

VOL VII

MARCH, 1936

NO. 6

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.

"Simply Uncanny . . .

*surpasses anything I have ever used—
and I have tried every known make of aerial"*

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

There is nothing "just as good"

as a Lynch Hi-Fi Antenna or a Lynch Filteradio for reducing noise on ALL Waves and bringing in stations that otherwise could never be heard!

NOISE-REDUCING TWINS



LYNCH HI-FI ASSEMBLED ANTENNA

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

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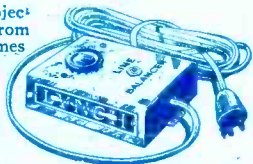
The above kit with 50 feet of famous Lynch Giant-Killer cable (instead of twisted pair.)

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Cuts out objectionable noise from the light line, consumes no current. Makes interference from circuit breakers, motor generators, etc., practically negligible. Easy to install; simple to adjust. One type serves all purposes.

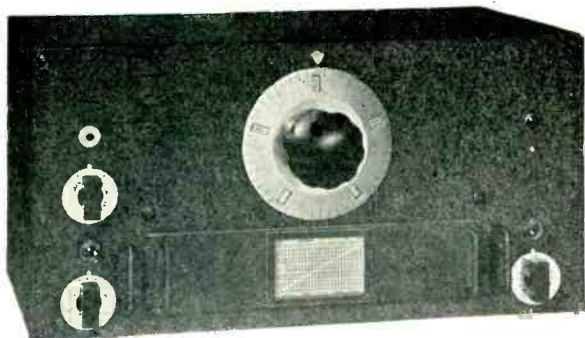
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ARTHUR H. LYNCH, Inc., Dept. S, 227 Fulton St., New York
PIONEER OF NOISE-REDUCING AERIALS

Sol Perlman, E. E., Technical Advisor, N. Y. Chapter, International Short Wave Club is manager of our Technical Correspondence Department. He will gladly advise you on the proper use of any Lynch Products.



THE HRO JUNIOR

For those who have coveted the superlative performance of the communication-type HRO receiver, but who do not require its extreme versatility, a Junior model is offered. The circuit details of both receivers are identical in every respect, but the lower priced model has been greatly simplified by omitting the crystal filter and the S-meter, and by designing coils for "continuous bandspread" only.

Although these omissions do not greatly restrict its usefulness, they make it possible to price the HRO Junior at a very attractive figure.

Whether your interest is in International broadcast or in amateur communications, we believe you will find these remarkable receivers ideally suited to your needs. The coupon below will bring an illustrated description of both.

National Company, Inc.,
Malden, Mass.

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Address..... ISW-3-36



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6 Outstanding Advantages

Want privacy? Want to listen late at night? Want better reception? Use my Amplivox Headphone Receptor. Enables you to listen at any time, without disturbing anyone or being yourself disturbed. NO TAMPERING with wiring to install. Installed in ONE MINUTE. No tools needed. Inserting phone jack AUTOMATICALLY silences speaker. FIVE FOOT CABLE makes it a phone jack at your fingertips. NEEDS BUT A FRACTION OF VOLUME used for loudspeaker. HELPS TO IDENTIFY STATIONS heard faintly on the speaker. Ideal for the "HARD-OF-HEARING." Shipping weight, 1 lb. price, \$6.75.



MY PRICE TO YOU..... \$3.95

Also note the SPECIAL OFFER. Give make and model of receiver when ordering.

SPECIAL—COMBINATION—OFFERS

(1)—Amplivox PHONE RECEPTOR, a pair of ACME phones and a special plug to take from 1 to 4 pairs of phones; shipping weight, 2 lbs.
\$4.49
 My Special Offer Price.....
 (Regular value, \$5.49)

(2)—Amplivox PHONE RECEPTOR, a pair of TRIMM FEATHERWEIGHT PHONES (4 oz.) and a special plug to take from 1 to 4 pairs of phones; shipping weight 2 pounds.
\$9.23
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 (Regular value, \$10.73)

BE SURE to mention make and model of receiver.

ANTENNA PROBLEM?

Write Me About It!

I recommend LYNCH CAGE ANTENNA SYSTEMS FOR Limited Space.



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

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 Your net cost

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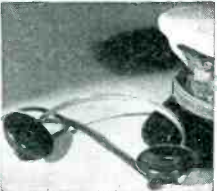
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P.S.—I can supply you with any radio or electrical merchandise at lowest market prices. Write me about your needs.

NEW LOW PRICES ON EARPHONES!

TRIMM

(4 ounce)
 24,000 Ohms
 EXTREMELY SENSITIVE



The Lightest Wt. Phones Made.

Ultra-sensitive, weighs but four (4) oz. with head band, 24,000 ohm impedance. Can pick up signals so faint that they would not be heard on speaker. Shipping wt. 1 lb. List price, \$10.00.

MY PRICE TO YOU..... \$5.88

ACME DELUXE PHONES, 2000 ohm, sturdily made, sensitive. My SPECIAL PRICE TO YOU..... **\$1.25**

PHONE PLUGS, for single pair phones..... **15c**

PHONE PLUGS, will take from one to four pairs of phones..... **29c**

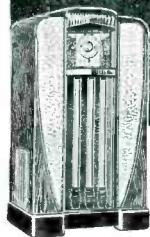
SOL PERLMAN, E.E.

(WJCU)

TECHNICAL ADVISOR OF N. Y. CHAPTER OF I. S. W. C.

227 FULTON ST., New York—PHONE: CORTLANDT 7-7843

A GLORIOUS EXPRESSION
OF TODAY'S FINEST IDEALS



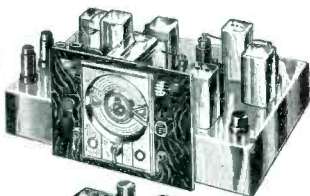
THIS super radio musical instrument was created for those discriminating and exacting few who insist on the finest, most beautiful, most precisely built radio obtainable. A set of rare distinction, musically and artistically perfect, the Royale offers over 108 features, assuring a luxurious and idealized type of brilliant, sparkling, guaranteed world-wide performance . . . heretofore unattainable. It is today's only "aged" radio . . . offers 6 tuning ranges . . . 4½ to 2400 meters . . . 3 Speakers . . . etc.

The 24-tube, 6-tuning range chassis is made up of a 13-tube tuning chassis . . . and an 11-tube power supply amplifier chassis. Gives Unlimited Scope Full Fidelity, 40 watts of pure, undistorted output. Audio range is 20 to 16,000 cycles per second. Fully guaranteed for 5 years . . . absolute satisfaction assured.

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

Note:—Readers who may find it more convenient may send 5 shillings to Arthur Bear, 10 St. Mary's Place, Rotherhithe, London, S. E. 16, England.

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

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ARTHUR J. GREEN, Editor.

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This Beautiful Globe for only \$2.75

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

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

A free globe hand-book included in each sale.

PLEASE SEND POSTAGE

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

Ask your postmaster for the postage rate on 8 pounds from Indianapolis, Indiana.

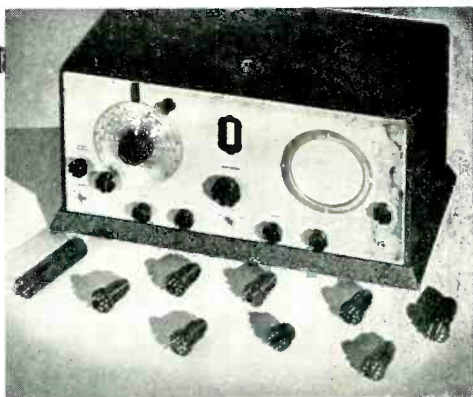
Address your letters to—

INTERNATIONAL SHORT WAVE CLUB, East Liverpool, Ohio

**Custom Built
Performance**

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SUPER SKYRIDER

HERE'S the receiver every short wave fan has dreamt about. It's got every modern feature plus many that are found only in the Super Skyrider. And as to performance—it will get any station you want if it can be reached at all!

Moreover it's a set that you can enjoy operating. It's all included in one compact cabinet, speaker, power pack, everything. You switch from one to another of the 5 bands on the marvelous Super Skyrider dial with a simple band switch—no cumbersome plug-in coils or other make-shift devices on this modern receiver.

Its controlled Crystal Filter Circuit gives true one signal selectivity. The Iron Core I. F. system provides sensitivity beyond all practical requirements. The advantages of the new Metal Tubes are used to the fullest degree.

But with all its features, the Super Skyrider is extremely moderate in price. See it today at your jobber's.

- 9 All Metal Tubes—greater stability and less noise.
- Iron Core I. F. System—greatly increased sensitivity.
- Duo-Micro-Vernier Band Spread provides improved logging accuracy.
- More efficient Crystal Filter Circuit—one signal selectivity without sacrificing sensitivity.
- Beat Oscillator with continuous range.
- Modern Band Changing System—covers entire short wave and broadcast spectrum.
- Compact—completely enclosed in one convenient cabinet, 19 $\frac{1}{4}$ "x10"x10".

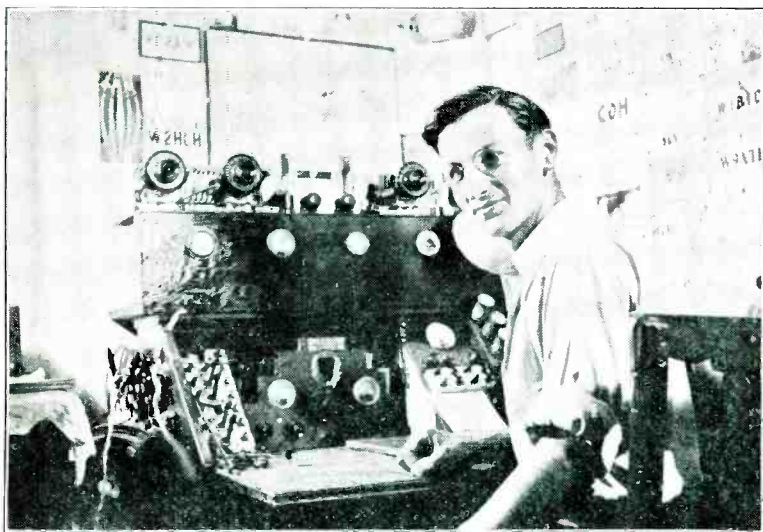
*Write, or See Your Jobber,
Today!*

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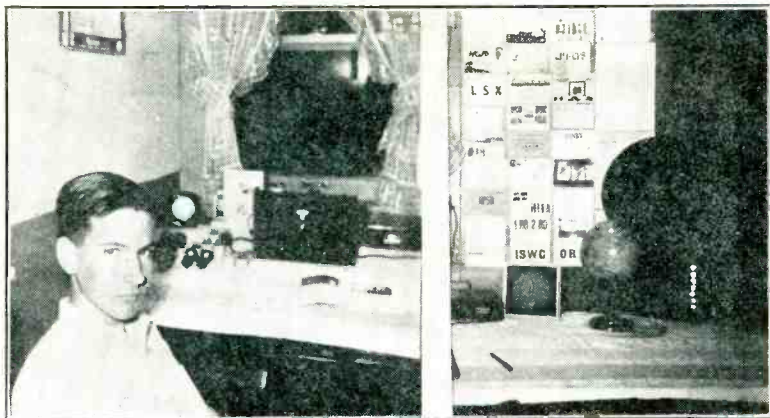
The shipping lanes from Bordeaux, France to New York City are always well-traveled, so we have no trouble this month in leaving Flavio Mascarenhas of Bordeaux and stopping in to visit Mr. Cohen, who makes his home on 178th Street in New York City. Mr. Cohen, has been an I. S. W. C. member for quite a long time. He is now studying to be an amateur and expects to be on the air soon with his own transmitter. He feels so sure of getting a license that he has already built part of his transmitter, which you can see in the photograph.

Mr. Cohen is a very enthusiastic member, and you will notice his magazine close by his right hand. In the letter that accompanied the photo, Mr. Cohen expresses his thankfulness to other I.S.W.C. members for the information they have sent in to the club magazine, as it has enabled him to log many new stations.

SPECIAL NEW FLASHES

PCJ, Holland, announced that they will broadcast on 31.28 meters, 9.59 mc. each Sunday, 7:30 to 8:30 A.M. for Asia; 1:00 to 2:00 P.M. for Africa, and 7:00 to 8:00 P.M. for America. We were informed that PHI would carry the last program mentioned, but PCJ announces they will be on 31.28 meters for these. PCJ is not shown on our list, on this wave.

Prado, Riobamba, Ecuador, moved to 7.10 mc. and was broadcasting one Thursday, 9:00 to 11:30 P.M. instead of on 6.62 mc (Dr. Kash and Russell Bean).



LUTHER HENDERSON, FORT WORTH, TEXAS

We are pleased to present a photograph of the person we believe is the youngest Heard-All-Continents-Club member, Mr. Luther Henderson. To the best of knowledge, he holds that unique title. Mr. Henderson was able to secure a class A rating when he was but fourteen years of age, and now at a little past fifteen, he holds a class 4A. To secure his class 4A rating, he sent in four verifications from Asia, Africa, Europe, Australia, North America and South America. For a young fellow like Luther, this is quite a nice collection of verifications. Judging from his present age, he must have become interested in short waves when he was but twelve and joined the International Short Wave Club at thirteen. We have a member in Florida who is eighty and one in Arizona who claims eighty-four years. Can anyone top these ages, or beat Mr. Henderson out for the youngest I.S.W.C. member?

HEARD—ALL—CONTINENTS—CLUB

We have been requested quite a few times to publish the rules regarding entry into this distinctive group. Here they are: (1) Any member of the ISWC who sends us one verification from each of the continents (Asia, Africa, Europe, Australia, South America and North America) may apply for membership. This means the actual verifications must be sent, and there must be one from each continent, not just six verifications from one or two continents. (2) These verifications must be sent to the Club at East Liverpool, Ohio. No photographs, photostatic copies or sworn statements will be considered. If it isn't worth-while to send the original veries, then the HAC isn't worth having. That is the way we figure it. (3) Verifications must bear a postmark unless there is reasonable proof that the verification is real and original. (4) All amateur station veries must have the words "broadcast," "phone" or "voice" written on them

to count. (5) A station on two wavelengths will be counted as two stations only if two veries are sent, each stating the wavelength used. (6) Stations located on islands and in Central America will be counted with the nearest continent (New Zealand, Fiji Islands are counted with Australia, Java with Asia, etc.) (7) Postage to prepay return of the veries must be sent. If insufficient postage is sent from this time on, the veries will be held until the needed postage is received. (8) Fifteen cents must be sent to cover the cost of the special certificate which will be issued and for the postage required to send the certificate. (9) One verie from each continent entitles the member to class A, two for class AA, three for class AAA, etc.

Here are the leading HAC members: Sgt. H. J. Dent with 17-A, or seventeen veries from each Continent and H. S. Bradley, Hamilton, N. Y., with 13-A leading the group. Others are Ed Lips of Pittsburg, with eight, Frank Grey of Berwyn, Illinois with seven; J. R. McAllister, Struthers, Ohio, with seven; Arthur W. Lunn, Maplewood, New Jersey, with seven; Emmett G. Riggle, Massillon, Ohio, with seven, and Charles Miller, Covington, Kentucky, with six.

Class 5-A members are Nick Gaug, New York City; W. A. Dean, Hartford, Conn.; T. W. Moss, Exeter, England; P. A. Portmann, Woodside, N. Y.; Walter H. Kurtz, Kansas City, Mo.

Class 4-A members are Robert Rossi, Philadelphia, Pa., and Luther Henderson, Fort Worth, Texas.

Class 3-A members are Bernard Kinzel, New York City; F. A. Beane, Ridgewell, Engand; John Kirby, New York City; F. Edward Fellows, Short Hills, N. J.; Roy Waite, Balston Spa, N. Y.; D. R. D. Wadia, Bombay, India; Lowell F. Barrows, Delaware, Ohio; Edwin Hatch, Philadelphia, Pa.; W. T. Wyatt, Essex, England; Howard Eck, East Lansing, Mich.; R. Lawton, Whitefield, England; M. M. Holmes, Berwyn, Ill, and L. D. Brewer, Phoenix, Arizona.

Class 2-A members are David McIntosh, Ernest Orchard, L. G. Chavez, Kenneth Albrecht, Harry Miner, A. F. Larkman, W. E. Doty, W. C. Motz, R. D. Everard, A. F. G. Bruder, Shokicki Yoshimura, P. E. Thompson, and Angus Taylor.

There are a good many class A members, too many to mention at this time. We urgently request that anyone interested in sending in for an H-A-C rating please read the above rules carefully before sending. We wish to avoid disappointment. Unless you fulfill each of the rules, do not apply. Requests to over-look certain rules will not meet with approval of the editor. These rules were not made to be broken.

SHORT WAVE SUPPLIES

The Club sells a special printed stationery, with the Club emblem and some decorations on it. Since many station owners are club-members, and since many firms offer special discounts, it pays to keep some of this stationery in stock. The price is 50c per hundred, postpaid.

Club Seals, large and beautiful. Paste one on your letter and identify yourself as an I. S. W. C. member. You will find that these seals bring results. 30c per hundred, postpaid.

SHORT WAVE NEWS

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

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

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

THE EUROPEANS

Whoever it is that arranges the programs for the German short wave stations must have gone in for cross-word or jig-saw puzzles. Here is what they have arranged for March:

DJA on 31.38 meters, 9.56 mc. from 12:30 to 3:50 A.M., 8:00 to 11:00 A.M. and 4:55 to 10:45 P.M.

