUT TOOLS. POSITIVELY NO TAMPERING WITH RECEIVER WIRING NECESSARY. Inserting phone plug automatically silences speaker. Utilization of full power of receiver requires very little volume for operation and also allows its use for EXTENSION SPEAKER instead of phones. Shipping weight 1 lb. List Price \$6.75. **YOUR NET PRICE. \$3.95**

### 3-PC. COMBINATIONS

at a Great Saving

#### COMBINATION No. 1

Amplivox Phone Receptor, TRIMM Featherweight (4 oz.) Supersensitive 24000 ohm Phones and Plug to take 1 to 4 pairs of phones. List Price \$17.75.

Special Price to you . . . . . **\$9.15**

Shipping weight 2 lbs.

#### COMBINATION No. 2

Amplivox Phone Receptor, ACME DeLuxe Phones and Plug to take one to four pairs of phones. List Price \$10.00.

Special Price to you . . . . . **\$4.39**

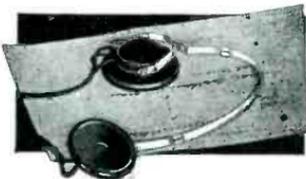
Shipping weight 2 lbs.

Please Give Make and Model of Receiver and Include Postage.

Phones

and

Plugs



FEATHERWEIGHT TRIMM, 4 oz.. Phones. List Price \$10.00. **YOUR SPECIAL PRICE... \$5.88**

Shipping weight 1 lb.

ACME DeLUXE Phones. List Price \$2.25. **YOUR SPECIAL PRICE... \$1.25**

Shipping weight 1 lb.

PHONE PLUGS to take one to four pairs of phones. **YOUR SPECIAL PRICE... 29c**

**SOL PERLMAN, E.E.**

(W2JCU)

TECHNICAL ADVISOR  
OF N. Y. CHAPTER OF  
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227 FULTON ST., New York—PHONE:

**Rector 2-3028**

# NOISE CAN'T CRASH THE GATE!

And that is exactly what the

## Model 4T AMPLIVOX NOISE BUCKER

is A GATE which passes the signal from a station but does not allow the noise to enter into receiver. NOT A LINE FILTER, NOT A GADGET, but upon installation, it becomes an inherent part of your receiver for only one purpose and that is SUPPRESSION OF NOISES FROM AUTOMOBILES, MOTORS, POWER LINES, SIGNS, OIL BURNERS, etc., to a degree (making in many cases a signal to noise ratio of 1000 to 1) that was believed impossible until the development of the famous J. J. Lamb circuit HAILED IN RADIO CIRCLES THROUGHOUT THE WORLD AS THE GREATEST STEP IN MAN-MADE NOISE ELIMINATION. This circuit is embodied in the AMPLIVOX NOISE



BUCKER.

MODEL 4T uses 4 metal tubes drawing filament voltage from any AC outlet. Only one wire and ground connection to receiver, an adapter takes care of the rest. Suitable for ANY SUPERHET receiver (98% of sets used today) regardless of I.F. stages or number of tubes. Shipping weight 4 lbs. When ordering please give make and model of receiver and include postage. List Price \$16.50.

YOUR NET PRICE ..... **\$9.75**

4 GENUINE RCA METAL TUBES, YOUR NET PRICE..... **\$3.60**

### AN INSTANT — Permanent Verification of Foreign Reception with Home Recording

An Easily installed HOME RECORDING OUTFIT will enable you to make indestructible recordings not only of any radio station you hear but also to make records of music and speeches made by members of family and friends. MAKE A COMPLETE BROADCAST STUDIO of your den or living room.

**RECORDING EQUIPMENT** AMPLIVOX FEED SCREW AND CUTTER. Single hole mounting for attaching to motorboard, Shipping weight 10 lbs. List Price \$32.00. YOUR NET PRICE..... **\$18.82**

**SPECIAL HEAVY DUTY GREEN FLYER RECORDING MOTOR FOR ABOVE.** 78 and 33-1/3 r.p.m., 12 inch turntable. Shipping weight 15 lbs. YOUR NET PRICE..... **\$10.95**

**UNIVERSAL NEW MODEL 12 RECORDER** Contains everything necessary in one table cabinet unit: Powerful 2-speed motor, feed screw, the famous Universal cutter, volume control and volume level indicator (A.C. motor only). Shipping wt. 35 lbs. YOUR NET PRICE..... **\$74.00**

**PUBLIC ADDRESS SYSTEMS** Amplifiers from 5 to 60 watts; Carbon, Crystal and Velocity Microphones from \$3.95 to \$60.00. Magnetic and Dynamic Speakers in all price ranges. Blank and grooved aluminum and acetate discs for recording. Sapphire and diamond needles for cutting, grooving, recording and reproducing. Volume range expanders for elimination of phonograph needle scratch and giving a new realism in phonograph record reproduction. Photoelectric cell amplifier. Radio burglar alarms.

**PLEASE NOTE:** Because of the variety of items described above and changing demands we offer NO CATALOG, BUT LOWEST PRICES. For this reason please state your requirements in this field of merchandise.

**NOTE:** Members of the I. S. W. C. in foreign countries interested in the purchase of American-Made Electrical and Radio Products can obtain these from us at the lowest prices. Write for quotations.

**SOL PERLMAN, E.E.**

(W2)CU

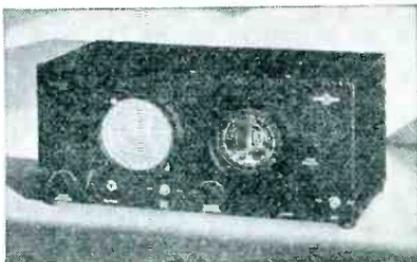
TECHNICAL ADVISOR  
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227 FULTON ST., New York — PHONE:

REctor 2-3028

# They're Bragging about the **SKY BUDDY**

The Sensational  
New Low Priced  
**hallicrafters'**  
Short Wave Receiver



**A** REAL communication receiver, with sensational performance characteristics, that's taking the short-wave world by storm. It compares favorably with many receivers at many times its astoundingly low price. Short wave operators everywhere are acclaiming the amazing performance of this new superheterodyne with its 16.5 M.C. to 544 K.C. range, 3 band tuning, Single Iron Core I. F. stage and improved mechanical band spread. Its selectivity and sensitivity are astonishing, as it pulls in stations from all over the globe.

- Combined I.F. and Beat Frequency Oscillator.
- Iron Core I. F. (High gain greater selectivity)
- 5 Tubes do the work of eight.
- Automatic Volume Control.
- Greater Band Spread—36 to 1.
- Bands changed with switch
- Direct-reading calibrated dial.
- Built-in Speaker and Power Pack.

## Here's what they say about the Sky Buddy:

"I am well pleased with its ease of reception and marvelous operation—it literally tunes the world for me." —Earle Smith, Elmsere, N.Y.

"I want to congratulate you on the Sky Buddy—we got amateur fone stations all over the U.S., Cuba, Mexico, South America and Hawaii, also London and Berlin broadcast."

—L. C. Mantell,  
Detroit, Mich.

"I have found your Sky Buddy one of the best little receivers I have ever come in contact with."

—Andrew Conners,  
Philadelphia, Pa.

"I have purchased Hallicrafter's Sky Buddy and it works wonderfully for DXing and C.W."

—Edgar B. Murphy,  
Greensboro, N.C.

# the hallicrafters, inc.

ULTRA SKY RIDER

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SKY RIDER COMMERCIAL

2607 INDIANA AVENUE, CHICAGO, ILL., U. S. A.

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

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

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

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ARTHUR J. GREEN, Editor.

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### MEMBERSHIP CONTEST

Just imagine a free Hallicrafter Skychief receiver or a free National AC SW5 receiver. That is what we are offering members for securing new members for the club. All you have to do to win either of these prizes is to go out and interest people in this magazine. It is a contest for memberships.

The contest closes at midnight May first to members in North America; at midnight May 5th to members in the West Indies and Central America; at midnight May 15th to members in South America and Europe, and at midnight May 30th to members in Africa, Australia and Asia. All memberships received by the time stated will be counted.

For each membership received, one point will be counted. For each renewal received one point will be counted. For each two-year subscription or renewal, two points will be counted, etc. The person having the most points at the close of the contest will get the Skychief. The person with the next highest number will receive the National. Many times such prizes have been won by people who actually sent in less in membership fees than what they would have to pay for the prize. So, it pays to make an effort. Go to your local radio stores and ask them to supply you with the names and addresses of people they have sold short wave sets to. Then call on these people, tune their receivers to distant stations and show them how they can get more stations and better reception by reading this magazine. Have them pay you the membership fee or just have them mention your name when they send in. The point will be counted in your favor. It is all very simple. But there is something else. Everyone can not win the Skyrider, but everyone who sends in five or more points will win a prize. And remember—when you aid this organization, you are aiding yourself.

**Why Take  
A Chance?**

**You are protected when you buy from our advertisers!**

Advertising for this magazine is accepted only from firms who, in the opinion of the officers, are of established integrity and whose products have met the approval of officers and members. Play safe and patronize I. S. W. C. advertisers.

### CHAPTER NEWS

The New York Chapter meets at the Stuyvesant High School, East Fifteenth Street, on the first and third Fridays of the month at 8:00 P. M. Each night they demonstrate some new receiver and show moving pictures of foreign lands. A Skybuddy receiver will be demonstrated November 6th. This chapter broadcasts over station WNYC, New York City every Saturday from 2:30 to 2:45 P. M.

The London, England, Chapter meets at R. A. C. S. Hall, Wandsworth Road SW3, every Friday excepting the second Friday in each month. An election of officers was held October 2nd. W. J. Nobbs was elected president; Arthur Bear, secretary; J. E. Hunter, chairman; A. F. Larkman, vice-chairman, and J. L. Gibbons, A. Brien, A. W. Preedy, C. W. Kemp, J. E. Newton and S. H. Lewis were elected committee. This chapter is England's leading short wave organization and the meetings are always well attended. They are publishing a "News Letter" booklet containing a lot of information on reception and they offer to send a copy to anyone who will send them a stamp or an International Reply Coupon.

The Guernsey Chapter meets weekly at 5 Well Road, St. Peter Port. For details write to S. F. LePavoux, 8 Upper Cannichers, St. Peter Port.

For details on the Brighton Chapter write to 205 Braeside Ave., Brighton 6, England.

For details on the Manchester Chapter write to H. Wild, 1 Elm St., Middleton, Manchester.

The English chapters are holding a listening contest. A trophy has been donated by the editor of World Radio. There will also be many other awards such as world globes and merit certificates. It will not be necessary to send verifications in this contest. For details write to Mr. Bear at 100 Adams Garden Estate, London.

### IN MEMORIAM

Fred M. Craft, of Oakland, California, died on September 26th. He leaves a widow and four small children at 492 44th Street, Oakland. We received our last report from him dated September 17th, and much of his information was used in our last issue.

We have been informed that member A. C. Lyell of Johannesburg, South Africa, has passed to the great beyond. Mr. Lyell has been a member for almost three years. The loss of these two great men will be felt by many.

Club member Felix Quayle of France Field, Canal Zone, lost his father September 18th. He has our sympathy.

### PASS ALONG THE NEWS

When you buy a new receiver or antenna, remember to drop us a line and let us know how you like it and how it performs for you. By doing so you are helping to pass information along to others who are interested in the same things. If you find your new receiver does not come up to expectations, tell us so. If it does, tell us that. What we want is the true facts.

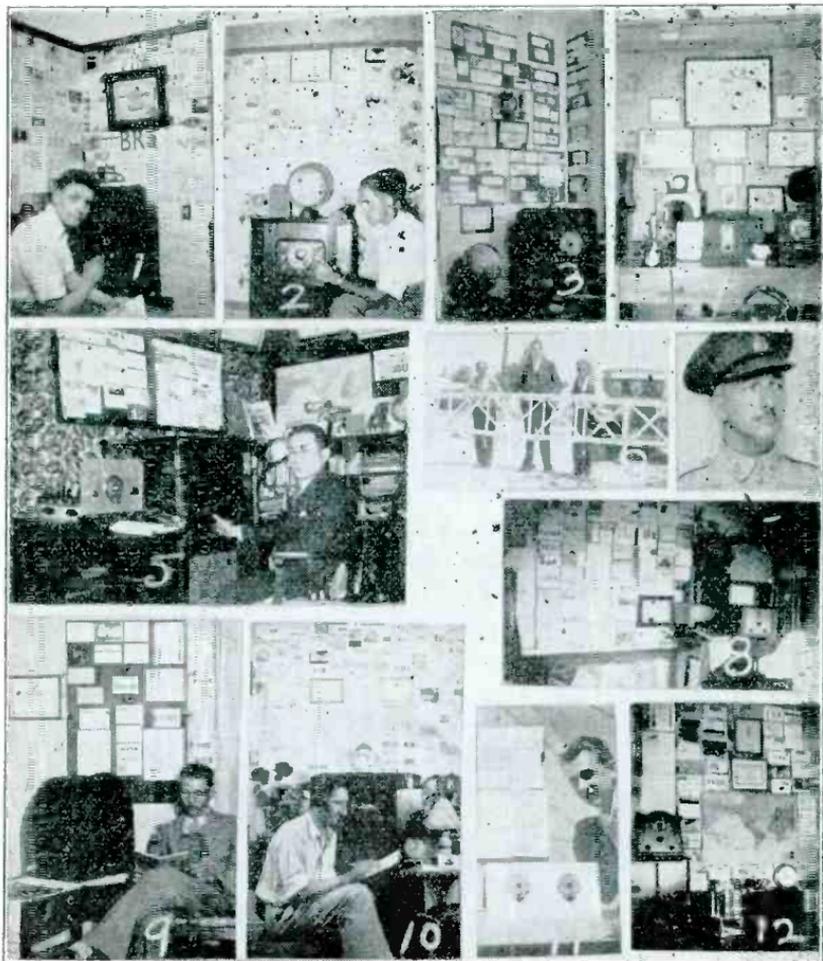


Photo No. 1—David McIntosh of Alva, Scotland, greets you. Note his Class A Heard-All-Continents Club certificate. No. 2—Charles H. Ward of Brooklyn, N. Y. No. 3—John May of Wilkensburg, Pa. No. 4—The radio den of Sgt. Law of Toronto, Ont., Canada. No. 5—Shokichi Yoshimura, Moji, Japan. No. 6—The tall fellow in the middle is member Walter McMenamy of Los Angeles, Calif. That is a 60-foot aerial mast these men are putting up. No. 7—Sgt. R. B. Law of Toronto, Canada. No. 8—The loneliest radio post in the world, operated by club-member W. Chippendale of Paraguay. He sees on the average, one white person each year. This magazine, in order to reach Mr. Chippendale, will travel by auto. then by train to New York, by boat to Buenos Aires, Argentina, by a river boat to Asuncion, Paraguay, by canoe for about 40 miles, then by an Indian runner for ten miles, by canoe again and finally by Indian runner again. Photo No. 9—Carl Scherz of San Angelo, Texas. Photo No. 10—Carl Foresteiri, Bronx, New York. No. 11—Thomas Grey of Lyons, No. 12—Charles Hoffman, Terre Haute, Ind.

## SHORT WAVE NEWS

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

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

### ASIA

HS8PJ, Bangkok, Siam, is broadcasting every Monday from 8:00 to 10:00 A.M. on 19.02 mc. and every Thursday from 8:00 to 10:00 A.M. on 9.25 mc. (Myers, Calif.; Phisam, Siam; Pegge, England; Studholme, England; Rossi, Pa.; Walcott, Calif.; Solito, Pa.; Fey, N. Y.; Kash, Tenn. and Niederle, Czechoslovakia). Heard one Wednesday at 10:00 A.M. (Gallagher, Calif.) HSP, a phone on 17.74 mc. phones Japan every Sunday at 11:00 P.M. and every Friday at 4:00 A.M. (Walcott, Calif.) Monday at 6:00 A. M. calls Berlin. (Karpen, Pa.) The owners of HS8PJ say they have an amateur station HS1PJ with 300 watts power on 21.12 meters on 14.20 mc. and they are on the air every Saturday 10:00 A.M. to 12:30 P.M. (1500 to 1730 G. M. T.)

Colombo, Ceylon, on 6.05 mc. broadcasts from 1300 to 1500 G.M.T. or 8:00 to 10:00 A. M., E.S.T. according to a letter from the Chief Telecommunications Engineer, Broadcasting Office, Torrington Square, Colombo. (Keenan, Australia.) Heard on 6.03 mc. one Saturday 7:30 to 8:15 A.M. in September (Karpen, Pa.) Signing off at 9:00 A.M. on 6.05 mc. (Sparks, California.) Signed off at 7:00 A.M. one Saturday in October (Karpen, Pa.)

Saigon, Indo-China, on 11.73 mc. broadcasting daily between 5:30 and 9:30 A.M. They use a slogan "Radio Philco." They announce the address as Box 295. On 11.71 mc. and signs off with "March Lorraine" at 8:30 A.M. (Purkey, Calif.) Was on 11.90 mc. one Sunday 2:00 to 4:00 A.M. (Karpen, Pa.) On 11.71 not 11.73 and heard till 9:30 A.M. (Walcott, Calif.) On 11.73 till 9:30 A.M. (Sparks, Calif.)

YAH, Kaboul, Afghanistan, on 5.20 mc. reported at 8:30 A.M. once (Myers, Calif.)

VUB, Bombay, India, says in a letter that they broadcast on 31.36 meters, 9.57 mc. Tuesdays, Thursdays and Fridays from 11:30 A.M. to 12:30 P.M. Sometimes on Sundays 1:00 to 2:00 A.M. (Myers, Calif.) This station is not reported outside of Asia only on special occasions. VWY, a phone station on 33.51 meters, 8.98 mc., phones London daily 1:00 to 2:00 P.M. (Orchard, Eng.) VWY2 on 17.54 mc. phones London between 6:00 and 8:30 A.M. (Karpen, Kash, Lips and Fey.) A station VU2CQ, Bombay, on 15.1 mc. heard near 10:30 A.M. This must be an amateur station (Kama, India.)

Japanese Stations. JVH on 14.60 mc. broadcasts every night from midnight to 1:00 A.M., every Tuesday and Friday from 2:00 to 3:00 P.M. and every Monday and Thursday from 4:00 to 5:00 P.M. and also broadcasts nearly every day around 4:00 to 7:30 A.M. and around 7:00 P.M. JVM on 10.74 mc. broadcasts Tuesdays and Fridays 2:00 to 3:00 P.M. and is also reported this month around 6:00 A.M. and midnight and 1:00 A.M. JVN on 10.66 mc. is reported nightly from 1:40 to 2:40 A.M. and 4:00 to 7:30 A.M. broadcasting baseball games and other programs. JVO on 10.37 mc. phoned TDE from around 11:00 P.M. to 9:00 A.M. irregularly. JVD on 15.86 mc. phones America and Java from 9:00 P.M. to midnight irregularly. JVL on 11.66 mc. reported broadcasting between 4:00 and 7:00 A.M. irregularly. JVE on 15.66 mc. reported phoning around midnight. JVU on 5.79 mc. reported around 7:00 A.M. phoning. Unidentified stations on 6.45 mc. at 2:00 A.M. and on 4.86 mc. broadcasting at 7:00 A.M. are reported. JVC on 16.05 mc. signing off at 6:00 A.M. (Portmann, N. Y.)

TDE, Shinkio, Manchuko, on 10.065 mc. phones Japan daily 11:00 P.M. to 9:00 A.M. Heard at 2:00 A.M. (Lips, Pa.) At 5:00 A.M. (Karpen, Pa.) At 5:00 A.M. (Fey, N. Y.) From 5:00 to 9:00 A.M. (Sparks, Calif.) From 11:00 P.M. to 9:00 A.M. (Walcott, Calif.)

