

VOL. VIII

MARCH, 1937

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.



MONITORING

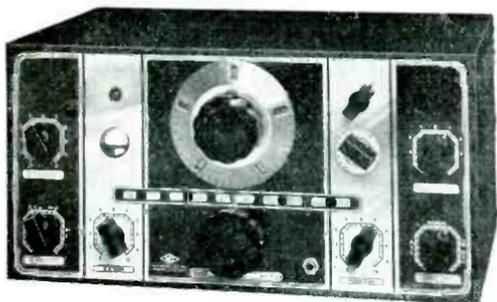
Your daily monitoring station can make no better report than given on the visual tuning indicator of the RME-69 receiver.

The incoming signal strength of every station is constantly metered. Your frequent checks give a log which is one of the finest records of foreign broadcast reception you could possibly make. Readings may be kept in either R values or decibels.

Bulletin 69 will supply further details.

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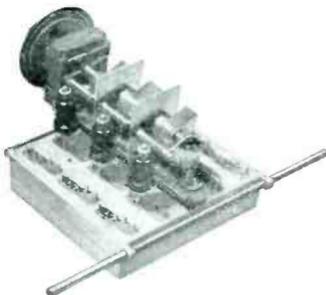
NC-100

"Automatic Coil-Shift"

RECEIVER



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



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

Name

Address ISW-3-37

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about

The verifications of those stations that are difficult to identify on the loud-speaker but can only be heard with phones. You NEED the

AMPLIVOX AURITON

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PHONE PLUG to take one to four pairs of phones. YOUR SPECIAL PRICE

29c

COMBINATION No. 1

Amplivox Phone Receptor, Trimm Featherweight (4 oz.) Supersensitive 24000 ohm and Plug to take one to four pairs of phones. List Price \$17.75. Special Price to you

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Shipping weight 2 lbs.



COMBINATION No. 2

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

\$4.39

Shipping weight 2 lbs.

SOL PERLMAN, E.E. (W2JCU)

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

227 FULTON ST., New York—PHONE:

REctor 2-3028

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This method of noise SUPPRESSION actually LIMITS the interference from the noises LOUDER than the SIGNAL. Sources interrupting your reception such as AUTOMOBILES, MOTORS, POWER LINES, SIGNS, OIL BURNERS, Etc., will not interfere because the famous J. J. LAMB circuit, used in the NOISE BUCKER, will suppress these noises in SIGNAL to NOISE ratio of as much as a 1000 to 1.

MODEL 4-T uses four metal tubes. Two wires and an adapter make all the connections necessary. Can be used on all superheterodyne receivers Shipping weight, 4 lbs. When ordering please give make and model of receiver and include postage. **\$9.75**
List Price, \$16.50. YOUR NET PRICE.....

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

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We Supply the Receiver!

We can supply you with any of the following receivers, the Hall-crafter Sky Buddy, Sky Chief, Commercial Skyriider, and the Super Skyriider; any of the RME-69 models; National NC100, NC100X, HRO, HRO Jr., with or without crystal; Hammarlund "Super-Pro." These receivers are the choice of critical short wave listeners. On request we can Air Test your receiver before shipment, to be sure it is in perfect condition when shipped. We can help you select a receiver for your needs. Write to us for information, prices, and shipping arrangements.

WE CAN HELP YOU

Do you want to build an Amateur Radio Station? Do you want to demonstrate radio or electrical experiments to your friends, your school, or your lodge? Do you want to record the voices of your friends and radio programs? Do you need a hearing aid for a member of your family? Does your church need a group hearing aid for the hard-of-hearing members? Do you need a burglar alarm? Do you need a good noise-reducing antenna system? Do you want to do something and need advice? Write for information.

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

SOL PERLMAN E.E.

(W2JCU)

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

227 FULTON ST., New York—PHONE:

Rector2-3028

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

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

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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.

Floor model on high pedestal (same globe), each..... **\$3.75**

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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.

Floor model, 10 pounds.

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- 6 Metal, 3 Glass Tubes.
- 40 MC. to 535 KC in 5 Bands
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- Electrical Band Spread.
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It provides complete coverage from 7.5 to 540 meters (no gaps), including not only the amateur bands in this range but short wave broadcast bands as well. With Electrical Spread, 5 Band Dial and simple convenient Band Switches, the Sky Challenger answers every reasonable requirement for amateur and short wave reception. Available now on time payments through your dealer.

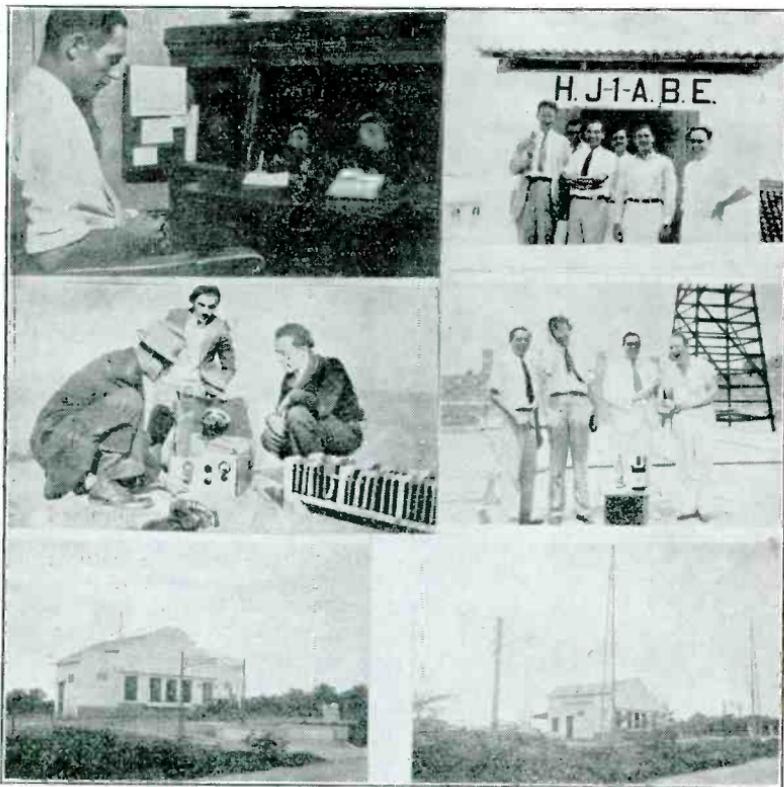
See it at your dealers or write for complete information.

the hallicrafters, inc.

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CABLE ADDRESS: HALLICRAFT, CHICAGO

● Hallicrafters have long recognized the need for a communications Receiver with all the desirable features for efficient reception—at a price every amateur can afford.

The Sky Challenger fills that need, offering greater selectivity, better sensitivity and new features at a sensationally low price.



Greetings, Friends, and a very good wish for lots of DX during the month. Once again we would like to shout our thanks from the rooftops, but must confine our enthusiasm to the limits of these pages.

To start right off, we will explain the photos above. In the top left hand corner is member E. D. Purkey of Los Angeles, California. Directly below him are (left to right) Steve Fortmeyer, a friend, and Herman Bender of Brooklyn, New York. Mr. Fortmeyer and Bender are members. They took this portable receiver on a trip of about 200 miles. Note the aerial, which is made up of plates separated by a few inches of space. In the top right-hand corner is a bunch of fellows at HJ1ABE, Cartagena, Colombia. Left to right are: 1—Member Foshay of New Jersey; 2—Roberto Tronco; 3—Tony Fuentes, the genial owner of HJ1ABE; 4—Albert Basmagi; 5—Rafael Fuentes, brother of Tony and part owner of

HJIABE; 6—V. C. Lomgano. In the photo below this we have some friends on the roof-top of HJIABE having a good time (judging by the bottles). They are, 1—Tony Fuentes, 2—Mr. Foshay, 3—Jack Pepin, 4—J. B. Davis. The two bottom photos are of station HJIABB in Barranquilla, Colombia, taken by Mr. Foshay and sent to us with his compliments.

The following members would like to exchange letters with others:
Harold Strick, 57 Harrison Ave., West Lynn, Mass. (Television).
Philip Malvern, 10 Selkirk St., Cheltenham, Glos, England, (Hawaii).
Elmer Caldwell, 209 Maple Ave., Altoona, Pa., (Foreign).
Joe Rudolph, 1403 Farnam St., La Crosse, Wisc., (Foreign).
Emmett Riggle, 31 Maple Ave. S, E., Massillon, Ohio, (Foreign).

We regret to announce that member W. W. Wilson of Linden, New Jersey, passed from this world late in January. Also that the mother of member R. J. Russell of Pittsburgh, Penn., died in February.

A special program will be broadcast from station PI1J, Holland, on March 20th. This will fall on Saturday. The station will be on 7.088 mc. from 9:30 to 10:00 A.M. and on 14.164 mc. from 5:30 to 6:00 P.M. E.S.T. This was arranged by E. H. Rickett, 28 Cross Oak Road, Berkhamsted, Hertsfordshire, England, and reports sent to him with a reply coupon will be answered with a special verification.

The new arrangement of the station list brought both compliments and complaints, with those in favor being in front. Most of the complaints came from members who seemed to think that we were not going to give space to the phone stations. This is not the case. Hereafter we expect to list the phones regularly each month. The new set-up helps in many ways. First, it helps our overseas members in changing the time to their local time. The other way they had to change every station separately. Second, it is easier for new listeners to find what stations are on the air at a certain time of day. Third, it is easy to distinguish between broadcast stations and those that just phone. Fourth, it is easier to log stations and not confuse them with phones. Members who do not have calibrated dials can take a tip and mark down dial settings on the margin of the page.