DJB on 19.74 meters, 15.20 mc., from 3:50 to 11:00 A.M.

DJC on 49.83 meters, 6.02 mc., from 11:35 A.M. to 4:25 P.M. and 4:55 to 10:45 P.M.

DJD on 25.49 meters, 11.77 mc., from 11:35 to 4:25 P.M.

DJE on 16.89 meters, 17.76 mc., from 8:05 to 11:00 A.M.

DJL on 19.85 meters, 15.11 mc., from 4:00 to 6:00 A.M.

DJM on 49.34 meters, 6.08 mc., 3:00 to 4:55 P.M.

DJN on 31.45 meters, 9.54 mc., from 12:30 to 3:00 A.M., 3:50 to Noon, and 4:55 to 10:45 P.M.

DJO on 25.34 meters, 11.79 mc., from 5:00 to 7:00 A.M.

DJP on 25.31 meters, 11.85 mc., from 2:00 to 4:00 A.M.

DJQ on 19.63 meters, 15.28 mc., from 12:30 to 3:30 A.M.

DJR on 19.56 meters, 15.34 mc., 1:30 to 3:30 A.M.

DZA on 20.75 meters, 14.46 mc., from Noon to 2:00 P.M.

DZB on 29.88 meters, 10.04 mc., from 2:00 to 4:00 P.M.

DZC on 29.15 meters, 10.29 mc., from 3:00 to 9:00 P.M. irregularly.

We have quite a few reports on these stations, of course. We also have a station DJI on 9.675 mc. reported by members H. Gensheimer, H. Howe and Capt. Oxrieder. We understood this station closed down last month. A station DJS on about 12.13 mc. between 8:00 and 9:00 P.M. was reported

by Fred Karpen. Cards from Germany say that DIQ is now known as DZC as shown in the above list. This station and a DFC relayed a special program to the U.S.A. once. (J. B. Wooten, H. Slough and Ian Morgan) A phone station DFD on 20.56 meters or 14.59 mc., phones Japan around 7:00 A.M. Sundays and once tested with WEM (E. Browell). Another phone DFL on 27.65 meters or 10.85 mc., tested with WEM too.

A letter from France says the Pontoise stations have been given call-letters at last. TPA2 on 19.68 meters or 15.25 mc., broadcasts 6:55 A.M. to 11:00 A.M.; TFA3 on 25.23 meters, or 11.90 mc., broadcasts 4:00 to 5:00 A.M. and 11:15 to 6:00 P.M.; TPA4 on 25.63 meters, or 11.71 mc., broadcasts 6:15 to 9:00 P.M. and 11:00 P.M. to 1:00 A.M. according to Gus Adler. J. E. Church and Ed. Schmeichel also tell about the new call-sign. The stations have not been keeping this schedule, however. The one on 19.68 meters has been heard at 6:00 P.M., and the one on 25.23 at 8:30 P.M. (H. J. Davison). They also used the one on 25.23 and 25.60 at the same time from 6:00 to 9:00 P.M. (G. Van Honk and A. Centanino)

A letter verifies station FYC on 20.57 meters, or 14.61 mc., heard phoning Moscow at 5:55 A.M. once (H. S. Bradley). A letter says TYA is on 12.215 mc. and the ship "Ile de France" is on 13.20 mc. (A. Lunn, Jr.). TYA on 24.56 meters, 12.22 mc., phoning ships at 10:00 A.M., and a letter says FTK phones Saigon from 3:00 to 7:00 A.M. and 8:00 A.M. to Noon. FTA on 20.53 meters works Saigon from Noon to 2:30 P.M. (Charles Miller). A station FTH is on 10.94 mc. phoning Brazil and Argentina from 9:00 to 10:00 A.M. and a letter verifies this (A. Lunn, Jr.). TYA verifies with a Pontoise card (W. Siddle). A station TYA2 on 33.19 meters or 9.037 mc., at 4:00 P.M. (C. Miller and Ed. Schmeichel). FTA on 20.53 meters, 14.61 mc. phoning Egypt and a letter says 3:00 to 7:00 A.M. and Noon to 2:00 P.M. They work Egypt (Ed. Schmeichel).

SPW, Warsaw, Poland, on 22.00 meters, or 13.63 mc., is broadcasting Mondays, Wednesdays and Fridays from 11:30 A.M. to 12:30 P.M. now. The address is Polskie Radjo, Spolka Akcyjna, Warazawa U. L., Mozowieka 5 (Chas. Miller, Chas. Durrow, A. Lunn, Jr., Robert Rossi, F. Karpen and Thomas Simpson).

TFJ, Reykjavik, Iceland, on 24.52 meters, or 12.24 mc., broadcasts Sundays 1:40 to 2:00 P.M. Hundreds have heard it.

OXY, Skamlebaek, Denmark, is positively not on 31.51 meters as reported last month. A letter from Harold J. Rud, station director, states this: They are on 49.50 meters or 6.06 mc. from 1:00 P.M. to 6:00 P.M. week-days and 11:00 A.M. to 6:00 P.M. Sundays (L. Chavez and Emil Anderson). Some other station must have been relaying OXY on 31.51 meters.

LKJ1, Jeloy, Norway, on 31.48 meters or 9.53 mc. broadcasts 5:00 to 8:00 A.M. and 11:00 A.M. to 6:00 P.M. Many have cards showing this schedule. It was logged in the U. S. A. between 5:00 and 6:00 A.M. by Dr. Kash and J. B. Wooten.

OER2, Vienna, Austria, on 49.42 meters or 6.072 mc., broadcasts 9:00 A.M. to 5:00 P.M. week-days only. T. Purves, Scotland, says they are on 49.49 meters between 10:00 A.M. and 5:00 P.M. only. This is a tough one to log in the U. S. A.

ORK, Brussels, Belgium, 29.04 meters or 10.33 mc. broadcasts daily 2:30 to 4:00 P.M. The address is No. 1 Rue de Bastion, Bruxelles (C Lopez Ona).

EAQ, Madrid, Spain, 30.40 meters or 9.87 mc. broadcasts 5:15 to 9:30 P. M. daily; Saturdays, noon to 2:00 P. M. instead of 1:00 to 3:00 P. M. (Sydney Fink). This is official.

A Madrid station on 45.00 meters or 6.67 mc. owned by Philips Iberica, Paeo de las Delicia 71 or Box 643. Madrid, was not reported in February, although they were very active during January. They tested then between 5:00 and 9:30 P.M.

CT1AA, Lisbon, Portugal, on 31.09 meters or 9.65 mc. broadcasts Tuesdays, Thursdays and Saturdays, 4:00 to 7:00 P.M. This one keeps moving between 9:65 and 9.68 mc., although they are usually around 9.66 mc.

PHI, Huizen, Holland, on 25.57 meters or 11.74 mc. broadcasts daily except Tuesdays and Wednesdays 8:30 to 10:30 A.M. And here is good news. They will broadcast Sundays from 7:00 to 8:00 P.M. starting early in March. This is a special program to America.

PCJ, Huizen, Holland, on 91.71 meters or 15.22 mc. broadcasts Tuesdays 3:00 to 6:00 A.M., Wednesdays 7:00 to 11:00 A.M. and Sundays 8:00 to 10:30 A.M., cards say. A letter says they may also be on 31.28 meters soon (F. A. Beane).

2RO, Rome, Italy, broadcasts on 25.40 meters or 11.81 mc. from 8:15 to 9:00 A.M., 9:15 to 11:15 A.M. and 11:30 A.M. to 12:15 P.M. Then on 13.13 meters or 9.64 mc. daily 1:30 to 5:15 P.M., Mondays, Wednesdays and Fridays 6:00 to 7:30 P.M., Tuesdays, Thursdays and Saturdays 6:00 to 7:45 P.M. They have tested on 49.30 meters, 6.085 mc., several times, but seem to have given up the idea of changing to that wave on account of the interference. Heard testing on 49.30 by A. J. Hayward, W. Vandecar, T. Simpson and W. D. Flagg.

The Italian phones are IRW on 15.37 meters, 19.526 mc., IRY on 18.20 meters or 16.117 mc., IRA on 20.73 meters or 14.73 mc., IRM on 30.52 meters or 9.83 mc. and IRT on 44.90 meters, 6.68 mc. These are all owned by Italo Radio, Via Calabria 46-48, Rome, Italy. IRT was phoning Africa at 8:15 P.M. (W. J. Woodall). A letter from the ship phones at Piza, Italy, says IAC works on 16.95 meters, 23.32 meters, and 35.23 meters. Heard on 35.23 meters at 4:30 P.M. (Chas. Miller). Heard on 8.45 mc., (Ian Morgan) and on 8.51 mc. (W. J. Woodall).

LZA, Sofia, Bulgaria, on 20.04 meters or 14.97 mc. Here is good news. This station known as "Radio Garre" has a lady announcing and seems to be broadcasting every Sunday between 3:30 and 11:30 A.M. They may also be heard on other days but reports so far say Sundays. The address is Radio Frata, Sofia. We have letters from L. J. Niederle, Praha, Czechoslovakia; Chas. Guilbert, Deuville, France, and F. A. Beane, Ridgewell, England.

Praha, Czechoslovakia. A station will soon be on the air here, broadcasting, telephoning and using code. They will be on 6.55 mc., 6.115 mc., 9.504 mc., 11.745 mc., 11.760 mc., 11.875 mc., 15.23 mc., and 21.45 mc. This is from L. J. Niederle.

Switzerland has the following stations on the air: HBH on 16.22 meters or 18.48 mc.; HBJ on 20.64 meters or 15.54 mc.; HBO on 26.35 meters or 11.385 mc.; HBL on 31.27 meters or 9.595 mc., and HBP on 38.47 meters or 7.797 mc. HBL and HBP broadcast every Saturday from 5:30 to 6:15 P.M. HBO sent special programs to the U.S.A. last month, once on Feb. 2 and once on Feb. 10. Members Wooten, Fowler, Purvis, Slough, Karpen, Karpen, Fitzsimmons and Chambers report this. An amateur station, HB9B, owned by Radio Club Basle on 21.36 meters broadcasts the first Monday in each month from 3:10 to 4:15 P.M. (T. Purvis).

The British Broadcasting Company predict no changes in schedule for March, leaving the schedule as follows:

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

Arthur E. Bear tells us that they may soon use stations GSN on 25.38 meters, 11.82 mc.; GSO on 19.76 meters, 15.18 mc.; and GSP on 19.60 meters, 16.744 mc.

Russia sends word that they broadcast now on 25.00 meters, 12:00 mc., on Sundays 6:00 A.M. and 10:00 A.M. and Wednesdays at 6:00 A.M., and on 50.00 meters, 3.00 mc., daily from 2:00 to 5:00 P.M. On Saturdays they stay on until 6:00 P.M. They use the call RNE on both waves. Station RNE, Moscow, on 25.00 meters, 12.00 mc., has been phoning around 6:00 to 9:00 A.M. and tested with Rocky Point once from 11:00 to 11:30 A.M. WEL and WQP answered and the day was Saturday (A. Lunn, Jr.). Heard at 2:45 A.M. once (W. Chambers). RKI, Moscow, on 19.94 meters, 15.04 mc., was heard phoning between 5:00 and 9:00 A.M. and sent a special to the U.S.A. once.

RIM, Tashkent, on 19.68 meters, 15.25 mc., was heard phoning between 5:00 and 8:00 A.M. and once at Midnight (Chas. Miller). RIO, Bakou, on 29.50 meters, 10.17 mc., was heard between 11:00 P.M. and 4:00 A.M. phoning by a couple of dozen members. RIR, Tiflis, on 29.76 meters, 10.08 mc., was heard between 9:00 and 10:00 A.M. (A. Balbi), and between Midnight and 2:00 A.M. by a dozen or more. A station RRR, Khabarovsk, on 18.01 meters, 15.95 mc., was heard phoning ROU, Omsk, on 20.28 meters or 14.79 mc., between 6:00 and 7:30 A.M. (Fred Karpen). The 50 meters broadcasts are heard in the U.S.A. very seldom and then almost always between 4:00 and 5:00 P.M.

SOUTH AMERICANS

CB960, Santiago, Chile, on 31.25 meters, 9.60 mc., known as "El Praco" and "Radiodifusora Pilot" has been broadcasting between 8:30 P.M. and 12:30 A.M. The address is Casilla 1342, Santiago. We have reports from members Robert Rossi, Chas. Eggenweiler, L. G. Chavez, Dr. Kash, W. Siddle, Chas. Miller, E. Butcher, A. Balbi, Ed. Schmeichel, S. Solito, G. Gallagher and F. Karpen. CEC, Santiago, Chile, on 28.12 meters, 10.67 mc. still broadcasts Thursdays and Sundays from 8:30 to 9:00 P.M. They are also supposed to broadcast nightly from 8:00 to 8:15 P.M., but only one person reported them this past month.

HJ1ABB, Barranquilla, Colombia, on 46.51 meters or 6.45 mc., broadcasts from 6:00 to 11:00 P.M. daily.

HJ1ABD, Cartagena, has gone off the air according to HJ1ABE of the same city.

HJ1ABE, Cartagena, on 49.05 meters, 6.11 mc., broadcasts daily from 7:30 to 9:00 P.M. with a special program Mondays 10:30 to 11:30 P.M. in English. A letter from the owner tells us they are going to have 100 watts on 31.58 meters, 9.50 mc., early in March. Robert Fusselman also reports them announcing this over the air.

HJ1ABG, Barranquilla, on 49.65 meters, 6.04 mc., is still broadcasting between 6:00 and 10:00 P.M. Heard at 1:00 A.M. (W. Siddle).

HJ2ABD, Bucaramanga, Colombia, on 50.10 meters, 5.99 mc., wrote to us saying they broadcasted 11:30 A.M. to 12:30 P.M. and 5:30 to 6:30 P.M. and 7:30 to 10:30 P.M. Another card they are sending out says 6:00 to 10:00 P.M. F. A. Beane and S. Solito have such cards. They said they were moving to 6.14 mc. according to H. S. Bradley and S. Solito, but we believe this was for one special broadcast sent on February 28th.

HJ3ABD, Bogota, Colombia, "Colombia Broadcasting" has moved to 49.55 meters, 6.05 mc. They were on 40.55 meters. (H. S. Bradley, Robert Rossi, F. Karpen and Charles Miller say 6.05 mc. W. Siddle says 6.06 mc. Ed. Schmeichel says 6.04 mc.)

HJ3ABH, Bogota, on 49.85 meters, 6.01 mc., sends a card giving the schedule as week-days 11:30 A.M. to 2:00 P.M. and 6:00 to 11:00 P.M.; Sundays Noon to 2:00 P.M. and 4:00 to 11:00 P.M.

HJ4ABA, Medellin, on 25.40 meters, 11.81 mc., broadcasts 11:30 A.M. to 1:00 P.M. and 6:30 to 10:30 P.M.

HJ4ABB, Manizales, on 49.15 meters, 6.10 mc., is supposed to broadcast 8:00 to 11:30 P.M. irregularly, but Dr. Kash reports it on 5.77 mc. now.

HJ4ABC, Ibague, on 46.44 meters, 6.48 mc., sends a card saying they are on 6.45 mc., not 6.48 mc. The address is apartado 38 (Dr. Kash).

HJ4ABC, Periera, on 49.67 meters, 6.04 mc., "La Voz de Periera," broadcasts from 9:00 to 11:00 A.M. and 7:00 to 8:00 P.M. They sent a picture of the station and people connected with it to Guy Bigbee. These two station both have the same call-sign, although some say one is HJ4ABJ.

HJ4ABD, Medellin on 52.17 meters, 5.75 mc., broadcasts from 8:00 to 11:30 P.M. now. Some say it is also on 49.55 meters.

HJ5ABC, Cali, Colombia, on 48.78 meters, 6.15 mc., "La Voz de Colombia," sends a paper saying they have 150 watts on the air daily excepting Saturday and Sunday from 7:00 to 10:00 P.M. and on Sundays from Noon

to 2:00 P.M. The address is Calle 12 No. 235, Cali (B. W. Castle and Carl Eder).

Radiodifusora Cartagena. A letter from club member Elden Lagon-teire says he will be on 31.25 meters, 9.60 mc., from 11:30 A.M. to 1:00 P.M. and 6:00 P.M. to 10:00 P.M. excepting Sundays. They will have 700 watts and he is depending on I.S.W.C. members to send reports.

HK1ABM, Cartagena, an amateur station on 7.10 mc., owned by Bernandos Mendez, has been relaying station HJ1ABE on Mondays, Tuesdays and Saturdays according to HJ1ABE. Was also heard phoning around 10:00 P.M. (W. Siddle).

HJN, Bogota, on 50.26 meters, 5.97 mc., broadcasts from 6:00 to 11:00 P.M. HKV, the Army station at Bogota on 34.10 meters, 8.79 mc., was heard at 7:30 P.M. by W. Chambers and at 9:00 P.M. by R. B. Oxrieder. A station HJAN, Cartagena, a navy base station on 6.385 mc., was heard at 6:15 to 7:00 P.M. by Sam Solito using voice. A station HJP on 40.25 meters, was talking to HCJB at 11:00 to 11:30 P.M. (C. Lopez Ona and R. B. Oxrieder).