JIB, Taiwan, Japan, on 10.53 mc. phones JVL Japan, between midnight and 3:00 A.M. (Solito, Pa.) Heard 5:00 to 9:00 A.M. (Sparks, Calif.) Heard at 9:00 A.M. (Gallagher, California.)

A letter from KZRM, Manila, P. I., says they have discontinued test broadcasts (Myers, Calif.) They used station KAZ a regular phone station on 9.97 mc. for these tests. They do not have their own short wave transmitter. A phone KBJ on 13.24 mc. reported at 8:00 P.M. (Karpen, Pa.) KTO sent a special program to America October 20th. No time or wave stated (Child, Pa.)

RV15, Khabarovsk, Siberia, has moved from 4.25 mc. to 5.72 mc. and they are heard much better broadcasting from 1:00 A.M. till 10:00 A.M. daily (Walcott and Sparks, Calif.) RWJ, Alma-Ata, on 12.18 mc. phones Moscow around 6:00 A.M. ROU, Omsk, on 14.79 mc. phones around 6:00 A.M. RFL, Khabarovsk, on 13.19 mc. phones around 6:00 A.M. RVU, Vladivostok on 13.79 mc. phones around 6:00 A.M. RRR, Khabarovsk, on 15.95 mc. heard between 4:00 and 5:00 A.M. (Kriebel, Pa.) RRR heard between 5:00 and 8:00 A.M. (Karpen, Pa.) A station RTA at Nova Siberok on 12.88 mc. heard phoning Moscow at midnight and one on 14.70 mc. at 1:00 A.M. (Miller, Ky.)

ZBW, Hong Kong, which is on 8.75 mc. now has another short wave station sometimes operating on 9.52 mc. and sometimes on 15.19 mc. The schedule is 11:30 P.M. to 1:15 A.M. and 4:00 A.M. to 10:00 P.M. The stations on 9.52 mc. and 15.19 mc. have been heard all over the world now. Some insist they are on 9.53 or 9.54 mc. and on 15.17 or 15.18 mc., but most agree that they are on 9.52 and 15.19 mc. We suggest that members tune for these stations each morning. If the station is not on one wave, it is bound to be on the other. Send reports to Box 200, Hong Kong. Reported by members Solito, Stempel, Sparks, Childs, Eder, Antognini, Braunholdt, Moots, Fowler, Lips, Oxrieder, Purkey, Rossi, McMenamy, Ray, Salazar,

Miller, Gallagher, Karpen, Federing, and Balbi. They are also on 6.095 according to Mr. Walcott.

XGOX, Nanking, China, on 6.85 mc. broadcasts daily 6:40 to 8:40 A.M. and Sundays 4:40 to 6:05 A.M. They say they are on 6.82 but they are heard on 6.85. In spite of the schedule, the station is heard between 6:30 A.M. and 10:30 A.M., according to reports received by us. (Walcott, Gallagher, Sparks and Purkey of California, and Fey of New York.)

CQN, Macao, Portuguese China, on 9.57 mc. broadcasts Mondays and Fridays from 7:00 to 8:30 A.M. Send reports to the postmaster at Macao. On 9.57 (Walcott and Shepperd.) On 9.64 (Sparks, Calif.)

Chinese Phones. XOJ on 15.795 mc. phones England and Japan most any time. Calls GBX every day at 7:15 A.M. (Rossi, Pa.) Calls at midnight regularly. (Fey, N. Y.) XGW on 10.42 mc. calls London at 5:00 A.M. (Sparks, Calif.) XGC on 9.09 mc. heard one Tuesday testing from (Karpen, Pa.) XGW daily 3:00 to 5:00 A.F. (Fey, N. Y.) Heard daily 3:00 to 6:00 A.M. (Karpen, Pa.) A phone at Shanghai on 9.28 mc. and a phone on 9.09 mc. was heard between 4:30 A. M. and 6:30 A. M. once (Moots, Mo.) Shanghai, on 11.41 mc. and Hankow on 11.70 mc. were phoning each other 3:00 to 4:15 A.M. Shanghai on 9.285 mc. and Hankow on 9.08 mc. was heard between 6:00 and 7:00 A.M. Shanghai on 3.449 mc. and Hankow on 3.27 mc. was heard from 8:00 to 9:00 A.M. And once Shanghai was heard on 5.73 mc. between 8:00 and 10:00 A.M. All this comes from Mr. Walcott of California. Shanghai on 9.285 and Honkow on 9.08 mc., 9:30 to 10:00 A.M. once (Sparks, Calif.) Shanghai on 9.08 one Monday at 8:00 A.M. (Fey, N. Y. Shanghai on 5.74 and Hankow on 5.48 mc. from 7:00 to 10:00 A.M. heard. Sometimes Shanghai goes to 9.285 mc. at 9:30 A.M. (Walcott, Calif.)

Java, YDB on 9.65 mc., PLP on 11.00 mc., YDC on 15.15 mc. and PMN on 10.26 mc. are broadcasting daily from 5:30 to 10:30 or 11:00 A.M. One or more of these stations are reported by practically everyone in our reporter's list. PMA on 19.345 mc. often sends music around 8:00 A.M. before phoning Holland, which they do till about 10:00 (Solito, Lips, Gallagher). Heard one Thursday evening 8:00 to 10:00 P.M. with music (Karpen, Pa.) YDA on 3.04 mc. heard daily 5:30 to 10:00 A.M. (Gallagher and Hodge, Calif.) PLP and PMN are reported daily excepting Saturdays broadcasting from 6:00 to 7:00 P.M. (Studholme, England, and Gullberg, Sweden). PMH on 6.72 mc. broadcasts nearly every day from 5:00 A.M. to 10:00 A.M. (Gallagher, Purkey, Sparks and Walcott all of California). There will be no more verifications sent out from Bandoeng, Java, stations after January first, 1937. So better tune these stations in now and send for your verie.

Java Phones. PMA on 19.35 mc. phones Holland between 5:30 and 11:00 A.M. PLE on 18.83 mc. phones Holland between 5:30 and 11:00 A.M. and phones the U. S. A. and Japan between 6:50 and 8:00 P.M. PLV on 9.42 mc. is heard between 9:30 and 11:00 A.M. and 6:50 and 11:00 P.M. YBG, Medan, Sumatra, on 10.42 mc. was broadcasting one Thursday 7:00 to 7:40 A.M. (Starr, Canada.) Heard phoning 5:00 to 6:30 A.M. (Walcott, Calif.) YBZ at Menado, Celebes Island, is a new phone on 7.68 mc. Walcott, Calif.) Amateurs PK4SN, PK4CR and PK4AU on 14.30 mc. are

heard between 6:00 and 11:00 A.M. (McMenamy, Calif.) A PMC on 18.135 mc., reported phoning Holland 5:50 to 6:15 A.M. (Solito, Pa.) A station PMK on 11.50 mc. broadcasting music at 6:00 A.M. one Saturday. (Fey, N.Y.) YBG on 10.43 and not 10.40 mc. phoning Bandoeng 4:45 to 6:00 A.M. YBG heard on 10.40 at 5 A.M. (Karpen, Pa.) PLV phoning at 7:30 A.M. (Kash, Tenn.) At 10:00 A.M. (Gallagher, Calif.) From 5:30 to 6:30 A.M. Solito, Pa.) At 7:55 A.M. Sparks, Calif.) A PMC on 18.18 mc. heard one Monday at 7:00 A.M. Fey, N. Y.) A station on 4.87 mc., 7:00 to 9:30 A.M. daily and one on 4.89 at same time daily are broadcastnig (Walcott, Calif.)

## AUSTRALIA

FO8AA, Radio Oceanie, Papeete, Tahiti, on 7.10 mc. broadcasts every Tuesday and Friday from 11:00 P. M. to midnight or later. These programs begin with playing "La Marseillaise" and end with "Aloha Oe." (Walcott, Calif.) Heard from 11:00 P.M. to 12:30 A.M. (Karpen, Pa., Sparks, Calif., Shepperd, Mass.)

VPD2, Suva, Fiji Islands, on 9.54 mc. is broadcasting now from 5:30 to 7:00 A.M. weekdays. Some say they close down at 7:00, some at 7:15 and some at 7:30 A.M. while one says 8:00 A.M. (Stevens, Gullberg, Atherton, Walcott, Sparks, Solito, Gaug, Karpen, Murphy, Purkey, Erwin, Oxrieder, DeSouza, Kash and Lips.)

VK2ME, Sydney, on 9.59 mc. broadcasts Sundays 1:00 to 3:00 A.M., 4:30 to 8:30 A.M. and 9:00 to 11:00 A.M.

VK3LR, Melbourne, on 9.58 mc. broadcasts daily 3:15 to 8:30 A.M.

VK2DL, Canterbury, on 7.30 mc. broadcasts Sundays 3:00 to 5:00 A.M.

VK5DI, Adelaide, sends music on 14.04 mc. Saturdays 8:30 to 10:30 P.M. (Vandecar, Mich.)

VK6ME, Perth, Western Australia, will be on 9.59 mc. or 31.28 meters broadcasting with 500 watts power weekdays. (Craft, Calif.) Scheduled to open up in September and has been heard testing.

VK8CS, Port Hedland, Western Australia, on 6.96 mc. is testing irregularly with VK3LR near 9:00 A.M. (Walcott, Calif.) Heard one Sunday 4:45 to 5:00 A.M. (Moots, Mo.)

ZLT, Wellington, New Zealand, is heard phoning Australia between 11:00 P.M. and 6:00 A.M. on 11.05 mc. Australia has telephone stations at Sydney operating on 10.52 mc. and 9.76 mc. They are used to phone Java, New Zealand and England. When testing they use the call VK2ME. When working Java they use VLJ. When working England they use VLK. When working New Zealand the call VLZ is used. VLZ was heard on 13.25 mc. last month calling a ship with the call-sign ZFBJ and the name Aradia or Arcadia. (Myers, California.)

## AFRICA

EHZ, Teneriffe, Canary Islands, on 10.37 mc. is broadcasting Rebel war news for the benefit of short wave listeners. We understand they are on the air every day from 2:00 to 4:00 P.M. and 6:00 to 7:00 P.M., but this is:

not the complete schedule. It has been reported from 7:00 A.M. almost every hour of the day up to 9:30 P.M. (Moots, Mo., Niederle, Czechoslovakia, Lips, Pa., Flagg, Mass., Mascarenhas, Brazil; Miller, Ky.; Wilson, England; Karpen' Pa.; Hersowitz, Md.; Solito, Pa.; Childs. Pa. and Studholme, England.) They ask for reports, the address being announced as Box 225, Tenerife. They are also on long waves using the call EAJ43, so you will hear them say EAJ43 at times.

EA8AB, Canary Islands, broadcasts on 42.78 meters or 7.01 mc. Mondays, Wednesdays and Fridays, 3:15 to 4:15 P.M. and Saturdays at the same time or maybe 4:15 to 5:15 P.M. Amateurs EA8AT, EA8LW, EA8AL, EA8AH, EA8AJ, and EA8AO are all here on voice near 14.19 mc. afternoons and evenings.

CR6AA, Lobito, Angola, on 7.177 mc. broadcasts Wednesdays and Saturdays 2:45 to 4:45 P.M. (Burdett, Africa). Is very weak station. One writer claims they moved to 9.66 mc. but the latest magazines from Africa still say 7.177 mc.

CR7AA, Lourenco Marques on 6.137 mc. broadcasts weekdays 12:45 P.M. to 3:15 P.M. and Sundays 8:00 to 10:30 A.M. (Burdett, Africa.)

FIQA, Tananarive, Madagascar, on 6.02 mc. relays FIU between 7:00 A.M. and 1:00 P.M. (Burdett, Africa) Is on 6:00 mc. 3:30 to 4:45 A.M. and 10:00 to 10:45 A.M. according to letter. (Adams, India.) On 6.02 mc. at 7:00 A.M. (Carville, France.) Seldom reported outside of Africa.

ZEC, Salisbury, Rhodesia, on 5.80 mc. and ZEB, Bulawayo, on 6.147 mc. broadcast the same program Sundays 3:30 to 5:00 A.M., Mondays 11:00 A.M. to noon, Tuesdays 1:15 to 3:15 P.M., Thursdays 10:00 A.M. to 10:45 A.M. and 11:00 A.M. to noon, Fridays 1:15 to 3:15 P.M. Send reports to the postmaster at Salisbury. (Burdett, Africa; Graham, Africa, and Cram, England.) Seem to be very hard stations to get. Verification says ZEC is on 6.01 mc., not 8.80 (McMenamy, Calif.)

ZTJ, Johannesburg, on 49.20 meters or 8.09 mc. seems to have slipped a little and is now on 49.25 meters, 6.091 mc. They moved in order to avoid interference from Belgrade. (Orchard, England.) The schedule is weekdays 11:45 P.M. to 12:30 A.M., 3:15 to 7:00 A.M., 9:00 A.M. to 11:30 A.M. and noon to 5:15 P.M. Try from 12:00 to 12:30 A.M.

VQ7LO, Nairobi, Kenya, on 6.082 mc. broadcasts Mondays to Fridays 5:45 to 6:15 A.M. and 11:30 A.M. to 2:30 P.M., Tuesdays and Thursdays 8:30 to 9:30 A.M., Saturdays 11:00 A.M. to 3:00 P.M. and Sundays 11:00 A.M. to 2:00 P.M. (Smith, England.)

African phones. SUX, Cairo, Egypt, on 7.98 mc. phones England around 4:00 to 6:00 P.M. SUV, same city, on 10.05 mc. phones around 1:00 to 5:00 P.M. SUZ, same city, on 13.83 mc. phones around 11:00 A.M. to 1:00 P.M. VQG, Nairibo, Kenya, on 19.63 mc. phones London between 7:00 and 8:30 A.M. daily. Address is Box 777. OPL, Leopoldville, Belgian Congo, on 20.04 mc. phones Belgium 10:00 A.M. to 3:00 P.M. OPM, same city, on 10.14 mc. phones between midnight and 2:00 A.M. and 2:00 and 3:00 P.M. ZSS, Capetown, on 18.89 mc. phones England between 6:30 A.M. and 1:00 P.M. CNR, Rabat, Morocco, on 12.82 mc. phones Paris between 3:00 and 4:00 P.M. irregularly. A station EA9AA at Melilla, Spanish Morocco, is on about 7.01 mc. sending war news irregularly (Keenan, Australia).

Heard on 45.61 meters once and on 45.95 meters between 3:00 and 5:00 P.M. (Orchard, England.) EA9AH, Tetuan, Marruecos (we imagine this means Morocco) said to send reports to Box 124 Tetuan (Salazer, N. Y.) A phone station at Algiers, Algeria, on 33.48 meters or 8.96 mc. phones Paris daily 12:30 to 1:30 A.M. and 4:00 to 5:30 A.M. Miller, N. Y.) Phones Paris 11:00 P.M. to 3:00 A.M. and 3:00 P.M. to 6:00 P.M. (Solito, Pa.) Heard at midnight (Lips, Pa.) A letter from Algerienne Radio Telephonique, 137 Rue de Constantine, Alger, Algeria, says they are on 24.75 meters with no regular schedule (Riggle, Ohio). Heard on 8.96 mc. at 12:30 A.M. and 2:30 A.M. as regular as can be every day (Walcott, Calif.)

FZE9, French Samoliland, on 8.75 mc., not 8.57 mc. as reported, phoned Paris one Wednesday at 2:10 A.M. (Lips, Pa.) Heard on 8.57 mc. not 8:75 as Lips says, from 2:00 to 2:30 A.M. once and 3:10 to 3:37 once (Solito, Pa.) IUG Addis Ababa, Ethiopia, on 15.45 mc. has been phoning IAC, Italy, between 9:00 and 10:30 A.M. quite a lot lately (Sparks and Walcott, of Calif.) IUC, Addis Ababa on 11.955 mc. heard most every night between 11:00 P.M. and 1:00 A.M. phoning Italy (Miller, Ky.) IUC heard daily 11:00 A.M. to noon (Fey, N. Y.) IUC heard at 6:00 P.M. once (Karpen, Pa.) ITK in Italian, Samoliland, on 18.31 mc. is a new station reported heard calling Rome at 3:00 P.M. IDU, Asmara, on 13.38 mc. reported phoning Rome between 11:00 A.M. and 2:00 P.M. (Lips, Pa.) Heard calling IQA October 3rd from 7:00 to 8:00 A.M. (Karpen, Pa.) ITK on 16.385 mc., heard 7:15 to 7:45 A.M. (Portmann, N. Y.)

### SOUTH AMERICANS

CED, Antogtagasta, Chile, say they have 500 watts power and they phone CEC Santiago, Chile, weekdays from 8:00 A.M. to noon and 2:00 P.M. to 9:00 P.M., Sundays 8:00 to 11:00 A.M. and 4:00 to 9:00 P.M. and relay news broadcasts daily except Saturdays and Sundays at 7:15 P.M. The verification came from Compania de Telefonos de Chile, Antogtagasta (Walcott, Calif. and Legge, Pa.) It is reported around 7:00 to 7:15 P.M. by many. CEC Santiago on 10.67 mc. is also heard from 7:00 to 7:15 P.M. CB960 in the same city on 9.60 mc. broadcasts between 8:00 and 11:00 P.M. They said they had a station CB615 mc. also and the address is Apartado 1342 (Fey, N. Y.) They will increase power before the end of the year (Orchard, England).

CX16 and CX24, "Radio Caldas" and "La Voz del Aire," Montevideo, Uruguay, is heard on 19.63 meters, 15.28 mc. No time stated in report (De Souza, Venezuela).

A station styled "Servicia Officio Electrica de Montevideo" has been heard since May on 48.9 or 49.00 meters, 6.12 mc. It is heard between 3:30 and 9:00 P.M. sending music and talks daily and at 3:30 every day announces call. (Hesselmann, Africa). Anyone else heard this one?

HJ1ABB, Barranquilla, Colombia, on 9.56 mc. broadcasts most every day from about noon to 11:00 P.M. but sometimes goes up to about 6.13 mc. in the evenings (Eder, Minn.)

HJ1ABE, Cartagena, on 9.50 mc. broadcasts now from 7:00 to 10:00

P.M. instead of 7:30 to 9:30 (Solito, Pa.) Every Monday they send a special program for short wave fans from 9:30 to 10:30 P.M.

HJ1ABG, Barranquilla, broadcasts on 6.04 mc. weekdays from 11:00 A.M. to 11:00 P.M. and Sundays 11:00 A.M. to 8:00 P.M. On September 1 they sent a special program to all Lions Clubs until 1:30 A.M. (Verbrughe, Sloper, Gallagher and Solito.)

HJ1ABJ, Santa Marta, on 6.025 mc., say they broadcast daily 11:30 A.M. to 2:00 P.M. and 5:30 to 10:30 P.M. Moved to 6.017 (Oxrieder, Pa.) Still on 6.025 and heard till midnight now (Sparks, Calif.)

HJ1ABP, Cartagena, on 9.60 mc. is heard now from 7:00 A.M. till 1:00 P.M. and 5:00 to 11:00 P.M. week days and 7:00 A.M. to 1:00 P.M. and 3:00 to 6:00 P.M. Sundays. They started last month to broadcast at 7:00 A.M. (Fowler, Barron, Hodge, Murphy, Kash, Stempel and Atherton).

HJ2ABC, Cucuta, is moving around between 9.57 and 9.59 mc. It is heard between 7:00 and 11:00 P.M.

HJ2ABD, Bucaramanga, moved from 5.98 mc. to 9.818 mc. Heard once. (Oxrieder, Pa.)

HJ3ABX, Bogota, on 6.122 mc. is heard between 7:00 and 11:30 P.M. but W8XK usually spoils it. The address is Calle 14, No. 738. HJ3ABF, Bogota, has moved from 6.17 mc. to 6.096 mc. (Oxrieder, Pa.)