Club-member D. R. D. Wadia of Bombay, India, writes to say that he will be in New York City in May and although he does not say it right out, we take it that he will pay a visit to club headquarters at East Liverpool.

The membership contest is moving right along. We are giving away a gift to anyone sending us in five or more memberships before May first. The person sending in the most renewals or memberships will win a new Hallicrafter Sky-Chief receiver complete. The next highest person will get a National SW5 AC. receiver complete. The closing dates are graduated so that members everywhere have an equal opportunity of getting their subscribers here. On February 18th the leaders were as follows: L. E. Hansen, Durban, Natal, 23; W. B. McMenamy, Los Angeles, Calif. 11; Mario Bruscia, J. O. Gironard and Arthur Richards, each 7. Jorge Julia and C. G. Hurtado, each 6; Wm. Darby, 5; J. T. Lippincott, F. L. Pope, R. H. Worcester and J. G. Van Gandt, each 4; R. J. Starr and H. J. R. Ross,

three. Remember this was on February 18th. And remember, too, that if you start right in now, you can win one of these prizes.

CHAPTER NEWS

The London Chapter is now in their permanent club rooms at 80 Theobalds Road, Holburn WC1, in the heart of London. Receivers and a transmitter will soon be installed for use by members, as will also be a very complete library. They will meet every Friday at 7:30 P.M. and will also be open all day on Saturday and Sunday and nightly except Tuesdays 6:00 to 11:00 P.M. The Friday night meetings will provide many interesting demonstrations and topics of great value. Don't forget, Friday at 7:30 P. M.

The Brighton, England, Chapter opened January 23rd with a meeting at Brighton Technical College. We give special thanks to Dr. W. Mansergh Varley, M. A., Principal of the College, to the "Brighton and Hove Herald" and to John C. Bennett of 205 Braeside Avenue, Brighton 6. For further details write to Mr. Bennett.

The Guernsey Chapter now meets weekly at 5 Well Road, St. Peters Port. For details write to F. S. Le Pavoux, 8 Upper Canichers, St. Peters Port, Guernsey Islands.

The New York Chapter meets at Stuyvesant High School, East 15th Street and Second Avenue, on the first and third Fridays of the month at 8:00 P. M. For details write to 2610 Glenwood Road, Brooklyn. Features planned for this season are: Television demonstrations, visit to a radio tube factory, 5 meters broadcast tests, photoelectric cells, visit to a large radio receiver factory. Code instructions are given at 7:30 P.M. each meeting night. Receivers are demonstrated and many other interesting topics are brought up each meeting. Anyone not now attending meetings should arrange to do so, or they will miss many interesting things.

The Fourth Annual dinner and dance held by the combined British chapters will take place Saturday, April 3rd, at First Avenue Hotel, Holborn, London WC1. Tickets are 7/ each. Every year this is a huge success, with many diplomats and high radio officials attending. Members all over Europe look forward to this affair. For tickets write to Arthur E. Bear, 100 Adams Garden Estate, London SE16.

AMATEURS

Every day there are hundreds of amateur stations heard near 20 meters between 14.11 and 14.30 mc. Many of these are overseas. None operate regularly. Here is a list of amateurs in Asia, Africa and Australia that actually have verified reports sent to them, and these veries have been seen by your editor. There are other stations on the air but we have not seen verifications from them. For addresses, we suggest that you buy a copy of Radio Amateur Call-Book which lists over 62,000 amateur stations, with the address of each one. These sell for \$1.25 a copy and we will accept your order for one. The list follows: Australia (all stations begin with call VK), VK2AZ, 2ABG, 2AP, 2AS, 2ABD, 2AT, 2OK, 2EX, 2EP, 2RB, 2LZ, 2UC, 2NO, 2HP, 2VA, 2TA, 2UJ, 2NY, 2IQ, 2TF, 2JZ,

2UD, 2SK, 2WJ, 2TF, 2JT, 2OO, 2TI, 2XM, 2XU, 3OC, 3KX, 3HL, 3ZL, 3WU, 3MR, 3GM, 3OC, 3WW, 4HR, 4BS, 4VD, 4BB, 4UU, 4JX, 4SX, 5JC, 5AI, 5FM, 5LR, 5WG, 5SU, 5MZ, 6MW, 7JB, 7KV. For Australia try around 6:00 P.M. to midnight in summer and 4:00 to 9:00 A.M. in winter. Africa: EA8AF, 8LW, 8AB, 8AT, 8AL, 8AN, 8BG, 8AO, 8AS, 8AH, 8LC, SU1GG, SU1T, SU1RK, 1SG, 1CH, 1KG, 5X, 8MA, VQ4CRL, VQ4CRO, ON4CSL, EA9AH, FM4AA, FT4AF, CN8MU, CN8AA, CN8MA, CN8AC, ZT1P, ZT2F, ZT1JR, ZT2B, ZT6Q, ZT6N, ZT6X, ZE1JF, ZE1JR, ZE1JS, ZS1JS, ZS1AH, ZS1C, ZS1B, ZS2N, ZS2X, ZS4J, ZS6AF, ZS6AM, ZS6A, ZS6T, ZS5Z. Asia: PK4DG, PK4AU, PK4VR, PK1MX, KA1KY, KA1AK, KA1AN, S6AQ, XU8MT, CR8AA, VS6AG, VS2AK, VS7RA, VS7GJ, VS7SF, and the following which begin with VU: VU2CQ, 2BY, 2JN, 2HQ, 2LS, 2EB, 2FY, 2CS, 2EB, 2LK, 3KF, 7KH, 7RA and 7RS.

BOOSTERS

To the following people we owe a debt of thanks for securing new members for the club. Such help as this is what any organization needs to carry one. We thank each and every one: Fred B. Heller, Jr., Philadelphia, Pa.; Edward Wiler, Wilmette, Ill.; Douglas Worcester, Honolulu, Hawaii; K. E. Birkes, Norwalk, Calif.; A. F. Larkman, Sidcup, England; F. L. Pope, Harrow, England; Midwest Radio of London, England; J. R. Bournigal, Santiago de los Caballero, Dominican Republic; P. I. Ogilvie, Sudbury, Ontario; Mario Bruscia, Brooklyn, N. Y.; Louis E. Thoreson, Ponoka, Alta.; J. Field, San Diego, Calif.; Ed Lips, Pittsburgh, Pa.; Carl Eder, Willmar, Minn.; M. Grezesak, Chicago, Illinois.

NEW CATALOG

The first copies of a new catalog is off the press, according to a letter from the Hammarlund Mfg. Co. This new catalog shows the new Hammarlund Super-Pro receiver, speakers, coils, condensers, coil forms, tube and coil sockets, transformers and just about everything that a short wave listener or amateur may want. A copy will be mailed free of charge to anyone writing to the Hammarlund Company.

SPECIAL PROGRAM

A special program will be broadcast over W1XAL, Boston, on March 27th, at 8:00 P. M., E.S.T. (2200 G.M.T.) and a talk will be given by member Joseph T. Lippincott, of Tufts College, Mass. Reports will be appreciated. Try on 11.79 mc. and if not found, try 6.04 mc.

FOR SALE—23-Tube Scott receiver, completely up-to-date, no cabinet, one speaker, \$125.00; also ACR 175 RCA Communication type receiver, \$50.00, practically new. C. R. Brown, Tazewell, Virginia.

SELL-TRADE—High quality imported French clarinet and case for receiver such as Scott, Silver, Patterson or similar. Glenn Watt, Chanute, Kansas.

WANTED—RME-69 or NC-100 receiver. Ballantine, 1809 Cheltenham Avenue, Philadelphia, Pa.

SHORT WAVE NEWS

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

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

AUSTRALIA

VPD3, Suva, Fiji Islands, has replaced VPD2 on 9.54 mc. VPD3 is on 8.72 mc. and broadcasts daily 5:30 to 7:00 A.M. (Oxrieder, Dorr, Van Bergen. Is on 8.70 (Butts). On 8.70 from 3:00 A.M. to 7:00 A.M. now, (Karpen). On 8.71 (Hackley). On 8.71 (Eder). On 8.79, not 8.72 or 8.71, (Wooten). On 8.71, (Sevmour, Md., Jessen, Ore.)

ZMBJ on the ship "Awatea" is on 8.84 mc. broadcasting when at sea. They usually phone Australia and New Zealand between 11:00 P.M. and 6:00 A.M. and broadcast between 1:00 to 3:00 A.M. It has 400 watts power and L. H. Jones, the operator, verifies. Slogan is "The Ears and Voice of Tasmania." A great many people have heard it. Recent reports came from (Karpen, Butts, Hammarstone, Bruscia, Shaffer, Wade, Dorr). Broadcasts Sudays at 5:30 P.M. (evenings) and at 7:00 A.M., often on 68 meters, (Meyers, Calif.)

VK9M1 on the ship "Kanimbla" is broadcasting on about 6.01 or 6.02 mc. irregularly. Send reports to 94 William Street, Melbourne Cc. Australia. Heard between 5:00 and 7:00 A.M. usually, (Myers, Calif.)