HJU, Buenaventura, Colombia, the new station that went on the air last month, owned by the National Railroads and called "La Voz del Pacifico," has been testing between 8:00 and 11:00 P.M. They were reported on 32.97 meters, 9.10 mc., in January. Announced they would move to 31.56 meters, 9.50 mc., and increase power to 1000 watts as soon as a crystal arrived (E. Butcher). Heard on 9.02 mc., from 11:00 P.M. to Midnight (A. Balbi). On 33.10 meters between 5:00 and 10:00 P.M. (E. Schmeichel). Call was given HKU and was on 9.506 mc. (R. Russell).

LRU, Buenos Aires, Argentina, on 19.62 meters, 15.29 mc., has been relaying LRL, "Radio El Mundo," between 5:30 A.M. and 12:30 A.M. usually staying on the air about an hour at each test. Reported by R. Leeder, A. Lunn, G. Van Honk, A. Balbi, H. Howe, W. Sparks, H. J. Davison, H. Slough and F. Karpen.

LRX, Buenos Aires, on 31.25 meters, 9.59 mc., has been testing and relaying LR1 also. It has been heard between 11:00 P.M. and 1:00 A.M. The address of both LRU and LRX is Calle Maipu 555. LRX was reported by Ed. Houlgate, Robert Rossi, A. Balbi, S. Solito and G. Gallagher.

LSX, Buenos Aires, on 28.98 meters, 10.35 mc., has been heard a few times of late, between 6:30 and 8:00 P.M. (Dr. Pugh, W. Chambers and H. Howe). LSN, a phone station on 14.27 meters, 21.03 mc., has been broadcasting music around 4:30 to 6:00 P.M. usually on Sundays (R. Brady and H. Howe). LSL, another phone on 29.27 meters, 10.25 mc., has been sending dance music between 7:00 and 8:00 P.M. (H. Howe and H. J. Davison).

VP3MR, Georgetown, British Guiana, P. O. Box 17, on 42.37 meters or 7.08 mc., sends out three different schedules. One says Sundays from 7:45 to 10:45 A.M.; Mondays 3:45 to 4:45 P.M.; Tuesdays and Saturdays 4:45 to 7:45 P.M. and Thursdays 5:00 to 8:45 P.M. (E. Browell). Another says weekdays 4:45 to 7:45 P.M.; Sundays the same as above (E. Riggle and F. A. Beane). Another says Wednesdays 4:45 to 8:45 P.M.; Sundays as above (W. Siddle). And still another sent by F. Tynan is far off, so we take it to be Georgetown Time.

VP3BG, Georgetown, B. G., "Voice of Georgetown," on 41.55 meters, or 7.22 mc., was heard between 5:00 and 8:45 P.M. irregularly.

PZH, Paramaribo, Dutch Guiana, on 42.08 meters, 7.088 mc., (Box 54) sent two special programs to I.S.W.C. members in February. Too bad, but we did not get a notice until one of them was already past. They give their schedule now as Mondays, Wednesdays and Fridays, 5:40 to 9:40 P.M.; Tuesdays, Fridays and Saturdays, 2:40 to 4:40 P.M. and Sundays 9:40 A.M. to 12:40 P.M. in a card received by W. D. Vandecar, but one direct to us says Wednesdays 3:40 to 4:40 P.M.; Thursdays 8:40 to 10:40 A.M. also. You will also note this is a different wavelength, as they said before they were on 42.88 meters, 7.00 mc.

OAX4G, Lima, Peru, on 48.00 meters, 6.25 mc., broadcasts daily 7:00 to 10:00 P.M. OAX4D, Lima, on 51.90 meters, 5.78 mc., broadcasts Wednesdays and Saturdays 8:00 to 11:30 P.M. A phone OCP on 27.35 meters, 10.97 mc., was heard at 3:23 A.M. (W. Chambers). This is listed as OCI, not OCP.

PRF5, Rio de Janeiro, Brazil, on 31.56 meters, 9.50 mc., broadcasts daily 4:45 to 5:45 P.M. Tested once from 7:30 to 8:00 P.M. (R. Leeder, Chas. Eggenweiler, H. J. Davison). Address is Ministerio do Justica e Negocios Interiores, Departamento de Propaganda, Rio de Janeiro, Brazil, South America (F. Henning).

PRA8, Pernambuco, Brazil, on 49.67 meters, 6.04 mc., is supposed to broadcast 2:30 to 8:30 P.M. But has a habit of roaming around the dials. Heard on 6.02 mc. at 6:30 to 7:00 P.M. (Charles Miller) and on 6.025 mc. (Sam Solito) and between DJC and HP5B (Dr. Kash). The phone PSH on 29.45 meters, 10.22 mc., was relaying CEC program once at 8:30 P.M. (W. Chambers).

HC2CW, Guayaquil, Ecuador, "Ondas del Pacifico," sends a verie saying they are on 35.70 meters, 8.404 mc., daily except Sundays from 7:30 to 11:00 P.M., local time, or 8:00 to 11:30 P.M., E.S.T. The address is Apartado 1166 (W. Siddle). Heard on 8.37 mc. (C. Miller).

HC2ET, Guayaquil, on 65.22 meters, 4.60 mc., broadcasts Wednesdays and Saturdays 9:00 to 11:00 P.M.

HC2JSB, Guayaquil, on 38.19 meters, 7.854 mc., sends a card saying they broadcast from 9:00 A.M. to 2:00 P.M. and 6:00 to 11:00 P.M. (H. S. Bradley). On 7.88 mc. (H. Howe) and on 7.854 mc. (W. Flagg).

HCJB, Quito, Ecuador, on 34.12 meters, 8.77 mc., broadcasts daily except Mondays 7:30 to 9:30 P.M. Now on 8.95 mc. (Chas. Miller).

Prado, Riobamba, Ecuador, on 45.31 meters, 6.62 mc., broadcasts on Thursdays from 9:00 to 11:30 P.M. HCK, Quito, on 50.93 meters, 5.89 mc., sends word they broadcast Mondays and Fridays from 8:30 to 10:30 P.M. local time. The address is Direccion General de Telegraphos y Inalamericoa (W. Siddle and F. A. Beane). A station HC1PM, Quito, on 5.75 mc., and also on 6.99 mc., "La Voz de Palomar," testing near Midnight (W. Siddle).

YV2RC, Caracas, Venezuela, on 51.72 meters, 5.75 mc., broadcasts from 10:30 A.M. to 1:00 P.M. and 5:15 to 10:00 P.M. YV4RC, Caracas, on 47.10 meters, 6.37 mc., "Ecos del Avila," sends a card saying they broadcast weekdays 5:30 to 9:30 P.M., E.S.T., or 6:00 to 10:00 P.M. their time. The

address is Box 983 (R. Piedras). YV5RMO, Maracaibo, Venezuela, on 51.28 meters, or 5.85 mc., sends a card saying they are on 5.65 mc., but they are heard on 5.85 mc. The schedule is 11:00 A.M. to 12:30 P.M. and 5:00 to 9:30 P.M. YV6RV, Valencia, Venezuela, on 46.01 meters, 6.52 mc., broadcasts from Noon to 2:00 P.M. and 6:00 to 10:00 P.M.

YV8RB, Barquisimeto, "La Voz de Lara," sends a card saying they broadcast from Noon to 1:00 P.M. and 6:00 to 10:00 P.M. They were on 5.88 mc., but recently moved to 5.90 mc. to avoid interference with HRN (R. B. Oxrieder and Ed. Schmeichel). YV9RC, Caracas, Venezuela, "Ondas Populares," on 38.31 meters, 7.83 mc., broadcasts 7:00 to 11:00 P.M. irregularly. We would like to have more details of this station. YV10RSC, San Cristobal, on 52.45 meters, 5.72 mc., broadcasts from 7:00 to 11:30 P.M. YV12RM, Maracay, Venezuela, on 47.51 meters, 6.30 mc., "Emisora 24 de Julio," sends a card saying they are on 6.30 mc. Is heard between 8:00 and 10:30 P.M. (W. Siddle).

CENTRAL AMERICANS

YNLAT, Granada, Nicaragua, on 40.00 meters, 7.50 mc. A letter from Sr. Leonidas A. Terrioria, Box 17, Granada, says he broadcasts daily from 9:00 to 10:00 P.M., E.S.T., with 15 watts power on the above wave. His identification is "La Voz del Mombacho." This letter was received by H. S. Bradley who says he hears YN2LT on 7.10 mc. working amateurs. Both are owned by Mr. Terrioria.

YNLF, Managua, Nicaragua, "La Voz del Nicaragua," has moved to 51.99 meters, 5.77 mc., and is heard between 7:00 and 10:00 P.M. (H. S. Bradley, W. Siddle and R. Rossi). YNGU, Managua, was not reported this month. They say they are on the air 1:00 to 2:30 P.M. and 6:00 to 7:30 P.M., but R. Piedras reported them last between 6:00 and 9:00 P.M. They are also on the air Sundays Noon to 1:00 P.M. The address is Box 295 and we believe they are on 32.26 meters, 9:30 mc. YNVA, Managua, on 34.72 meters, 8.64 mc., was heard using a lady announcer between 7:00 and 9:30 P.M. by Dr. Kash and O. B. Oxrieder.

HRN, Tegucigalpa, Honduras, moved to 5.91 mc. for only a day or so and then went back on 51.11 meters, 5.875 mc. They also went on standard time. They now broadcast weekdays 1:15 to 2:15 P.M. and 8:30 to 10:00 P.M.; Sundays 3:30 to 5:30 P.M. and 8:30 to 9:30 P.M. according to their own announcements. (Applegate, Murphy, Prettyman, Oxrieder, Reese, and Brady).

HRY, Tegucigalpa, on 47.24 meters, 6.35 mc. tests between 6:45 and 9:30 P.M. without regularity. Another one on 6.25 mc. called HRV was testing 11:00 to 11:30 P.M. (Chas. Miller). Reported working with HRN on 6.225 mc. at 11:00 P.M. (W. Siddle) and on 6.24 mc. (R. Rossi). A station HRW on 27.14 meters, 11.04 mc., was heard in January testing between 6:30 and 7:30 P.M. A station HRL5, Nacome, on 20.71 meters, 14.48 mc., tests with WNC, Florida, between 9:00 and 1:30 P.M.

TG2X, Guatemala City, on 50.51 meters, 5.94 mc., is still heard almost every night between 4:00 P.M. and 2:00 A.M. It is owned by the National Police of Guatemala.

TGS, Guatemala City, on 52.26 meters, 5.74 mc., broadcasts Wednesdays, Thursdays and Sundays from 6:00 to 9:00 P.M. Signed off at 8:08 P.M. once (Dr. Kash).

HP5B, Panama City, on 49.75 meters, 6.08 mc., sends out a card saying they broadcast Noon to 1:00 P.M. and 7:00 to 10:30 P.M. Once phoned W2XAF at 6:00 P.M. (Joe Childs). 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. on Sundays according to W. Vandecar. HP5F, Colon, Panama, on 49.34, or 6.08 mc., broadcasts weekdays 11:45 A.M. to 1:15 P.M. and 7:45 to 10:00 P.M. and Sundays 10:45 to 11:30 A.M. and 4:00 to 6:00 P.M.

TIRCC, San Jose, Costa Rica, on 45.81 meters, 6.55 mc., broadcasts daily 6:00 to 7:00 P.M.; Thursdays and Sundays 6:00 to about 11:00 P.M. TIEP, San Jose, on 44.71 meters, or 7.61 mc., broadcasts 5:00 to 10:00 P.M. irregularly. TIGP, San Jose, on 46.86 meters, or 6.41 mc., "La Voz del Victor," broadcasts Noon to 2:00 P.M. and 6:00 to 11:30 P.M.

TIGPH, on 51.50 meters, or 5.82 mc., and a station TIX are reported on the same wave. They are heard between 6:00 and 11:00 P.M. irregularly. TI5HH, San Roman, on 54.74 meters, 5.48 mc., "La Voz del San Roman," broadcasts between 3:30 to 4:00 P.M. and 8:00 to 11:30 P.M. TI8WS, Puntarenas, "Ecos del Pacifico," on 39.47 meters, 7.60 mc., broadcasts between 6:00 and 11:00 P.M. Cards from the station say they are on 7.55 mc. and the address is Apartado 75 (W. Siddle). TI2M, or N, San Jose, on

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ASHEVILLE, N. C.



44.90 meters, 6.70 mc., is heard between 9:40 and 11:30 P.M. It is known as "La Voz Nicaraguense," They say they are on 6.90 mc. but are heard on 6.70. Eric Butcher tells us TI4NRH is on 9.68 mc. daily 5:30 to 6:30 P.M. and Sundays 7:00 P.M. This station has not been reported in years.

XECR, Mexico City, on 40.65 meters, 7.38 mc., is broadcasting from 7:00 to 8:00 P.M. Sundays and some Sundays start at 6:00 P.M. XEXA, Mexico City, on 48.55 meters, 6.18 mc., sends out a card saying they broadcast from 3:00 to 5:00 P.M. and 7:00 to 11:00 P.M. It is owned by the Secretary of Public Education. XBJQ, Mexico City, on 27.26 meters, 11.00 mc., has been testing with amateur stations almost all hours of the day with no degree of regularity. Many report it.

XEFT, Veracruz, on 49.02 meters, 6.12 mc., "La Voz de Veracruz," sends out a card giving the address as Avenida Independencia 28 and giving the schedule as daily 11:00 A.M. to 4:00 P.M.; Sundays 9:00 P.M. to 12:30 A.M.; Saturdays 6:30 P.M. to 12:30 A.M. and other days 7:30 P.M. to 12:30 A.M. (Carlos Lopez Ona).

XEUW, Veracruz, on 49.83 meters, 6.02 mc., sends out a card giving their address as Avenida Independencia 98 and the schedule as 8:00 P.M. to 12:30 A.M.

XEVI, Mexico City, on 50.17 meters, or 5.98 mc., sends out a new schedule. It is Monday and Wednesday 3:00 to 4:00 P.M.; Tuesday and Friday 7:30 to 8:45 P.M. and 10:00 P.M. to Midnight; Saturday 9:00 to 10:00 P.M. and Sunday 1:00 to 2:15 P.M.

XFA2, Veracruz, on 45.52 meters, or 6.60 mc., is on 6.54 mc., according to W. Siddle and it is heard between 7:30 and 8:15 P.M.

XEME, Merida, Yucatan, Mexico, on 36.65 meters, 8.19 mc., sent word to W. Siddle that they broadcast 9:00 A.M. to Noon and 5:00 to 11:00 P.M., but sent another to Charles Miller saying 10:00 A.M. to 3:30 P.M. and 5:30 to 11:00 P.M.

XLC, on the President's train, car number 5, was heard on 33 meters one Monday, no time given (W. Chambers). A station XDR on 9.40 mc. was phoning XAM at 7:10 P.M. and a station on this frequency was broadcasting a program in English announcing "Radio Nacional de Mexico," at 9:45 P.M. (W. Siddle). A station XEOK at Tiaguana on 6.135 mc. at 8:30 P.M. was broadcasting (W. Sparks). A station XDIB, Mexico City on 9.43 mc. was phoning XAM at 3:45 P.M. (Ed. Schmeichel).

WEST INDIES

HIT, Trujillo, Dominican Republic, on 45.25 meters, 6.63 mc., broadcasts nearly every night between 5:30 and 10:00 P.M. They come in best around 7:00 to 8:00 P.M. This station was once called H16F. Their identification is "La Voz del RCA Victor, la Habla a la Nacion." The address is Apartado 1105. We have reports from members Siddle, Butts, Flagg, Miller, Coleman, Chavez, Butcher, Rossi, Brady, Gensheimer, Grey, Schmeichel, Soloito, Piedras, Oxrieder.

HIG, Ciudad Trujillo, Dominican Republic, on 47.77 meters, 6.28 mc., is another new station. Heard on 6.26 mc., from 9:00 to 10:00 P.M. (H. S. Bradley); on 6.29 mc. from 8:00 to 9:30 P.M. (W. Siddle); on 6.61 mc.

signing off daily at 8:00 P.M. (Dr. R. Kash); on 6:28 mc. from 1:00 to 2:00 P.M. and 4:10 P.M. (H. J. Davison); and on 6.28 mc. between 5:00 and 9:30 P.M. (Ed. Schmeichel and S. Solito).

HI L, Trujillo, on 46.13 meters, 6.50 mc., say they are on 46.00 meters with 5 watts power daily from Noon to 2:00 P.M. and 6:00 to 8:00 P.M. Dominican Time, twenty minutes ahead of E.S.T. (W. Siddle). Address is box 623 (E. Butcher).

HI Z, Trujillo, on 47.50 meters, or 6.31 mc., broadcasts 5:30 to 9:30 P.M., but sometimes tests until 11:30 P.M. HI X, Trujillo, on 50.17 meters or 5.98 mc., sends a card saying they broadcast Sundays 7:40 to 10:40 A.M., and daily 11:40 to 12:40 P.M. and 4:40 to 5:30 P.M. Also Tuesdays and Fridays from 8:10 to 10:10 P.M.

HI 4D, Trujillo, "La Voz de Quisqueya," say they are on 46.25 meters from 11:55 A.M. to 1:40 P.M. and 4:40 to 7:40 P.M. We have them listed on 45.50 meters or 6.61 mc., and Chas. Eggenweiler reports them on that wave working Panama once at 12:10 A.M. R. B. Oxrieder says they are on 6.56 mc.