HJ4ABD, Medellin, "La Voz de Citia," has moved again, this time to 6.138 mc. (Oxrieder, Pa.) On 5.94 (Gallagher, Calif.); On 5.75 (Eder, Minn.) Said 6.138 mc. and heard there (Rossi, Pa.) Heard on 5.93 from 11:00 P.M. to midnight (Sparks, Cal.)

HJ4ABE, Medellin, on 6.092 mc., broadcasts from 11:00 A.M. to noon and 6:00 to 10:30 P.M.

HJ4ABH, "La voz de Armenia," at Armenia, Caldas, on 9.525 mc. relays a station HJ4ABM or N. It is heard irregularly from 7:00 to 11:00 P.M. (Oxreider and DeSouza).

HJ4ABP, Medellin, "Emisora Philco," is on 6.03 mc. between 6:00 and 11:00 P.M. broadcasting.

HJ4ABU, Pereira, on 6.145 mc., broadcasts 9:00 to 11:00 A.M. and 7:00 to 8:00 P.M. daily. Heard till 8:30 P.M. (Kash, Tenn.)

HJ5ABC, Cali, on 48.78 meters, 6.15 mc., say they have 150 watts power and broadcast 11:00 A.M. to noon and 7:00 to 10:00 P.M. (Blecha, N. Y.)

HJU, Buenaventure, on 9.51 mc. is supposed to broadcast from noon to 2:00 P.M. and 8:00 to 11:00 P.M. on Mondays, Wednesdays and Fridays according to their verifications. Captain Oxreider first said they were off the air then said they moved to 9.50 mc.

PZH, Paramaribo, Dutch Guiana, on 42.88 meters or 7.00 mc. is reported between 6:00 and 8:30 A.M. daily (Rossi and Solito, Pa.) PZ1AA, same city on about 14.10 mc. heard at 10:00 P.M. working amateurs again (Atherton, Vt.)

LRU, Buenos Aires, Argentina, on 15.29 mc. broadcasts from 7:00 A.M. to 5:00 P.M. and LRX on 9.66 mc. broadcasts from 5:00 P.M. to 9:00 P.M. according to late replies from the station (Smith, Calif. and Stephenson, England). Regardless of this, they are not on this schedule. LRX signed off once at 8:00 P.M. (Kash, Tenn.), and was heard till 10:45 P.M. (Antognini, Calif.) Heard till 11:00 P.M. (Mascarenhas, Brazil). Moved to 9.64

mc. last month (Flagg, Mass.) LSX, Buenos Aires on 10.35 mc. is heard many evenings each month between 6:00 and 11:00 P.M. testing and relaying music, but they have no schedule. LSQ, a phone on 10.30 mc. sent a special program from 7:00 to 8:00 P.M. October 3rd (Flagg, Mass.).

PRF5, Rio de Janeiro, Brazil, on 9.50 mc., in a letter to Johan Curiel, Curacao, says they broadcast daily 4:45 to 5:45 P.M., the first 45 minutes in Portuguese and the last 15 minutes as follows: Monday in English; Tuesday in Esperanto; Wednesday in German; Thursday in Italian; Friday in Spanish; Saturday in French. Send reports to Radio Division, Departamento de Propoganda, Ministerio de Justicia e Negocios Interiores, PRA8 on 6.025 mc. broadcasts weekdays 4:30 to 8:00 P.M. (Fey, N.Y.) PSZ, Rio, on 38.50 meters or 7.78 mc. sent a special test at 3:30 P.M. October 8th (Wilson, England).

VP3MR, Georgetown, British Guiana, say they are on 49.90 meters, or 6.01 mc. weekdays 5:45 to 8:45 P.M. and Sundays 7:45 to 10:15 A.M. (Lips, Eady, Stampel, Smith, Bear, Stephenson). VP3BG same city, on 41.55 meters or 7.22 mc. is heard when code interference is not bad between 3:00 and 8:00 P.M. It has not been reported for some time now.

OAX4G, Lima, Peru, say they are on 6.23 mc. and broadcast daily from 7:00 to 10:00 P.M. OAX4D, Lima, on 5.78 mc. broadcasts Wednesdays and Saturdays from 8:00 to 11:30 P.M. Nothing has been heard of OAX4J which was supposed to open in August on 6.00 mc.

Prado, Rio Bamba, Ecuador, has been testing on 15.44 mc. between 5:00 and 7:00 P.M. (Hodge, Calif. and Balbi, Calif.) This station usually broadcasts Thursdays 9:00 P.M. to 11:30 P.M. HC2RL, Guayaquil, on 6.67 mc. broadcasts Sundays 5.45 to 7:45 P.M. and Tuesdays 9:15 to 11:15 P.M. HC1PM, Estacion El Palomar, Quito, heard on 42.40 meters, around 10:00 P.M. (Smith, England). HCJB, Quito, was on 33.50 meters and signed off at 10:20 P.M. October 18th (Atherton, Vt.) They are supposed to sign off at 9:30 P.M.

HC2JSB, Guayaquil, after moving to about 9.51 mc. a few weeks ago, has moved again to 7.854 mc. according to Mr. Rossi, Philadelphia. They were on 9.51 mc. from 11:00 A.M. to 2:00 P.M. and 4:00 P.M. to 11:00 P.M. according to replies from the station. On 7.854 (Oxrieder, Pa.)

HC2CW, Guayaquil, "Ondos del Pacifico," verifications say the address is Box 1166, the frequency 8.404 mc. and the schedule weekdays 11:30 A.M. to 12:30 P.M. and 7:00 P.M. to 11:00 P.M. and Sundays 3:00 to 5:00 P.M. Ecuadorian Time, (Kash, Tenn.) Heard on 8.29 mc. (Oxrieder, Pa.) Heard on 8.25 (Siddle, Ala.)

YV9RC, "Emisora ondas Populares," Caracas, Venezuela, sends veries saying they are on 6.40 mc., the address is Apartado 1931 and the owner is Gonzales Veloz Mancera. The station is located at Los Jardines, El Valle, outside of Caracas. No schedule is given, but it is heard between 7:00 and 11:00 P.M.

YV5RMO, Maracaibo, Venezuela, on 5.85 mc., has a new slogan. It is "Ecos del Zulia." The schedule is weekdays 8:45 to 9:45 A.M.; 11:15 to 12:45 P.M. and 4:45 to 9:45 P.M.; Sundays 11:45 to 12:45 P.M.

7:00 and 11:00 P.M. It is heard on 6.64 mc.

We believe everyone is acquainted with station YV2RC, YV3RC, YV6RV. YV4RC closed down due to financial trouble (Rossi, Pa.) YV11RB Ciudad. Bolivar, "Ecos del Orinoco" say they have 30 watts power and they are on 6.545 mc. The address is Apartado 34 and the station is heard between 6:00 P.M. and 10:30 P.M. irregularly. YV8RB. Baraquisimeto on 50.90 metres, or 5.90 mc. is reported once again. They sent a special program October 3rd from 11:00 P.M. to midnight (Gallagher, Calif.) Heard at 9:45 P.M. once (Atherton, Va.) They are supposed to broadcast between 6:00 and 10:00 P.M. A station YV3RY, Valencia, on 6.45 mc. was heard from 8:30 to 9:00 P.M. once (Fowler, Ind.) Amateur stations YV1AA, Maracaibo, on 7.13 mc. and YV5AE, Caracas on 7.20 mc. are heard on voice till midnight (Lips, Pa.)

YV1RG and YV1RH, which is really one station, was once known as YV7RMO and was on 6.07 mc. for some time. . Now they broadcast on about 6.355 or 6.36 mc. and they have made quite an impression on our report list as the station gets out well. The confusion over the call-letters and the wavelength, till they finally settled down in one place, caused quite a few to report it as two or three different stations. Sometimes they use the slogan "Radio Valera" and sometimes "Ondas Del Lago," and even have said "Radio Philco." The address is Box 261, Maracaibo. and they have been heard between 5:30 P.M. and 12:30 A.M. but usually are heard from 8:00 P.M. to 11:00 P.M. (Kash, Purkey, Beck, Sparks, Oxrieder, Stark, Gallagher, Hyde, Swope, Moots, DeSouza, Rossi, Irons, Atherton, Bradley, der, Solito, Curiel, Balbi, Spuhler, Pegge, Legge and Siddle). Messrs. Rossi and Moots claims it is YV1RS, "Radio Valera," on 6.36 and 6.345 mc. respectively.

### CENTRAL AMERICANS

A letter signed by Victor Federico Hemmer S. says that they operate two stations under the calls XEKL and XEKM, one is on long waves and the other on 49.55 meters, or 6.05 mc. The address is apartado 181, Leon, Gto, Mexico. The power is 100 watts and no schedule was given. This station has never been reported to us, so it must not be on the air yet.

XBA, Tacubaya, D. F., Mexico, on 43.00 meters, 6.977 mc. sends out weather reports from 9:30 to 1:00 P.M. and broadcasts programs from 7:00 to 8:30 P.M. daily. This news was sent by Sr. Jose C. Gomez, Servicio Metereologico Mexicano, Tacubaya, D. F. Mexico, to H. S. Bradley and W. Siddle. Heard around 11:00 P.M. to midnight working amateurs. (Siddle, Alabama; Kash, Tenn. and Sparks, Calif.)

XBC, Vera Cruz, on 45.80 meters, 6.55 mc., say they broadcast daily at 8:15 A.M., 9:00 A.M., 11:00 A.M., 6:00 P.M. and 8:00 P.M., sending out weather reports and news. This is Observatorio Meterologica, Vera Cruz. (Bradley, N. Y.) Another letter says they have 100 watts power and their former call was XFA2. (Siddle, Ala.) Heard broadcasting programs 7:00 to 8:30 P.M. (Siddle). Heard 8:00 to 9:00 P.M. several times (Gallagher, Calif.)

XEXA, Mexico City, 48.55 meters, 6.18 mc., sent a booklet to Fred

Atherton of Vermont, showing they relay station XEXM weekdays only (no Sundays), 6:00 A.M. to 9:00 A.M., 1:00 P.M. to 2:45 P.M. and 5:00 to 9:00 P.M. Heard at 10:30 P.M. (Kash, Tenn.) Heard from 10:20 to 11:12 P.M. (Eder, Minn.) A Mexican station using the call XEXO or XEXA on 15.36 mc. heard broadcasting 8:00 to 9:00 P.M. and one on 15.46 also heard (Gallagher, Calif.)

XEWI, Mexico City, on 11.90 mc. broadcasts Mondays 3:00 to 4:00 P.M.; Tuesdays and Thursdays 7:30 to 8:45 P.M. and 10:30 P.M. to midnight; Wednesdays 3:00 to 4:00 P.M.; Fridays 3:00 to 4:00 P.M. and 9:00 P.M. to midnight; Saturdays 9:00 to 11:00 P.M. and Sundays 1:00 to 2:15 P.M. Heard one Monday from 11:00 to 11:30 P.M. (not on schedule), and also sent special program October 18th from midnight to 2:00 A.M. (Flagg, Mass.) Heard sending special programs near midnight last month by many.

Mexican Phones. A station XDR Mexico City on 9.43 mc. was heard at 5:30 P.M. (Erwin, Ill.) Heard at 9:00 P.M. Gallagher, Calif.) XAP, Villa Hermosa on 34.52 meters or 8.69 mc. was heard phoning Mexico City around 6:30 to 7:30 P.M. (Siddle, Ala.)

TGWA, Guatemala City, on 9.45 mc. is broadcasting nearly every night now between 9:00 P.M. and 1:00 A.M. And every Saturday night at 10:00 P.M. they start a program that ends at 6:00 A.M. Sunday mornings. They relay TGW. A verie says they have 200 watts power (Orchard, England). Heard on schedule (Verbrughe, Qash, Stemple, Sparks, Solito and Eady).

TG2X, Guatemala City, on 5.94 mc. has 250 watts power and broadcasts Mondays, Thursdays and Saturdays from 4:00 to 6:00 P.M.; 10:00 to midnight, and Sundays 1:00 to 2:00 P.M. according to one schedule they give. Mr. Sloper of England says 500 watts power and weekdays 4:00 to 6:00 P.M., 10:00 to 11:30 P.M. and Sundays 4:00 to 6:00 P.M. only. Heard Mondays, Thursdays and Saturdays only until 11:30 P.M. (Sparks, Calif.)

TGS, Presidents Palace, Guatemala City, on 5.713 mc., is heard once in a long time. They have 100 watts and broadcast Wednesdays, Fridays and Sundays 6:00 to 8:00 P.M. they say.

Panama. HP5B, Panama City, on 49.75 meters, 6.03 mc., broadcasts Noon to 1:00 P.M. and 7:00 to 10:30 P.M. HP5F, Colon; on 49.34 meters; 6.08 mc., broadcasts weekdays 11:45 A.M. to 1:15 P.M. and 7:45 P.M. to 10:00 P.M. and Sundays 10:45 to 11:30 A.M. and 4:00 to 6:00 P.M. The address is Box 423 (Flagg and Siddle). HP5J, Panama City, on 31.28 meters, 9.59 mc., broadcasts 7:30 to 10:00 P.M. weekdays and 2:00 to 3:00 P.M. Sundays, they say, while it is reported at 7:00 P.M. and 11:00 P.M. by W. D. Flagg, Mass. HP5K, Colon, on 49.96 meters, 6.005 mc., broadcasts 7:30 to 9:00 A.M., Noon to 1:00 P.M. and 6:00 to 9:00 P.M. relaying HP5O, "La Voz del Victor." The address is Box 33. The address of HP5J is Apartado 867, Panama City (Siddle, Ala.) HP5J is on 9.61 mc. now (Lips, Pa.) They want reports on a program that starts at 6:30 P.M. now. Send these to George Williams, Box 34, Panama City (Gallagher, Calif.) HP5K heard at 11:00 P.M. (Walcott, Calif.)

HRD, La Ceiba, Honduras, on 6.235 mc., "La Voz de Atlantida," broadcasts daily 8:00 to 11:00 P.M. and Sundays 4:00 to 6:00 P.M. and is heard

good in America. Station HRN on 5.87 mc. is getting a bad name for promising verifications and not sending them.

Nicaragua. YNLF, Managua, Nicaragua, say they are on 9.595 mc. with 1000 watts power and broadcast 1:00 to 2:00 P.M. and 7:00 to 10:00 P.M. (Bradley, Md. and Salazar, N. Y.) Another one says 9:00 to 10:00 A.M.; 3:00 to 6:00 P.M., but the station is heard between 8:00 and 11:00 P.M. or 9.67 mc. (Craft, Calif.) On 9.66 mc. (Oxrieder, Pa.) YNGU, "Alma Nica," Managua, say they are on 32.26 meters, 9.30 mc., 1:00 to 2:55 P.M. and 6:00 to 7:00 P.M. daily and noon to 1:00 P.M. Sundays (Bradley, Md., and Rossi, Pa. YNIGG, "La Voz de los Lagos," is on 6.58 mc. around 8:00 P.M. now (Siddle, Ala.) YNLF heard at 9.67 mc. at 8:08 P.M. (Kash, Tenn.) Verie says 9.595 mc. (Myers, Calif.) YNLAT, La Voz del Mombacho" at Granada on 7.20 mc. talked to YNLF once at 10:30 P.M. YNLF at the time moved to 7.70 mc. from 9.66 mc. (Siddle, Ala.)

YSL, Salvador, San Salvador, on about 15.10 mc. or 15.50 mc. was heard calling Mexico City. 8:45 to 9:00 A.M. once (Salazar, N. Y.)

A letter from Luis Cordero Castro of station TIGPH says they are on 51.50 meters, 5.83 mc., with 1000 watts power from Noon to 2:00 P.M. and 7:00 to 11:00 P.M., E.S.T. TIGPH is known as "Alma Tica" and it is also on long waves (650 kc.) They also own a station TIX, "La Reina del Aire," on long waves (800 kc.) and a TIVCA on long waves (1225 kc.) and they relay TIX over TIGPH daily from 10:00 to 11:00 P.M. Their address is Apartado 800.

TIRCC, San Jose, on 45.81 meters or 6.55 mc. broadcasts daily 6:00 to 7:00 P.M. and Thursdays and Sundays 6:00 to 11:00 P.M. TIEP, San Jose, on 44.71 meters, 7.61 mc. broadcasts 5:00 to 10:00 P.M. Now on 6.685 mc. (Bradley, Md.); On 6.673 (Oxrieder, Pa.); On 6.71 (Blecha, N. Y.); On 6.71 (Kash, Tenn.) They must be moving around.

TI4WX, "Emisora Costa Rica" and "La voz de la Patria, Apartado 48, Heredia, Costa Rica, is heard around 9:00 P.M. now. Heard daily 8:30 to 11:00 A.M. and 3:00 to 10:00 P.M. (De Souza, Venezuela). TI0W, Port Limon, Costa Rica, called TI60W some times "Ondos del Caribe," has 400 watts power on 6.85 mc. and broadcast 10:00 P.M. to 11:30 P.M. weekdays and 2:00 to 3:00 P.M. Sundays. The address is Box 45, Port Limon. Heard around midnight Saturdays. (De Souza, Venezuela.)

TIPG, San Jose, after a trial on 9.55 mc. is back on 6.41 mc. broadcasting noon to 2:00 P.M. and 6:00 to 11:30 P.M. Veries show the schedule is 7:30 to 9:30 A.M., noon to 2:00 P.M. and 6:00 P.M. to 11:30 P.M., E.S.T. The power is 1000 watts. The address is Apartado 225 (Barron, Scotland; Eady, nglnd.) Heard till midnight (Murphy, Ill.) Back on 9.55 on Oct. 24th (Atherton, Vt.)

TI4NRH, Heredia, Costa Rica, on 9.67 mc. claim they broadcast from 9:00 to 10:00 P.M. and 11:30 to midnight, but reports show them on the air at 6:00 P.M., 8:00 P.M. and as late as 1:00 A.M. TI8WS, Puntarenas, Costa Rica, on 5.75 mc. was heard working amateurs 11:30 to 11:57 P.M. once (Solito, Pa.)

## WEST INDIES

The Dominican Republic, a small island in the West Indies, with 1,124,422 inhabitants can boast of twenty broadcast stations on the short waves. We do not know how many long wave stations they have. Here is the list: HI1J on 5.86 mc. HI3U on 6.01 mc. HI9B on 6.05 mc. HIX on 6.13 mc. HI5N on 6.15 mc. HI1A on 6.19 mc. HI8Q on 6.24 mc. HIN on 6.24 mc. HIG on 6.28 mc. HIZ on 6.31 mc. HI1S on 6.42 mc. HI8A on 6.45 mc. HI4V on 6.48 mc. HIL on 6.50 mc. HI4D on 6.55 mc. HIT on 6.63 mc. HI3C on 6.73 mc. HIH on 6.78 mc. HI7P on 6.80 mc. HIN on 11.28 mc. For the schedule of these stations, please turn to our station list. Below we mention some of the schedules and recent changes made.

HIN on 11.28 mc. seems to be broadcasting daily from 4:40 to 5:40 P.M., although a few people mention it between 3:00 P.M. and up till 9:30 P.M. This same station usually goes up on 6.24 mc. about 7:10 P.M. and remains there until 9:30 P.M. It is heard by a great many people, as it has 750 watts power. They use the slogan "La Voz del Partido Dominicana" (Curiel, Karpen, Erwin, Solito, Sparks, Swope, Flagg, Davenport, Barron, Studeholme, Beck, Kash and Atherton).

HI3C, LaRoman, on 6.73 mc. say they have 50 watts power and broadcast daily 12:10 to 2:10 P.M. and 6:10 to 7:40 P.M. We also understand they are on the air on Sundays 12:40 to 2:40 P.M. (Rossi, Myers and Stark).