VK8SC, Port Hedland, West Australia, on 6.96 mc. veries say they have a 200 watt transmitter. This is owned by Australian Medical Service, to broadcast medical services for a flying doctor. Heard every Sunday 4:30 to 5:15 A.M. (Moots, Mo.)

FO8AA, Radio Oceanic, Tahiti, is on 7.10 mc. from 11:00 P.M. to midnight or later on Tuesdays and Fridays. To get it, you must wait till the interference caused by code stations is light. This station is heard by quite a few now. Heard till 12:15 or 12:30 A.M. (Bruscia). 12:45 A.M. (Jessen).

VK3LR on 9.58 mc. sent a special program to the I. S. W. C. on Monday, February first at 5:30 A.M. (Eder, Minn.) Schedule is daily 3:30 to 9:45 A.M., but heard at 2:00 A.M. often, (McMenamy).

VK3ME, Melbourne, has moved from 9.51 mc. to about 9.49 mc., the other side of GSB and ZBW3, although they still say 9.51, (Studholme and Oxrieder).

ZLT, Wellington, New Zealand, is heard phoning Australia between 11:00 P.M. and 6:00 A.M. on 11.05 mc. Australia has telephone stations at Sydney operating on 10.52 mc. and 9.76 mc. They are used to phone Java,

New Zealand and England. When testing they use the call VK2ME. When working Java they use VLJ. When working England they use VLK. When working New Zealand the call VLZ is used.

VK3LR verie says 3:00 to 8:30 A.M. Sunday to Friday and 10:00 P.M. Friday to 8:30 A.M. Saturday now, (Fuller, Quebec). Heard till 9:30 A.M. in England (many).

VK6ME was supposed to have been taken to Suva and used as VPD2, according to letters from the operators. However, reported now on 9.53 mc. as VK6ME near 4:00 A.M. (Jessen, Oregon).

AFRICA

CR7AA, Lourenco Marques. Portuguese Africa, is testing a new 200 watts station on 19.68 meters or 15.24 mc. and 25.60 meters or 11.718 mc. and as we go to press they are both 11.718 mc and 6.137 mc. or 48.88 meters, (Hansen, Durban, Natal). Tests on 15.24 mc., may start any time now. Mr. Hansen says the schedule is weekdays 12:45 to 3:15 P.M. and Sundays 8:00 to 10:30 A.M. and 11:45 P.M. to 12:50 A.M., but we see a schedule sent out by the station showing this one, weekdays 12:15 to 1:00 A.M., 5:00 to 7:00 A.M. and 10:00 to 11:30 A.M. and Sundays 6:30 to 9:30 A.M., 11:30 to 1:00 P.M. and 2:00 to 4:00 P.M. On 11.718 at 10:00 to 11:00 A.M. P.M. and said they would be back at 12:30 P.M. (Walcott, Calif.)

A new station owned by the African Broadcasting Company at Durban, Natal is relaying Durban long wave station on 48.80 meters or 6.137 mc. with only ten watts power, weekdays 3:30 to 7:00 A.M. and 9:00 A.M. to 3:40 P.M. and Sundays 4:00 A.M. to 5:15 A.M. and 8:30 A.M. to 3:00 P.M. (Hansen, Durban, Natal).

ZNB at Mafeking, is a new transmitter operating on 50.84 meters or 5.90 mc. between 2:00 and 3:00 A.M., 9:00 and 10:00 A.M. and 1:00 and 2:00 P.M. Send reports to Government Engineer, Mafeking, Bechuanaland, British Protectorate, South Africa. It has 250 watts power. A portable station ZNC is on almost the same frequency. Another one is on 7.20 mc., and the call is ZN1A, (Hansen, Durban, Natal).

Z1J, Johannesburg, is on a new schedule if it follows out the long wave schedule we received. It relays JB on 6.09 mc. The schedule is 12:15 A.M. to 1:15 A.M., 3:45 to 8:00 A.M. and 12:15 to 4:30 P.M. weekdays and 3:30 to 4:30 A.M. and 8:30 A.M. to 4:30 P.M. Sundays.

ZEB on 6.14 mc. and ZEC on 5.80 mc. both relay the same programs and are both on a new schedule. It is Sundays 3:30 to 5:00 A.M., Mondays 11:00 A.M. to noon, Tuesdays and Fridays 1:15 to 3:15 P.M. and Thursdays 10:00 to 10:15 A.M. and 11:00 A.M. to noon (Boothroyd, England).

EA9AH, Tetuan, Spanish Morocco, sent out many letters and cards with conflicting schedules and wavelengths. This is a 200 watts station operated by General Franco's Army. It seems they are on 14.03 mc. and 7.02 mc., although they say 14.00 and 7.00 mc. and they broadcast any time between 2:00 P.M. and 9:00 P.M. or later, and are usually heard around 2:15 to 4:00 P.M. and 7:00 to 9:00 P.M. on one of these frequencies. One verie said Apartado 127, Tetuan, (Jeffer, England). Another said Apartado

124, Tetuan, (Salazar, New York). Many have heard this station on both waves. Moved to 14.18 mc. some say.

Poste Prive Experimental, at Tunis, North Africa, is a new station testing on 48.72 meters or 6.157 mc. and is heard daily using French between 12:30 and 2:30 P.M. (Orchard, England). FIQA, Madagascar is roaming between 6.02 and 5.98 mc. and broadcasting between 7:00 A.M. and 10:00 P.M., but is seldom heard by anyone. Heard 10:45 to 11:20 A.M. (Super Wasp, Australia). A station FT4AJ operated by M. de Matteis, 20 Es Sadikia, Tunis, is the station mentioned above, (Orchard). Station EA8AF, an amateur, on 7.00 mc. was heard broadcasting war news at 8:00 P.M. (Kash, N. Y.) CR6AA on 9.66 mc. was heard on Wednesday, February 10th from 7:15 to 8:00 P.M. (Karpen, Pa.) This is no reflection on Mr. Karpen, but that is 1:45 to 2:00 A.M. their time, when a station is likely not to be on the air, and the station is not scheduled for that time, either.—Editor. A station in Asmara on 8.06 mc. is broadcasting daily (note) 10:00 to 11:00 A.M., sending gramophone recordings, (Gullberg, Sweden). A station in Djibouti, French Somoliland, on 8.40 mc. was broadcasting news and music one Saturday 3:00 to 6:00 A.M. (Karpen, Pa.)

African phones. SUX, Cairo, Egypt, on 7.98 mc. phones England around 4:00 to 6:00 P.M. SUV, same city, on 10:05 mc. phones around 1:00 to 5:00 P.M. SUZ, same city, on 13.83 mc. phones around 11:00 A.M. to 1:00 P.M. VQG, Nairibo, Kenya, on 19.63 mc. phones London between 7:00 and 8:30 A.M. daily. Address is Box 777. OPL, Leopoldville, Belgian Congo, on 20.04 mc. phones Belgium 10:00 A.M. to 3:00 P.M. OPM, same city, on 10.14 mc. phones between midnight and 2:00 A.M. and 2:00 and 3:00 P.M. ZSS, Capetown, on 18.89 mc. phones England between 6:30 A.M. and 1:00 P.M. CNR, Rabat, Morocco, on 12.82 mc. phones Paris between 3:00 and 4:00 P.M. irregularly. IUG, Addis Ababa, Ethiopia, on 15.45 mc. is phoning Rome, Italy, between 8:15 A.M. and 11:30 A.M. almost every day. IUC, same city, on 11.95 mc. is heard between 11:00 P.M. and 2:00 A.M. next day. IDU, Asmara, Eritea, on 13.38 mc., phones Rome around 11:00 A.M. to 2:00 P.M. Alger, Algeria, on 12.12 mc. phones Paris around 10:30 A.M. to 1:00 P.M. The same station on 8.96 mc. phones Paris between 1:00 and 5:00 A.M. The address is 137 Rue de Constantine, Alger. FZE9, Station intercoloniale de T. S. F. de Djibouti, Cote Francaise des Aomalis, French Somaliland on 7.567 mc., phones Paris at night, and FZE8 on 17.28 mc. phones Paris between 5:00 A.M. and 2:00 P.M. Verifications from IUD, IUG and IDU all come from Radio S. Paolo, Roma, Italy. Rabat on 12.82 mc. is heard every Sunday at 7:30 A.M. (Kash, N. Y.) Tripoli on 9.64 mc. phones Rome 1:00 to 2:00 P.M. often, (Gullberg, Sweden). SUZ phoned IQA, Rome, at 2:00 A.M. once, (Bruscia, N. Y.)

ASIA

Our list shows HSPJ, Bangkok, Siam, on 19.02 mc. and 9.35 mc.; VPB, Colombo, Ceylon, on 6.08 mc.; VUB, Bombay, India, on 9.57 mc.; Calcutta, India, on 6.11 mc.; Saigon, Indo-China, on 11.73 mc.; ZBW2, Hong Kong, on 6.09 mc.; ZBW3 on 9.52 mc.; XGOX, Nanking, China, on 6.82 mc.; JZJ, Tokyo, Japan, on 11:80 mc.; JZI, Tokio, on 9.53 mc.; JZK on 15.16

mc.; JVN on 10.66 mc.; YDB, Bandoeng, Java, on 9.65 mc.; PLP, Bandoeng, on 11.00 mc.; PMN, Bandoeng, on 10.28 mc.; YDC, Bandoeng, on 15.15 mc.; PMH, Bandoeng, on 6.72 mc.; PMY, Bandoeng, on 5.15 mc.; RV15. Khabarovsk, U.S.S.R. on 4.25 mc.; ZHJ, Penang, Malay States, on 6.08 mc.; ZHI, Singapore, Malay States, on 6.01 mc.; CQN, Macao, Portuguese China, on 10.02 mc. and ZGE, Kuala Lumpur, Malay States on 6.15 mc.