HI 4V, Trujillo, "La Voz de la Marina," on 46.51 meters, 6.45 mc., say they broadcast 11:40 to 1:40 P.M. and 5:10 to 6:40 P.M. Heard signing off at 9:50 P.M. with Stein Song (W. Siddle); signing off at 7:40 P.M. (Dr. Kash); on 6.48, not 6.56 mc. (R.B. Oxrieder); on 46.21 meters (R. Brady); on 6.45 mc. from 1:55 to 2:30 P.M. (H. J. Davison); on 6.45 mc., address is Apartado 824 (Dr. Kash and Chas. Miller).

HI 9B, Santiago City, D. R., on 49.60 meters, 6.045 mc., on the Mercedes Hotel is reported broadcasting irregularly at 10:40 A.M.; 6:00 to 9:00 P.M.; Midnight to 1:30 A.M.; 5:00 to 6:00 P.M. by members Flagg, Rossi Brady, Oxrieder and Lopez Ona.

HI 1A, Santiago de los Caballeros on 48.50 meters, 6.19 mc., say they broadcast 11:40 A.M. to 1:40 P.M. and 7:40 to 9:40 P.M. The address is Box 423. A station HI 3U in Santiago City on 47.02 meters, 6.383 mc., "La Voz de Comercio," say they are on this wavelength, but gives no schedule (C. Lopez Ona). Heard at 1:00 P.M. (H. J. Davison); between 6:30 and 10:05 P.M. (W. Siddle), and between 5:00 and 6:00 P.M. (C. Miller).

HI 1J, San Pedro de Macoris, on 51.15 meters, 5.86 mc., sends a card saying they broadcast daily 12:30 to 2:00 P.M. and 6:30 to 9:00 P.M. The address is Box 204 (Ralph Brady). HI H in the same city on 44.12 meters, or 6.81 mc., say they broadcast daily 7:30 to 9:00 P.M.; Sundays 3:00 to 4:00 A.M. and 4:15 to 6:00 P.M. Reported between 6:00 and 8:00 A.M. by members W. Siddle, G. Van Honk and H. P. Genshiemer.

HI 1S, Puerto Plata, "La Voz de Hispanola," on 46.73 meters, 6.42 mc., sends a card saying they broadcast daily 11:40 A.M. to 1:40 P.M.; 5:40 to 7:40 P.M. and 9:40 to 11:40 P.M. They have English programs Tuesdays and Fridays from 7:10 to 7:40 P.M. (W. D. Flagg).

HI 5M or N, Trujillo, "La Voz del Alemacen," on 48.92 meters, or 6.13 mc., broadcasts irregularly between 5:00 and 9:00 P.M. using an eight note chime as an identification. Was also heard between 6:00 and 7:00 A.M. a few times. HI 8A, Trujillo, on 6.67 mc., testing near 11:00 P.M. was reported. HI 8Q from 6:30 to 7:30 P.M. no wave given (R. Brady). HI 7P, Santiago City, on 6.80 mc. announcing "Emisora Comercio," was

heard 6:00 to 8:30 P.M. (Robert Rossi) and reported on 43.6 meters at 7:00 P.M. (W. Siddle). A station HI6Z, Trujillo, on 6.38 mc., was reported last month at 7:00 P.M. E. Butcher reports it on 6.24 mc., so they must be roaming the dials. HIIC on 6.75 mc. was reported by Charles Miller at 11:00 P.M. HI5X, an amateur on 21 meters is heard by many.

WPT, San Juan, Puerto Rico, a telephone station on 22.50 meters, or 13.34 mc., tests irregularly with WNC around 9:30 A.M. (Arthur Lunn). Heard on 21.90 meters, 13.70 mc., from 2:00 to 2:30 P.M. (Ralph Brady).

VR4R, Stony Hill, Jamaica, on 25.87 meters, or 11.595 mc., still tests with WNC irregularly. Heard at 5:45 P.M. (W. F. Herzog); at 10:00, 11:00 and Noon (A. Lunn); at 10:15 P.M. (C. Lopez Ona); and at 5:25 P.M. (W. Chambers).

HH3W, Port-Au-Prince, Haiti, broadcasts on 31.27 meters, 9.595 mc., with 30 watts power daily from 1:00 to 2:00 P.M. and 7:00 to 8:30 P.M. C. Ricardo Widamair is the owner and the address is Box A 117. Ralph Brady, W. Siddle, Charles Miller and Carl Eder have cards from them. Also reported by members H. J. Davison, E. Schmeichel, Mrs. Heglund, J. B. Wotten, Charlie Nabours, Dr. Kash, W. Chambers and W. Vandecar; nearly all of whom heard it as late as 9:00 and 10:00 P.M. in spite of the schedule shown above. Mr. Davison reports it at 4:00 P.M. also.

HH2S, Port-Au-Prince, Haiti, broadcasts on 50.85 meters, 5.91 mc. nearly every night between 7:30 and 10:30 P.M. Has been heard signing off at 9:55 P.M. (E. Butcher) and at 10:45 P.M. with the Swan Song (A. Fowler) and heard at 4:00 P.M. (H. J. Davison). The address is Box A 103. Verifications say they have 100 watts (W. Siddle and Carl Eder). Was also reported on 9.53 to 9.58 mc. in January but not in February by one member.

ZFD, Hamilton, Bermuda, on 29.03 meters, 10.335 mc., relayed the funeral services of the late King George between 8:00 and 9:20 A.M. (A. Lunn, Jr.)

COKG, is the new call-sign of station CO9GC, Santiago, Cuba, on 48.79 meters, 6.15 mc. They broadcast nearly every day now from 8:00 A.M. until 11:00 P.M., with a few minutes out now and then. This station is heard in Europe now with excellent quality. Cards from the station announce the new call-sign. Carlos Lopez Ona of Havana says the station on 24.39 meters is positively not a harmonic of this station, but is CO9PC or CO9KC, owned by the same people as COKG, The Grau Bros. Anyhow, it is heard relaying the same programs at the same time. We must thank members Grey, Van Aken, Flagg, Schmeichel, Coleman, Rossi.

CO9WR, Sancti Spiritus, Cuba, has moved to about 47.69 meters or 6.29 mc. They were on 25.4 meters. The schedule is 4:00 to 6:00 P.M. and 9:00 to 11:00 P.M. The change is reported by members Rossi, Kash, Oxrieder, Miller and Solito.

COCO, Havana, on 49.90 meters, 6.01 mc., broadcasts 9:30 A.M. to 12:30 P.M.; 4:00 to 7:00 P.M. and 8:00 to 10:00 P.M. with a special English program Saturdays 11:30 P.M. to 2:00 A.M. COCD, Havana, on 48.92 meters, or 6.13 mc., is heard between 5:00 P.M. and 1:00 A.M. CO9JQ, Camaguey, Cuba, on 34.62 meters, 8.66 mc., broadcasts 5:30 to 6:30 P.M. and 8:00 to 9:00 P.M.

ASIA

JZB and JZC. A letter from the Manchurian Telegraph and Telephone Company says they use the call TDE on 29.80 meters, 10.065 mc. It is listed as JZB. They also show a TDD on 5.83 mc. where we list JZC. Ashley Walcott has this letter. JZB was heard from 2:15 to 3:00 A.M. (D. Gross) and at Midnight (W. Sparks) phoning Japan. JZC was heard at 6:00 A.M. (E. Schmeichel). H. S. Bradley tells us the address is Kan-joshi Station, Manshu Denshin Denwa Kaisha, Ltd., Shinkio (Hsinking) Manchukuo.

JIB and JIC. A station JIB on 28.49 meters, or 10.53 mc. at Taiwan phones Japan around 1:00 to 1:45 A.M. (S. Solito) and around 6:00 A.M. (E. Schmeichel). JIC was on 50.93 meters, or 5.89 mc., phoning from 5:30 to 5:45 A.M. (Schmeichel). H. S. Bradley says he has a letter showing the address as Kokusai Denwa Kaisha, Ltd., Tyureki, Taiwan, Japan.

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

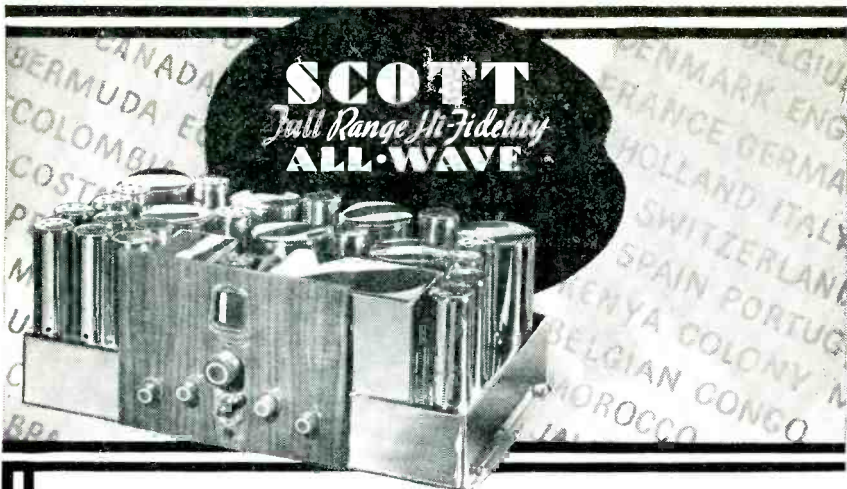
JVA—15.86 m. (18.91)	JVB—15.63 m. (18.19)	JVC—16.05 m. (18.69)
JVD—18.91 m. (15.86)	JVE—19.15 m. (15.66)	JVF—19.20 m. (15.62)
JVG—20.12 m. (14.91)	JVH—20.55 m. (14.60)	JVI—22.12 m. (13.56)
JVJ—24.44 m. (12.27)	JVK—24.96 m. (12.02)	JVL—25.73 m. (11.66)
JVM—27.93 m. (10.74)	JVN—28.14 m. (10.66)	JVO—28.93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

Stations JVN and JVM broadcast a program every Tuesday and Friday between 2:00 and 3:00 P.M. JVN and JVP broadcasts every Monday and Thursday from 4:00 to 5:00 P.M., while JVP may also be heard broadcasting the Tuesday and Thursdays programs at times. JVE was heard phoning around 7:00 P.M. JVM was also heard phoning between 1:00 and 7:00 A.M. JVT relayed the funeral services of the late King George. JVF was heard at 12:30 A.M. JVD was reported at 10:30 P.M., 8:30 P.M. and 7:00 P.M. JVL was heard between 10:00 P.M. and 1:00 A.M. A station JYS on 9.84 mc. was also heard between 1:30 and 2:00 A.M.

VUB, Bombay, India, on 31.36 meters, or 9.57 mc., say they broadcast Sundays 12:30 to 1:30 P.M.; Thursdays and Saturdays 11:30 A.M. to 12:30 Noon.

ZBW, Hong Kong, on 34.29 meters, or 8.75 mc., is still broadcasting on this wavelength. It is heard in the U.S.A. between 3:00 and 7:00 A.M. and in the west until 10:30 A.M. Many heard it last month.

China. A station XGO, Nanking, on 39.85 meters, or 7.58 mc., is supposed to broadcast daily 8:00 P.M. to Noon the next day. This was reported by the Chinese Consul, and not heard (A. B. McDonough). XGC, Shanghai, on 33.01 meters, 9.09 mc., tested with London phones twice between 2:00 and 2:45 A.M. (F. Karpen). XGW, Shanghai, on 28.79



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meters, 10.42 mc., phoned JVE between 1:10 and 3:00 A.M. (Chas. Eggenweiler). XGN, Shanghai, on 17.00 meters, 17.64 mc., phoned London around 7:00 A.M. often.

Two members report a station AFH, Kabul, Afghanistan, on 50.8 meters but neither give any details. One also says there is a station AFK on 30.9 meters. We want positive proof of these stations being on voice.

HSH, Bangkok, Siam, on 29.80 meters, 10.07 mc., was heard at 10:00 A.M. asking for reports (A. B. McDonough). On 10.06 mc. sending music at 10:00 A.M. (Wm. Sparks). Station HSP, same city, on an announced wavelength on 16.92 meters, 17.75 mc., phoned at 5:30 A.M. (W. Woodall).

RV15, Khabarovsk, on 70.65 meters, 4.25 mc., is heard on the pacific coast of the U.S.A. by many. Charles Eggenweiler says his verification came from Comite de Radiodiffusion et Radiofication, Petrovka 12, Moscow.

CQN, Macao, Portuguese China, has 300 watts power on 31.00 meters, 9.665 mc., broadcasting Mondays and Fridays from 7:00 to 8:30 A.M. (Virgilia Lopez Correia, Macao, and A. Kindell, New Zealand).

KYA, Manila, Philippines, on about 7:00 mc. one Sunday is reported by Mr. McDonough, also a KA1 near 19 meters testing with Japan at 8:00 P.M. A station KBB, Manila, on 34.48 meters, 8.70 mc., at 7:00 A.M. was reported. KTP on 8.12 mc., KTR on 10.91 mc., and a KAX on 19.98 mc. phoning almost daily is reported by W. H. Jessen. KBB at 6:00 to 7:00 A.M. is reported by F. Karpen. A station KZGF on 5.805 mc. was mentioned in our last issue between 3:00 and 5:00 A.M. phoning.

Java. Station PMA on 15.50 meters, 19.35 mc., was reported at 7:15 A.M. PLE on 15.93 meters, 18.83 mc., was logged between 6:58 and 7:50 P.M. Station PLP on 26.26 meters, 11.00 mc., was broadcasting several Sundays around 6:00 to 8:00 A.M. (R. Rossi, R. Brady, H. Howe). PMN on 29.25 meters, 10.26 mc., also was heard sending music around 8:00 to 10:00 A.M. Sundays. PLV and PMY were not reported. PNI, Makasser, on 34.19 meters, 8.77 mc., was heard at 3:44 A.M. (W. Chambers). A station PLI on 19.947 meters, 15.04 mc., was heard by F. Karpen between 6:00 and 8:00 A.M. testing with Holland. This is a new station.

YDB, Sourabaya, Java, on 31.10 meters, 9.65 mc., was reported broadcasting at 8:00 A.M. daily (Dr. Pugh); on 9.58 mc. from 9:00 to 10:00 A.M. (A. Balbi); on 31.00 meters from 6:00 to 7:30 A.M. (R. Brady); on 9.65 mc. between 10:00 and 10:20 A.M. signing oc daily (H. Howe); on 9.65 mc. from 8:00 to 10:00 A.M. (W. Sparks); on 9.65 mc. (G. C. Gallagher); and a card says 9.65 mc. (Shokichi Yoshimura). A station F3ICD was reported on 31.50 meters at 5:40 P.M. testing, by W. Vandecar, but we believe this is YDB.

AUSTRALIA

VK3ME, Melbourne, Australia, on 31.55 meters, 9.51 mc., broadcasts weekdays 4:00 to 7:00 A.M. now (H. P. Gensheimer).

VK2ME, Sydney, on 31.28 meters, 9.59 mc., will broadcast Sundays from 1:00 to 3:00 A.M.; 5:00 to 9:00 A.M., and 9:30 to 11:30 A.M. during March and April.

VK3LR, Melbourne, on 31.31 meters, or 9.58 mc., broadcasts daily 3:15 to 7:30 A.M., but may be heard between 10:30 P.M. and 3:00 A.M. irregularly. They test with Switzerland Mondays 2:45 to 3:10 A.M. (Hayward).

VK2DL, Canterbury, Sydney, operated by W. Phelps of 14 Watkins Street, broadcasts from 7:00 to 9:00 P.M. Wednesdays and Sundays on 41.1 meters, 7.30 mc. (A. B. McDonough).

VPD, Suva, Fiji Islands, on 22.95 meters, 13.075 mc. broadcasts between 12:30 and 1:30 A.M. irregularly now.

Radio Oceania, Papeete, Tahiti, was on 48.94 meters, 6.13 mc., from 11:10 to 11:30 P.M. (H. S. Campbell). Was heard on 42.25 meters, 7.10 mc., Tuesdays and Fridays from 11:00 P.M. to Midnight (W. Turpin).

AFRICA

SUX, Cairo, Egypt, on 38.06 meters, 7.86 mc., phones England around 4:00 to 6:00 P.M. SUV, Cairo, on 29.83 meters, 10.05 mc., phones around 1:00 to 5:00 P.M. SUZ, Cairo, on 21.70 meters, 13.83 mc., phones around 11:00 A.M. to 1:00 P.M. IDU, Asmara, Eritrea, on 22.40 meters, 13.38 mc., phones Rome between 7:00 and 11:00 A.M. OPL, Leopoldville, Belgian Congo, on 14.97 meters, 20.04 mc., phones Belgium around 11:00 A.M. to 1:00 P.M. OPM, same city, on 29.58 meters, 10.14 mc., phones Belgium around 2:00 to 3:00 P.M. and reported at 2:30 A.M. (W. Chambers).

Ethiopia. At least 300 members have received cards from Addis Ababa, saying they have ETA on 16.42 meters or 18.27 mc.; ETB on 25.09 meters or 11.955 mc; ETD on 39.37 meters or 7.62 mc. and ETG on 51.02 meters or 5.88 mc. ETA is used between 7:00 A.M. and 1:00 P.M. ETB is used from 1:00 A.M. to 6:00 P.M. Most of the time they use code, but sometimes they are heard using speech. For some time a special program was sent over ETB on Wednesdays at 4:50 P.M. Inguar Gulberg, Hedemora, Sweden, has a card saying that the Italians at Asmara, Erytrea, have stations on these same frequencies, IDX on ETA and ETG, and ICY on the same waves as ETB and ETD. These must be code stations.