HIH has moved from 6.67 mc. to 6.78 mc. and was heard singing off at 8:30 P. M. once instead of 9:00 P.M. (Kash, Tenn.) A station HI9J in Trujillo on 7.58 mc. was heard broadcasting around 10:00 P.M. and midnight working amateurs (Siddle, Ala.) HI5N say in a verie they are on 48.80 meters or 6.15 mc. No schedule was given, but it is from 6:40 to 9:10 P.M. and the station was heard once between 1:15 and 2:00 A.M. (Wapner, Pa.) HII, the phone station on 14.94 mc. sent a special program from 4:30 to 5:00 P.M. Columbus Day (Flagg, Mass.)

HI1J, San Pedro de Macoris, on 51.15 meters or 5.86 mc. sends a verie saying they are broadcasting 11:40 to 1:40 P.M. and 5:40 to 9:40 P.M. daily. They have 100 watts power and the address is Box 204 (Barron, Scotland).

HIX, Trujillo, has moved once again, this time to 6.34 mc. The schedule is Sundays 7:40 to 10:40 A.M., Tuesdays and Fridays 12:10 to 1:10 P.M., 4:40 to 5:40 P.M. and 8:10 to 10:10 P.M. and other days 12:10 to 1:10 P.M. and 4:40 to 5:40 P.M. (Oxrieder, Pa. and Herzog, N.Y., and DeSouza, Venezuela).

HI8A. Jaime A. Rodriguez G., director of this station tells us they are on 6.45 mc. They use the slogan "La Fadoc en el Aire" and they have 100 watts power and operate daily 8:40 to 10:40 A.M.; 2:40 to 4:10 P.M.; Saturdays 9:40 to 10:40 P.M., and Sundays 2:40 to 4:40 P.M. Heard on 6.36 mc. (De Souza, Ven.) Anyone else hearing them? Address is Apartado 1302, Trujillo, Dominican Republic. Signed off at 9:40 P.M. one Saturday (Siddle, Ala.)

HI4V, Trujillo, "La Voz de la Marina," has moved to 6.475 mc. The schedule is 11:40 A.M. to 1:40 P.M. and 5:00 to 10:00 P.M. (Oxrieder, Pa.)

HI8Q, Trujillo, on 48.08 meters, 6.24 mc., say they broadcast 11:00 A.M. to 2:00 P.M. and 5:00 to 8:00 P.M. local time, or 10:40 A.M. to 1:40 P.M. and 4:40 P.M. to 7:40 P.M., E.S.T. Their address is Avenida Espana No. 12, Ciudad, Trujillo.

COCX, "la Voz del Radio Philco," Box 32, Havana, Cuba, relays station CMX and seems to have settled down on about 11.60 mc. after roaming around the dial for weeks and weeks. Some say 11.65, some 11.60 and some say even 11.44, but we will take 11.60 as a good guess. Veries show the above address but give no schedule (Hofmaster, Verbrughe and Kash). It is heard from 8:00 A.M. one day till about 1:00 A.M. the next day.

COCQ, Havana, Cuba, on 30.77 meters, 9.75 mc., relays CMQ between 6:50 A.M. one day and 1:00 A.M. next day. They call themselves "Radio Victor." Letters say they have 400 watts power and the address is Calle 25, No. 445. (Hofmaster, Ohio; Erwin, Ill.; Nichols, Pa.; Kash, Tenn.; Siddle, Ala.) They use many signals like a man laughing, baby crying, train puffing and others to identify different products they advertise. Members Studholm, Swop and Orchard report verifications, too. Some say the power is 4000 watts not 400.

COCD, Havana, on 48.92 meters, 6.13 mc. broadcast English programs daily 4:00 to 5:00 P.M. and 8:00 to 9:00 P.M., they say (Smith, England). COCO on 6.01 mc. was heard at midnight once saying they would return to the air at 8:00 A.M. (Walcott, Calif.) Their schedule is supposed to be 9:30 A.M. to 12:30 P.M., 4:00 to 7:00 P.M. and 8:00 P.M. to 10:00 P.M.

CLX, National Observatory of Havana on an announced frequency of 6.995 mc. is heard every Saturday around midnight working amateurs. They said they had a station CMN on 7.04 mc. also (Siddle, Ala.) CLX, Observatorio Nacional de la Habana, on 7.10 mc. is reported working amateurs around midnight by several members. Mr. Beck or Illinois, says it is on 6.905, so it must be the same station that uses CMX as a call. A CMX on 7.00 mc. was calling Mexico City at 9:00 P.M. once (Moots, Mo.). CMA3, a phone station, is reported on 15.50 mc. at 3:30 to 5:00 P.M. calling New York (Stark, Mo.) On 14.60 mc. 5:00 to 6:00 P.M. sending music to New York (Beck, Ill.) On 19.44 meters around 3:00 to 4:00 P.M. (Wilbur, N. J.) Most everyone knows the schedule of stations CO9JQ (8.66 mc.) COCD (6.13), CO9WR (6.28), COCH (9.42), COKG (6.15).

Haiti. George Laroche, of Haiti, sends this news: HH3W has 30 watts power on 31.37 meters or 9.595 mc. and is owned by Ricardo Widmaier, P. O. Box A117. They are on the air weekdays only 1:00 to 2:00 P.M. and 7:00 to 8:00 P.M. now. HH2S has 100 watts on 49.41 meters, or 6.07 mc., and it is owned by a radio society whose address is P. O. Box A103. They are on the air daily except Sunday 7:00 to 9:45 P.M., and sign off with the Swan Song. HH2Y has 30 watts on 31.41 meters or 9.55 mc. and it is owned by YVAN Michel and has no regular schedule. HH3W is actually on 9.64 mc. HH2S is actually between 5.91 and 5.92 mc. and not on 6.07 mc. at all. (Oxrieder, Pa.) Station HH3NW, a sister station to HH3W say they are on 6.34 mc. from 1:00 to 2:00 P.M. and 7:00 to 8:30 P.M. This station is reported by a number of members. Mr. Moots claims the call is HH3WN, not NW. Mr. Solito claims it is on 6.64 mc. not 6.34. Many

others claim these men are wrong. HH2S is reported on 5.90 at 9:30 P.M. (Eder, Minn.) And on 50.85 meters at 9:40 P.M. (Atherton, Va.)

## THE EUROPEANS

CSW, National Broadcasting Station, Lisbon, Portugal, has been heard during the last month moving around on the dials. But they have finally settled down on what we believe is 30.21 meters or 9.93 mc. and seem to be on the air between 4:00 and 6:00 P.M. daily, but sometimes remains on until 7:00 P.M. We have reports showing them on waves from 9.92 mc. to 9.30 mc. They usually say they are on 9.878 mc. one member insists the call is CFW and the lady says "F for Finland" but it is announced as "C as in Canada, S as in Sydney, and W as in Washington." (Gullberg, Wilson, Spuhler, Karpen, Holmaster, Harowitz, Legge, Herzog, Solito, Childs, Studholme, Stemple, Read, O'Flynn, Flagg, Hyde, Mascarenhas, Oxrieder, Murphy and Gavin).

CT1AA, Lisbon, Portugal, moved to 25.32 meters, 11.848 mc. last month, sent two or three programs and then went back to 31.09 meters or 9.65 mc. Their schedule is Tuesdays, Thursdays and Saturdays 4:30 to 7:00 P.M. (Flagg, Mass and Nichols, Pa.)

SPW, Warsaw, Poland, on 13.63 mc. is heard again. They broadcast Mondays, Wednesdays and Fridays 11:30 A.M. to 12:30 P.M. They usually come on around 11:00 A.M. and play records till 11:30 (Braunhold, Ill.)

TFJ, Reykjavik, Iceland, now broadcasts on 12.24 mc. Sundays from 1:40 to 2:00 P.M. in English and from 2:00 to 2:30 P.M. in German or Danish. Heard in U. S. A. and Europe well now. Sent a special program September 30th at 3:55 A.M. (Studholme, England).

Belgrade, Yugoslavia, on 6.10 mc. say they broadcast 12:55 A.M. to 3:00 A.M., 6:15 to 8:15 A.M., 1:00 to 6:05 P.M. daily, 4:00 to 5:00 A.M. on Sundays and 6:15 to 6:30 A.M. Sundays. The address is Poste de Radio a ondas Courtes, 16 Milosa Velikog, Belgrade, Yugoslavia. YTC is the call heard 7:00 to 9:00 A.M. three days going. (Palmer, Ohio.) Verified after three months time. (Studholme, England.)

LZA, Sofia, Bulgaria, sends out verifications saying they are on 20.04 meters or 14.97 mc., but it is heard on either 14.80 or 14.85 mc. (Kreibel, Pa. and Childs, Pa.) The schedule is Sundays 12:30 A.M. to 8:00 A.M. and 10:00 A.M. to 4:30 P.M., other days 5:00 to 7:00 A.M. and Tuesdays and Thursdays from 1:00 to 3:00 P.M. Roger Legge, of New York, says his verie is different. The schedule he got says daily 5:00 to 6:30 A.M., noon to 3:45 P.M., Sundays 12:01 A.M. to 4:30 P.M. Heard at 7:00 A.M. (Fey, N.Y.) At 1:45 P.M. (Palmer, Ohio.) Signs off at 3:00 P.M. (Making Legge schedule wrong.) (Rossi, Pa.) On 14.90 mc. (Moots, Mo.) On the air daily 1:00 to 3:00 P.M., not just Tuesday and Thursday. Gullberg, Sweden). Try around 12:30 to 1:00 A.M. Heard 1:00 to 3:00 A.M. Sundays (Braunhold, Ill.) On 14.97 mc. exactly and signs off between 2:45 and 3:00 P.M. (Flagg, Mass.) On 14.85 mc. at 12:42 A.M. once (Spuhler, Ohio). On 14.97 mc. daily noon to 3:00 P.M. (Gullberg, Sweden);. On 20.20 meters 1:15 to 2:48 P.M. one Monday (Atherton, Va.)

# SENSATIONAL *New* SCOTT 'MAGIC LINK' CONQUERS "Man-Made" STATIC



*23 Tube High Fidelity* SCOTT Equipped  
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PROVES QUIET FOREIGN RECEPTION  
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Suddenly, within three feet of these receivers, a terrific barrage of interference was turned on—from a violet ray machine, vacuum cleaner and automobile ignition coil, buzzing out streams of "man-made" static! What happened? From one receiver came a deafening roar such as you would hear in a boiler factory—and the program from Germany was completely blotted out!

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The two-way switch on the antenna was then thrown to the 23-tube SCOTT equipped with

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The climax of 8 years of tireless research, this sensational new development means that "man-made" static on the short waves, caused by electrical appliances and picked up on the lead-in has, for the first time, *been conquered without loss of signal strength!* Up to this time foreign reception from England, Germany, France, Italy and many other foreign stations has been spoiled for thousands of residents of apartment build-

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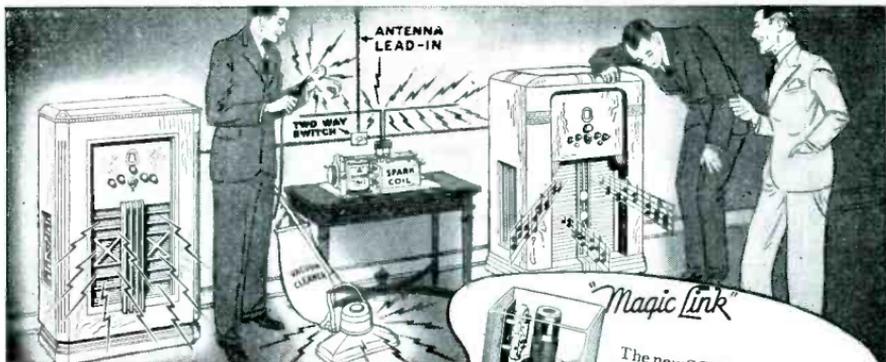
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2. Improves antenna lead-in signal to noise ratio by 100 to 1.
3. Eliminates shielded coupler switch. Switching from broadcast to short wave bands is automatic with SCOTT Supershield Antenna Coupling System.

ings, hotels and homes by the static from electrical appliances picked up on the antenna lead-in. Now these programs can be heard clearly and quietly with the 23-tube SCOTT equipped with the new SCOTT Supershield Antenna Coupling System.

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We invite you to make a 30-day side-by-side comparison test of the SCOTT against any other receiver, regardless of price. If the SCOTT does not bring in foreign and domestic stations with more volume, greater clarity, and with finer and more natural tone, we will refund your payment price without question.



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PHI, Huizen, Holland, on 16.88 meters, 17.77 mc, according to a schedule received for November, will broadcast daily excepting Tuesdays and Wednesdays from 8:00 to 10:00 A.M. This time last year they were on 25.57 meters and we wonder why they are remaining on 16.88 so long this year.

PCJ, Eindhoven, Holland, on 19.71 meters, 15.22 mc. will broadcast Sundays 7:00 to 3:00 A.M., Tuesdays 4:30 to 6:00 A.M. and Wednesdays 8:00 to 11:00 A.M. PCJ on 31.28 meters, 9.59 mc., will broadcast Sundays 2:00 to 3:00 P.M. and 7:00 to 8:00 P.M., Tuesdays 1:30 to 3:00 P.M. and Wednesdays 7:00 to 10:00 P.M.

PDK a phone station on 10.42 mc. at Kootwijk is heard daily 3:30 to 4:00 P.M. playing music and reading telegrams (Hersowitz, Md. and Childs, Pa.)

SM5SK, Stockholm, Sweden, on 25.63 meters, 11.71 mc., verify and say they have 400 watts power and the schedule is daily 11:00 A.M. to 5:00 P.M. (Ward, N.Y.) The address is Royal Technical University, Stockholm. This station is heard every Wednesday between 5:00 and 6:00 P.M., testing for American listeners.

Norway is soon to blossom out with a new bunch of stations according to J. E. Oram, Bournemouth, England. Here they are: LKZ on 21.50 mc. (13.95 meters.) 21.46 mc. (13.98.) LKX 17.785 (16.87.) LKW 17.755 (16.90.) LKV 15.78 (19.78.) LKU 11.83 (25.36.) LKQ 11.735 (25.56.) LKE 9.572 (31.34.) LKD 9.55 (31.41.) LKJ 9.54 (31.45.) LKC 9.53 (31.48) and LKL 6.13 (48.94.) Will have a 25 kw. station on 9.53 mc. and broadcast 6:00 to 9:00 P.M. soon. (Craft, Calif.)

Russia. The programs schedule for November are:

On 9.59 mc. daily 7:00 to 7:30 P.M.

On 12.00 mc. Sundays 6:00 to 7:00 A.M., 10:00 to 11:00 A.M. and 4:00 to 6:00 P.M., Mondays 4:00 to 5:00 P.M., Wednesdays 6:00 to 7:00 A.M. and Fridays 4:00 to 5:00 P.M.

On 15.08 mc. Sundays from 10:00 to 11:00 A.M. and 1:30 to 2:00 P.M.

The station on 12.00 mc. broadcasts in several languages each day from 2:00 to 5:00 P.M. The above schedule is the English-speaking program only. A letter advises us that the writer of every tenth letter opened will get an illustrated journal "U.S.S.R. in Construction." Every reporter will receive a photo of some Soviet leader, Soviet stamps or postcard views of Moscow. It seems like RAN likes to move around. At first it was on 9.52 mc., then it went to 9.59 in August and now seems to be on just about 9.60 mc. They still announce 31.51 meters, however. The station on 15.17 mc. is called RV96,

Russian Phones. RNE, Moscow, on 12.00 mc. may be heard most any time of the day or night. RKI, Moscow, on 15.04 mc. is heard between 3:00 and 10:00 A.M. We list it on 15.09 mc. but it is on 15.04 mc. (Walcott, Calif.) RIM, Tashkent on 15.25 mc. is heard 5:00 to 9:00 A.M. ROU, Bakou, on 10.17 mc. and RIR, Tiflis on 10.07 may be heard between 10:00 P.M. and 4:00 A.M.

The programs from Germany for November follow:

17.76 mc.—DJE—12:05 to 5:15 A.M.; 5:55 to 11:00 A.M.

15.34 mc.—DJR—8:00 to 9:00 A.M.

O

- 15.28 mc.—DJQ—6:00 to 11:00 A.M. Sundays 11:10 to 12:20 P.M.  
 15.20 mc.—DJB—12:05 to 5:15 A.M. 5:55 to 11 A.M. Sun. 11:10 to 12:20 P.M.  
 15.11 mc.—DJL—12 to 2 A.M.; 8 to 9 A.M.; 11:35 to 4:30 P.M. Sundays  
 6:00 to 8:00 A.M.  
 11.77 mc.—DJD—11:35 A.M. to 4:30 P.M.; 4:50 to 10:45 P.M.  
 9.54 mc.—DJN—12:05 to 5:15 A.M.; 4:50 to 10:45 P.M.  
 9.56 mc.—DJA—12:05 to 5:15 A.M.; 5:55 to 11:00 A.M.; 4:50 to 10:45 P.M.  
 6.02 mc.—DJC—11:35 A.M. to 4:30 P.M.; 4:50 to 10:45 P.M.

DEKKA on the "Von Hindenberg" was heard again last month. On October 9th they tested with stations WKP and WQW in New York and later on sent a special program while over the ocean. They used 8.99 mc. then 6.99 mc. and finally 6.02 mc. and was heard testing from 7:00 A.M. till around 6:00 P.M. (Stempel, Conn., Herzog, N. Y. and Child, Pa.) Germany also has experimental stations, DZA on 9.675 mc., DZB on 10.04 mc., DZC on 10.29 mc., DZE on 12.13 mc., DZG on 15.36 mc. and DZH on 14.46 mc. DZB and DZC was heard between 7:30 and 9:30 P.M. several times last month (Flagg, Irone, Murphy, Sparks and Karpen). DZH was heard between 5:00 and 7:00 P.M. (Flagg, Atherton). Also heard 3:45 to 4:00 P.M. once (Studholme). DZE was heard sending a special program to Brazil between 4:30 and 6:00 P.M. once (Solito, Atherton). Phone station DFB on 17.52 mc. was heard at 6:00 A.M. once (Miller). DFL on 10.85 was heard broadcasting once (Flagg), and DJO was heard testing with WQP and WEA New York at 8:30 P.M. once (Herzog).

The programs from England for November follow:

- 9.51 mc.—GSB—3:00 to 5 A.M.; 9 A. M. to noon and 12:50 to 5:45 P.M.  
 9.58 mc.—GSC—6:00 to 8:00 P.M. and 9:00 to 11:00 P.M.  
 11.75 mc.—GSD—12:15 to 5:45 P.M.; 6:00 to 8:00 P.M.; 9:00 to 11:00 P.M.  
 15.14 mc.—GSI—6:00 to 8:45 A.M.; 9:00 to noon; 4:05 to 5:45 P.M.  
 15.18 mc.—GSO—3:00 to 5:00 P.M.  
 15.26 mc.—GSI—12:15 to 4:00 P.M.  
 15.31 mc.—GSP—6:00 to 8:00 P.M.  
 21.47 mc.—GSH—6:00 to 8:45 A.M. and 9:00 A.M. to noon.

Three new transmitters are being built and will be opened in May at the coronation. GSG on 17.79 mc. may be used, 3:00 to 5:00 A.M.

The programs from France for November follow:

- 15.25 mc.—TPA2—2:00 to 2:55 A.M.; 5:55 to 11:00 A.M.  
 11.90 mc.—TPA2—2:00 to 5:00 A.M.; 12:15 to 6:00 P.M.  
 11.71 mc.—TPA4—6:15 to 10:15 P.M.; 10:45 P.M. to 1:00 A.M.