India. New 10,000 watt stations are planned now for Bombay, Delhi, Madras and Calcutta, India. These stations will probably not be heard for a year, however. All India Radio, Ltd., has a transmitter now at Delhi operating between 50 and 200 meters, but we have no details. Norman Baynes of Bangalore, India, sends us a letter he received from J. Pushparay, Director of station VU7MC, Wireless Station, Palace, Mysore, India, and it says they are on 49.03 meters or 6.085 mc. from 7:00 to 8:00 A.M., E.S.T. every Wednesday. A station VU2LZ at Rangoon, Burma, on 42.85 meters or 7.00 mc. was heard phoning the ship "Khandalla" from 7:00 to 8:00 A.M. once, (Cooke, India). VWY, Poona, India, on 8.98 mc. phones England between 6:00 and 10:00 A.M. VWY2 on 17.48 mc. phones England around 6:30 to 8:30 A.M. VVS a new phone at Mingaladon, near Rangoon, is on 23.31 meters or 12.87 mc. using inverted speech except at close down and phones between 5:00 and 6:30 A.M. (Keenan, Australia). Heard 5:00 to 6:00 A.M. one Saturday (Karpén, Pa.) VUB on 9.56 mc. is reported often at 10:00 A.M. (McMenamy, Calif.) The station schedule says they start at 11:00 A.M. and are on 9.57.—Editor.

VPB, Colombo, Ceylon, is now on 49.14 meters or 6.105 mc. (Orchard, England). This is a rare station. Try around 7:00 A.M.

HS8PJ, Siam, is on 19.02 mc. Mondays 8:00 to 10:00 A.M. and on 9.35 mc. Thursdays 8:00 to 10:00 A.M. HSP, a phone on 17.74 mc. works Berlin mornings, and HSG2 on 15.53 mc. test with JVE, Japan, Sundays at 11:00 P.M. and Fridays at 4:00 A.M. according to letter, (Walcott, Calif.)

Java. Stations YDB, on 9.65 mc., PLP on 11.00 mc., PMN on 10.28 mc. and YDC on 15.15 mc. broadcast the same program from 5:30 to 10:00 A.M. daily and some days till 11:00 A.M. PMH, Bandoeng, on 6.72 mc. also broadcasts between 5:30 and 9:30 A.M. YDA, Tandjongpriok, and a station on 4.87 mc. heard daily 6:00 to 10:30 P.M. on the Pacific coast, (Walcott, Calif.) Stations YDB, PLP, PMN and YDC also broadcast from 6:00 to 7:30 P.M. (evenings), (Ogilvie, ont., and Miller, Ky.) YDB is on 9.66 mc. and PMN on 10.26 mc. and not 9.65 and 10.28 (Oxrieder).

Java Phones. PMA on 19.35 mc. phones Holland between 5:30 and 11:00 A.M. and sometimes sends music. PLE on 18.83 mc. and phones Holland between 5:30 and 11:00 A.M. and phones the U. S. A. and Japan between 6:50 and 8:00 P.M. PLV on 9.42 mc. is heard between 9:30 and 11:00 A.M. and 6:50 and 11:00 P.M. PMC on 18.135 mc. phones Holland between 5:50 to 6:15 A.M. A station PZA, Menado, Celebes, is reported on 7.66 or 7.68 mc. around 5:00 to 7:00 A.M. and YBG, Sumatra on 8.77 mc., between 4:00 and 8:00 A.M. YBZ, Menado, is the call on 7.68 and works PNI at 6:00 A.M. (Myers, Calif.) A new station YCP at Balikpapan, Borneo, on 9.12 mc. phones PNI 6:15 to 6:30 A.M. irregularly, (Walcott, California).

A letter from the Penang Wireless Society of 40 Park Road, Penang,

says ZHJ on 6.08 mc. is on the air daily 12:40 to 14:40 G.M.T., which is 7:40 to 9:40 A.M., E.S.T. (Sparks, Calif.) Announces 49.3 meters, but on 49.7 or 6.03 mc. (Cooke, India). Heard on 6.08 mc. not 6.03, at 7:45 A.M. (Vandecar, Mich.) Heard at 8:00 A.M. (McMenamy, Calif.)

Telephone station KAZ on 9.97 mc. and KTP on 8.12 at Manila, P. I. sent a special Eucharistic Congress program to the U. S. A. February 7th, at 8:00 A.M. (Karpen, Pa.) A new phone, KBT, Manila, on 16.155 mc. is heard calling the ship "Chichibu Maru," midnight to 12:30 A.M. Address is Box 444, Manila, (Walcott, Calif.)

Japan. The latest reports from Japan bring the following schedules for broadcast programs. For the West coast of North America—station JZJ on 11.80 mc. from midnight to 1:00 A.M. For Manchuckuo—JVN (10.66 mc.) JVH (14.60), JVP (7.51) and JVT (6.75) all day. For Europe—JZI (9.53) and JVP (7.51) from 2:30 P.M. to 3:30 P.M. daily. For Eastern U. S. A.—JVN (10.66) and JZJ (11.80), daily 4:00 to 5:00 P.M. For Australia—JZI (9.53) and JZJ (11.80) from 8:00 to 9:00 A.M. daily. (This is not true, however, as the stations are heard from 9:00 to 10:00 A.M. This is from George Swimmer of Ohio. We have reports on all but stations JVP and JVT "all day" as they put it. (Ogilvie, Murphy, Wilson, Studholme, Herzog, Swope, Shaneyfelt, McMenamy, Teague, Rossi, Woodward, Hofmaster, Shaffer). Station JZL on 17.78 mc. heard once 7:00 to 7:45 (Karpen, Pa.) JZJ sent special program to U.S.A. 10:30 P.M. to midnight January 30th, (Herzog, N. Y.) JZI and a JZK on 16.16 mc. (must mean 15.16—Editor), heard 4:00 to 5:00 P.M. (Myers, Calif.)

Japanese phones. JVL on 11.66 mc. heard 6:00 to 7:00 A.M. JVT on 6.75 mc. heard 2:15 to 3:15 A.M. and 5:00 to 7:00 A.M. JVO on 10.37 mc. heard 3:00 to 4:00 A.M. JVD on 15.86 mc. almost all day and night phoning JVM on 10.74 mc. phones California 12:30 A.M. JVH on 14.60 mc. has been heard broadcasting and telephoning 5:30 to 11:30 A.M. and at 6:39 P.M. JVG, on 14.91 mc. calling San Francisco and sending music at 4:00 P.M. (Swope, Calif.) JVV on 5.73 mc. broadcasting 3:00 to 5:00 A.M. (Karpen). JVP phoned KEE and KES 6:30 A.M. (Wilbur, N. J.) JVM heard till 9:30 A.M. (Shaffer). JVN heard 7:30 to 8:00 A.M. on Tuesday, (Herzog, New York). JVK on 12.02 mc. heard 5:00 to 6:00 A.M.

Japanese airports are heard on about 6.48 mc. between 2:00 and 5:45 A.M. J2AA, Haneda Airport, J2IK, J3AI and J2AF are heard (Walcott, California).

TDE, Shinkio, Manchukuo, on 10.065 mc. phones Japan between 11:00 P.M. and 4:00 A.M. next day. Also at 7:00 A.M. once, (Solito, Pa.) Station TDD, same city, on 5.83 mc., was heard between 6:30 A.M. and 9:30 A.M. (Walcott, Calif.) Station JDY, Dairen, Kuangtung, Manchukuo, works JVN and JVD on 9.925 mc. Heard 2:45 to 3:30 A.M. and once at 8:45 P.M. and once at 10:00 P.M. (Walcott, Calif.)

JFZC, on the ship "Chichibu Maru" was heard phoning KWU around 10:00 P.M. on 6.65 mc. (Grey, Ill.) At 9:00 P.M. (Gallagher, Calif.) JFZC, heard on 17.70 mc. daily now, 11:00 P.M. to midnight phoning JVE Japan, and midnight to 12:30 A.M. calling KBT, Manila. Also on 8.89 mc. at 6:15 A.M. once and on 6.65 mc. phoning JZG Japan (6.33) between 2:00 and 8:00 A.M. often, (Walcott, Calif.)

JIB, Taiwan, Japan, on 10.53 mc. telephones between 11:00 P.M. and

5:00 A.M. JIC, same city, on 5.89 mc. phones daily now that winter is here from 6:00 to 9:00 A.M.

ZBW, Hong Kong, Asia, sends us a letter saying they are taking the transmitter on 8.75 meters off the air for good and will have the following frequencies, using a new, more powerful transmitter. ZBW2 on 49.26 meters, 6.09 mc. ZBW3 on 31.49 meters, 9.525 mc. ZBW4 on 19.75 meters, 15.19 mc. and ZBW5 on 16.90 mc. and 17.755 mc. The present schedule is as follows: Daily except Saturdays 11:30 P.M. to 1:15 A.M., Saturdays 9:00 P.M. to 1:30 A.M.; Tuesdays, Wednesdays and Fridays 3:00 A.M. to 10:00 A.M.; Mondays and Thursdays 4:00 to 10:00 A.M.; Saturdays 3:00 to 11:00 A.M. and Sundays 3:00 to 9:30 A.M. Stations ZBW2 and ZBW3 will be used in winter and ZBW4 and ZBW5 in summer. ZBW3 is now heard quite often in America between 5:00 and 10:00 A.M., while ZBW2 was reported by one member.