VQ7LO, Nairobi, Kenya, on 49.31 meters or 6.08 mc. broadcasts from 5:45 to 6:45 A. M. weekdays, from 8:30 to 9:30 A. M. Tuesdays and Thursdays and 11:30 A.M. to 2:30 P.M. daily. Saturdays 11:00 A.M. to 3:00 P.M. and Sundays 11:00 A.M. to 2:00 P.M. (J. Edwards and T. Purvis).

EA8AB, Santa Cruz, Tenerife, Canary Islands, on 41.60 meters or 7.21 mc., say they broadcast Mondays, Wednesdays and Fridays 3:15 to 4:15 P. M. (H. S. Bradley). A station EA8AF, an amateur station on 21.40 meters or 14.03 mc. was reported between 3:00 and 5:00 P.M. talking with other amateurs by no less than forty members.

EDR3. W. Chambers has a letter from Spain saying that EHY, Madrid and EHZ phones a station EDR3, El Tablero, Canary Islands, between 3:30 and 4:00 A.M. EDR3 is on 28.93 meters or 10.37 mc. and he reports them at 3:37 A.M. Ed. Schmeichel reports an EAK, San Lorenzo, Canary Islands, on 35.13 meters or 8.54 mc. phoning Madrid between 4:10 and 5:00 P. M.

NORTH AMERICAN

NX2Z, Hochstetter, Greenland, a U. S. Navy station, has been testing with amateurs on 21.41 meters or 14.01 mc. (R. Stuart, W. F. Herzog, H. S. Bradley, S. Solito and F. Karpen).

VE9CA, Calgary, Canada, "The Voice of the Prairies," relays CFCN week-days 6:00 A.M. to noon and 7:00 P.M. to midnight and Sundays 2:00 P.M. to midnight (W. Jessen). Reported by G. Gallagher, W. Sparks and E. Houlgate.

Goderich, Ontario, on 50.00 meters or 6.00 mc. still has no call-sign. They say they have 50 watt power and broadcast around 1:00 to 3:00 A.M. Sunday mornings (Joe Childs).

CJRO, 48.85 meters or 6.14 mc. and CJRX on 25.60 meters or 11.72 mc. are supposed to broadcast from 8:00 P.M. to midnight. Reported daily 6:00 P.M. to midnight and Sundays 3:00 P.M. to midnight (. W. H. Jessen) and reported starting at 7:00 P.M. daily (H. J. Davison).

VE9BK, Vancouver, Canada, owned by the Radio Sales Service, 780 Beatty Street, on 62.56 meters or 4.80 mc., works daily 11:30 to 11:45 A.M., 3:00 to 3:15 P.M., 8:00 to 8:15 P.M., Saturdays 7:30 to 7:40 P.M., Mondays, Wednesdays and Fridays, 7:30 to 8:00 P. M. (W. Turpin).

W1XAL, Boston, Mass., on 25.42 meters or 11.79 mc. and on 49.67 meters or 6.04 mc., sends out a program schedule each month, but does not operate strictly on this schedule. You may run into them most any time of the day or night on these waves, although the schedule does not say so. Reports of a dozen members prove this.

W2XE, Wayne, New Jersey, relaying WABC, New York City, has made another change, keeping their average of a change each month up-to-date. They announced three schedules during February, the latest one being as follows. On 21.52 mc. 7:30 to 11:00 A.M. On 17.67 mc. 11:00 A.M. to 1:00 P.M. On 15.27 mc. 1:00 to 3:00 P.M. On 11.83 mc. 3:00 to 10:00 P.M. On 6.12 mc. 10:00 to 11:00 P.M. (H. J. Davison).

W9XAA, Chicago, Illinois, on 25.36 meters or 11.83 mc. has been on the air for several weeks. They seem to be relaying WCFL from around 10:00 A.M. to 5:00 or 6:00 P.M. (R. B. Oxrieder, Alan Teague, Dr. Pugh, Ed. Houlgate, W. F. Herzog, Joe Childs, W. H. Jessen, F. Grey, H. J. Davison, H. Slough and F. Karpen.)

Alaska. Station WVD, Seattle, Washington, works a number of Alaskan phones. W. Sparks, San Francisco, reports WXE, Anchorage, on 5.97 mc. at 8:00 P.M.; WZA, Kodiak on 4.13 mc. at 10:30 P.M.; WXH on 2.604 mc. at 1:50 P.M.; KMYB, a ship on 4.61 mc.; KYMA, Juneau and KBAI, Juneau, on 4.61 mc. and WXA, Juneau, on 8.05 mc., all on voice WXE on 6.475 mc. at 2:00 A.M. is reported by H. Slough.

Hawaii. Station KIO on about 25.63 meters or 11.71 mc. is heard sending music and testing around 6:00 P.M. and as late as midnight. KKH on 39.89 meters or 7.52 is heard just about every night around midnight relaying some program.

CFU, Rossland, B. C., Canada, on 52.57 meters or 5.705 mc. is reading news dispatches at 8:30 P.M. every night (A. Fowler, R. Leeder, W. Cham-

bers, G. Gallagher and W. Siddle). A card gives the above wavelength and says they have 500 watts power. Other cards and letters have said 52.97 meters or 5.66 mc.

VE9DN, Drummondville, Canada, on 49.96 meters or 6.005 mc. broadcasts every Saturday night starting at 11:30 P.M. VE9HX, Halifax, N. S., Canada, on 49.10 meters or 6.11 mc. say they broadcast 10:30 A.M. to 2:30 P.M., 6:00 P.M. to midnight Mondays to Fridays, Fridays 2:00 to 9:00 P.M. and Saturdays 3:00 P.M. to midnight. VE9CS, Vancouger, B. C., Canada, on 49.40 meters or 6.07 mc. broadcasts daily 6:00 to 7:00 P.M. and Sundays 1:45 P.M. to 1:00 A.M. next day, (they say). CZ5M and CZ5K, Canadian aircraft stations were heard announcing their frequency as 4.86 mc. between 4:30 and 5:00 P.M. (Ed. Houlgate). Station CJA4 on 26.29 meters working London between 2:30 and 3:00 P.M. once, is a new station reported by R. Brady.

W8XAI, Rochester, N. Y., is on 9.5 meters or 31.6 mc. from 7:30 A.M. to 12:08 the next day, for those that have ultra-short wave sets (Chas. Durand). Many phone stations in the U. S. A. have been reported. Those using the call W2XBJ are at Rocky Point, New York, and are owned by the R. C. A. They do not verify. A. Centanino, says WON on 30.40 meters sends a special program to France every Wednesday at 6:00 P.M. L. L. Groves reports a station DO1 on 6.265 mc. between 2:55 and 4:00 P.M. testing with Mitchell Field. This is army aircraft.

WITH THE REPORTERS

Putting the news in one section and the people that sent in reports in another makes the magazine much better, as it makes it easier to get to the news. We take this opportunity of thanking the members whose names appear in this section. Without the help of these members, we would not be able to keep our magazine up-to-date.

F. A. Beane, Ridgewell, England, sends reports on stations LZA, PCJ, XBJQ, CO9GC, VP3MR, HCK, HJ2ABD and LSX. Reginald Greenland of Barnsley, England, reports PMN, VP3MR, CO9GC, CRCX and 2RO. B. W. Castle, Bournemouth, England, reports HJ4AC. Robt. Hughes, in Trowbridge, reports WIXAL, W2XE, H11, VP3MR, PHI, P111, and SPW. Miss R. C. Hall, North Waltham, England, sends the schedule of VQ7LO. I. Stapleton, Teverton, reports 2RO on 49 meters. L. Smith, London, reports CO9GC and 2RO. E. Browell, Wallasey, reports ETB, VQ7LO, VP3MR, TFJ, DFD, DFL VVY, and JVP.

T. Purvis, Selkirk, Scotland, reports W1XAL, OER2, HBO, CO9GC, PMA, DJP, and HB9B. Abbey Anderson of the same city sends news on VE9DN, TIPG, HBO, HRJ, VK2ME, VP3MR, CO9GC, and a new Madrid station. Thomas Simpson, Leven, Fife, Scotland, reports SPW, JVM, 2RO, and CO9GC. A. J. Hayward, Trowbridge, England, reports VP3MR, VK4LR, DJI, DJL, DJP, DZH, 2RO, PLP, W2XAF, W3XAL and WOA. Frank Henning, Worthing, England, reports CEC, PRF5, VK2ME, PMN and CO9GC. John Edwards, Manchester, reports VQ7LO and CO9GC. W. L. Woodall, Birmingham, reports IRT, IAC, AFH, HSP, W9XBS, TIGP,

TI5HH, TG2X, HI5N and OCJ. L. E. Church, Huddersfield, England, reports VP3MR, OER, CO9GC and many U. S. A. stations.

A. B. McDonough, Wellington, New Zealand, reports KYA, DZA, VK2DL and HSH. Shokichi Yoshimura, Moji, Japan, reports CQN, PLP and YDB. Ch. Gilbert, Deuville, France, reports the new LZA. L. J. Niederle, Prah, Czechoclovakia, reports LZA and some ships. Ian Morgan, Montreal, Canada, reports ICK, HJU, IAC, HRW, DJI, HIC, HP5F, HRY, HH2S, ETB, DZA and DZC. Elward Houlgate, London, Ontario, reports WEM, WEL, VE9CA, CZ5M, CZ5K, W9XAA, Pontoise, LRX and CFU. Fred Baines, Cape Breton, N. S., Canada, reports RNE, DJI, JVN, JVT and DZB. Harley Slough, Cancouber, B. C., Canada, reports DZC, DFC, ZBW, W9XAA, WXE, LRU, VIZ3, TYB2, R1R, R1O and others.

H. J. Davison, Bayamon, Puerto Rico, sends helpful news on HI3U, HI4V, HIG, LRU, LSL, PRF5, LSX, CJRX, HH3W, HH3S, W9XAA. Robt. Peidras, Havana, Cuba, helps with HJ4ABC. Carlos Lopez Ona, Havana, reports HI1A, HI9B, KEE, HCJB, HJP, CO9GC, HH2T, YV8RB, XEVI, XEER, HI3U, XEFT, CO9KC, VRR4 and ORK.

Several members sent in long lists of stations they have heard in the past year or two. Such lists can not be published here. What we want is news of new stations, stations changing wavelengths or schedules, addresses of stations not already printed, and information on the time certain stations can be heard. We are not publishing a complete list of all the stations reported by these people mentioned here. We are mentioning the stations they have helped us with.

H. S. Bradley, Hamilton, N. Y., helps with news on FYC. HJ2ABD, HIG, HJ3ABD, YNLF, PCV, NX2Z, HCJSB and YNLAT. R. B. Oxrieder, State College, Pa., reports many stations including HRN, HH3W, CTIAA, DZB, CB960, HJP, HJ3ABD, W9XAA, HIT, HI9B, HI1S, HKV, YV8RB, YNVA, HI4D, HI4V, and CO9WR. Russell Leader, San Francisco, reports LRU, XEER, PLE, K1O, LSX, WVD, PRF5 and CFU. Don Gross, Asheville, N. C., reports KKH, JZB, and TFS.

Dr. J. S. Pugh Dallas, Texas, reports HRN, YDB, LSX, CEC, KKQ, XEUW, and W9XAA. Robert Rossi, Philadelphia, sends much news. He reports CB960, HI9B, HRV, HIT, HI3U, LRX, YNLF, HI7P, HJ3ABD, EA8AF, CO9GC, CO9WR, PLP, OER2, SPW. Eric Butcher, Cokeville, Wyoming, helps with PZH, T18WS, HIX, T14NRH, HRY, TGS, JVP, LRU, H16F, YDB, HI1S, WXE, WXA, HH2S, HJU, CB960 and HIT. Wilfred Siddle, Birmingham, Alabama, reports TYV, RNE, ETB, HRV, XEME, XDR, XFA2, T18WS, YNLF, HH3W, HH2S, HIL, HIG, HI4V, HIH, HI1S, HI3U, HJ1ABG, HK1ABM, HC1PM, HCK, HC2CW, YV12RM, ORK, CFU, CE960 and HIT.

Dr. R. C. Kash, Sevierville Tennessee, reports HIG, HI4V, OER2, TFI, LKJ1, HC2RL, YNVA, CO9WR, HH3W, HJ4ABB, HIC, TGS, W4XB, CB960, HIT and TI5HH. Charles Eggenweiler, Los Angeles, Calif., reports RV15, RIO, XGW, DIQ, DIP, HI4D, HH3W and JYS. George Van Honk, Erie, Pa., reports RNE, LRU, Pontoise, JVT, JVN, and HIH. W. F. Herzog, Center Moriches, New York, reports VRR4, YV5RMO, DJE, NX2Z, HBL, CO9GC, and W9XAA. Arthur Lunn, Jr., Maplewood, New Jersey, reports RNE, RKI, VRR4, SPW, WPT, ZFD, OPL, LRU, TYA and FTH.

Edward Schmeichel, Chicago, Illinois, reports JIB, JIC, JVN, JZC, JVN, JZC, HIT, HIG, COGK, HH3W, ZSS, EAK, TYA2, Pontoise, YBG, IRW, ZBW, CB960, HJU, HJ1ABC, YV8RB, and YD1B. Wm. Sparks, San Francisco, reports VIZ3, VPD, HSH, ZBW, RIB, JIB, DZH, TIGPH, WXE, CO9GO, XEXA, XEOK, VE9CA, WXH, many Japanese and many aircraft stations.

Sam Solito, Leetsdale, Pa., reports CNR, SUZ, IDU, FVA, DZA, DJM, TYA2, PRA8, YV8RB, VP3MR, LRX, HJU, HJ4ABP, HJ3ABD, HJ4ABC, CB960, HJ2ABD, HIT, HIG, HI1S, CO9WR, H13U, HH2S, HH3W, HRN, HP5F, XEVI, W9XAA, NX2Z, HJ5N, JIB and LRU. G. C. Gallagher, San Francisco, Calif., reports many Japanese, several Manila stations, RIO, RIR, RNE, LRK, HJ4ABP, CB960, HJUP, HIZ, W2XBJ and some Canadian stations. Hyman Cohen, New York City, reports DFL, TIPG, W2XBJ, GFWV, WIF, PPH, WDT, ERZ, OCH, EAM and others.

Fred Karpen, Johnstown, Pa., reports RRR, ROU, KBB, XGC, JVD, CQN, PLI, SPW, DJS, HBO, OER2, LRU, CB960, HJ3ABD, W9ABD, W9XAA, VQ7LO, NX2VF. F. Billings, Brighton, Mass., reports CEC, HH3W, and others on schedule. George Feldrik, Cleveland, Ohio, reports TVJ, HIT, HRN and several regulars. Joseph Miller, Brooklyn, N. Y., reports ZBW, OPM, EA8AF, and many amateurs. H. J. Davison, Jr., Fond Du Lac, Wisc., reports HP5J, HRN, HJN and many regulars.

Charles Dutrow Washington, D. C., reports SPW and DZA. Ernest Reese, Niagara Falls, N. Y., reports HRN, Elmer Applegate, Newburgh, N. Y., reports RHN. A. Centanino, Freeport, Pa., reports WON and Pontoise. Robt. Stuart, Allentown, Pa., reports JVN and NX2Z. Enrico Scala, Jr., Bronx, reports ETB and Germany. Mills Van Bergen, Syracuse, N. Y., reports LSX and LRU. Charles Nabours, Cameron, Texas, reports HH3W. Wm. Patton, Old Westbury, N. Y., reports HRN and JVN. A. E. Arana, San Juan, Puerto Rico, reports DJM and LRU. Fred Atherton, of Vermont, reports YV2RC and HRN. James Coleman, Brooklyn, reports HIT, ZFA and CO9GC.

Charles Miller, Covington, Ky., reports TYA, RIM, RKI, HRV, HIIC, XEME; FTK; H13U; IAC; SPW, JVE, HIT, CB960, PRA8, H14V, HH3W, HCJB, HC2CW, HJY, TYA2, CO9WR, and HJ3ABD. Wade Chambers, Tulsa, Oklahoma, reports RIO, RNE, DJJ, FYA, HBO, OPM, OPL, CNR, EHZ, JVN, PNI, PLE, LSX, LSI, PSH, PSA, HKV, HH3W, HP5J, COP, HJY, VRR4, XBJQ, CFU, EHZ and XLC. W. H. Howe, Tucson, Arizona, reports YDB, PLE, several Japanese, ZBW, VPD, KIO, KKH, DJR, DJC, HAS3, HAT4, LRU, LSX, LSL, W2XE, VE9BK and RV15. Emmett Ruggle, Massillon, Ohio, reports VP3MR, ZLT, ZBW, ZBJ and ETB.

Wm. Vandecar, Grand Rapids, Mich., reports 2RO, HRW, HH2S, and HP5J. Joe Childs, Philadelphia, reports W9XAA, WWAV, H14D, Gode-rich and HP5B. Robert Pielra, Havana, Cuba, reports YNGU, HIT and YV4RC. Frank Grey, Berwyn, Illinois, reports ZLT, COGK and W9XAA. Guy Bigbee, Fort Benning, Georgia, reports HJ4ABC and CEC. James B. Wooten, Mobile, Alabama, reports HBO, HH3W, WOF, CT1AA, DFC and DZC. Dr. W. J. Whitaker, Pryor, Oklahoma, reports JVN, JVM and KKH. L. L. Groves, Somersville, Mass., reports army planes on 6.465 mc. Alden Fowler, Greensburg, Indiana, reports HH2S, XEUW, HBO, CFU and HRN.