Phone station TYA2 on 9.04 mc. sometimes relays TPA3 around 2:30 A.M. Heard phoning Algiers 12:30 to 2:30 A.M. (Walcott, Calif). Sends news daily 12:30 to 1:30 P.M. and sometimes sends music and news 2:30 to 3:00 A.M. (Studholme, England).

HAS3, Budapest, Hungary, on 15.73 mc. broadcasts Sundays 9:00 to 10:00 A.M. HAT4 on 9.17 mc. broadcasts Sundays 6:00 to 7:00 P.M. HAT4 has moved to 9.12 mc. according to Dr. Kash.

2RO, Rome, Italy, on 11.81 mc. will broadcast from 6:43 A.M. to 10:30 A.M., then they will move to 9.64 mc. and broadcast from 11:30 A.M. to 5:45 P.M. and 6:00 P.M. to 7:45 P.M. This is the schedule we received.

Others say they are on 11.81 till 12:40 P.M., some say the same as we. (Flagg, Murphy and Erwin).

IAC, Piza, Italy, a telephone station on 17.76 mc., 12.795 mc., 12.865 mc. and 6.355 mc. is reported working tests with stations at Addis Ababa, Ethiopia, and Asmara. On 17.70 they are heard almost daily between 9:00 and 10:30 A.M. (Walcott, Studeholme, Solito). Heard on 6.355 phoning Tripoli 1:00 to 2:25 P.M. (Studeholme, England). IRJ on 13.22 mc. phones JVE Japan at 7:00 A.M. (Myers, Calif). IQA on 14.73 mc. and 2RO sent a special program to America for rebroadcast 4:00 to 4:30 P.M., Columbus Day (Flagg, Mass.)

OLR, Podebrady, Praha, Cechoslovakia, moved to a new frequency, 11.87 mc. or 25.26 meters and sent a number of programs last month. They started broadcasting a special program to America each Monday and Thursday from 9:00 to 11:00 P.M., E.S.T., but announced that this would be changed to 7:00 to 9:00 P.M. Some say it will be daily soon. This station has also been on 15.23 mc., 11.76 mc. and 6.11 mc. We are told they broadcast on 6.11 mc. from 2:00 to 4:30 P.M. for Europe daily. They do not keep a regular schedule on the other frequencies, but you are likely to hear them most any time for they have a very powerful station (Stephenson, Bradley, Russell, Atherton, Miller, Stempel, Rook, Balbi, Gallagher, Gullberg, Herzog, Patton, Solito, Beck, Flagg, Gaug, Oxreider, Braunhold, Lips and Mascarenhas). Cards say they are on 6.11 from 2:00 to 4:30 P.M. daily (Herzog). The address is Radiojournal Ceskoslovensk, Spolecnost, S. R. O., Praha. Heard on 19.58 meters or 15.32 mc. (Oxrieder, Pa.) On 11.87 mc. daily 11:00 A.M. to 2:00 P.M. and 2:25 to 4:30 P.M. for Europe (Jeffer, England).

Switzerland. HBH is on 16.22 meters, 18.48 mc. HBJ is on 20.64 meters or 15.54 mc. HBO is on 26.35 meters, or 11.385 mc. HBL is on 31.27 meters, 9.595 mc. HBP is on 38.47 meters, 7.797 mc. HBL and HBP broadcast every Saturday from 5:30 to 6:15 P.M. and the first Monday of each month from 4:00 to 7:00 A.M. HBO many times tests with VK3LR between 11:00 P.M. and 2:15 A.M. These other stations are called upon several times each month to broadcast special programs. Last month HBF, HBH, HBP and HBJ all sent special programs for rebroadcasting, usually on Sundays. Many report these.

EAH, Madrid, Spain, on 31.65 meters or 9.48 mc. is broadcasting war news daily from 4:00 to 5:00 P.M. They use English mostly. They said it was a service of the Trade Union Council. A lady does most of the talking. (Flagg, Mass.; Oxrieder, Pa.; Wilson, England; Herowitz, Mr.; Niederle, Czechoslovakia; Stemple, Conn.) Heard from 6:30 to 7:35 A.M., mornings. (Studeholme, England).

EAQ, Madrid, on 9.86 mc. still broadcasts from 5:15 P.M. to 9:30 P.M. daily and after 9:30 P.M. they oftentimes test with stations RNE Russia and RKI Russia. These tests have been heard up till 1:30 A.M. (Karpen, Solito, Lucke, Nichols, Dukes and Stempel). Moved to 10.07 mc. (Child, Pa.)

War news is being sent out over amateur stations EA8BA, Cadiz, EA1AZ, Coruna, on 20 meters and EA8AF, Teneriffe, EA9AH Ceuta and PCE1, Madrid, on 40 meters (news service). Stations EA1AZ on 7.15 mc.

EA1BT on 7.10 mc. and EA1CH on 7.2 mc. are heard between 7:00 P.M. and midnight with war news. (Lips, Pa.) EAJ1 Barcelona gives news at 4:00 P.M. till 5:30 P.M., no wave stated in report. (O'Flynn, Ireland).

## NORTH AMERICA

W1XAL, Boston, will broadcast on 49.67 meters, 6.04 mc., Mondays and Fridays from 7:00 to 9:00 P.M. and Sundays 5:00 to 7:00 P.M. On 25.45 meters, 11.79 mc., they will be heard daily 6:00 to 6:15 P.M. and Saturdays 5:00 to 7:00 P.M.

W2XAD will broadcast from 10:00 A.M. to 3:45 P.M. daily and W2XAF from 4:00 P.M. until midnight. When special programs like football games or prize-fights are broadcast, these stations may be heard when not scheduled. They were heard several times last month off schedule.

W3XAU, Philadelphia, is back on 31.28 meters, 9.59 mc., testing their new transmitter. They are not operating on a regular schedule as yet. Heard by members Childs, Davenport, Wooten, Nichols, Stempel, Gallagher, Erwin, Herowitz, Sparks, and Peterson).

W4XAD, University of Florida station at Gainesville, on 17.28 mc. tests irregularly between 9:00 and 11:00 A.M. (Walcott California). On 17.77 mc. at 1:30 P.M. (Swope, Ind.)

W9XAA, Chicago, has not been heard on 11.83 mc. for some time and works irregularly on 6.08 mc. also.

W8XK, Pittsburgh, no longer verifies reports and does not answer our request for their latest schedule. W8XAL, Cincinnati, on 49.50 meters, 6.06 mc., was heard signing off at 8:00 P.M. instead of 7:00 as listed.

W2XE, Wayne, New Jersey, relays station WABC, New York City, as follows: On 13.74 meters, 21.52 mc., 7:30 A.M. to 1:00 P.M.; On 19.64 meters or 15.27 mc., 1:00 P.M. to 6:00 P.M.; On 25.36 meters, 11.83 mc., 6:00 to 10:00 P.M. and on 49.02 meters, 6.12 mc., from 10:00 to 11:00 P.M. (Smith, England.)

There are about eighty or ninety telephone stations located in the United States. We can not take space to mention them here. Once last month stations KEZ on 10.40 mc.; KEN on 15.46 mc.; KKZ on 13.69 mc. worked with LSX, Argentina, and once KKZ and KKW on 13.78 worked Cuba. KKZ also relayed several football games around 3:00 to 7:00 P.M. and KKQ on 11.97 did likewise. (Flagg, Kash, Childs, Stevens, Hering, Antognini and Brennehan.)

CJRX and CJRO, Winnipeg, Canada, on 11.72 and 6.15 mc. respectively broadcast from 6:00 P.M. to midnight.

VE9HX, Halifax, N. S., Canada, on 6.13 mc. has 200 watts power and broadcasts Mondays to Fridays 9:00 A.M. to 1:00 P.M. and 5:00 to 11:00 P.M., Fridays 1:00 to 3:00 P.M., Saturdays and Sundays 9:00 to 1:00 P.M. and 2:00 to 11:00 P.M. Station VE9CA, Calgary, Alberta, on 49.75 meters, 6.03 mc. is heard daily till 12:30 A.M. and on Thursdays till 2:00 A.M. (Crafts, Calif.) Their schedule was given as daily 6:00 A.M. to noon and 7:00 P.M. to midnight.

CRCX, Bowmanville, Ontario, on 49.22 meters, 6.09 mc., is broadcasting

now from 5:30 to 11:30 P.M. weekdays and Sundays 5:00 P.M. to 11:30 P.M. CFCX, Montreal, on 6.00 mc. say they broadcast weekdays 6:00 A.M. to 11:15 P.M. and Sundays 9:00 A.M. to 11:15 P.M. The address is Box 1690. Heard until 1:30 A.M. Sunday mornings. (Orchard, England.)

VE9CS, Vancouver, B. C., is a small 2 watt station on 6.07 mc. owned by Standard Broadcasting System, 1001 Stock Exchange Bldg., Vancouver. Heard between 11:00 P.M. and 5:00 A.M. relaying CKFC. This must be the worlds smallest station. (Craft, California.) Is on 6.055 mc., not 6.07. Heard until 9:30 P.M. (Myers, California.)

Alaska. The following stations may be considered long wave stations by some, but they may be of interest to others: KAEW, Umnak; KAJJ, Atka; KAJU, Attu, on 5.20 mc. heard at 3:00 A.M. and 5:30 A.M. WXE, Anchorage, on 8.86 mc., at 1:00 A.M. once and on 5.96 mc. at 3:00 A.M. and on 2.99 mc. at 2:15 A.M. WXP, Fairbanks, on 5.91 mc. was heard at 1:30 A.M. and then on 12.24 mc. at 6:00 P.M. WXY, Nome, on 2.60 mc. is heard daily at 5:30 A.M. Also heard on 8.78 mc., 2:30 to 6:30 A.M. KLC, Klake, on 2.51 mc., heard 1:30 A.M. KDH, Port Alexander, on 2.53 mc. heard 3:00 to 3:30 A.M. KICE, Nankeen, on 3.36 mc., heard midnight to 3:15 A.M. KIJU, Todd, on 2.986 mc., heard from 1:30 to 3:30 A.M. KIJP, Uganik, on 3.09 mc., heard at 2:30 A.M. KGM, Ketichikan, on 2.51 mc., heard at 1:50 A.M. WXP, Fairbanks, operator says they are on 5.91, 8.62 and 2.604 mc., and not on 8.74 mc. (Walcott and Sparks, Calif.) A station KIOZ on 2.61 mc. heard at 1:30 A.M. (Walcott.)

Hawaii. KKH on 7.52 mc. and KIO on 11.68 mc. are relaying a special programs Tuesdays 12:30 to 1:00 A.M. Some say that KIO is used alone at times and at times station KKP on 16.04 mc. is used. We are also told that a special program comes over one of these stations Thursday mornings at the same time. These are regular telephone stations that are used at other times to relay telephone calls. (Sparks, Orchard, Ray, Murphy, Walcott, Gallagher.)

### AMATEURS

There are thousands of amateurs heard around 14.10 mc. These stations work irregularly, so you can not print a schedule, nor can you list them. Some African amateurs heard between 14.04 and 14.60 mc. are CN8AA, CN8AC, CN8AD, CN8MB, FT1AG, FT1AH, FT4AG, SU1KG, SU1SG; SU1CH, SU1RK, EA8LW, EA8AT, EA8AL, EA8AH, EA8AJ, EA8AO. Some Asiatics are VS7RA, VS2AK, VS2AR, KA1DH, KA1ME, KA1KY, PK1MD, PK1MX, PK1GW, PK1PK, PK3ST, PK4AU and VS6AQ. We are agents for Radio Amateur Call-Book, which lists the names and addresses, as well as call-letters of over 60,000 amateur stations in the world. The cost of this call-book is \$1.25 postpaid.

### AN EXCELLENT CHRISTMAS GIFT

It is not so far off till Christmas. We remind you that a membership in this organization makes a very fine gift for a short wave fan. The magazine reminds him constantly of your friendship. We also remind you that one of our globes makes a most excellent gift. Last year nearly 300 globes were ordered for Christmas. Many expressed delight in receipt of them.

## WITH THE REPORTERS

The following list of names and addresses are taken from letters and cards which were received since the last issue of the magazine was published. This list takes in only those persons who have sent in some information which has been used in this magazine. It does not include those whose reports were used in previous issues. Every person whose name appears here sent us a report last month. We are indebted to them for their fine work.

Phua Phisam, Bangkok, Siam; Ingvar Gullberg, Hedemore, Sweden; Sorab K. Kama, Bombay, India; Dennis O'Flynn, Templemore, Ireland; Flavio Mascarenhas, Rio de Janeiro, Brazil; Albert Hering, San Jose, Costa Rica; Johann P. Curiel, Curacao, D. W. I.; John C. Barron, Aberdeen, Scotland; L. J. Niederle, Praha, Czechoslovakia; Felix Quayle, France Field, Canal Zone; Clive Peterson, Philipsburg, St. Martins, W. I.

J. M. R. Studholme, London, England; L. Smith, London, England; Walter Wilson, London, England; R. Stevens, Romford, Essex, England; J. R. Garrett Pegge, Chesham, England; Tom Read, Stokes-on-Trent, England; Ernest Orchard, Weymouth, England; W. R. Stephenson, London, England; S. W. Parr, London, England; Jack Jeffs, Manchester, England.

Captain Oxrieder, State College, Pa.; J. A. Brenneman, York, Pa.; Ed. Lips, Pittsburgh, Pa.; Thomas Nichols, Philadelphia, Pa.; Fred Karpen, Johnstown, Pa.; Roger Legge, Jr., Philadelphia, Pa.; Albert Spuhler, Cleveland, Ohio; Emmett Riggle, Massillon, Ohio; Robert Rossi Philadelphia, Pa.; Miss Eileen Hofmaster, Sandusky, Ohio; Malcolm C. Gavin, Cleveland, Ohio; Sam Swope, Rockville, Ind.; Joe W. Child, Philadelphia, Pa.; Sam Solito, Leetsdale, Pa.

Grace M. Beck, Chicago, Ill.; Tom Erwin, Herrin, Ill.; R. Braunhold, Evanston, Ill.; Alden Fowler, Greensburg, Indiana; Floyd Murphy, Palestine, Illinois; Wilfred Siddle, Birmingham, Alabama; J. Lucke, Chicago, Ill.; Charles Miller, Covington, Ky.; R. J. Russell, Baton Rouge, La.; Jas. B. Wooten, Mobile, Ala.; Carl Eder, Willmar, Minn.; O. E. Stark, Pierce City, Mo.; Dr. R. C. Kash, Sevierville, Tenn.; Kenneth Moots, Kansas City, Missouri.

J. Herbert Hyde, Elmwood, Conn.; Edmund Davenport, Pittsford, Vermont; W. D. Flagg, Holyoke, Mass.; J. F. Stemple, Bridgeport, Conn.; Fred Atherton, Rutland, Vermont; Robert Irons, New Britain, Conn.; E. F. Rook, Old Lyme, Conn.; Oliver Hersowitz, Baltimore, Maryland; Mrs. Alice Wil-Grand Rapids, Mich.; R. Verbrughe, Jr., Detroit, Mich.; Richard Bradley, New York, New Jersey; Robert Scott, Newark, N. J.; Wm. Vandecar, Jr., Baltimore, Md.; Mrs. J. Aram Shepperd, Andover, Mass.; Carl Eder, Willmar, Minn.

G. C. Gallagher, San Francisco, Calif.; E. D. Purkey, Los Angeles, Calif.; Walter McMenemy, Los Angeles; C. H. Hodge, Long Beach, Calif.; Bill Ray, Oakland, Calif.; Roy Myers, Los Angeles, Calif.; August Balbi, Los Angeles, Calif.; A. Antognini, Greenfield, Calif.; Ashley Walcott, San Francisco, Calif.; Wm. Sparks, San Francisco, Calif.

W. F. Herzog, Center Moriches, N. Y.; H. F. Fey, Long Island, N. Y.; Nick Gaug, New York City; Abe Federing, Bronx, N. Y.; George Diamond, Jamaica, N. Y.; William Patton, Old Westbury, N. Y.

We also received letters from the following people, too late for this magazine: W. E. Eady, England; P. A. Portman of Woodside, N. Y.; Capt. Oxrieder, State College, Pa.

### BOOSTERS

We are indebted to the following people for their excellent co-operation and earnest efforts. Each of these people have secured one or more new members for the club since the last magazine was published. We thank them each and all, for their kindness.

Richard Schutte, Springfield, Ohio; Mrs. Alice Wilbur, Newark, N. J.; Grace M. Beck, Chicago, Ill.; R. J. Russell, Baton Rouge, La.; L. E. Hansen Murban, Natal South Africa; L. Lee Wright, Baltimore, Md.; H. J. Ross, Syracuse, N. Y.; Ralph Brady, Brooklyn, N. Y.; Philco Radio of London, England; E. D. Purkey, Los Angeles, Calif.; Thomas Kennedy, New York City.

J. L. Hunter, London, England; J. H. Smith, London, England; D. R. D. Wadia, Bombay, India; Charles Kinnel, Los Angeles, Calif.; G. Len DeCou, Battlesville, Oklahoma; C. B. Bromley, New Haven, Conn.; R. C. Hall, Houston, Texas; F. R. Scott, London, England; L. A. Kippen, Romford, Essex, England; F. Botham, Derby, England; S. N. Hicks, Denver, Colorado; Dr. S. N. Bleakley, Los Angeles, Calif.; W. E. Watson, Youngstown, Ohio; Philip E. Pons, Woodhaven, N. Y.; Harold Vosburgh, Clarenceville, Quebec; Frank Andrews, Los Angeles, Calif.; C. H. Hodge, Long Beach, Calif.; Clive Peterson, Philipsburg, St. Martins, W. I.

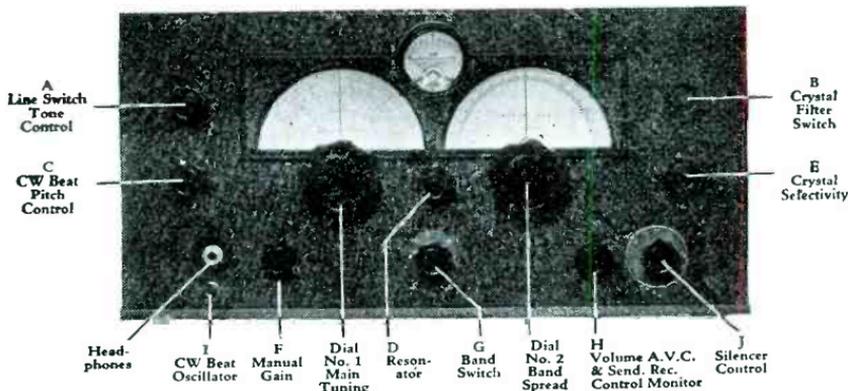
**SALE-TRADE**—Electric Hair Clippers. Want receiver, apparatus or what have you. Glenn Watt, Chanute, Kansas.

## RADIO SUPPLIES

**STATIONERY.** The club emblem, printed in blue ink, on a good grade of paper, typewriter size. Does not have a lot of names of officers and such things on it to confuse the stations. Many firms offer special discounts to I. S. W. C. members. Many station owners are I. S. W. C. members and will verify faster if this stationery is used. Price 50c per hundred, postpaid.

**CLUB SEALS.** The club emblem, printed in blue ink. For those members that wish to use their private stationery, but also wish to be known as an I. S. W. C. member. The price is 25c per hundred, postpaid.

**GLOBE.** A beautiful 12-inch globe showing the location of nearly all the short wave stations. Modern in every detail. Washable, and has a fine walnut stand. We have over 200 unsolicited letters from purchasers who have been delighted with this globe. Some members have ordered as many as six globes for their friends, after they have received their first one. Price \$2.75 F. O. B., Indianapolis. Ask your postmaster for the postage rate on eight pounds from Indianapolis and include the amount with your order.