Chinese Phones. XGN, 17.64 mc, all day. XOJ, 15.79 mc., all day. XGW, 10.42 mc., all day. XTC, 9.285 mc. phones Hankow, 5:00 to 11:00 A.M. XGU, 9.28 mc. phones all day. XOU, 8.04 mc. works all day. XGV, 7.41 mc. heard 5:00 to 11:00 A.M. XTD on 5.74 mc. phones Hankow 5:00 to 11:00 A.M. and at times 5:00 to 9:00 P.M. All these are at Shanghai. XTV, 9.49 mc. at Hankow phones 5:00 to 9:00 A.M. XFZ on 5.48 mc. phones 8:00 to 11:00 A.M. and 5:00 to 9:00 P.M. A YTV, Canton, China, on 9.30 mc. and 9.50 mc. phones 7:00 to 10:00 A.M. and broadcasts music irregularly. (Myers, Calif.)

Siberia, U. S. S. R. The following phones are reported working at the time indicated: RRR, Khabarovsk, 15.95 mc., 5:00 to 8:00 A.M. ROU, Omsk, 14.79 mc., 5:00 to 7:00 A.M. RTZ, Irkutsk on 12.88 mc. midnight to 2:00 A.M. RFI, Khabarovsk, 13.19 mc. around 6:00 A.M. to 9:00 A.M. RVU, Vladvostok, on 13.79 mc., around 6:00 A.M. RWJ, Alma-ata, on 12.18 mc., 5:00 to 7:00 A.M. RVV, location not known, 10.35 mc. 9:00 P.M. to 1:00 A.M. RAD, location unknown, 6.83 mc. around 8:00 A.M. Others are reported on 6.72 mc., 8.17 mc., 8.28 mc., 12.95 mc., 13.24 mc. and 7.36 mc., but details are lacking.

Alexandrovsk, Sakhalin Island, on 6.73 mc.; Petropavlosk, Kamchatka on 5.446 mc.; Nikolaievsk, Siberia, on 4.77 mc. were heard 5:45 to 6:45 A.M. often and once 9:45 to 10:15 A.M. testing with RV15. Nikolaievsk on 4.77, broadcasts 6:30 to 8:45 A.M. at times. A station on 11.72 mc. is heard broadcasting from 1:00 to 5:30 A.M. while phone stations on 14.57 mc., 10.74 mc., 11.96 mc., 12.39 mc., 11.22 mc. and 6.16 mc. have been heard between midnight and 8:00 A.M. (Walcott, Calif.) A station roaming around 11.60 mc. and 11.62 mc., heard midnight to 3:00 A.M. (Callagher, California).

THE EUROPEANS

OER2, owned by the Austrian Broadcasting Company, Vienna, is on 11.78 mc. broadcasting from 9:00 A.M. to 5:00 P.M. weekdays, excepting Saturdays, when they stay on till 6:00 P.M. Veries say 11.801 mc. but it is on 11.78 mc. (many reports).

PHI, Huizen, Holland, as published last month, moved to 17.77 mc. and

arranged to broadcast Sundays 6:30 to 9:50 A.M. and Mondays, Fridays and Saturdays 7:30 to 9:30 A.M. PCJ, Eindhoven, on 15.22 mc. broadcasts Tuesdays 4:30 to 6:30 A.M., Wednesdays 8:00 to 11:00 A.M. and on 9.59 mc., Sundays 2:00 to 3:00 P.M., 7:00 to 8:00 P.M., Tuesdays 1:30 to 3:00 P.M. and Wednesdays 7:00 to 10:00 P.M. PHI heard till 10:42 one Monday, (Waite). PDK on 10.42 broadcasting at 4:30 P.M. one Sunday, (Child, Pa.)

TFJ, Reykjavik, Iceland, on 12.24 mc. broadcasts Sundays 1:40 to 2:00 P.M. in English and 2:00 to 2:30 P.M. in German or Danish. This station also phones England and Denmark irregularly. Calls GBC 9:30 to 10:45 A.M. daily, and calls OXT which is supposed to be on 12.30 mc. at Copenhagen, (Walcott, Calif.) Also at 5:00 A.M. once, (Walcott). Phoned at 10:00 A.M. (Myers, Calif.) Verie says 12.225 mc. not 12.24 mc, (Fuller, Que.) Another says 12.235, (Herzog, N.Y.)

SM5SX, Sweden, relays Stockholm medium wave station on 11.71 mc. Heard every Sunday 5:00 to 7:00 A.M. and often Wednesdays 4:00 to 5:00 P.M., but never 5:00 to 6:00 P.M. as published. (Gullberg, Sweden). Heard at 9:10 A.M. once, (Thoreson, Alta.) Medium wave station schedule is weekdays 11:00 A.M. to 5:00 P.M. and Sundays 3:00 A.M. to 5:00 P.M. (Boothroyd, England).

The programs from England for March are:

21.47 mc.—GSH from 6:00 to 8:45 A.M. and 9:00 A.M. to noon.

17.79 mc.—GSG from 6:00 to 8:45 and 3:00 to 5:00 A.M.

15.26 mc.—GSI from 12:15 to 3:45 P.M.

15.18 mc.—GSG from 3:00 to 5:00 A.M.

15.14 mc.—GSF from 9:00 A.M. to noon and 4:00 to 5:45 P.M.

11.75 mc.—GSD from 12:15 to 5:45 P.M., 6:00 to 8:00 P.M., 9:00 to 11:00 P. M.

9.51 mc.—GSB from 3 to 5 A.M.; 6 A.M. to noon; 12:15 to 5:45 P.M.; 6:00 to 8:00 P.M.; 9:00 to 11:00 P.M.

2RO4, Rome, Italy, on 11.81 mc. broadcasts from 6:43 A.M. to 12:30 P.M. and then moves to 9.64 mc. from 12:30 to 5:45 P.M. and 6:00 to 7:45 P.M. except Sundays when they close at 5:45 P.M. The editor heard 2RO4 broadcasting between 5:00 and 6:00 A.M., when not scheduled.

Italian Phones. IAC, Piza, is on 17.70 mc., 12.795 mc., 12.865 mc. and 6.35 mc. IQA, Rome, is on 14.73 mc., IRJ is on 13.22 mc., IRY is on 16.12 mc. and IBS is on 14.485 mc. IAC on 17.70 mc. phones Africa (Asmara and Ethiopia) daily from 9:00 A.M. to 1:00 P.M. and you can also try for them on 12.795 mc. at that time. IBS sometimes replaces IAC and heard 6:30 to 11:00 A.M. (Studholme, England). Heard 9:30 to 11:30 A.M. (Walcott, Calif.) IQA sent a special broadcast to U. S. A. February 16th at 2:00 P.M. (Shepperd, Mass.) IAC also on 17.52 mc. at times, (Myers, Calif.)

YTC, Belgrade, Yugoslavia, on 6.10 mc. schedule now is daily 1:00 to 3:00 A.M., 6:30 to 8:25 A.M., noon to 6:25 P.M., Sundays at 6:15 A.M., Thursdays and Saturdays 8:45 to 9:00 A.M. English is used daily 3:30 to 3:45 P.M. and some days 1:20 to 1:40 P.M. (Studholme, England). Heard 3:30 to 4:10 P.M. once, (Kash, N. Y.) The best time to get this station is between 1:00 and 3:00 A.M. in America.

LZA, Sophia, Bulgaria, says they are on 20.04 mc. but is heard on 14.92

mc. We have received three different schedules now, and have reports showing reception that does not agree with these. Latest one is weekdays 1:00 to 3:00 A.M., 6:30 to 8:30 A.M. (except Sat. and Sun.), noon to 2:00 P.M. and 2:40 to 5:00 P.M., Sundays same except 4:00 to 4:30 A.M. and 6:15 to 8:30 A.M. Heard, however, 5:00 to 6:00 A.M. on 14.90, (McMenamy, California).

The program from Germany for March follows:

- 17.76 mc.—DJE—12:05 to 5:15 A.M.; 5:55 to 11:00 A.M.
- 15.34 mc.—DJR—8:00 to 9:00 A.M.
- 15.28 mc.—DJQ—6:00 to 11:00 A.M., 4:50 to 10:45 P.M.; Sundays 11:10 to 12:25 P.M.
- 15.20 mc.—DJB—12:05 to 5:15 A.M., 5:55 A.M. to 11 A.M., 4:50 to 10:40 P.M., Sunday 11:10 A.M. to 12:25 P.M.
- 15.11 mc.—DJI—12 to 2 A.M.; 8 to 9 A.M.; 11:35 to 4:30 P.M. Sundays 6:00 to 8:00 A.M.
- 11.77 mc.—DJD—11:35 A.M. to 4:30 P.M.; 4:50 to 10:45 P.M.
- 9.54 mc.—DJN—12:05 to 5:15 A.M.; 5:55 to 11 A.M.; 4:50 to 10:45 P.M.
- 9.56 mc.—DJA—12:05 to 5:15 A.M., 4:50 to 10:45 P.M.
- 6.02 mc.—DJC—11:35 A.M. to 4:30 P.M.