W. D. Flagg, Holyoke, Mass., reports COKG, HIT, HI9B, HC2JSB, HRN, CT1AA, XERA, HJ4ABC and YV8RB. Alan Teague, Millington, Michigan, reports W9XAA and W1XAL. V. J. Fitzsimmons, Jersey City, reports VP3MR and HBO. August Balbi, Los Angeles, reports HAS3, LRX, LRU, DJP, R1R, RIO, XEUW, HJU, YDB, CB960 and many Japanese. Ralph Brady, Brooklyn, reports WPT, HH2S, HI9B, H18Q, H11S, HRN, HIT, PLP, YDB, RNE, LSN, ETB and CO9GC.

W. H. Jessen, Eugene, Oregon, reports VK3ME, KTP, KAX, KTR, RNE, CJRX, VE9CA, W2XBJ, VE9BK and W9XAA. H. P. Gensheimer, Erie, Pa., reports DJA, H1H, H1C, XECR and HI9B. Thomas Tynan, Elmhurst, New York, reports VP3MR and CR6AA.

The following reports were received late in the month, after the regular news department was set up in type. Malcomb L. Gavin, Cleveland, Ohio, reports quite a number of stations on schedule and helps with news on RIO, H15N, H11S, HRN, HJ3ABF, H11A, JVT, YV10RSC, James B. Wooten, Mobile, Alabama, reports KEE, KKH, LSX, HJU, W9XAA and some news on North American stations that is interesting.

J. M. R. Studholme, London, England, reports many stations including helpful news on GDW, DJM, DZA, HBO, SPW, W1XAL, WOF, WQP, LRU, XECR, PRF5, CO9GC, H1Z, PLV, PMN, JVN, JVP, IDU, ETB, and VQ7LO. R. H. Greenland, Bansley, England, reports his reception for a whole month. C. E. Sutton, Coventry, England, sends the schedule of VQ7LO. Ernest Orchard, Weymouth, England, reports ZTJ, ZBW, JVG, PCJ on 31 meters, W1XAL, VP3MR and a list of German stations. L. Smith, London, reports VP3MR schedule, JVP, JVM and others. Albert Larkman, Sidecup, Kent, England, reports ZBW and H14V. John S. Barron, Aberdeen, Scotland, reports quite a few stations including HBH, HBO, TJE, VP3MR.

Fred Baines, Cape Breton, Canada, reports H11S, VP3MR, TIRCC and some others. Laurence Gagnon, Quebec City, reports GCA, XDR, CEC, W9XAA, WEA, LRU and KKR. Edward Houlgate, London, Ontario, reports NX2Z, XEFT, CO9WR, HJ3ABD, and HJ1ABE. Robert Rogers, Arundel, Quebec, reports HC2JSB, V1Z3 and RW59. Ian Morgan, Montreal, reports all his new stations since 1936 began.

Ernest E. Reese, Niagra Falls, New York, sends seven pages of news, including harmonics, unidentified stations and many others. He also mentions W9XAA, TFJ, TIRCC, H14D, HIT, HC2RL. John Wojtkiewicz, Philadelphia, Pa., sends a six page report, showing JVN, JVM, TIEP, TIPG, VP3BG, H11A, VP3MR and many others on schedule. William Patton, Old Westbury, New York, reports CO9GC, XEUW, YV12RM, HIT, HAT-4 and HRN.

Ned Conwell, Chester, Pa., reports several stations on schedule. J. Coleman, Brooklyn, reports a card from YV4RC giving the schedule 6:00 to 10:00 P.M., Caracas Time. Walter Butts, Worthington, Ohio reports several stations, including VRR4, TG2X, HRY, LRU, HVJ and PLP. O. Hersowitz, Baltimore, Maryland, reports quite a few stations including HCK, HC2JSB, HJ3ABD, LRU, HP5K, YNVA, HIT, HH3W, HI9B, W9XAA, and CO9WR. Miss Eileen Hofmaster, Sandusky, Ohio, reports HIT, as also does A. R. Ogden, Brooklyn.

Ashley Walcott, San Francisco, reports H1X, ZFB, W9XAA, CFU, some

Japanese and several Alaskan stations. He also received a verie from RIR, by sending to the Moscow station's address. Dr. J. S. Pugh, Dallas, Texas, reports JVN, JYS, HRN, and W9XAA. A Antognini, Greenfield, California, reports his entire reception for a month. Dr. R. C. Kash, Sevierville, Tenn., reports Prado, XEUW, CQN, HIJ on 6.28 mc. HI3U, VP3MR and HJU. Russell Bean, Chicago, Illinois, eports JVN, HC2JSB, HC2AT, Prado, HRH, TI8WS, HIT, HIG and HI9B. Mrs. Alice Wilbur, Newark, New Jersey, reports TI8WS, CO9GC, HH2T, HIT and some others.

Fred Atherton, Rutland, Vermont, reports quite a few stations, including HRN, YNDA, Prado, HJ5ABD, LRU, HI9B, HH3W, CZ5M, W9XAA, Bruce H. Hart, Pine River, Minnesota, reports VP3BG, HRN, CEC, HIT, LRU, YDB and HC2JSB. W. D. Flagg, Holyoke, Mass., reports HRN, HRL5, HI3C and a WCT, Puerto Rico, on 14.48 mc. now. V. J. Fitzsimmons Jersey City, New Jersey, reports YNVA. Don Gross, Asheville, North Carolina, reports HRN, YV8RB, TIPG and Some ships. Joe Child, Philadelphia, reports LRU, HH3W and EAQ.

Stephen Warring, Piru, California, reports CO9WR, HCJB. Robert Rossi, Philadelphia, reports HIT, HI3V, HI3C and ZBW. F. L. Perkson, Canton, Ohio, reports DIQ changed to DZC. H. P. Gensheimer, Erie, Pa., reports HJU moved to 9.50 mc.

CONTEST NEWS

For those late members, we repeat the rules governing a membership contest. This contest closes for members in North America on August 1st, for members in Central America and the West Indies on August 5th, for members in Europe and South America on August 15th and for member in Asia, Africa and Australia on August 31st.

We are giving a beautiful Hallicrafter receiver, complete with tubes and everything else, to the person sending in the most new memberships in this contest. The contestant may send in the memberships, or else the new member can mention his or her name and credit will be given. One year memberships count one point, two year memberships two points, etc. In addition to the Hallicrafter receiver, we are also giving a number of other prizes, such as a set of dishes made in East Liverpool, the home of the I. S. W. C. Only full-rate memberships count, and officers of the club are not permitted to take part.

On February 25th, the following members were taking part: Fred Baines with 3 members; Bernard Heckel with 4 members; L. E. Hansen with 3 members. H. S. Northy with 3 members; S. Ogden with 3 members-D. S. Valentine with 3 members; Ralph Brady with 3 members. It is easy to see that it is not too late for anyone to start.

FOR SALE—Masterpiece IV, octal sockets, used three months; complete with cabinet; Price \$135.00. Will ship C.O.D. upon \$10.00 deposit. Owner having crystal control receiver built. Earle N. Bassett, Danielson, Conn.

FOR SALE—Scott All Wave Fifteen, Tasman Console, Scott Super antenna system, extra set of tubes, \$140.00. Charles Groff, 925 South New Jersey Street, Indianapolis, Indiana.

AMPERITE
HIGH LEVEL VELOCITY
 (HIGH IMPEDANCE-2000 OHMS)

OPERATES WITHOUT PRE-AMP

ELIMINATES HUM TROUBLE

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

Requires no pre-amp when used with regular high gain amplifier (100 DB)

Replaces condenser and crystal microphones—NO CHANGES or additions necessary! ELIMINATES INPUT TRANSFORMER and its losses . . . Therefore requires 12 db. less overall amplification . . . Eliminates inductive hum. NO FEEDBACK.

LIFELIKE BRILLIANCE

The High Level Velocity reproduces both speech and music with their original brilliance. Also excellent on close talking.

MODEL RB-H. for speech and music LIST \$42.00 with coupling

RS-H. for speech, can also be used for music LIST \$32.00 with coupling

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AMPERITE 7 POINT VELOCITY **MICROPHONE**

Write For Bulletin HL
 561 BROADWAY NEW YORK



BOOSTERS

We offer our sincere thanks to the following members for having secured new members for us during the past month. David Valentine, Nelson, Canada; F. W. Pye, London, Ont., Canada; L. Papernow, Brooklyn, N. Y.; A. J. Bubnick, Anchorage, Alaska; George Ballard, Evanston, Ill.; Bernard Heckel, Struthers, Ohio; A. L. Fernandez Morrell, Central Algonodones, Cuba; Dr. Paul Reist, Wasaw, Wisc.; Mrs. Shepherd, Andover, Mass.; Gerald Fisher, Ely, Nevada; F. R. Scott, London, England; Ronald Gittens, Bridgetown, Barbados; Arthur Vivier, Detroit, Mich.; D. R. Richardson, Los Angeles; A. B. Baadsgaard, Ponoka, Alberta; Arthur Napier, Philadelphia; Mervyn Sound & Vision Company, London England; Philco Radio of London.

Howard Muir, Racine, Wisc.; J. W. Sherman, Tampa, Florida; L. S. Tear, Dallas, Texas; Wm. H. Shwarzman, Evanston, Ill.; J. B. Marshall, Baltimore, Mr.; George Broosk, address unknown; Chester B. Myers, Cedar Rapids,

Iowa; H. G. Peebles, Detroit, Mich.; Miss Eileen Hofmaster, Toledo, Ohio; P. C. McNulty, Milwaukee, Wisc.; W. L. Runzel, Jr., Chicago, Ill.; S. Ogden, Manchester, England; J. Gallagher, Magherafelt. And special special thanks to Ralph Stranger of London, for his notices in the Ralph Stranger's Science Review.

CHAPTER NEWS

The London Chapter continues to meet at R. A. C. S. Hall, Wandsworth Road, SW8, every Friday, except the second in each month, at 8:00 P.M. This Chapter will hold the third annual dinner dance at Maison Lyons Hall on March 7. They have just finished a DX contest and the winners will be announced very shortly. A special broadcast is planned for April 25 over station EAQ, Madrid, Spain. Details will be given next month.

The New York Chapter meets at the Stuyvesant High School, East 15th Street and First Avenue. They meet on the first and third Fridays of the month. On February 21st, they demonstrated the new "noise bucker" and held a junk box sale, which met with high approval, as many members

sold many unwanted articles and others got wanted articles at low prices. The New York Chapter will have another Junk Sale on March 20th. On March 8th they will take a trip to Radio City. For details write to Jacob Kleimans, 2610 Glenwood Road, Brooklyn.

The Philadelphia Chapter meets in March on the second and fourth Fridays at 7:15 P.M. The place is 438 Market Street. Guest speakers, movies, set demonstrations and visits to important places are in store for members. For details write to Fred B. Heller, Jr., 742 South 53rd Street, Philadelphia, Pa.

The Manchester, England, Chapter meets Tuesdays, excepting the last one in each month at British Legion Hall, Long Street, Middleton. These are the only Chapters we have heard from recently.

PEN-PALS

The following members would like to correspond with other members:

J. R. Miller, 214 West 33rd Street, Covington, Ky. (Foreign)
Jack Snyder, 314 College Avenue, State College, Penna.
Thos. Simpson, 2 Thorburn Terrace, Leven, Fife, Scotland.
Miss Eileen Hofmaster, 321 Scott Street, Sandusky, Ohio. (Ladies)
Ned Connell, 410 East 21st Street, Chester, Penna.
William Wetherall, 20th and Chestnut Streets, Chester, Penna.
H. Jackson, 29 Marian Street, Leedersville, Western Australia.
T. C. Evans, 3 Park Lane, Witenhage, Cape Province, South Africa.
Eric H. Rickett, 28 Cross Oak Road, Berkansted, Herts, England.
Inguar Gullberg, 3 Borgaregatan, Hedemora, Sweden.
Fred Baxter, 184 Sheridan Avenue, Hokokus, New Jersey.
C. L. Upchurch, Jr., 411 Hyde Park Avenue, Durham, North Carolina.
Wilfred Siddle, 722 South 27th Place, Birmingham, Alabama.
Douglas Hickman, 16 Fladgate Road, Laytonstone, Essex, England.
Frank Grey, 6530 Sinclair Avenue, Berwyn, Illinois. (South American)

THE EDITOR SPEAKS

Few people realize the important part that advertising plays in keeping up a magazine like this one, or in any newspaper or magazine. You could not buy the paper that goes into an ordinary newspaper for the price you pay for it. The cost of printing a newspaper, the editing, news collecting and other things are paid for by the advertisers. And unless a paper or magazine is able to hold advertisers, it will not go along very well.

To hold an advertiser, a magazine must show results, of course. They have to be shown that it pays them to keep advertising in a certain magazine, or else they drop it and go spend their money elsewhere. To mention the magazine takes but a few extra words from your typewriter or pen, and yet it may mean a lot to the magazine. It is a simple little thing to say 'I belong to the I. S. W. C.' but it may mean several more pages in the magazine the next month.



PERLMAN'S PAGE of RADIO SPECIALTIES

"My Personal Approval + Guarantee with each item"

IF YOU WANT TO KNOW

HOW ENJOYABLE LISTENING
CAN REALLY BE, TRY IT WITH

AMPLIVOX

"NOISE BUCKER"

ELIMINATES MAN-MADE STATIC



The circuit developed by James J. Lamb, technical editor of QST, often referred to as the noise "check-valve" has been heralded in the press as one of the greatest discoveries in RADIO.

TESTED BY SOL PERLMAN with his PERSONAL GUARANTEE.

ELIMINATES NOISES due to sparking motors, automobile Ignition, oil burners, high tension lines. These noises are reduced by a maximum ratio of 1000 to 1 in power on sharp interference.

SPECIFICATIONS: Small, 7"x2 3/4"x3 3/4". Completely shielded. Easily attached to rear of radio receiver. Only one knob to adjust. Draws negligible power from receiver. Cannot affect its operation. Uses 3 genuine R.C.A. metal tubes.

List price, \$16.50. **MY PRICE TO YOU..... \$9.75**
(Without tubes).

Set of 3 Matched R.C.A. Metal Tubes, List price, \$4.50. **MY PRICE TO YOU..... \$2.70**

IMPORTANT: GIVE MAKE AND MODEL OF RECEIVER WHEN ORDERING.

NOTE: THE NOISE BUCKER CAN BE USED ONLY ON SUPERHETERODYNE SETS. Orders filled in order received.

GUARANTEE OF MONEY BACK IN FIVE DAYS IF NOT SATISFIED!

ADVICE ON MICROPHONES—AMPLIFIERS RECORDING EQUIPMENT



Do you want advice on the best possible choice of Microphones, Amplifiers and Recording Equipment? Write me about your requirements ... Ask for the new price list on Amperite Velocity Microphones.

POWER LINE NOISES—Cut Them Out With My AMPLIVOX LINE FILTER

... or Your Money Back in Five Days!

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

Net Price to You... **\$3.95**



P.S.

As Technical Advisor of the N. Y. Chapter of the I. S. W. C., I invite your inquiries on radio problems. I shall be glad to suggest solutions and recommend suitable materials or equipment.

SOL PERLMAN, E.E.

(W2JCU)

TECHNICAL ADVISOR
OF N. Y. CHAPTER OF
I. S. W. C.

227 FULTON ST., New York—PHONE: CORTLANDT 7-7843

"ON-THE-AIR"

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

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

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

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

Meters	Meg.	STATION	TIME
B-13.92	-21.54	W8XX, Pittsburgh, Pa., relays KDKA,	7:00 to 9:00 A.M.
B-1394	-21.52	W2XE, Wayne, New Jersey.	Daily 7:30 A.M. to 11:00 A.M.
T-14.01	-21.41	WKK, Lawrenceville, N. J.	Phones LSN, 8:00 A.M. to 4:00 P.M.
T-14.17	-21.16	LSL, Buenos Aires, Arg.	8:00 A.M. to 1:00 P.M. GAA and PSF.
T-14.23	-21.08	PSA, Rio de Janeiro, Brazil.	Phones WKK, WLK, daytime.
T-14.27	-21.03	LSN, Buenos Aires, Arg.	8:00 A.M. to 4:00 P.M. WKK and WLK.
T-14.38	-20.86	EHY-EDM, Madrid, Spain.	Phones South America, mornings.
T-14.72	-20.38	GAA, Rugby, England.	Phones LSL and PPU near 8:00 A.M.
T-14.97	-20.04	OPL, Leopoldville, Belgian Congo.	Phones ORG, mornings.
T-14.99	-20.02	DHO, Nauen, Germany.	Phones PPU and LSM mornings.
T-15.14	-19.18	WKN, Lawrenceville, N. J.	Phones GAU, daytime.
T-15.24	-19.69	CEC, Santiago, Chile.	Phones LSR, HJY near 11 A.M. and 4 P.M.
T-15.39	-19.50	LSQ, Buenos Aires, Argentina.	Heard testing near 2:00 P.M.
T-15.50	-19.35	FTM, Assise, France.	10:00 A.M. to 2:00 P.M. LSG.
T-15.50	-19.35	PMA, Bandoeng, Java.	Phones Holland, mornings.
T-15.57	-19.27	PPU, Rio de Janeiro, Brazil.	Phones FTM, 10:30 A.M. to 3:00 P.M.
T-15.58	-19.25	DFA, Nauen, Germany.	Phones 10:00 A.M. to 2:00 P.M. irregularly.
T-15.62	-19.21	ORG, Brussels, Belgium.	Phones OPL, mornings.
T-15.68	-19.13	LSM, Buenos Aires, Argentina.	Phones EAQ, DHO, GAA, mornings
T-15.88	-18.89	ZSS, Klipkeuval, S. Africa.	Phones GAS, 6:30 to 7; 10 to 10:45 A.M.
T-15.93	-18.83	PLY, Bandoeng, Java.	Phones Holland 6 to 11 A.M. KWX irregularly
T-16.06	-18.68	OCI, Lima, Peru.	Testing with HJY near 2:00 P.M.
T-16.11	-18.62	GAU, Rugby, England.	Phones New York mornings.
E-16.22	-18.48	HBH, Geneva, Switzerland.	Used for special programs.
T-16.30	-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-16.86	-17.79	GSG, Daventry, England.	6:00 to 8:45 A.M.; 9:00 to 10:45 A.M.
B-16.87	-17.78	W3NAL, Bound Brook, N. J.	9:00 A.M. to 4:00 P.M. daily.
B-16.89	-17.76	W2XE, Wayne, New Jersey,	relays WABC 11:00 A.M. to 1:00 P.M.
T-16.89	-17.76	IAC, Piza, Italy.	Phones ships early mornings.
B-16.89	-17.76	DJE, Nauen, Germany.	7:00 to 11:30 A.M., irregular.
T-16.85	to 18.27	-17.80	to 16.42—Ships. Heard in daytime.
T-16.92	-17.75	HSP, Bangkok, Siam.	Works Germany, 4:30 to 6:30 A.M.
T-17.00	-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.
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.