### RME-69 SINGLE SIGNAL SUPER

In the development of radio receivers which must meet certain specific requirements, set by standards which are quite rigid when used in amateur and commercial work, it is imperative that stability of operation, image rejection ability, high signal to noise ratio, and ease of adjustment be thoroughly considered.

RME has kept pace with these developments and has seen fit to make such minor changes and alterations in a practical single signal superheterodyne, so that the present 69 model is as near up-to-date and modern as any high class receiver can be built.

In corporation of such desirable features as the R meters, the monitor, the extremely easy tuning mechanism, and the crystal filter circuit—features which are so desirable in amateur radio reception—have been the subject of a great many comments from the standpoint of critical radio reception.

#### The R Meter Indicating Carrier Level

In the design of the RME-69 it was considered of importance to have some means whereby the level of the RF energy picked up by the antenna could be indicated independent of audio modulation. In consequence a circuit was developed whereby the amplified RF energy could be measured in decibels in order to indicate actual carrier amplitude. In addition the values so commonly used in reporting signal strength were so placed with reference to the DB levels that each R value increase represented a difference of six DB. This is the first time in any radio receiver that such concrete value were assigned to the customary R units. Consequently RME sponsored a ready and careful means whereby the more or less haphazard method of reporting signal strength was turned into a systematic method.

#### The Monitor Circuit

The incorporation of a modulation monitor for the purpose of judging the quality of the audio signals in a phone transmitter was considered very desirable especially when so much attention is being given this par-

ticular phase of radio transmission. It was therefore found desirable to so utilize the audio circuit in the RME-69 whereby the transmitted signal could be checked at its source and any irregularities in the operation of the transmitter discovered before it would be too late.

Many times a transmitter is operated having bad audio quality without the knowledge of the operator. This may continue for a period of time and lead to dire consequences. RME considered the incorporation of a monitor circuit quite essential and consequently places this feature into every RME-69 built.

### **Control Mechanism**

It is quite simple to operate an RME-69 once having become accustomed to the various controls which are located on the front panel and easily accessible to the operator. The main dial is calibrated accurately into frequencies covering a range from 550 KC. to 32,000 KC. This is done in six separate and distinct bands, each band overlapping so that there are no dead spots anywhere in this range.

Although the controls have a gear ratio of 40 to 1 it is extremely simple to cover an entire band because of the ease with which the dials rotate. In fact they can be made to spin and run as though they were on roller bearings. On the higher frequencies it is always desirable to be able to so band-spread the stations that settings are still easily made. Every RME-69 Receiver consequently has a band-spread dial in addition to the main tuning dial giving electrical band-spread to any one of the bands used on the receiver.

### **The Resonator Control**

Of extreme importance in the proper functioning of a highly sensitive and highly selective receiver naturally is the requirement that the set always be "in line" as far as circuit adjustments are concerned. For this reason it was found desirable to leave out innumerable number of padding condensers to make the necessary adjustments on the various coils entering into the construction of the RF circuits. RME found it desirable to provide a small two gang trimmer which when properly connected into the RF tuning circuit would make it possible to keep the set accurately aligned at all times. Simplicity of construction and stability of operation determined the use of this small gang condenser for proper trimming of the RF circuits. Consequently the RME receiver is very seldomly found to be out of line even when used over long periods of time.

Every tube in this eight-tube receiver performs its functions in the most efficient manner. Every coil and switching contact is laboratory tested before being incorporated in the instrument. Every coil is separately shielded and very rigidly mounted. RME, being one of the original users coil switching mechanism in amateur receivers (replacing the old plug-in coils), has constantly endeavored to keep pace with all new radio developments and aims to present to the critical radio operator and listener a receiver which is always up-to-date

Bulletin 69 has been prepared by RME to give you the complete story on the RME-69 Single Signal Super Receiver. Write to 306 First Avenue, Peoria, Illinois, Dept. I.

# GIVEN AWAY

**YOU GET ONE . . . .  
Your Friends Get One  
WITHOUT COST!**

**M**OST amazing time telling invention ever offered to Short Wave Fans, Professional and Amateur Broadcasters. A new marvel of the clock making science without face or hands tells you the time—DAY OR NIGHT—ANY PLACE IN THE WORLD at a glance. And there on the big world globe is the exact location.

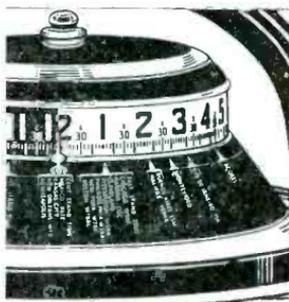
Would't you like to have one of these amazing new Round-the-World Globe Clocks for your Radio Den? You can and it won't cost you \$10 to \$15 for this entirely new time-teller. It is yours absolutely **WITHOUT COST** if you act **NOW** while this limited time offer is still open.



**THE TIME AND  
THE PLACE  
AT YOUR FINGER TIPS!**

Round-the-World Globe Clock is beautiful as well as useful. The clock is built entirely of metal in two-tone effect of satin and burnished bronze. Works on an entirely different principle. The metal base and frame are finished in two-tone satin and burnished bronze. The base is equipped with a chart showing all principal cities and important short wave stations of the world in their respective time zones in Easy-to-Read embossed letters.

The globe, 10 inches in diameter and with full meridian mounting is of washable, scratch-proof finish. The rich, warm, sun-proof colors harmonize with any furnishings. The combination gives you the 24 time divisions of the world with the very latest authentic geographical information.



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ADVERTISING**

For a limited time, we are actually **GIVING AWAY** this handsome Round-the-Globe Clock, easily worth \$10 to \$15 of any man's money. We do this in return for your help in advertising it to friends, neighbors, and fellow radio fans. You can also show friends how to get one without cost. **Act NOW!**

**NOTHING TO BUY OR SELL**

You don't invest a single penny in the Round-the-World Globe Clock. Neither are you asked to sell them. All we want is your help in advertising them to a few people in your territory. Once they know about this amazing Globe Time-Teller, we know they will want one, too, and we are well repaid. This amazing opportunity won't last forever. If you want a Round-the-World Globe Clock **WITHOUT COST** . . . . **WRITE TODAY.** A penny postcard brings **FREE** details.

**WORLD GLOBE CLOCK COMPANY**

4325 RAVENSWOOD AVE.

CHICAGO, ILLINOIS

# 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.
17.78.	16.87	W3XAL	U. S. A.	See List.	7 8 9 10 11 N 1 2 s
17.77.	16.38	PHI	Holland.	See List.	8 9 s
15.34.	19.56	W2XAD	U. S. A.	Daily	10 11 N 1 2 3 s
15.34.	19.56	DJR	Germany	Daily	8 9 s
15.31.	19.60	GSP	England.	Daily	6 7 s
15.28.	19.63	DJQ	Germany	Daily	6 7 8 9 10 s
15.27.	19.64	W2XE	U. S. A.	Daily	1 2 3 4 s
15.26.	19.66	GSI	England.	Daily	N 1 2 3 s
15.24.	19.68	TPA2	France.	Daily	2 s
15.22.	19.71	PCJ	Holland.	Irreg.	4 5 6 7 8 9 10 ½
15.21.	19.72	W8XX	U. S. A.	Daily	9 10 11 N 1 2 3 4 5 6 s
15.20.	19.73	DJB	Germany	Daily	1 2 3 4 5 6 7 8 9 10 s
15.13.	19.82	GSF	England.	Irreg.	4 5
15.11.	19.74	DJL	Germany.	Daily	1 s
15.11.	19.84	HVJ	Vatican.	Daily	8 9 s
14.60.	20.55	JVH	Japan	See List.	½
13.63.	22.00	SPW	Poland.	M., W., F.	2 3 s
12.00.	25.00	RNE	Russia.	Daily	2 3 4 5 s
11.87.	25.27	W8XX	U. S. A.	Daily	5 6 7 8 s
11.88.	25.27	TPA3	France.	Daily	N 1 2 3 4 5 s
11.83.	25.36	W2XE	U. S. A.	Daily	2 3 4
11.81.	25.40	2RO	Italy.	Daily	6 7 8 9 s
11.76.	25.51	DJD	Germany.	Daily	8 9 10 ½
11.75.	25.53	GSD	England.	Irreg.	N 1 2 3 4 5 6 7 8 9 10 s
11.73.	25.58		Indo-China.	Daily	1 2 3 4 5 s
11.72.	25.60	CJRX	Canada.	Daily	½ 6 7 8 ½
11.71.	25.63	TPA4	France.	Daily	6 7 8 9 10 11 s
11.50.	26.09	COCX	Cuba.	Daily	s
11.00.	27.27	PLP	Java.	Daily	8 9 10 11 N 1 2 3 4 5 6 7 8 9 10 11 M
10.74.	27.93	JVM	Japan.	Tues., Fri.	2 s
10.67.	28.12	CEC	Chile.	Th., Sat.	2 3 4 s

See List..... 10.66..28.14—JVN.....Japan.....





## "ON-THE-AIR"

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

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

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

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

Meters	Meg.	STATION	TIME
B-13.92	-21.54	W8XK, Pittsburgh, Pa., relays KDKA,	7:00 to 9:00 A.M.
B-13.94	-21.52	W2XE, Wayne, N. J., relays WABC	7:30 A.M. to 1:00 P.M.
B-13.97	-21.47	GSH, Daventry, England.	6:00 A.M. to 8:45 A.M. 9:00 A.M. to noon.
T-14 01	-21.41	WKK, Lawrenceville, N. J. Phones LSN,	8:00 A.M. to 4:00 P.M.
T-14.17	-21.16	LSL, Buenos Aires, Arg. 8:00 A.M. to 1:00 P.M.	GAA and PSF.
T-14.23	-21.08	PSA, Rio de Janeiro, Brazil. Phones WKK,	daytime.
T-14.27	-21.03	LSN, Buenos Aires, Arg. 8:00 A.M. to 4:00 P.M.	WKK and WLK.
T-14.38	-20.86	EHY-EDM, Madrid, Spain. Phones South America,	mornings.
T-14.72	-20.38	GAA, Rugby, England. Phones LSL and PPU	near 8:00 A.M.
T-14.97	-20.04	OPL, Leopoldville, Belgian Congo. Phones	ORG, mornings.
T-14.99	-20.02	DHO, Nauen, Germany. Phones PPU and	LSM mornings.
T-15.14	-19.18	WKN, Lawrenceville, N. J. Phones GAU,	daytime.
T-15.24	-19.69	CEC, Santiago, Chile. Phones LSR, HJY	near 11 A.M. and 4 P.M.
T-15.28	-19.62	VQG, Nairobi, Kenya, Africa. Phones	London, 7:30 to 8:00 A. M.
T-15.39	-19.50	LSQ, Buenos Aires, Argentina. Heard	testing near 2:00 P.M.
T-15.50	-19.35	FTM, Assise, France. 10:00 A.M. to 2:00	P.M. LSG.
T-15.50	-19.35	PMA, Bandoeng, Java. Phones Holland,	mornings.
T-15.57	-19.27	PPU, Rio de Janeiro, Brazil. Phones	FTM, 10:30 A.M. to 3:00 P.M.
T-15.58	-19.25	DFA, Nauen, Germany. Phones 10:00	A.M. to 2:00 P.M. irregularly
T-15.62	-19.21	ORG, Brussels, Belgium. Phones OPL,	mornings.
T-15.68	-19.13	LSM, Buenos Aires, Argentina. Phones	EAQ, DHO, GAA, mornings.
B-15.77	-19.02	HSSPJ, Bangkok, Siam. Mondays 8:00	to 10:00 A.M.
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. KWK 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-16.30	-18.40	PCK, Kootwijk, Holland. Phones	Java near 7:00 A.M.
T-16.35	-18.35	WLA, Lawrenceville, N. J. Phones	England 8:00 A.M. to 4:00 P.M.
T-16.38	-18.31	GAS, Rugby, England. Phones New	York mornings.
T-16.39	-18.30	YVR, Maracay, Venezuela. Phones	Germany, 10:00 A.M.
T-16.44	-18.25	FTE, St. Assise, France. Phones	LSM, PPU, mornings.
T-16.48	-18.20	GAW, Rugby, England. Phones New	York mornings.
T-16.50	-18.18	PMC, Bandoeng, Java. Phones	PCV, 3:10 to 9:20 A.M.
E-16.55	-18.12	LSY, Buenos Aires, Argentina.	Irregular.
T-16.63	-18.04	GAA, Rugby, England. Phones	Argentina, 10:00 A.M. to 2:00 P.M.
T-16.82	-18.05	PCV, Kootwijk, Holland. 6:00	to 9:00 A.M. Java.
B-16.68	-17.79	GSG, Daventry, England. 6:00	to 8:45 A.M., 9:00 A.M. to Noon.
B-16.87	-17.78	W3XAL, Bound Brook, N. J. 8:00	A. M. to 3:00 P. M. daily.
B-16.88	-17.77	PHI, Huizen, Holland, daily except	Tues. and Wed. 8:00 to 10:00 A.M.
T-16.89	-17.76	IAC, Piza, Italy. Phones ships	early mornings.
B-16.89	-17.76	DJE, Zeesen, Germany, 12:05	to 11:00 A.M.
T-16.85	-18.27-17.80	to 16.42—Ships. Heard in	daytime.
B-16.91	-17.74	HSP, Bangkok, Siam, phones	Japan, Germany and England.
T-17.00	-17.64	XGN, Shanghai, China, phones	London 7 to 9 A.M., Mon. Wed. Sat.
T-17.10	-17.54	VWY, Poona, India. Phones	GBU, 2:00 to 8:00 A.M.
T-17.12	-17.52	DFB, Nauen, Germany. Phones	LSM and YVQ near 9:00 A.M.

Meters	Meg.	STATION	TIME
T-17.52	-17.12	WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.20	-16.12	IRY, Rome, Italy, phoning	7:00 A.M. to 1:30 P.M.
T-18.44	-16.30	WLK, Lawrenceville, N. J.	Phones England.
T-18.47	-16.24	KTO, Manila, P. I.	Phones Japan 5:00 to 9:00 P.M., irregularly.
T-18.51	-16.20	FZR, Saigon, Indo-China.	Phones Paris mornings.
T-18.71	-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-18.99	-15.80	XOJ, Shanghai, China.	Phones Japan 5:00 P.M. to midnight.
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-19.15	-15.66	JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A. M.
T-19.20	-15.61	JVF, Nazaki, Japan,	phones U.S.A. near 5:00 A.M. and 8:00 P.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU.
B-19.52	-15.37	HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A.M.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
B-19.56	-15.34	DJR, Zeesen, Germany,	8:00 to 10:00 A.M.
B-19.56	-15.33	W2XAD, Schenectady, N. Y.,	10:00 A.M. to 3:45 P.M. daily.
B-19.60	-15.31	GSP, Daventry, England.	6:00 to 8:00 P. M.
B-19.62	-15.29	LRU, Buenos Aires, Argentina.	7:00 A.M. to 5:00 P.M., irreg.
B-19.63	-15.28	DJO, Zeesen, Germany.	6:00 to 11:00 A.M. Sun. 11:10 to 13:20 P.M.
B-19.64	-15.27	W2XE, Wayne, N. J.	Relays WABC 1:00 to 6:00 P.M. daily.
B-19.66	-15.26	GSI, Daventry, England.	12:15 to 3:40 P.M.
T-19.68	-15.25	RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
B-19.68	-15.25	TPA2, Pontoise, France.	2:00 to 2:55 A.M. 5:55 to 11:00 A.M.
B-19.69	-15.23	Podebrady, Czechoslovakia.	See news section.
B-19.71	-15.22	PCJ, Eindhoven, Holland	Sun. 7-8 A.M., Tues. 4-30-6 A.M., Wed. 8-10 AM.
B-19.71	-15.21	W8XK, Pittsburgh, Pa.	Relays KDKA 9:00 A.M. to 7:00 P.M.
B-19.74	-15.20	DJB, Zeesen, Germany.	12:05 A.M. to 11:00 A.M., Sun. 11:10 to 12:25 P.M.
B-19.76	-15.18	GSO, Daventry, England.	3:00 A.M. to 5:00 A.M.
B-19.76	-15.18	RV96, Moscow, U. S. S. R.,	Sundays 1:30 to 2:30 P.M.
B-19.76	-15.19	ZBV, Hong Kong, China.	11:30 P.M. to 1:15 A.M., 4-10 A.M., irreg.
B-19.80	-15.15	YDC, Bandoeng, Java,	heard 5:30 to 10:30 A.M. irregularly.
B-19.82	-15.15	GSF, Daventry, England.	6:00 A.M. to noon, 4:05 to 5:45 P.M.
B-19.84	-15.11	HVJ, Vatican City.	10:30 to 10:45 A.M. daily.
B-19.85	-15.11	DJI, Zeesen, Germany,	12:00 to 2:00; 8:00 to 10:00 A.M.; 11:35 to 4:30 P.M. (Sunday 6:00 to 8:00 A.M.)
B-19.89	-15.08	RKI, Moscow, U.S.S.R.,	Sundays 10-11 A.M.; phones 10 P.M.-10 A.M.
T-19.92	-15.06	WNC, Hialeah, Florida,	phones many stations in 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-20.08	-14.94	HJB, Bogota, Colombia,	phones WNC daytime.
T-20.08	-14.94	HII, Trujillo, Dominican Republic,	phones WNC daytime.
T-20.08	-14.94	HJA3, Barranquilla, Colombia,	phones WNC, Florida.
B-20.20	-14.85	LZA, Sofia, Bulgaria,	weekdays 5:00 to 7:00 A.M. and 1:00 to 3:00 P.M.; Sundays 12:30 A.M. to 8:00 A.M.; 10:00 A.M. to 4:30 P.M.
E-20.27	-14.80	WQV, Rocky Point, N. Y.,	heard irregularly.
T-20.29	-14.79	ROU, Ornsk, Siberia,	phones Moscow 7:00 to 9:00 A.M. irregularly.
T-20.37	-14.73	IQA, Rome, Italy,	phones 8:00 to 11:00 A.M. irregularly.
T-20.42	-14.69	PSF, Rio de Janeiro, Brazil.	7 A.M. to 6 P.M. LSL, WLK, WOK
T-20.45	-14.67	GBL, Rugby, England.	Phones JVH 1:00 to 7:00 A.M.
B-20.55	-14.60	JVH, Nazaki, Japan,	12:00 to 1:00 A.M.; 4:00 to 7:40 A.M. daily. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M.
T-20.56	-14.59	WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64	-14.54	HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65	-14.53	LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.71	-14.48	YSJ, San Salvador, Salvador.	Phones WNC afternoons.
T-20.71	-14.48	HRLS, Nacaome, Honduras,	testing with WNC daytime.
T-20.71	-14.48	TIU, Cartago, Costa Rica,	phones WNC daytime.
T-20.71	-14.48	YNA, Managua, Nicaragua,	phones WNC daytime.
T-20.71	-14.48	HPF, Panama, phones	WNC daytime.
T-20.71	-14.48	HRF, Tegucigalpa, Honduras,	phones WNC daytime.