Germany also has experimental stations, DZA on 9.675 mc., DZB on 10.04 mc., DZC on 10.29 mc., DZE on 12.13 mc., DZG on 15.36 mc. and DZH on 14.46 mc. which may be used at times. DJP on 11.85 mc. is heard most every afternoon starting around 11:35 A.M. and lasting till 4:30 P.M. DZC, DZE and DZH heard every Wednesday from 1:00 to 3:30 P.M. with program; DFL on 10.85 mc. heard sending music 5:00 to 7:00 P.M. once. And DZB heard 3:00 to 5:00 P.M. one Friday (Flagg, Mass.). DZH and DZC, January 30th 5:30 to 7:45 P.M. (Teague, Mich.) DZE sent program to radio club Pernambuco, Brazil, at 2:00 P.M. once and DZC sent special at 9:30 A.M. once, (Pegge, England).

OLR, Podebrady, Czechoslovakia, uses many frequencies and schedules. This is just outside of Prague, or Praha as some spell it. The latest call-signs and frequencies are as follows: OLR2A on 6.01 mc. (49.92 meters); OLR2B 6.03 (49.75), OLR2C 6.115 (49.06), OLR3B 9.50 (31.57), OLR3A 9.55 (31.41), OLR4B 11.76 (25.51), OLR4A 11.84 (25.34), OLR4C 11.875 (25.26), OLR4D 11.90 (25.21), OLR5C 15.16 (19.79), OLR5A 15.23 (19.70), OLR5B 15.32 (19.58), OLR6A 21.35 (13.99). The special American program Mondays and Thursdays now runs from 7:00 to 10:00 P.M. on 9.55 mc. (Ward, N.Y.) The latest schedule sent out follows: Daily 9:00 A.M. to noon and 2:30 to 4:30 P.M. Sundays 2:00 to 7:00 A.M. Mondays 7:00 to 9:00 P.M. Wednesdays 7:00 to 9:00 P.M. Thursdays 5:00 to 7:30 A.M., and Saturdays 5:00 to 7:30 A.M. They are on ONE wavelength at a time, and no one knows which one it will be. (Herzog, Swimmer). Another says 7:00 to 9:00 P.M. Tuesdays and Fridays (Studeholm, England). We believe this is Mondays and Thursdays in America—Editor. We have many reports on this station on many wavelengths. They change from day to day so it is useless to repeat these reports.

Spain. The war has opened many stations in Spain. A Spanish newspaper says that ECN1, Barcelona, is on 6.99 mc. (42.88 meters) regularly, noon to 7:00 P.M. using the slogan "C. N. T. F. A. I." PSU1 at Barcelona,

is on 7.128 mc. (42.08) from 2:30 to 5:30 P.M. ECP2, "Radio P. O. U. M." is on 7.143 mc. (42.00 meters) between 1:00 and 3:30 A.M. (Espoy, Calif.) EAH, General Union Workers' Station at Valleras, near Madrid is on 31.65 meters or 9.48 mc. irregularly now, 4:00 to 5:00 P.M. EASR1 "Habla Marina," operated by the Loyalist fleet off Cartagena was heard 3:30 to 5:30 P.M. once. The address of CNTFIA was given as Via Layetant 32 y 34, Barcelona. PSU1, Barcelona, on 7.18 was heard 3:50 to 4:10 P.M. and said it was owned by United Socialist Party of Catalonia, Hotel Colon. SNU, Barcelona, on 7.00 mc. was heard at 2:00 P.M.. EAP1, on 7.08 was heard at 5:00 P.M. Radio Sponsqua, San Sabastian, on 7.22 mc. is heard daily at 8:00 A.M. in French, 8:15 A.M. in English, 1:30 P.M. in English and 1:45 P.M. in French. All this news is from J. M. R. Studholme of England. EDR4, San Sabastian, is heard moving around on 6.535 mc., 6.565 mc. and 6.583 mc. (Oxrieder, Pa.) Heard on 6.54 mc. and broadcasts 4:00 to 5:05 P.M. now, (Herowitz, Md.) EAJ1, Barcelona, on 41.70 meters or 7.194 mc. is heard daily 4:00 to 5:00 P.M. (Orchard, England). EDN-EHY, Madrid, on 10.07 mc. broadcasts daily now 3:30 to 5:30 P.M. (Solito, Pa.) EAQ, Madrid, on 9.68 mc. say their schedule is 5:15 to 9:30 P.M. daily and 1:30 P.M. to 9:30 P.M. Saturdays, (Stark, Mo.) Many say it is off the air, others say it is still heard very weakly, starting around 3:00 P.M. EAJ8, Radio Raquette, San Sabastian, on 7.203 mc. is another. It has 200 watts power and broadcasts daily 3:30 to 4:00 A.M. and 8:30 to 10:00 A.M., noon to 4:00 P.M. and 5:00 to 7:00 P.M. The address is Avenida 27. (Curiel, Curacao). Same and uses English at 8:15 A.M. and 1:30 P.M. (Studholme, England). Radio Barcelona, on 7.00 mc. relays EAJ1 using English at 6:30 P.M. (Studholme). EAIAZ, Corunna, on 7.00 mc. is heard daily 2:55 to 3:20 P.M. with war news (Stevens, England). EARR, the official rebel army station near Madrid is on 14.50 mc. from 4:00 to 5:00 P.M. giving was news, (Bradley, N. Y.) EAQ on 19.72 mc. broadcast from 12:30 to 1:00 P.M. February 7th, (Child, Pa.)

Switzerland. HBH is on 16.22 meters, 18.48 mc., HBJ is on 20.64 meters, 15.54 mc. HBO is on 26.31 meters, 11.402 mc. HBL is on 31.27 meters, 9.595 mc. HBP is on 38.47 meters, 7.797 mc. HBL and HBP broadcast every Saturday from 5:30 to 6:15 P.M. and the first Monday of each month from 4:00 to 7:00 P.M. A station HBF is reported on 18.45 mc. A card says HBO is used Mondays 1:30 A.M., HBL and HBP the first Monday from 7:00 to 8:00 P.M., and HBF and HBH are commercial stations. HBL and HBP heard first Monday 8:15 to 8:45. HBL is testing on a new frequency of 9.345 mc., with directional aerials toward America, (Fuller, Hansen). HBO, HBJ and OER2 sent special program via WQP February 14th, 3:30 to 4:00 P. M. (Herzog),

LKJ1, Jeloy, Norway, is on 9.53 mc. from 5:00 to 8:00 A.M. and on about 6.13 mc. from 11:00 A.M. to 6:00 P.M., although reports differ on the exact frequency. One member (Boothroyd, England) says they are on 50.00 meters or 6.00 mc. Another (Orchard, England) says 49.03 meters, 6:13 mc. Another (Linbergh, Sweden) says 49.25 meters, 6.09 mc., and another (Hughes, England) says 48.5 meters or 6.19 mc. This certainly is a mixed-up affair. On 6.13 (Gullberg, Sweden). LKJ1, on 9.53 sent a special program February 17th from 1:00 to 2:00 A.M. (Kash, Wilbur).

HVJ, Vatican City, sent a special broadcast to Manila on 15.12 mc. one Sunday between 7:30 and 8:00 A.M. (Gullberg, Sweden, and Karpen, Pa.)

CSW, Lisbon, Portugal, is on several waves now. They are on 22.00 mc. or 13.63 meters from 11:00 to 4:00 P.M., on 11.05 mc. from 4:00 to 6:00 P.M. and on 9.94 mc. from 6:00 to 9:00 P.M. according to member Karpen of Pennsylvania, but we doubt this. It is on 11.84 mc. from 11:00 A.M. to around 1:30 P.M., then on 11.04 mc. from 1:30 to 6:00 P.M. and on 9.94 mc. from 6:00 to 9:00 P.M. according to most reports. No one else says 22.00 mc. (Oxrieder, Ogilvie, Fuller, Baines, Stockbridge, Stark, Dement).

CTIAA, Lisbon, is also testing on several waves. One report is that they are on 25.23 meters or 11.89 mc. every Sunday between 12.30 P.M. and 3:00 P.M. (Boothroyd). On 24.57 meters Sundays 1:00 to 3:00 P.M. (Wilson, England). On 12.00 mc. 4:50 P.M. (Van Bergen). On 25.40 meters Sundays, (Hughes, England). On 12.12 mc. between 11:00 A.M. and 7:00 P.M. (Gullberg, Sweden). On 12.12 mc. one Tuesday, (Herowitz, Md.) They are also on 9.65 or 9.67 mc. (moving around) Tuesdays, Thursdays and Saturdays 4:00 to 7:00 P.M.

Portuguese Catholic Radio Station is heard on 5.97 or 5.98 mc. broadcasting between 2:00 and 5:30 P.M. almost daily now, (Jeffer, Studholme and Lindbergh).

Russia. The schedule for the Soviet Republics is:

6.00 mc.—RV59—daily 2:00 to 5:00 or 6:00 P.M.

9.60 mc.—RAN—daily 7:00 to 9:30 P.M.

12.00 mc.—RNE—Sundays 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M. and Wednesdays 6:00 to 7:00 A.M.