Meters	Meg.	STATION	TIME
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-18.91	-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.
E-19.50	-15.46	KKR, Bolinas, California.	Tests irregularly.
B-19.52	-15.37	HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A.M.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
B-19.56	-15.34	DJR, Zeesen, Germany,	1:30 to 3:30 A.M. irregularly.
B-19.56	-15.33	W2XAD, Schenectady, N.Y.	Daily 2-3 P.M., Sun. 10:30 A.M. to 4 P.M.
B-19.62	-15.29	LRU, Buenos Aires, Argentina,	testing 5:00 P.M. to 1:30 A.M.
B-19.63	-15.28	DJO, Zeesen, Germany,	12:30 A.M. to 3:30 A.M.
B-19.64	-15.27	W2XE, Wayne, New Jersey,	relays WABC 1:00 to 6:00 P.M.
B-19.66	-15.26	GSI, Daventry, England,	12:30 to 2:15 P.M. irreg.
T-19.68	-15.25	RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
B-19.68	-15.25	Pontoise, France,	7:00 to 11:00 A.M. daily.
B-19.71	-15.22	PCJ, Eindhoven, Holland,	7:00 A.M. to 11:00 A.M., irregular.
B-19.71	-15.21	W8XK, Pittsburgh, Pa.,	relays KDKA 10 A.M. to 7:00 P.M.
B-19.74	-15.20	DJB, Zeesen, Germany,	3:45 to 11:30 A.M. daily.
B-19.82	-15.14	GSE, Daventry, England,	2:15 to 4:15 and 6:00 to 10:15 A.M.
B-19.84	-15.11	HVJ, Vatican City,	10:30 to 10:45 A.M. daily.
B-19.85	-15.11	DJL, Zeesen, Germany,	4:00 to 6:00 A.M. irregularly.
T-19.92	-15.06	WNC, Hialeah, Florida,	phones many stations in daytime.
T-19.94	-15.04	RKI, Moscow, U.S.S.R.	Phones RIM near 7:00 A.M.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
B-20.04	-14.97	LZA, Sofia, Bulgaria,	Heard 3:30 A.M. to 10:30 A.M., Irreg.
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.
T-20.19	-14.86	OCJ2, Lima, Peru,	Phones HKB-HJY-LSN, daytime.
T-20.29	-14.79	ROU, Omsk, Siberia,	phones Moscow 7:00 to 9:00 A.M. irregularly.
T-20.37	-14.73	IOA, Rome, Italy,	phones 8:00 to 11:00 A.M. irregularly.
T-20.42	-14.69	PSE, Rio de Janeiro, Brazil,	7 A.M. to 6 P.M. LSL, WLK, WOK.
T-20.45	-14.67	GBL, Rugby, England,	Phones JVH 1:00 to 7:00 A.M.
B-20.55	-14.60	JVH, Nazaki, Japan,	Phones Europe from 4:00 to 8:00 A.M.
T-20.56	-14.59	WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64	-15.54	HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65	-14.53	LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.71	-14.48	HRL5, 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.
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	DZA, Zeesen, Germany,	Noon to 2:00 P.M. irregularly.
E-20.97	-12.26	-14.30 to 14.11	Amateur phones heard in daytime.
B-21.26	-14.10	HJSABE, Cali, Colombia.	7:00 P.M. to midnight, irregular.
E-21.58	-13.90	WQP, Rocky Point, N. Y.	Testing with RNE irregularly, mornings.
T-21.70	-13.83	SUZ, Cairo, Egypt,	Phones GAA 7:00 A.M. to 3:30 P.M.
E-21.91	-13.69	KKZ, Bolinas, California.	Used irregularly.
T-21.98	-13.65	HJY, Bogota, Colombia.	Phones irregularly.
B-22.00	-13.63	SPW, Warsaw, Poland.	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-22.35	-13.42	GCG, Rugby, England.	Phones JVH 3:00 to 8:00 A.M.
T-22.40	-13.38	IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:00 P.M. irregularly.

Meters	Meg.	STATION	TIME
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.
T-22.48	-13.35	YVQ, Maracay, Venezuela.	Phones Florida, daytime.
T-22.50	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	IRJ, Rome, Italy,	phones Japan irregularly 5:00 to 8:00 A. M.
E-22.76	-13.18	DGG, Nauen, Germany.	Phones Asia mornings, irregularly.
B-22.95	-13.07	VPD, Suva, Fiji Islands.	Daily, except Sun., 12:30 to 1:30 A. M.
T-23.00	-13.04	German ships.	11:15 A. M. and 1:30 P. M.
T-23.36	-12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	-12.83	CNR, Rabat, Morocco.	Phones St. Assise 5:00 to 8:00 A. M.
T-23.45	-12.80	IAC, Piza, Italy.	Works ships mornings.
T-23.47	-12.78	GBC, Rugby, England.	Phones ships irregularly.
T-24.20	-12.40	DAF, Norden, Germany.	Phones ships irregularly, mornings.
T-24.40	-12.30	PLM, Bandoeng, Java.	Phones VK2ME near 6:30 A. M.
T-24.41	-12.29	GBU, Rugby, England.	Phones America, evenings.
E-24.52	-12.24	TFJ, Reykjavik, Iceland.	Phones GSC irregularly.
T-24.56	-12.22	TYA, Pontoise, France.	Phones the Normandie, irregularly.
T-24.69	-12.15	GBS, Rugby, England.	Phones New York.
T-24.88	-12.09	PDV, Kootwijk, Holland.	Tests near 7:30 A. M.
B-25.00	-12.00	RNE, Moscow, U.S.S.R.	Irregular.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
E-25.10	-11.95	ETB, Addis Ababa, Ethiopia,	2:00 to 6:30 P. M. irreg. Wed at 5 P. M.
E-25.11	-11.97	KKQ, Bolinas, California.	Heard irregularly, evenings.
T-25.12	-11.95	FTA, St. Assise, France.	Phones CNR 4 to 7 A. M., LSM 10 to 12 P. M.
B-25.23	-11.90	Pontoise, France,	3:00 to 4:00 A. M. - 11:15 to 6:00 P. M.
B-25.27	-11.87	W8XK, Pittsburgh, Pa.,	relays KDKA 5:00 to 9:00 P. M.
B-25.29	-11.86	GSE, Daventry, England.	9:00 A. M. to Noon.
B-25.31	-11.85	DJP, Zeesen, Germany,	2:00 to 4:00 A. M. irregularly.
B-25.36	-11.83	W9XAA, Chicago, Illinois.	Heard 10:00 A. M. to 10:00 P. M., Irreg.
B-25.40	-11.81	2RO, Rome, Italy.	8-15 A. M. to 12:15 Noon.
B-25.40	-11.81	HJ4BA, Medellin, Colombia.	11:30 to 1:00 and 6:30 to 10:30 P. M.
B-25.42	-11.79	W1XAL, Boston, Mass.,	Sundays 4:00 to 7:00 P. M.; daily at 6 P. M.
B-25.43	-11.80	DJO, Zeesen, Germany,	5:00 to 7:00 A. M. irregularly.
B-25.40	-11.77	DIJ, Zeesen, Germany.	11:35 A. M. to 4:25 P. M.
B-25.53	-11.75	GSD, Daventry, England.	12:15 to 4:00 P. M.
B-25.57	-11.74	PHI, Huizen, Holland.	Daily, except Tues, and Wed., 8:30-10:30 A. M.
B-25.60	-11.72	CJRX, Winnipeg, Canada.	8:00 P. M. to Midnight.
B-25.63	-11.70	Pontoise, France,	6:30 to 9:30 P. M. and 10:30 to 1:00 A. M.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
E-25.73	-11.66	PPQ, Rio de Janeiro, Brazil.	Used irregularly in evenings.
E-25.87	-11.59	VR4, Stony Hill, Jamaica.	Testing with WNC in daytime.
B-25.93	-11.57	HH2T, Port-au-Prince, Haiti.	Heard irregularly, evenings.
E-26.09	-11.50	VIZ3, Fiskville, Australia.	Phones CJA4 irregularly.
E-26.09	-11.50	XAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P. M.
T-26.29	-11.41	CJA-4, Drummondville, Ont.,	phones VIZ-3 6:00 to 11:00 P. M., Irreg.
T-26.35	-11.39	HBO, Geneva, Switzerland.	Used irregularly.
T-27.15	-11.05	ZLT, Wellington, New Zealand.	Phones VLK 1:00 to 7:00 A. M.
T-27.26	-11.00	PLP, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10-10:30 A. M.
T-27.26	-11.00	XBJQ, Mexico City.	Testing irregularly now.
T-27.35	-10.97	OCI, Lima, Peru.	Phones HJY, evenings.
E-27.65	-10.85	DFL, Nauen, Germany.	Irregular.
T-27.67	-10.84	KWV, Dixon, California.	Phones Hawaii, daytime.
T-27.86	-10.77	GBP, Rugby, England.	Phones VLK 11:00 P. M. to 8:00 A. M.
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.
B-28.12	-10.67	CEC, Santiago, Chile,	daily 7 to 8 P. M. - Thurs., Sun., 8:30 to 9 P. M.
E-28.14	-10.55	JVN, Nazaki, Japan,	broadcasts Tues., Fri., 2-3, Mon., Thurs. 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.
E-28.49	-10.53	JTB, Tawian, Japan.	Heard irregularly.
T-28.51	-10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A. M. GBP.
E-28.79	-10.42	XGW, Shanghai, China.	Testing near 6:00 A. M.
T-28.80	-10.42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A. M.

Meters	Meg.	STATION	TIME
T-28.80	10.40	YBG, Medan, Sumatra.	5:30-6:30, 12:30-1:30 A.M., 7:30-8:30 P.M.
E-28.85	10.40	KEZ, Bolinas, California.	Used irregularly.
E-28.91	10.38	WCG, Rocky Point, N. Y.	Tests irregularly.
B-28.98	10.35	LSX, Buenos Aires, Argentina.	Irregular.
B-29.04	10.33	ORK, Brussels, Belgium.	2:30 to 4:00 P.M. daily.
E-29.13	10.30	LSQ, Buenos Aires, Argentina.	Used for special tests.
E-29.15	10.29	DZC, Zeesen, Germany.	3:00 to 9:00 P.M., Irregular.
T-29.25	10.26	PMN, Bandoeng, Java.	Near 5:30 A.M. daily. VLK.
E-29.27	10.25	LSL, Buenos Aires, Argentina.	testing 5:30 to 7:00 P.M.
T-29.45	10.22	PSH, Rio de Janeiro, Brazil.	Sending music, evenings.
T-29.50	10.17	RIO, Bakou, U.S.S.R.	Phones Moscow 8-10 A.M., 10 P.M. to 1 A.M.
T-29.58	10.14	OPM, Leopoldville, Belgian Congo.	Phones ORK 9-11 A.M., 3-6 P.M.
T-29.76	10.08	RIR, Tiflis, Siberia.	Phones Moscow 5:00 to 8:00 A.M., irregularly.
T-29.79	10.07	EHY, Madrid, Spain.	Phones YVR near 4:00 P.M., irregularly.
T-29.80	10.06	JZB, Shinkyu, Manchukuo,	phones JVO 10:00 P.M. to 3:00 A.M.
T-29.83	10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships, daytime.
T-29.83	10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
B-29.88	10.04	DZB, Zeesen, Germany.	2:00 to 4:00 P.M. irregularly.
T-30.09	9.97	KAZ, Manila, P. I.	Phones PLV near 2:00 A.M.
T-30.15	9.95	GCU, Rugby, England.	Phones New York evenings.
T-30.21	9.93	HKB, Bogota, Colombia.	Phones PSK irregularly, evenings.
T-30.30	9.90	LSN, Buenos Aires, Argentina.	6:00 P.M. to 6:00 A.M. WLO.
T-30.40	9.87	WON, Lawrenceville, N. J.	Phones England evenings.
B-30.40	9.87	FAO, Madrid, Spain.	Daly 5:15 to 9:30 P.M. Sat. noon to 2 P.M.
E-30.40	9.87	JYS, Kemikawa-Cho, Japan.	Relays JOAK Irreg., mornings.
T-30.52	9.83	IRM, Rome, Italy.	Phones Egypt afternoons.
T-30.60	9.80	GCW, Rugby, England.	Phones America, evenings.
E-30.61	9.80	LSI, Buenos Aires, Argentina.	Used irregularly, evenings.
T-30.75	9.76	VK2ME-VLK, Sydney, Australia.	Phones Java 4:00 to 8:00 A.M.
T-30.77	9.75	WOF, Lawrence, N. J.	Phones England, evenings.
T-30.90	9.71	GCA, Rugby, England.	Phones Argentina around 6:00 P.M.
B-31.00	9.66	CON, Macao, China,	Monday and Friday 7:00 to 8:30 A.M.
T-31.08	9.65	DGU, Nauen, Germany.	Phones Egypt in daytime.
B-31.09	9.65	CT1AA, Lisbon, Portugal.	4:00 to 7:00 P.M. Tues., Thurs., and Sat.
B-31.10	9.65	YDB, Sourabaya, Java,	broadcasts 5:30 to 10:00 A.M., 6 to 7 P.M.
B-31.13	9.64	2RO Rome, Italy.	Daily 1:30 to 5:00 P.M. and 6:00 to 7:30 P.M.
B-31.25	9.60	CB960, Santiago, Chile.	Heard 9:30 P.M. to 1:00 A.M., Irreg.
B-31.25	9.60	(????), Cartagena, Colombia.	11:30 A.M. to 1:00 P.M., 6 to 10 P.M.
B-31.25	9.60	LRX, Buenos Aires, Argentina.	Testing near midnight now.
B-31.27	9.59	HH3W Port Au Prince, Haiti.	1:00 to 2:00 P.M., 7:00 to 8:30 P.M.
B-31.27	9.59	VK2ME, Sydney, Australia.	Sun. 1 to 3, 5 to 9, 9:30 to 11:30 P.M.
B-31.27	9.59	HLB, Geneva, Switzerland.	5:30 to 6:15 P. M., Saturday.
B-31.28	9.59	W3XAU, Philadelphia, Pa.,	Noon to 6:45 P. M.
B-31.29	9.59	HP5J, Panama City, Panama.	11:45 A.M. to 1:00 P.M., 7:30 P.M. to 10:00 P.M.
B-31.30	9.58	GSC, Daventry, England.	4:15-5:45; 6:00-8:00; 10:00-11:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.
B-31.36	9.57	W1XK, Boston, Mass. (Millis)	6:00 A.M. to Midnight.
B-31.36	9.57	VUB, Bombay, India, Wed., Thurs.,	and Sat. 11:00 A.M. to 12:30 P.M.
B-31.38	9.56	DJA, Zeesen, Germany.	12:30-3:50 A.M., 3-11 A.M., 5:00-10:45 A.M.
B-31.45	9.54	DJN, Zeesen, Germany.	12:30 A.M. to noon. 4:55 to 10:45 P.M.
B-31.48	9.53	LKJ1, Jeloy, Norway.	5:00-8:00 A.M., 11:00 A.M. to 6:00 P.M.
B-31.48	9.53	W2XAF, Schenectady, N. Y.	Daily 4:00 P.M. to Midnight.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Week-days 4:00 to 7:00 A.M.
B-31.55	9.51	GSB, Daventry, England.	2:15 to 4:15 A.M.; 10:15 A.M. to 8:00 P.M.
B-31.56	9.50	PRF5, Rio de Janeiro, Brazil.	Daily 4:45 to 5:45 P.M., also irreg.
E-31.56	9.50	HJU, Buenaventura, Colombia,	testing 8 to 11 P.M. Tues., Thurs., Sat.
T-31.71	9.46	Tripoli, Africa.	Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.
B-31.80	9.42	COCH, Havana, Cuba,	8:00 A.M. to 7:00 P.M.; 8:00 to 10:00 P.M.
T-31.86	9.42	PLV, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10:00-10:30 A.M.
T-32.15	9.33	CGA4, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.