Meters	Meg.	STATION	TIME
T-20.71	-14.48	TGF, Guatemala City, phones	WNC daytime.
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.
B-20.75	-14.46	DZH, Zeesen, Germany,	4:00 to 7:00 P.M.
E-20.97	to 21.26	-14.30 to 14.11	—Amateur phones heard in daytime.
B-21.46	-13.98	PZ1AA, Paramaribo, Dutch Guiana,	in the evenings.
E-21.58	-13.90	WQP, Rocky Point, N. Y.	Testing with RNE irregularly, mornings
T-21.70	-13.83	SUZ, Cairo, Egypt.	Phones GAA 7:00 A.M. to 3:30 P.M.
E-21.91	-13.69	KKZ, Bolinas, California.	Used irregularly
T-21.98	-13.65	HJY, Bogota, Colombia.	Phones irregularly.
B-22.00	-13.63	SPW, Warsaw, Poland.	Mon., Wed. and Fri. 11:30 A.M. to 12:30 noon.
T-22.09	-13.58	GBB, Rugby, England.	Phones Canada and Egypt, daytime.
T-22.37	-13.41	YSJ, Salvador, San Salvador,	phones WNC daytime.
T-22.40	-13.38	IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:00 P.M. irregularly.
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.
T-22.48	-13.35	YVO, Maracay, Venezuela.	Phones Florida, daytime.
T-22.50	to 24.3	-13.34 to 12.35	—Ships. Heard in daytime.
T-22.58	-13.28	CGA3, Drummondville, Canada.	Phones ships and England daytime.
T-22.70	-13.22	IRI, Rome, Italy,	phones Japan irregularly 5:00 to 8:00 A.M.
E-22.76	-13.18	DGG, Nauen, Germany.	Phones Asia mornings, irregularly.
T-23.36	-12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	-12.83	CNR, Rabat, Morocco.	Phones St. Assise 5:00 to 8:00 A.M.
T-23.45	-12.80	IAC, Piza, Italy.	Works ships mornings.
T-23.47	-12.78	GBC, Rugby, England.	Phones ships irregularly.
T-24.20	-12.40	DAF, Norden, Germany.	Phones ships irregularly, mornings.
T-24.40	-12.30	PLM, Bandoeng, Java.	Phones VK2ME near 6:30 A.M.
T-24.41	-12.29	GBU, Rugby, England.	Phones America, evenings.
B-24.52	-12.24	TFJ, Reykjavik, Iceland,	Sundays 1:40 to 2:30 P.M.
T-24.56	-12.22	TYA, Pontoise, France.	Phones the Normandie, irregularly.
T-24.69	-12.15	GBS, Rugby, England.	Phones New York.
E-24.73	-12.13	DZE, Zeesen, Germany.	7:00-9:00 A.M., 5:00-9:00 P.M., irreg.
B-25.00	-12.00	RNE, Moscow, U.S.S.R.,	daily 2:00 to 5:00 P.M.; Wed. 6:00 to 7:00 A.M.; Sundays, 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
B-25.09	-11.95	IUC, Addis Ababa, Ethiopia.	Phones Rome around noon and midnight.
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-25.21	-11.90	NEW1, Mexico City.	See news section for schedule.
B-25.23	-11.89	TPA3, Pontoise, France.	2:00 to 5:00 A.M., 12:15 to 6:00 P.M.
B-25.27	-11.87	W8XK, Pittsburgh, Pa.,	relays KDKA 5:00 to 9:00 P.M.
B-25.26	-11.88	OLR, Podelbrady (Prague),	Czechoslovakia. Mon. and Thurs.. 7 to 9 P.M.
B-25.36	-11.83	W2XE, Wayne, N. J.	Reays WABC 6:00 P.M. to 10:00 P.M.
B-25.40	-11.81	2RO4, Rome, Italy.	6:43 to 10:30 A.M. daily.
B-25.42	-11.79	W1XAL, Boston, Mass.,	daily 6:00 to 6:15 P.M.; Sat. 5:00 to 7:00 P.M.
B-25.49	-11.77	DJD, Zeesen, Germany,	11:35 to 4:30 and 4:50 to 10:45 P.M.
B-25.51	-11.76	Podebrady, Czechoslovakia.	See news section.
B-25.53	-11.75	GSD, Daventry, England.	12:15 to 5:45 P.M., 6 to 8 P.M., 9 to 11 P.M.
B-25.58	-11.73	Saigon, Indo-China,	5:30 to 9:30 A.M. often.
B-25.60	-11.72	CJRX, Winnipeg, Canada,	6:00 P.M. to Midnight.
B-25.63	-11.71	TPA4, Pontoise, France.	6:15 to 10:15 P.M., 10:45 P.M. to 1:00 A.M.
B-25.63	-11.71	SM5SX, Stockholm, Sweden,	Wednesdays 5:00 to 6:00 P.M.
E-25.63	-11.71	KIO, Kaubuku, Hawaii.	Heard in the evenings testing.
E-25.87	-11.59	VRRA4, Stony Hill, Jamaica.	Testing with WNC in daytime.
B-26.09	-11.50	COXC, Havana, Cuba,	weekdays 8:00 A.M. to 1:00 A.M. next day. Sundays 8:00 A.M. to 2:00 P.M. and 6:00 to 8:00 P.M.
E-26.09	-11.50	VIZ3, Fiskville, Australia.	Phones CJA4 irregularly.
B-26.09	-11.50	PMK, Bandoeng, Java,	heard 4:00 to 9:30 A.M. irregularly.
E-26.09	-11.50	XAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P.M.
B-26.35	-11.39	HBO, Geneva, Switzerland.	Used irregularly.
B-26.60	-11.28	HIN, Trujillo, D. R.	4:46 to 5:40 P.M. daily.
T-27.15	-11.05	ZLT, Wellington, New Zealand.	Phones VLK 1:00 to 7:00 A.M.

Meters	Meg.	STATION	TIME
B-27.25	-11.00	-PLP, Bandoeng, Java, daily 4:00 to 10:00 A.M.	
T-27.26	-11.00	-XBJQ, Mexico City. Testing irregularly now.	
T-27.35	-10.97	-OCI, Lima, Peru. Phones HJY, evenings.	
T-27.67	-10.84	-KWV, Dixon, California. Phones Hawaii, daytime.	
E-27.65	-10.85	-DFL, Nauen, Germany. Irregular.	
T-27.86	-10.77	-GBP, Rugby, England. Phones VLK 11:00 P.M. to 8:00 A.M.	
E-27.93	-10.74	-JVM, Nazaki, Japan, Tues., Fri., 2 to 3 P.M. Phone 1:30 to 7:40 A.M.	
T-28.09	-10.68	-WNB, Lawrenceville, N. J. Phones Bermuda, daytime.	
T-28.12	-10.67	-PLQ, Bandoeng, Java. Heard testing broadcast 5 to 10 A.M., irreg.	
B-28.12	-10.67	-CEC, Santiago, Chile, daily 7 to 8 P.M. Thurs., Sun., 8:30 to 9 P.M.	
T-28.14	-10.66	-JVN, Nazaki, Japan. Bcnds. Tues. & Fri. 2-3 P.M., Mon. & Thur. 4-5 P.M.	
E-28.28	-10.61	-WEA, Rocky Point, N. J. Tests irregularly with Europe.	
T-28.44	-10.55	-WOK, Lawrenceville, N. J. Phones Brazil and Argentina, irregularly	
T-28.49	-10.53	-JIB, Taiwan, Japan, phones 1:00 to 10:00 A.M.	
T-28.51	-10.52	-VK2ME-VLK, Sydney Australia. 1:00 to 8:00 A.M. GBP.	
T-28.79	-10.42	-XGW, Shanghai, China, phones Japan Midnight to 3:00 A.M.	
E-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	
E-28.93	-10.37	-EHZ, Teneriffe, Canary Islands, broadcasts afternoons and evenings irreg.	
B-29.04	-10.33	-ORK, Brussels, Belgium. 1:30 to 3:00 P.M., daily.	
E-29.13	-10.30	-LSQ, Buenos Aires, Argentina. Used for special tests.	
E-29.15	-10.29	-1ZC, Zeesen, Germany. 3:00 to 9:00 P.M., Irregular.	
B-29.25	-10.26	-PMN, Bandoeng, Java, 5:30 to 10:30 A.M.	
E-29.27	-10.25	-LSL, Buenos Aires, Argentina, testing 5:30 to 7:00 P.M.	
E-29.33	-10.23	-CED, Antoiagastan, Chile, heard 7:00 to 9:30 P.M. irregularly.	
T-29.45	-10.22	-PSH, Rio de Janeiro, Brazil. Sending music, evenings.	
T-29.50	-10.17	-RIO, Bakou, U.S.S.R. Phones Moscow 8-10 A.M., 10 P.M. to 1 A.M.	
T-29.58	-10.14	-OPM, Leopoldville, Belgian Congo. Phones ORK 9-11 A.M., 3-6 P.M.	
T-29.76	-10.08	-RIR, Tiflis, Siberia. Phones Moscow 5:00 to 8:00 A. M., irregularly	
T-29.79	-10.07	-EHY, Madrid, Spain. Phones YVR near 4:00 P.M., irregularly.	
T-29.80	-10.66	-TDE, Shinkio, Manchukuo, phones Japan 1:00 to 9:00 A.M. irregularly.	
T-29.83	-10.05	-ZFB, Hamilton, Bermuda. Phones U.S.A. and ships, daytime.	
T-29.83	-10.05	-SUV, Cairo, Egypt. Phones GAA after 3:30 P.M.	
E-29.88	-10.04	-DZB, Zeesen, Germany. 7:00 to 9:00 P.M.	
T-30.09	-9.97	-KAZ, Manila, P. I. Phones PLV near 2:00 A.M.	
T-30.15	-9.95	-GCU, Rugby, England. Phones New York evenings.	
T-30.21	-9.93	-HKB, Bogota, Colombia. Phones PSK irregularly, evenings.	
B-30.21	-9.93	-CSW, Lisbon, Portugal. 4:00 to 6:00 or 7:00 P.M.	
T-30.30	-9.90	-LSN, Buenos Aires, Argentina. 6:00 P.M. to 6:00 A.M. WLO.	
T-30.40	-9.87	-WON, Lawrenceville, N. J. Phones England evenings.	
E-30.40	-9.87	-JYS, Kemikawa-Cho, Japan. Relays JOAK Irreg. mornings.	
B-30.43	-9.86	-EAO, Madrid, Spain. 5:15 P.M. to 9:30 P.M. daily. Sat. 1-3 P.M.	
T-30.52	-9.83	-IRM, Rome, Italy. Phones Egypt afternoons.	
T-30.60	-9.80	-CSW, Rugby, England. Phones America, evenings.	
E-30.61	-9.80	-LSI, Buenos Aires, Argentina. Used irregularly, evenings.	
T-30.75	-9.76	-VK2ME-VLK, Sydney, Australia. Phones Java 4:00 to 8:00 A.M.	
T-30.77	-9.75	-WOF, Lawrence, N. J. Phones England, evenings.	
B-30.77	-9.75	-COCQ, Havana, Cuba, 7:00 A.M. to 1:00 A.M. next day.	
T-30.90	-9.71	-GCA, Rugby, England. Phones Argentina around 6:00 P.M.	
B-31.00	-9.67	-DZA, Zeesen, Germany, 5:00 to 7:00 P.M.	
B-31.02	-9.67	-114NRH, Heredia, Costa Rica. 9 to 10 P.M., 11:30 PM. to midnite.	
B-31.06	-9.66	-YNLF, Managua, Nicaragua. 1:00 to 2:00 and 7:00 to 10:00 P.M.	
B-31.06	-9.66	-LRX, Buenos Aires, Arg. 5:00 P.M. to 11:00 P.M.	
T-31.08	-9.65	-DGU, Nauen, Germany. Phones Egypt in daytme.	
B-31.09	-9.65	-CT1AA, Lisbon, Portugal, Tues., Thurs. and Sat. 4:30 to 7:00 P.M.	
B-31.10	-9.65	-YDB, Soerabaja, Java, daily 4:30 to 10:00 A.M.; Sat. until 11:00.	
B-31.13	-9.64	-2RO3, Rome, Italy. 11:30 A.M. to 5:45 P.M., 6:00 to 7:45 P.M.	
B-31.22	-9.61	-HJIABP, Cartagena, Colombia. 7:00 A.M. to 1:00 P.M., 5-11 P.M.	
B-31.22	-9.61	-HH3W, Port-Au-Price, Haiti. 1:00-2:00 P.M., 7:00-8:30 P.M. P.M.	
B-31.25	-9.60	-HP5J, Panama City, 11:45 A.M. to 1:00; 7:30 to 11:00 P.M.	

Meters	Meg.	STATION	TIME
B-31.27	9.59	HBL, Geneva, Switzerland.	5:30 to 6:15 P. M., Saturday.
B-31.28	9.59	VK6ME, Perth, Australia,	weekdays 5:00 to 9:00 A.M.
B-31.28	9.59	RAN, Moscow, U.S.S.R.,	daily 7:00 to 8:00 P.M.
B-31.28	9.59	VK2ME, Sydney, Australia.	Sun. 1-3 A.M., 4:30-8:30 A.M., 9-11 A.M.
B-31.28	9.59	W3NAU, Philadelphia, Pa.	Testing new transmitter.
B-31.28	9.59	PCJ, Eindhoven, Holland,	Sunday 2:00 to 3:00 and 7:00 to 8:00 P.M.
			Tuesday 1:30 to 3:00 P.M., Wednesday 7:00 to 10:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.
B-31.32	9.58	GSC, Daventry, England.	6:00-8:00 P.M. and 9:00-11:00 P.M.
B-31.35	9.57	HJ2ABC, Cucuta, Colombia.	11:00 A.M. to noon; 6:00 to 9:30 P.M.
B-31.35	9.57	CQN, Macao Port, China,	Monday and Friday 7:00 to 8:30 A.M.
B-31.36	9.57	W1XK, Boston (Millis), Mass.	5:00 A.M. to 11:00 P.M.
B-31.36	9.57	VUB, Bombay, India, Wed., Thurs.,	and Sat. 11:00 A.M. to 12:30 P.M.
B-31.38	9.56	HJ1AB, Barranquilla, Colombia,	heard Noon to 6:00 P.M. testing.
B-31.38	9.56	DJA, Zeesen, Germany.	12:05 to 11:00 A.M., 4:50 to 10:45 P.M.
B-31.45	9.54	DJN, Zeesen, Germany,	12:05 to 5:15 A.M.; 4:50 to 10:45 P.M.
B-31.48	9.53	VPD2, Suva, Fiji Islands.	Weekdays 5:30 to 7:00 A.M.
B-31.48	9.53	HJ4ABH, Armenia, Colombia.	7:00 P.M. to 11:30 P.M., irreg.
B-31.48	9.53	LKJ1, Jeloy, Norway.	5:00-8:00 A.M., 11:00 A.M. to 6:00 P.M.
B-31.48	9.53	W2XAF, Schenectady, N. Y.,	daily 4:00 P.M. to Midnight.
B-31.50	9.52	ZBW, Hong Knog, China.	11:30 P.M.-1:15 A.M. 4:00 to 10:00 A.M.
B-31.54	9.51	HC2JSB, Guayaquil, Ecuador,	12:00 to 2:00; 4:00 to 11:00 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Week-days 4:00 to 7:00 A.M.
B-31.55	9.51	HJU, Buenaventura, Colombia.	12-2 P.M., 8-11 P.M., Mon., Wed., Fri.
B-31.55	9.51	GSB, Daventry, England.	3 to 5 A.M., 9 A.M. to noon, 12:15 to 5:45 P.M.
B-31.56	9.50	PRF5, Rio de Janeiro, Brazil.	Daily 4:45 to 5:45 P.M., also irreg.
B-31.58	9.50	HJ1AE, Cartagena, Colombia,	7:30 to 9:30 daily; Mon. 10:30 P.M.
B-31.65	9.48	EAH, Madrid, Spain.	Broadcasts news 4:00 to 5:00 P.M.
T-31.71	9.46	Tripoli, Africa. Phones IAC, Italy,	6:00 A.M. to 1:00 P.M., irreg.
B-31.75	9.45	TGWA, Guatemala City.	Heard 7:00 P.M. to midnight, irreg., till 6:00 A.M. Sunday.
B-31.80	9.42	COCH, Havana, Cuba,	7:00 A.M. to 1:00 A.M. next day.
T-31.86	9.42	PLV, Bandoeng, Java.	Broadcasts Tues. and Thurs. 10:00-10:30 A.M.
B-32.09	9.35	HS8PJ, Bangkok, Siam,	Thursdays 7:30 to 10:00 A.M.
T-32.15	9.33	CGA-4, Drummondville, Canada.	Phones ships and England, irregularly
T-32.26	9.30	YNGU, Managua, Nicaragua,	1-2:55; 6-7 P.M. daily; Sun. 12-1 P.M.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
T-33.41	8.98	VWY, Poona, India.	Phones England near 8:30 A.M.
B-33.50	8.95	HCJB, Quito, Ecuador,	daily except Mon., 7:30 to 9:30 P.M.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.93	to 36.58	-8.84 to 8:20—Ships.	Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.29	8.75	ZBW, Hong Kong, China.	Daily 11:30 P.M. to 1:15 A.M., Mon. and Thurs. 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
B-34.62	8.66	CO9JQ, Camaguey, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68	8.65	VVD, Seattle, Wash.	Testing irregularly.
B-34.72	8.64	YNVA, Managua, Nicaragua.	7:30 to 9:30 P.M., Irregular.
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-35.69	8.41	HC2CW, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
T-35.80	8.38	IAC, Piza, Italy.	Works ships, irregularly.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
B-36.65	8.19	XEME, Merida, Mexico,	9:00 A.M. to Noon, 5:00 to 11:00 P.M.
B-36.95	8:12	KTP, Manila, P. I.	Phones KWX 10:30 to 11:00 A.M.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.47	7.80	HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.