RAN started broadcasting until 9:15 or 9:30 P.M. last month, (Ogilvie, Van Bergen, Elchepp, Shaneyfelt, McMenamy, Shuler, Groves).

Soviet Phones. RIM, Tashkent, on 15.25 mc. is heard 5:00 to 9:00 A.M. RKI, Moscow, on 15.04 mc. is heard 3:00 to 11:00 A.M. RNE on 12.00 mc. is heard 3:00 to 11:00 A.M. RIO, Bakou on 10.17 mc. is heard 10:00 P.M. to 4:00 A.M. RIR, Tiflis, on 10.07 mc. is heard 10:00 P.M. to 4:00 A.M. RIM, Tashkent, on 7.63 mc. is heard 9:00 to 11:00 A.M. RKI, Moscow, on 7.51 mc. is heard 9:00 to 11:00 A.M. A station RWG on 40.76 meters, 7.36 mc., was testing at 3.45 P.M. and said a concert would be sent to New York, (Smith, England). RWG on 20.38 meters, 14.72 mc. heard phoning evenings, (Lively, W. Va.) RIR was heard at 4:55 P.M. once. RDM on 5.98 mc. heard 11:05 to 11:35 A.M. once. Also phones daily at 3:00 P.M. Other Russians heard phoning on 6.75 mc., 8.34 mc., 13.50 mc. and 6.70 mc. RNE broadcast 9:30 to 10:30 A.M. once and RKI on 15.04 mc. was heard 3:00 to 3:10 P.M. once, Studholme, England).

ON4VR, Namur, Belgium, heard on 45.00 meters or 6.69 mc. testing 10:15 to 11:00 A.M. with lady announcing. Is amateur station preparing to start regular broadcast service. Address 66 Rue Malevey, St. Servais, Namur (Studholme, England).

France. Programs from Pontoise are scheduled as follows:

15.25 mc.—TPA2 from 2:00 to 2:55 A.M. and 5:55 to 11:00 A.M.

11.90 mc.—TPA3 from 2:00 to 5:00 A.M. and 11:15 to 6:00 P.M.

11.70 mc.—TPA4 with 6:15 to 8:00 P.M. and 10:00 P.M. to 1:00 A.M.

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



23 Tube High Fidelity SCOTT Equipped
with "MAGIC LINK" IN AMAZING DEMONSTRATION
PROVES QUIET FOREIGN RECEPTION
NOW POSSIBLE IN BAD RECEIVING LOCATIONS

On Wednesday, October 7, 1936, at the SCOTT Radio Laboratories, a small group of radio engineers and short wave enthusiasts were shown, for the first time, the latest development of the SCOTT Research Laboratories. They intently watched two radio sets at one end of a room—both connected to the same lead-in with a two-way switch, and both tuned in to DJB, Germany, 15.20 megacycles.

Germany Blotted Out

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

Clear With "Magic Link"

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

the sensational new "MAGIC LINK", the SCOTT Supershield Antenna Coupling System, and from Germany, over 4,000 miles away, the program came in as crystal clear, strong and enjoyable as a local station—all without the slightest trace of "man-made" static from the violet ray machine, vacuum cleaner and spark coil, each crashing and spluttering only three feet away from the antenna lead-in.

Quiet Foreign Reception Now Possible for First Time in Many Locations

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

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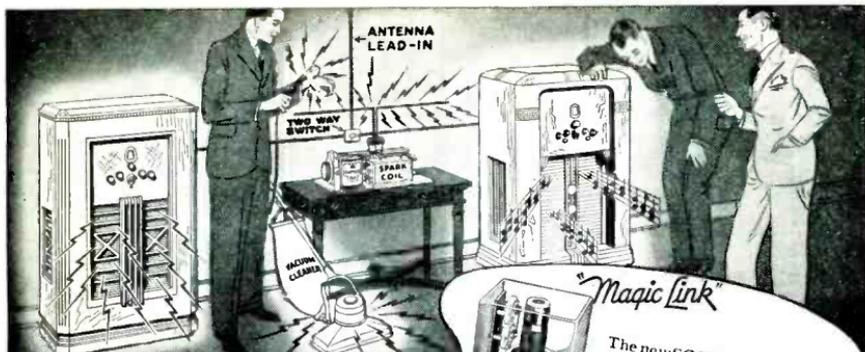
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WHAT SCOTT SUPERSHIELD ANTENNA COUPLING SYSTEM ACCOMPLISHES

1. Doubles sensitivity or distance-getting ability of antenna and receiver combination, as compared with best results with any previous noise-reducing antenna with inefficient shielded coupler.
2. Improves antenna lead-in signal to noise ratio by 100 to 1.
3. Eliminates shielded coupler switch. Switching from broadcast to short wave bands is automatic with SCOTT Supershield Antenna Coupling System.

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

Compare In Your Own Home

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



"Magic Link"

The new SCOTT Supershield Antenna Coupling System—100 times more effective than any other "noise reducing" system in slashing away from the lead-in "man-made" static so disturbing to enjoyable, dependable foreign reception.

It is impossible to describe the sensational increase in listening pleasure which this new development now makes possible. Only by an actual *listening test* can you appreciate how much more enjoyably foreign short wave stations can now be received on the 23-tube SCOTT.

Send TODAY for complete proof — and full description of this remarkable new development that now makes possible in conjunction with the 23-tube FULL RANGE HIGH FIDELITY SCOTT Receiver, unparalleled tone, and distance performance in every continent of the globe. Discover this vast new world of radio entertainment you will never hear without a SCOTT. SEND COUPON NOW.



FREE-SEND TODAY FOR DETAILS

E. H. Scott Radio Laboratories, Inc.
4434 Ravenswood Ave., Dept. 8C7
Chicago, Ill.

Send details of unequalled D X Tone of 23-Tube SCOTT with new "Magic Link" Antenna Coupling System.

Name

Address

City State

Letters do not show TPA2 from 2:00 to 2:55 A.M. or TPA3 from 2:00 to 5:00 A.M. (Fuller, Quebec.) They are heard however—Editor. Someone in Mexico sent us a booklet saying TPA4 is on 11.72 mc. but did not give their name. This station is on the other side of CJRX, on 11.70 mc., look and see. French broadcast stations are heard on 9.81 mc., from 6:00 to 11:30 P.M. often. (McMenamy, Calif.) and on 9.10 mc. between 3:00 and 3:10 A.M. every night with music and talks in French. (Chavez, Calif.)

French phones. FTM on 19.35 mc. heard mornings. TY1 on 19.22 mc. FTE on 18.25 mc. heard mornings. TYE1 on 18.09 mc. irregular. FTK on 15.88 mc. phones Saigon daytime. TYE2 on 13.76 mc. irregular. TYA on 12.22 mc. irregular. FTA on 11.95 mc. irregular. TYE3 on 10.42 mc. phones New York from 3:00 to 7:00 P.M. TYA2 on 9.04 mc. phones irregular. TY4 on 7.37 phones ships. TYI2 on 4.185 phones ships. FTK on 15.88 mc. phones irregular. TYE2 sent special 2:30 P.M. once. (Hersowitz) FTH on 10.94 mc. heard often 4:20 A.M. (Walcott.) Verie says TYA2 is on 9.037 mc. and TYA is on 12.22 mc. around Midnight. (Myers, Calif.)

SPW, Warsaw, Poland, on 13.63 mc. broadcasts Mondays, Wednesday and Fridays, from 12:30 to 1:30 P.M. Sent special program to NBC via DJD from 2:30 to 3:00 P.M. on February 3rd. (Herzog.)

HAT4 verie says 9.135 mc. not 9.125 mc. (Stark, Mo.) Heard on 9.125 Sundays from 6:00 to 7:00 P. M.—Editor.

SOUTH AMERICANS

OAX4J, Radio Internacional de Lima, Peru, relays OAX4I now on about 9.33 mc., although they were heard roaming around between 9.32 and 9.78 mc. before settling down. They have a lady announcing, are heard between 6:30 and 10:45 P.M. as a rule, but as late as 1:00 A.M. testing at times and the address is Casilla 1166, Lima. (Verbrughe, Michigan; Oxrieder, Pa.; Atheron, Vt.; Spuhler, Ohio; Espoy, Calif.; Walcott, Calif.; and Gallagher, California.)

OAX1A, Radio Delcar, "La voz de Chiclayo," Casilla No. 9, Chiclayo, Peru, is on about 6.16 mc. broadcasting evenings. Uses slogans like "La Voz de Ica" and "Radio Philco" and signs off with "Good Night Song."

OAX4Z is a new one relaying OAX4A, "Radio National" on 6.09 mc., evenings. (Oxrieder, Pa.)

OAX5B, "Radio Universal" and "La Voz de Ica" is on about 11.795 or 11.80 mc. broadcasting between 7:00 and 11:30 P.M. daily. (Walcott.) It is heard 8:00 P.M. to Midnight. (Gallagher) Heard at 12:55 A.M. (Stark, Mo.) Schedule is 11:00 A.M. to Noon and 4:00 to 11:00 P.M. (Neve, Mexico.)