Meters	Meg.	STATION	TIME
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.41	8.98	VWY, Poona, India.	Phones England near 8:30 A.M.
T-33.93	to 36.58	8.84 to 8:20—Ships.	Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.21	8.77	HCJB, Quito, Ecuador,	Daily excepting Mondays 7:30 to 9:30 P.M.
B-34.29	8.75	ZBW, Hong Kong, China.	Daily 11:30 P.M. to 1:15 A.M., Mon. and Thurs. 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
E-34.35	8.74	WXV, Fairbanks, Alaska.	Works WXH between 10 P.M. and 4 A.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
B-34.62	8.66	CO9JQ, Camagney, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68	8.65	WVD, Seattle, Wash.	Testing irregularly.
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.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.19	7.85	HC2JSB, Guayaquil, Ecuador.	9:00 A.M. to 2:00 P.M.; 6 to 11 P.M.
B-38.31	7.83	YV9RC, Caracas, Venezuela,	heard 7:00 to 11:00 P.M. irregularly.
B-38.47	7.80	HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
E-38.50	7.78	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M., irreg.
E-38.89	7.71	KEE, Bolinas, California.	Tests evenings irregularly.
T-39.34	7.63	RIM, Russia.	Phones RKI 6:00 to 8:15 A.M.
T-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
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.
E-39.95	7.51	JVP, Nazaki, Japan,	broadcasts Tues., Fri., 4 to 5 P.M. • phones 1 A.M.
T-39.97	7.50	RKI, Russia.	Phones RIM 6:00 to 8:15 A.M.
T-40.60	7.39	ZLT2, Wellington, New Zealand,	phones Sydney 3:00 to 7:00 A.M. irreg.
B-40.65	7.38	XECR, Mexico City,	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-41.60	7.21	EASAB, Tenerife, Canary Islands,	Mon., Fri., 3:15 to 4:15 P.M.
B-41.80	7.17	CR6AA, Lobito, Angola, Africa,	Wed., and Sat., 2:30 to 4:30 P.M.
B-42.35	7.08	PIIJ, Dordrecht, Holland.	Saturdays 11:10 A.M. to 12:10 Noon.
B-42.68	7.08	VP3MR, Georgetown, British Guiana,	around 4:45 to 8:40 P.M.
B-42.88	7.00	PZH, Paramaribo, Dutch Guiana,	2:40 to 9:40 P.M. irregularly.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
B-43.48	6.90	HI3C, La Romana, R. D.	12:30 to 2:00 P.M., 7:30 to 9:30 P.M.
E-43.82	6.84	KEN, Bolinas, California.	Used irregularly.
B-44.12	6.81	HIH, San Pedro de Macoris, D. R.	Daily 7:30 to 9:00 P.M.; Sundays 3:00 to 4:00 A.M. and 4:15 to 6:00 P.M.
T-44.41	6.75	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.75	JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftentimes with music.
B-44.71	6.71	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M., irregularly.
B-44.90	6.70	TI2M, San Jose, Costa Rica,	heard 9:00 to 11:00 P.M. irregularly.
E-44.96	5.67	YVQ, Maracay, Venezuela.	broadcasts 8:00 to 8:30 P.M. Saturday.
B-45.00	6.67	???	Madrid, Spain, testing around 5:00 to 9:45 P.M. irregularly.
B-45.00	6.66	ZP10, Asuncion, Paraguay,	heard 10:00 to 11:45 P.M. irregularly.
B-45.00	6.67	HC2RL, Guayaquil, Ecuador.	Sun. 5:45-7:45, Tues. 9:15-11:15 P.M.
T-45.10	6.65	IAC, Piza, Italy.	Phones ships evenings.
B-45.25	6.63	HIT, Trujillo, D. R.	Heard 4:45 to 10:00 P.M., Irreg.
B-45.31	6.62	PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.50	6.61	HI14D, Trujillo, D. R.,	11:40 to 1:40 P.M. • 4:40 to 7:40 P.M.

Meters	Meg.	STATION	TIME
B-45.52	6.60	XFA2, Vera Cruz, Mexico, heard between 7:00 and 11:00 P.M. irreg.	
B-45.81	6.55	TIRCC, San Jose, Costa Rica, daily 6 to 7; Thurs., Sun., 6 to 11 P.M.	
B-46.01	6.52	YV6RV, Valencia, Venezuela. 12:00-2:00 P.M. and 6:00-10:00 P.M.	
B-46.13	6.50	H1L, Trujillo, D. R., 3:00 to 9:00 P.M., irregularly.	
B-46.30	6.48	HJ5ABD, Cali, Colombia. 7:00 to 10:00 P.M.	
B-46.44	6.46	HJ4ABC, Ibaque, Colombia. Around 8:00 to 10:00 P.M.	
B-46.51	6.45	HI4V, Trujillo, D. R. 11:40 A.M. to 1:40 P.M., 5 to 10 P.M., Irreg.	
B-46.51	6.45	HJ1ABB, 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-46.86	6.41	TIPG, San Jose, Costa Rica. Noon to 2:00 P.M., 6:00 to 11:30 P.M.	
B-47.02	6.38	HI3U, Santiago City, D. R. 1 P.M. and 5:00 to 10:00 P.M., Irreg.	
B-47.10	6.37	YV4RC, Caracas, Venezuela. 4:30 P.M. to 10:30 P.M.	
B-47.24	6.35	HRV, Tegucigalpa, Honduras, heard testing 6:45 to 9:30 P.M.	
B-47.39	6.33	HRP1, San Pedro Sula, Honduras, heard 6:30 to 10:00 P.M. irreg.	
E-47.39	6.35	JZG, heard relaying JVT, JOAK from 5:00 to 7:30 A.M., irregularly.	
B-47.50	6.31	HI2, Trujillo, D. R., 5:00 to 11:30 P.M. irregularly.	
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	HIG, Trujillo, D.R. Heard 1:00 to 4:00 P.M., 5 to 9:30 P.M., Irreg.	
B-47.77	6.28	C09WR, Sancti Spiritus, Cuba. 4 to 6 and 9 to 11 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-48.50	6.19	HI1A, Santiago de Caballeros, R. D. 11:40 to 1:40; 7:40 to 8:40 P.M.	
B-48.55	6.18	XEXA, Mexico City, 8 to 11:30 A.M. 3 to 5 P.M. 7 to 11 P.M.	
B-48.60	6.17	HJ2ABA, Tunja, Colombia. 1:00-2:00 P.M. and 7:00 to 10:00 P.M.	
B-48.62	6.17	HJ3ABF, Bogota, Colombia. 7:00 to 11:15 P.M.	
B-48.78	6.15	HJ5ABC, Cali, Colombia, 7:00 to 10:00 P.M. except Sat. and Sun.	
B-48.78	6.15	YV3RC, Caracas, Venezuela, 10:00 A.M. to 1:00; 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-48.85	6.14	CJRO, Winnipeg, Canada. 8:00 P.M. to Midnight.	
B-48.86	6.14	W8XK, Pittsburg, Pa., relays KDKA 7:00 P.M. and Fri. 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	HI5M, Trujillo, D. R., 6:40 to 9:10 P.M.	
B-48.92	6.13	C0CD, Havana, Cuba. Heard 5:00 P.M. to 1:00 A.M., irregularly.	
B-49.02	6.12	W2XE, Wayne, N. J. Relays WABC 8:00 P.M. to 11:00 P.M.	
B-49.02	6.12	XEFT, Vera Cruz, Mexico. 11:30 to 4:00 P.M., 7:30 P.M. to 12 M.	
B-49.05	6.11	HJ1ABE, Cartagena, Colombia. Daily 7:30-9:00; Mon. 10:30 P.M.	
B-49.10	6.11	GSL, Daventry, England, 2:30 to 5:45 P.M. daily.	
B-49.10	6.11	VE9HX, Halifax, Canada, 8:30 to 11:30 A.M.; 6:00 P.M. to Midnite.	
B-49.10	6.11	VUC, Calcutta, India. 9:30 A.M. to Noon, Sat. 11:45 P.M. to 3 A.M.	
B-49.15	6.10	HJ4ABB, Manizales, Colombia. 8:00 to 11:30 P.M., irregularly.	
B-49.18	6.10	W3XAL, Bound Brook, N. J. Mon., Wed. and Sat. 5 P.M. to 1 A.M.	
B-49.18	6.10	W9XF, Chicago, Ill., Sun., Tues., Thurs., 9-2 A.M.; Daily 1-2 A.M.	
B-49.20	6.09	ZTJ, Johannesburg, Africa. 3:30 to 7:00 A.M.; 9:00 A.M. to 4:00 P.M.	
B-49.22	6.09	CRXC, Bowmanville, Canada. 5:30 to 11:30 P.M. daily, 11:45 A.M. to 11:30 P.M. Sundays.	
B-49.30	6.08	2RO, Rome, Italy, may soon be 6:00 to 7:45 P.M. weekdays.	
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	DJM, Zeesen, Germany, 9:00 to 10:00 A.M.; 3:00 to 5:00 P.M. irreg.	
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, Penang, 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	OER2, Vienna, Austria. 9:00 A.M. to 5:00 P.M., week-days.	
B-49.45	6.06	HJ4ABL, Manizales, Col., 11-Noon, 5:30-7:30 daily, Sat. 10:30 P.M.	
B-49.50	6.06	OXV, Skamlebaek, Denmark. Daily 1:00 to 6:00 P.M.	
B-49.50	6.06	W8XAL, Cincinnati, Ohio, 6:30 A.M. to 8 P.M.; 11 P.M. to 2 A.M.	
B-49.50	6.06	W3XAU, Philadelphia, Pa. 7:00 P.M. to 10:00 P.M.	
B-49.59	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-49.59	6.05	GSA, Daventry, England. 6:00 to 8:00 P.M. daily.	
B-49.65	6.04	HJ1ABG, Barranquilla, Colombia. 6:00 to 10:00 P.M.	

Meters	Meg.	STATION	TIME
B-49.67	6.04	HJ4ABC, Periera, Colombia.	9:30 to 11:00 A.M., 7:00 to 8:00 P.M.
B-49.67	6.04	W4XB, Miami Beach, Florida.	12:00 to 2:30 P.M., 8:30 to 10:30 P.M.
B-49.67	6.04	PRA8, Pernambuco, Brazil.	2:30 to 8:30 P.M.
B-49.67	6.04	W1XAL, Boston, Mass.,	7:15 to 9 P.M. Tues., Thurs.; 4-7 P.M. Sun.
B-49.75	6.03	VE9CA, Calgary, Canada,	6 A.M. to noon; 7:00 P.M. to midnite Sun.
B-49.75	6.03	HP5B, Panama City,	12 Noon to 1 P.M.; 7:00 to 10:30 P.M.
B-49.83	6.02	XEUW, Vera Cruz, Mexico,	8:00 P.M. to 12:30 A.M. irregularly.
B-49.83	6.02	DJC, Zeesen, Germany.	11:35 to 4:25 P.M.; 4:55 to 10:45 P.M.
B-49.85	6.01	HJ3ABH, Bogota, Colombia.	11:30 to 2, 6 to 11 P.M. Sun. 4-11 P.M.
B-49.90	6.01	COCO, Havana, Cuba.	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M.; Saturdays at 11:30 P.M.
B-49.92	6.01	ZHI, Singapore.	Mon., Wed., Thurs., 5:40-8:10; Sat. 10:40-1:10 A.M.
B-49.95	6.01	HJ1ABJ, Santa Marta, Colombia.	6:30 to 10:30 P.M., irregularly.
B-49.96	6.00	VE9DN, Drummondville, Canada,	Saturdays at 11:30 P.M.
B-50.00	6.00	???	Goderich, Ont., Canada, no regular schedule.
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	HJ1ABC, Quibdo, Colombia	daily 5-6 P.M.; Wed. and Sun. 9-11 P.M.
B-50.00	6.00	XEBT, Mexico City.	6:00 P.M. to 3:00 A.M., irregularly.
B-50.10	5.99	HJ2ABD, Bucaramanga, Col.,	11:30-12:30; 5:30-6:30; 7:30-10:30 P.M.
B-50.17	5.98	XEVI, Mexico City.	Tues. and Fri. 6:30-7:45, 9 to 11 P.M., Sat 8-9 P.M.
B-50.17	5.98	HIN, Trujillo, D. R.,	daily 4:40 to 5:40 P.M.; Tuesday and Friday 8:10 to 10:10 P.M.; Sundays 7:40 to 10:40 A.M.
B-50.26	5.97	HVJ, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.26	5.97	HJN, Bogota, Colombia,	6:00 to 11:00 P.M. irregularly.
B-50.26	5.97	HJ2ABC, Cutca, Colombia.	11:00 A.M. to Noon; 6:00 to 9:30 P.M.
B-50.51	5.94	TG2X, Guatemala City,	heard 4:00 P.M. to 2:00 A.M. irregularly.
B-50.60	5.93	HJ4ABE, Medellin, Colombia,	6:00 to 10:30 P.M.
B-50.85	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, Tawian, Japan,	phones JVV 6:00 to 8:00 A.M.
B-50.93	5.89	KCK, Quito, 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., 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	HI1J, San Pedro de Macoris, D. R.,	12:10 to 1:40; 6:10 to 8:40 P.M.
T-51.26	5.85	WOB, Lawrenceville, N. J.	Phones Bermuda nights.
B-51.28	5.85	YV5RMO, Maracaibo, Venezuela.	11:00 A.M. to 12:30 P.M., 5-9 P.M.
B-51.50	5.82	TIGPH, San Jose, Costa Rica.	6:15 to 11:00 P.M., irregularly.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
B-51.72	5.80	YV2RC, Caracas, Venezuela.	10:30 to 1:00 P.M., 5:15 to 10:00 P.M.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
B-51.99	5.77	YNLE, Managua, Nicaragua.	Broadcasts 7:00 to 10:00 P. M., Irreg.
B-52.17	5.75	HJ4ABD, Medellin, Colombia.	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.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M., irreg.
B-54.74	5.48	TI5HH, San Roman, Costa Rica,	3:30 to 4:00; 8:00 to 11:30 P.M.
E-55.56	5.40	HJA-7, Cucta, 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 to 73.17	4.42 to 4.10	Ships.	Heard irregularly.
B-70.65	4.25	RV15, Khabarovsk, U.S.S.R.	1:00 to 9:00 A.M.
T-73.21	4.10	WND, Hialeah, Florida.	Phones irregularly with VPN.
E-75 to 75.8	4.00 to 3.96	Amateurs	on voice.

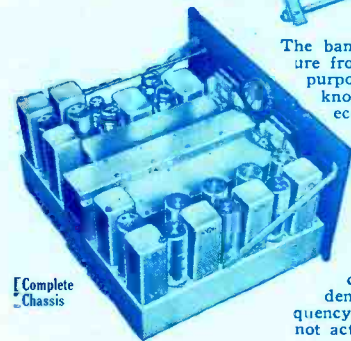
The "SUPER-PRO"

AMATEUR-PROFESSIONAL RECEIVER

THE new Hammarlund "Super-Pro" Receiver more than fulfills the exacting demands of the seasoned professional and amateur operator. It fairly bristles with distinctive features. Among these are Electro-statically shielded input; two stages of tuned R. F. on all bands; four air-tuned I.F. transformers; continuously variable selectivity; three audio stages; silver-plated five-band switch; visible tuning meter; separate power supply unit; separate grid bias supply; send-receive switch; speaker-phone switch; A.V.C.-Manual switch; C.W.-Modulation switch; standard and rack type panels and heavy gauge cadmium-plated steel chassis.

TUNING UNIT

The tuning unit, illustrated at right is an engineering triumph of compactness and precision. It includes the main tuning and band spread condensers and their respective dial assemblies, the band change switch, and all antenna coupling and R.F. and H.F. oscillator coil assemblies. Only 8 leads from this unit to chassis assembly.



[Complete Chassis



BUSINESS-LIKE CONTROL PANEL

The well balanced control panel combines convenience with efficiency. The precision controls include: accurately calibrated tuning dial in kilocycles and megacycles; band spread tuning dial (*both illuminated*); 5-band switch; audio frequency gain; radio frequency gain; intermediate frequency gain; selectivity; beat frequency and tone control. The main tuning dial is accurately calibrated in megacycles in ranges of 2.5 to 5; 5 to 10; and 10 to 20, and in kilocycles from 540 to 1160 and 1160 to 2500. This dial is equipped with an ingenious mechanical shutter which operates in conjunction with the band change switch, making visible only the frequency band in actual use. The high frequency ranges each have a two-to-one frequency range, which puts the three amateur bands at the same setting of the main tuning dial.

Exclusive Band-Changing Switch

The band-changing switch is a radical departure from switches commonly used for this purpose. Its design incorporates the well-known knife switch principle actuated by eccentric cams. Specially designed bakelite sections with silver-plated phosphor bronze knife blades, gradually slide into silver-plated phosphor bronze spring clips forming a 6-point positive contact. This switch operates backward or forward and not only controls the tuning coverage of the 20 mc. to 540 kc. range in five bands, but also automatically connects the proper band spread condensers to each of the three high frequency circuits and short circuits all coils not actually in use.

Write Dept. 1-3 for Complete Details.

HAMMARLUND MANUFACTURING CO., 424-438 W. 33rd Street NEW YORK CITY

. . . LAST NIGHT I LISTENED TO JAPAN

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