Meters	Meg.	STATION	TIME
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.
B-39.47	7.60	TI8WS, Puntarenas, Costa Rica,	heard 6:00 to 11:00 P.M. irregularly.
T-39.89	7.52	KKH, Kauhuku, Hawaii.	Phones KWO evenings.
T-39.97	7.50	RKI, Russia.	Phones RIM 6:00 to 8:15 A.M.
T-40.60	7.39	ZLTZ, Wellington, New Zealand,	phones Sydney 3:00 to 7:00 A.M. irreg.
B-40.65	7.38	XECR, Mexico City, broadcasts	Sundays 6:00 to 8:00 P.M.
T-40.71	7.37	KEQ, Kauhuku, Hawaii.	Phones Dixon nights.
B-41.55	7.22	HKE, Bogota, Colombia.	Mon. 6 to 7 P.M.; Tues., Fri., 8 to 9 P.M.
B-41.55	7.22	VP3BG, Georgetown, B. G.,	between 3:00 and 8:45 P.M. irregularly.
B-41.80	7.17	CR6AA, Lobito, Angola, Africa,	Wed., and Sat., 2:30 to 4:30 P.M.
B-42.25	7.10	FO8AA, Papeete, Tahiti.	Tuesdays and Fridays 11:00 P.M. to midnight.
B-42.35	7.08	PI1J, Dordrecht, Holland,	Saturdays 10:10 to 11:10 A.M.
B-42.78	7.01	E8AB, Tenerife, Canary Is.;	Mon., Wed., Fri., Sat., 3:15-4:15 P.M.
B-42.88	7.00	PZH, Paramaribo, Dutch Guiana,	2:40 to 9:40 P.M. irregularly.
E-43.00	6.98	XBA, Tacubaya, Mexico,	9:30 A.M. to 1:00; 7:00 to 8:30 P.M.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
E-43.82	6.84	KEN, Bolinas, California.	Used irregularly.
B-43.80	6.85	XGOX, Nanking, China,	daily 6:40 to 8:40; Sun. 4:40 to 6:05 A.M.
B-44.12	6.80	HI7P, Trujillo, D. R.	Heard 7:30 to 9:00 P.M.
B-44.25	6.78	HIH, San Pedro De Macoris, D. R.	7:30 to 9:00 P.M., irreg.
T-44.41	6.75	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.75	JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftimes with music.
B-44.58	6.73	II13C, San Romano, D. R.	12:10 to 1:40 P.M. and 6:10 to 7:40 P.M.
B-44.60	6.72	PMH, Java,	5:30 to 10:30 A.M.
B-44.71	6.71	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M., irreg.
B-44.90	6.70	TIM, San Jose, Costa Rica,	heard 9:00 to 11:00 P.M. irregularly.
E-44.96	6.67	YVQ, Maracay, Venezuela,	broadcasts 7:00 to 8:30 P.M. Saturdays.
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	AC Piza, Italy.	Phones ships evenings.
B-45.18	6.64	YV9RC, Caracas, Venezuela,	7:00 to 11:00 P.M. irregularly.
B-45.31	6.62	PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.25	6.63	HIT, Trujillo, D. R.,	12:10 to 1:40; 5:40 to 8:40 P.M. weekdays.
E-45.80	6.55	XBC, Vera Cruz, Mexico,	8:15; 9:00; 11:00 A.M.; 6:00; 8:00 P.M.
B-45.81	6.55	TIRCC, San Jose, Costa Rica,	daily 6 to 7; Thurs., Sun., 6 to 11 P.M.
B-45.81	6.55	HI4D, Trujillo, D. R.	11:55 to 1:40 P.M., 4:40 to 7:40 P.M.
B-45.85	6.54	YV11RB, Bolivar, Venezuela,	testing between 9:00 and 11:00 P.M.
B-46.01	6.52	YV6RV, Valencia, Venezuela.	12:00-2:00 P.M. and 6:00-10:00 P.M.
B-46.13	6.50	HI1, Trujillo, D. R.,	11:40 to 1:40; 5:40 to 7:40 P.M. daily.
B-46.30	6.48	HI4V, Trujillo, D. R.,	11:40 A.M. to 1:40 P.M.; 5:00 to 10:00 P.M.
B-46.51	6.45	HI8A, Trujillo, D. R.,	daily 8:40 to 10:40 A.M.; 2:40 to 4:10 P.M. Sat. 9:40 to 10:40 P.M., Sun. 2:40 to 4:40 P.M.
B-46.51	6.45	HJ4BC, Ibague, Colombia,	11:00 A.M. to Noon; 8 to 11 P.M. daily.
B-46.51	6.45	HJ1AB, Barranquilla, Colombia.	4:30 to 10:00 P.M. daily.
B-46.73	6.42	HI1S, Puerto Plata, D. R.,	11:40-1:40; 5:40-7:40; 9:40 to 11:40 P.M.
E-46.73	6.42	W9XBS, Chicago, Illinois.	Heard irregularly broadcasting.
E-46.77	6.41	HJA3, Barranquilla, Colombia.	Phones HJA2, irregular.
B-46.80	6.41	TIPG, San Jose, Costa Rica,	12:00 to 2:00 P.M.; 6:00 to 11:30 P.M.
B-47.10	6.37	YV4RC, Caracas, Venezuela.	4:30 P.M. to 10:30 P.M.
B-47.17	6.36	YV1RG-YV1RH, Maracaibo, Ven.	6:30 P.M. to 1:00 A.M., irreg.
B-47.24	6.35	HRV, Tegucigalpa, Honduras,	heard testing 6:45 to 9:30 P.M.
B-47.32	6.34	HH3NW, Port Au Prince, Haiti,	1:00 to 2:00; 7:00 to 8:00 P.M.
B-47.32	6.34	HIX, Trujillo, D. R.	Daily 4:40 to 5:40 P.M. Tuesday and Friday 8:10 to 10:00 P.M. Sundays 7:40 to 10:40 A.M.
B-47.39	6.33	HRP1, San Pedro Sula, Honduras,	1:00 to 3:00; 8:45 to 11:00 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, Trujillo, D. R.,	11:30 to 2:45; 5:30 to 9 P.M. daily; Sat. 10 P.M.
B-47.51	6.30	YV12RM, Maracay, Venezuela,	8:00-10:30 daily; 4:30-11:00 P.M. irreg.
B-47.77	6.28	CO9WR, Sancti Spiritus, Cuba.	9-10 A.M., 12-1 P.M., 4-6 P.M., 9-11 P.M.
B-47.77	6.28	HIG, Trujillo, D. R.	7:10-8:40 A.M., 12:40-2:10 P.M., 8:10-9:40 P.M.
B-48.00	6.25	OAX4G, Lima, Peru,	daily 7:00 to 10:30 P.M., Wed. at 6:00 P.M.
B-48.08	6.24	HIN, Trujillo, D. R.,	11:40 to 4:10 P.M.; 7:10 to 9:10 P.M.

Meters	Meg.	STATION	TIME
B-48.08	6.24	HI8Q, Trujillo, D. R.	10:40 A.M. to 1:40 P.M.; 4:40 to 7:40 P.M.
B-48.11	6.23	HRD, La Ceiba, Honduras	Sunday 4 to 6 P.M.; weekdays 8 to 11 P.M.
B-48.50	6.19	HI1A, Santiago de los Cabaleros, D. R.	11:40 to 1:40; 7:40-9:40 P.M.
B-48.55	6.18	XXAX, Mexico City, 6-9 A.M.	1:00-2:45; 5-9 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-48.70	6.16	YV3RC, Caracas, Ven.	10 A.M. to 1:00 P.M.; 3:00 to 9:30 P.M.
B-48.78	6.15	COKG, Santiago, Cuba	8:30 A.M. to 11:00 P.M.
B-48.80	6.14	ZEB, Bulawayo, Rhodesia	Sun. 3-5 A.M.; Tues. and Fri. 1:15-3:15 P.M.
B-48.80	6.15	HI5N, Trujillo, D. R.	6:40 to 9:10 P.M.
B-48.80	6.15	CJRO, Winnipeg, Canada	6:00 P.M. to Midnight.
B-48.86	6.14	W8XX, Pittsburgh, Pa.	Relays KDKA 9:00 P.M. to 1:00 A.M.
B-48.92	6.13	ZGE, Kuala Lumpur, S. S.	Sun., Tues. and Fri., 6:40 to 8:40 A.M.
B-48.92	6.13	VE9HX, Halifax, Canada	9:30-1:30 P.M., 5:00 to 11:00 P.M.
B-48.92	6.13	CODC, Havana, Cuba	Heard 5:00 P.M. to 1:00 A.M., irregularly.
B-49.00	6.12	HJ3ABX, Bogota, Colombia	Heard 6:00 to 11:30 P.M., irreg.
B-49.02	6.12	XEFT, Vera Cruz, Mexico	11:30 to 4:00 P.M., 7:30 P.M. to 12 M.
B-49.02	6.12	W2XE, Wayne, N. J.	Relays WABC 10:00 to 11:00 P.M. daily.
B-49.10	6.11	VUC, Calcutta, India	9:30 A.M. to Noon, Sat. 11:45 P.M. to 3 A.M.
B-49.05	6.11	Podebrady, Czechoslovakia	See news section.
B-49.15	6.10	HJ4ABB, Manizales, Colombia	8:00 to 11:30 P.M., irregularly.
B-49.18	6.10	Belgrade, Yugoslavia	12:55 to 3:00 A.M.; 5:15 to 8:15 A.M.; 1:00 to 6:00 P.M. daily. Sundays 4:00 to 5:00 A.M.
B-49.18	6.10	W3XAL, Bound Brook, N.J.	Mon., Wed. & Sat. 4 P.M. to 1 A.M.
B-49.18	6.10	W9XF, Chicago, Ill.	Daily 12-1 A.M. Sun., Tue. & Thur. 8-1 A.M.
B-49.20	6.09	ZTJ, Johannesburg, Africa	3:30 o 7:00 A.M.; 9:00 A.M. to 4:00 P.M.
B-49.22	6.09	CRCX, Bowmanville, Canada	Daily 5:30 to 11:30 P.M.
B-49.25	6.09	HJ4ABE, Medellin, Colombia	11:00 A.M. to Noon; 6:00 to 11:30 P.M.
B-49.30	6.08	HJ5ABD, Cali, Colombia	7:00 to 10:00 P.M.
B-49.31	6.08	VQ7LO, Nariobi, Africa	11:00 A.M. to 3:30 P.M., 5:45 to 6:15 A.M.
B-49.34	6.08	W9XAA, Chicago, Illinois	No apparent regular schedule.
B-49.34	6.08	HP5F, Colon, Panama	11:45 to 1:15 and 7:45 to 10:00 P.M.
B-49.34	6.08	ZHJ, Perang, S. S.	Daily 6:40 to 8:40 A.M.
B-49.40	6.07	VE9CS, Vancouver, B. C.	Daily 6-7 P.M., Sun. 1:45 P.M. to 1:00 A.M.
B-49.42	6.07	YV7RM, Maracaibo, Venezuela	testing 9:00 P.M. to 1:00 A.M. irreg.
B-49.42	6.07	HJ3ABF, Bogota, Colombia	7:00 P.M. to 11:15 P.M., irreg.
B-49.42	6.07	OER2, Vienna, Austria	9:00 A.M. to 5:00 P.M., weekdays.
B-49.45	6.06	HJ4ABL, Manizales, Col.	11-Noon, 5:30-7:30 daily, Sat. 10:30 P.M.
B-49.50	6.06	OXY, Skamlebaek, Denmark	Daily 1:00 to 6:00 P.M.
B-49.50	6.06	W8XAL, Cincinnati, Ohio	5:30-7:00 P.M., 10 P.M. to 1:00 A.M.
B-49.59	6.05	HI9B, Santiago City, D. R.	heard 6 to 10 P.M. 12:30 to 1:40 A.M.
B-49.55	6.05	HJ3ABD, Bogota, Colombia	7:30 to 11:00 P.M.
B-49.65	6.04	HJ1ABG, Barranquilla, Colombia	11:00 A.M. to 11:00 P.M.
B-49.67	6.04	W4XB, Miami Beach, Florida	11 A.M. to 1 P.M., 7:30 to 10:30 P.M.
B-49.67	6.04	W1XAL, Boston, Mass.	Sunday 5 to 7 P.M. Mon. and Fri. 7 to 9 P.M.
B-49.75	6.03	VE9CA, Calgary, Canada	6 A.M. to noon; 7:00 P.M. to midnite Sun.
B-49.75	6.03	HJ4ABP, Medellin, Colombia	6:00 to 11:00 P.M.
B-49.75	6.03	HP5B, Panama City	12 Noon to 1 P.M.; 7:00 to 10:30 P.M.
B-49.80	6.02	HJ1ABJ, Santa Marta, Colombia	6:00 to 11:30 P.M. irregularly.
B-49.83	6.02	XEUW, Vera Cruz, Mexico	8:00 P.M. to 12:30 A.M. irregularly.
B-49.83	6.02	PRAB, Pernambuco, Brazil	3:00 to 8:00 P.M., irreg.
B-49.85	6.01	HJ3ABH, Bogota, Colombia	11:30 to 2, 6 to 11 P.M. Sun. 4-11 P.M.
B-49.88	6.01	HI3U, Santiago, D. R.	weekdays 7:30 to 9:00 A.M.; 12:00 to 2:00; 5 to 7; 8:00 to 9:30 P.M.; Sundays 12:30 to 2:00; 5 to 6 P.M.
B-49.90	6.01	COCO, Havana, Cuba	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M.; Saturdays at 11:30 P.M.
B-49.92	6.01	ZHI, Singapore	Mon., Wed., Thurs., 5:40-8:10; Sat. 10:40-1:10 A.M.
B-49.96	6.00	CFCX, Montreal, Canada	8:00 A.M. to 11:15 P.M.
B-49.96	6.00	HP5K, Colon, Panama	7:30 to 9:00 A.M., 12-1 P.M., 6:00-9:00 P.M.
B-50.00	6.00	VP3MR, Georgetown, B. G.	4:45-8:45 P.M. daily; Sun. 7:45-10:15 P.M.
B-50.00	6.00	RW59, Moscow, U.S.S.R.	2:30 to 5:00 or 6:00 P.M. daily.
B-50.00	6.00	XEBT, Mexico City	6:00 P.M. to 1:00 A.M. irregularly.
B-50.00	6.00	HJ1ABC, Quibdo, Colombia	daily 5-6 P.M.; Wed. and Sun. 9-11 P.M.
B-50.10	5.99	HJ2ABE, Bucaramanga, Col.	11:30-12:30; 5:30-6:30; 7:30-10:30 P.M.

Meters	Meg.	STATION	TIME
B-50.17	5.98	XEWI, Mexico City.	Tues. and Fri. 6:30-7:45, 9 to 11 P.M., Sat 8-9 P.M.
B-50.26	5.97	HVJ, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.26	5.97	HJN, Bogota, Colombia.	6:00 to 11:00 P.M. irregularly.
B-50.51	5.94	HJABD, Medellin, Colombia.	8:00 to 11:30 P.M.
B-50.51	5.94	TG2X, Guatemala City, Monday, Thursday and Saturday	4 to 6 P.M. and 10:00 to 12:00 P.M.; Sundays 1:00 to 2:00 P.M.
B-50.85	5.91	HH2S, Port-Au-Prince, Haiti.	7:30 to 9:40 P.M. irregularly.
B-50.90	5.90	YV8RB, Baraquisimeto, Venezuela.	Noon to 1:00 P.M., 6 to 10 P.M.
B-50.93	5.89	JIC, Tawlian, Japan, phones JVV	6:00 to 8:00 A.M.
B-50.93	5.89	HCK, Juito, Ecuador.	Monday and Friday 8:00 to 10:00 P.M.
B-51.11	5.87	HRN, Tegucigalpa, Honduras.	1:15 to 2:15 P.M. and 7:30 to 10:00 P.M. week-days. Sundays 3:30 to 5:30 P.M. and 8:30 to 9:30 P.M.
B-51.15	5.86	H11J, San Pedro de Macoris, D.R.	11:40 to 1:40 P.M., 5:40 to 9:40 P.M.
T-51.26	5.85	WOB, Lawrenceville, N. J.	Phones Bermuda nights.
B-51.28	5.85	YV5RMO, Maracaibo, V.	8:45-9:45 A.M.; 11:15-12:45; 4:45-9:45 P.M.
B-51.50	5.82	TIGPH, San Jose, Costa Rica	Noon-2:00 P.M., 7:00-11:00 P.M.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
B-51.72	5.80	YV2RC, Caracas, Venezuela,	11:00 A.M. to 2:30; 5:00 to 10:30 P.M.
B-51.72	5.80	ZEC, Salisbury, Rhodesia,	Sun. 3-5 A.M.; Tues. & Fri. 1:15-3:15 P.M.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
B-52.26	5.74	TGS, Guatemala City, Wed., Thurs., and Sun.	6:00 to 9:00 P.M.
B-52.45	5.72	YV1ORSC, San Cristobal, Venezuela,	7:00 to 11:30 P.M. irregularly.
B-52.45	5.72	RV15, Khabarovsk, U.S.S.R.	1:00 to 10:00 A.M.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M. irreg.
B-54.74	5.48	T15HH, San Roman, Costa Rica,	3:30 to 4:00; 8:00 to 11:30 P.M.
E-55.56	5.40	HJA-7, Cucuta, Colombia.	Mondays 4:30 to 7:30 P.M., irregularly.
B-58.30	5.15	PMY, Bandoeng, Java.	6:00 A.M. to Noon.
T-59.08	5.08	WCN, Lawrenceville, N. J.	Phones England evenings.
T-59.76	5.02	ZFA, Hamilton, Bermuda.	Phones U.S.A. and ships at night.
T-60.26	4.98	GBC, Rugby, England.	Phones to ships, irregularly.
T-61.15	4.90	CGA8, Drummondville, Canada.	Phones ships irregularly.
T-61.98	4.84	GDW, Rugby, England,	phones U.S.A. nights.
B-62.63	4.79	VE9BK, Vancouver, B. C.	2:00-4:00 P.M., 7-9 P.M., 11 PM.-1:00 AM.
T-63.13	4.75	WOO, Ocean Gate, N. J.	Phones ships irregularly.
B-65.22	4.60	HC2ET, Guayaquil, Ecuador.	Wed. and Sat. 9:00 to 11:00 P.M.
T-66.50	4.51	ZFS, Nassau, Bahamas.	Works WND evenings.
T-67.87	73.17-4.42 to 4.10	Ships.	Heard irregularly.
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.	

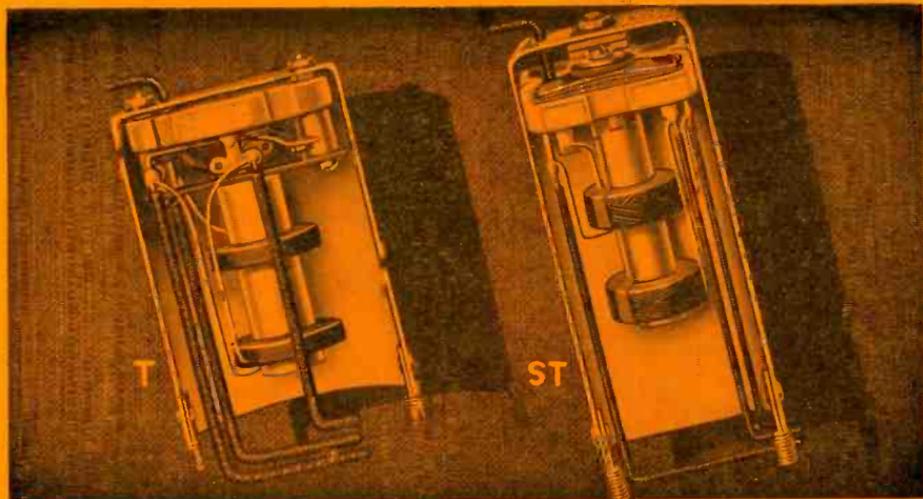
### SHIP STATIONS

These stations are telephone stations but are sometimes rented to broadcast a special program from a ship. They operate on four bands: 16.85 to 18.27 meters, 22.50 to 24.3 meters, 33.93 to 36.58 meters and 67.87 to 73.17 meters. In megacycles this is 17.80 to 16.42, 13.34 to 12.35, 8.84 to 8.20 and 4.42 to 4.10.

VQJM, Monarch of Bermuda; GLSQ, Olympic; GFJY, Caledonia; GBTT, Queen Mary, Normandie; GMBJ, Empress of Britain; DOAH, Bremen, DOAI, Europa; DHEY, Deutschland; DHJZ, Hamburg; DOAX, Columbus; DHAO, Hansa; DHRL, New York; ICEJ, Rex; IBLI, Conte de Savonia; GBZW, Berengaria; DHDL, Cap Arcona.

### WHEN TO SEND REPORTS

Many members are getting into the habit of waiting till the very last day and sending us great long letters reporting many stations. Such letters are a waste of time, as we are not able to take care of them. Whenever a member logs a new station, hears one off schedule or one that has moved to a new location on the dial he should send us a report right then and there. If there is some mistake in his report, we will have time to correct it. If the station moves again before magazine is printed, that can be fixed, too. But if all the reporters would wait until the last day and send us long letters, we would not be able to get things fixed up properly.



## IDEAL I. F. TRANSFORMERS!

A GROUP of I. F. replacement and experimental transformers by Hammarlund, for broadcast and short waves for the critical engineer, research student, repairman, and amateur demanding superior results for better radio. Ten types are available in a round can "T" model for 175 and 465 kc., and a square can "ST" model for 175, 252 and 465 kc.

The electrical characteristics of "T" and "ST" are identical, with tuned grid and tuned plate lattice wound coils, impregnated to prevent moisture effects. The tuning condensers are the highest grade mica compression type, mounted on Isolantite bases and adjustable from

the top of the shield can. Leads are RMA color coded, and tagged for easy installation. Secondaries are either plain for standard screen grid tubes, or center tapped for tubes requiring split input circuits.

Aluminum shield of "T" model is  $2\frac{1}{8}$ " outside diam. x  $3\frac{1}{8}$ " high, with threaded mounting lugs on 2" centers. The "ST" aluminum shield can is  $2\frac{3}{4}$ " high x  $1\frac{7}{8}$ " square, with threaded mounting studs on  $1\frac{1}{8}$ " centers.

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