Colombia has the following stations broadcasting: HJA7, Cucuta on 5.40. HJN, Bogota, on 5.95. HJ3ABH, Bogota, on 6.01 mc. HJ1ABJ, Santa Marta, on 6.02 mc. HJ4ABP, Medellin, on 6.03 mc. HJ1ABG, Barranquilla, on 6.04 mc. HJ3ABD, Bogota, on 6.05 mc. HJ3ABF, Bogota, on 6.07. HJ5ABD, Cali, on 6.08. HJ4ABE, Medellin, on 6.10. HJ1ABB, Barranquilla, on 6.11. HJ4ABB, Manizales, on 6.11. HJ3ABX, Bogota on 6.12. HJ4ABD, Medellin, on 6.14. HJ4ABU, Pereira, on 6.15. HKE on 7.22. HJ1ABE, Cartagena, on 9.50. HJU, Buenaventure, on 9.51. HJ4ABH, Armenia, on 9.52. HJ2ABC, Cucuta, on 9.57. HJ1ABP, Cartagena, on 9.62. HJ2ABD, Bucaramanga, on 5.98. For schedules, look at the station list.

The latest news follows: HJ2ABD is back on 50.17 meters or 5.98 mc. and is not using 9.63 mc. any more. (Stevens, Oxrieder.) HJ4ABD moved from 6.138 to 5.97 mc. (Oxrieder, Pa.) HJ4ABH on 9.52 mc. heard until 10:30 P.M. instead of just 10:00. (Kash, N. Y.) HJ1ABP on 9.62 mc. gives schedule 7:00 to 9:00 A.M.; 11:00 A.M. to 1:30 P.M. and 5:00 to 10:30 P.M. (Murphy, Illinois.) Heard relaying HJ1ABR until 11:00 P.M. and giving address as Box 37. (Tinley, Md.) Heard at 3:30 P.M. (Herzog, N.Y.) Must not be keeping schedule—Editor. HJ1ABE on 9.50 varies say week days 11:30 A.M. to 1:00 P.M. and 6:00 to 10:30 P.M. and Sundays 9:00 A.M. to 3:00 P.M. (Bennett, Ill.) Letter from owner says 11:00 A.M. to 1:00 P.M. and 5:00 to 10:30 P.M. (Foshay, N. J.) HJ4ABC, Echos de Combeina at Ibague is on 6.09 mc. and heard between 7:00 P.M. and Midnight. (Oxrieder, Pa.)

The latest list of Venezuelan stations, with their former call letters and new ones is shown here. YV3RA, Baraquisimeto, (YV8RB) 25 watts, Arturo Ramos Maggi, Owner, "La voz del Lara," on 5.90 mc., 10:30 A.M. to 1:30 P.M. and 4:30 to 10:00 P.M. YV5RC, Caracas, (YV2RC) Almacen Americano, "Radio Caracas," 1 kw. power, on 5.80 mc., same schedule as YV3RA. YV5RD, Caracas, (YV3RC) Herman Degwitz, owner, "Radiodifusora Venezuela," 1 kw., 6.16 mc., 10:30 A.M. to 1:30 P.M. and 3:30 to 10:00 P.M. YV5RF, Caracas, 6.17 mc., same schedule as YV5RD. YV6RB, Ciudad, Bolivar, (YV11RE) 25 watts, 6.545 mc., Enrique Torres, Valencia, owner. No schedule. YV5RH, Caracas, (YV9BC) 25 watts, "Ondas Populares," Veloz Mancera, owner, 6.40 mc., 10:30 A.M. to 12:30 P.M. and 4:30 to 9:30 P.M. YV1RL, Coro, 6.21 mc., 15 watts, "Radio Coro," Roger Leyba, owner, same schedule as YV5RH. YV1RB, Maracaibo, (YV5RMO) 25 watts, 5.85 mc., "Ecos del Zulia," Luis Garcia, owner, on 10:30 A.M. to 1:30 P.M. and 4:30 to 10:30 P.M. YV1RE, Maracaibo, (YV7RMO) 15 watts, 5.81 mc. (wrong as heard on 6.07 mc.) "Radiodifusora Maracaibo," Luis Mantellini H, owner, 10:30 to 1:30 P.M. and 4:30 to 9:30 P.M. YV1RH, Maracaibo, 6.39 mc., 25 watts, "Ondas del Lagos," Valle Quintero, owner, same schedule as YV1RE. YV1RG, Valera, 20 watts, 6.345 mc., "La Voz de Valera," L. Jelambi, owner, same schedule as YV1RE (moved to 6.24 mc. recently). YV4RD, Maracay (YV12RM), 6.30 mc., 10 watts, L. voz de Araqua. YV2RA, San Cristobal, (YV10RSC) 20 watts, 5.72 mc., "La Voz del Tachira," L. Diaz Gonzales, owner, 10:30 A.M. to 1:30 P.M. and 4:30 to 10:00 P.M. YV4RB, Valencia, (YV6RV) 30 watts, 6.52 mc., "La Voz de Carabobo," Herman Degwitz, owner, same schedule as YV2RA. All this is from J. M. R. Studholme of London, England. YV1RI, new station at Coro heard on 6.21 mc. reported 6:00 to 7:00 P.M. and at 11:00 P.M. testing (Oxrieder, Flagg, Espoy, Slazar). Uses slogan "La Habla a la Republica" (Flagg). YV1RG varies say 6.23 mc., and schedule 11:00 A.M. to 12:30 P.M. and 5:30 to 8:30 P.M. (Legge, Pa.) YV1RL, "Radio Populares," Maracaibo, is a new one testing on about 5.93 mc. around 10:00 P.M. Gave address as Box 247 (Brenselber, N.Y.) said Box 237 (Gallagher, Calif.) Heard by Oxrieder, Pa. Is testing 8:00 P.M. to 1:00 A.M.—Editor. YV1RH varies say 6.36 but is on 6.39. YV4RP is the new call for YV15RV, Valencia, on 5.92 mc. Heard 9:00 P.M. to Midnight. (Flagg, Mass.) Is YV4RH, not P (Russell and Oxrieder).

Chile. Station on 12.30 mc. called "Radio Service" gave address as Casilla 761, Santiago, Chile. (Bradley, N. Y.) Announced schedule as weekdays noon to 2:00 P.M. and 5:00 to 9:00 P.M. and Sundays until 10:00 P.M. (Salazar, N.Y.) This is one hour ahead of E.S.T. (Walcott, Calif.) Heard 4:00 to 8:00 P.M. (Espoy, Calif.) Call is CEB, announces "C as in Chile, E as in England and B as in Boston." (McMenamy, Calif.) Is owned by Senor Luis M. Demaras, who operates station as an amateur also, call CE3AG. Slogan is really "La Voz de Santiago, Chile" and he advertises his radio shop and says "Radio Service" often. (Rossi, Pa.) Other reports from Oxrieder, Pa.; Herswitz, Md.; Kash, N. Y.; Gallagher, Calif.) Station CEM, Magellenes, Chile, on 8.88 mc., heard once 10:30 P.M. (Myers, Calif.) CB960 is on 9.60 mc. on the air now 10:00 to 10:30 P.M. nightly. (Espoy, California.)

PPM, 10.30 mc., and PPQ, 11.67 mc. in Brazil sent program Feb.8th at 7:30 P.M. (Kash, N. Y.) Tested Feb. 6th, 5:45 to 5:30 P.M. (Metty, Mo.; Hersowitz, Maryland.)

Ecuador. A new station using different calls like HC2OBA, 2RA, 2RS and 2DA, is on about 9.445 mc. or 31.76 meters, nightly from 8:10 to 10:10 P.M. They use the slogan "La voz del Alma" and it is at Guayaquil. (Oxrieder, Pa., and Flagg, Mass.) HC2ET, Guayaquil is on 4.60 mc. HC1PM, Quito, is on 5.73 mc. HC2RL is on 6.63 mc. PRADO, Rio Bamba, is on 6.52 mc. HC2JSB is on 7.85 mc. HCJB is on 8.95 mc. HC2CW, Guayaquil, is roaming around between 8.20 and 8.40 mc. HCJB is also supposed to be on 4.10 mc. at the same time as on 8.95.

CENTRAL AMERICANS

HP5L, Panama, is on the air, but arguments rage about it. Reports follow: Is on 11.84 mc. (Salazar, N.Y.) Is on 11.74, not 84. (Oxrieder, Pa.) HP5L is on Long waves, 220 meters and HP5A, "La voz del Ismo," will be on 49.00 meters. (Elchepp, Wisconsin.) A station called "La voz Imperior" was heard testing on 11.80 mc. between 8:00 and 9:00 P.M. on February 13th. (Van Bergen, N. Y.) A letter from Leo Marchosky, Cia Chiricana Radiodifusor y Television, Apartado 129, David Chicigui, Panama, says HP5L would start on 11.74 mc. (Oxrieder, Pa.)

HP5I, Agudulce, Panama, is reported on about 11.90 mc. It was heard between 9:00 P.M. and Midnight testing. The slogans heard were "La Voz del Agudulce" and "La Voz del Interior Ciudad de Valencia Republic de Panama." (Oxrieder, Pa., and Atherton, Vt.) Heard on 11.78 mc. at 9:00 P.M. (Salazar, N. Y.) A verie from HP5B says 5:00 to 10:00 P.M. now instead of 6:00 to 10:00 P.M.

TG2X, Guatemala City, was heard at 7:00 A.M., when the schedule says different. (Shaffer, Iowa) TGWA on 9.45 mc. broadcasts noon to 2:00 P.M. and 8:00 P.M. to midnight weekdays and Saturdays 8:00 P.M. to 6:00 A.M. Sundays.

TI4NRH varies say 9.67 but they are on 9.69. TIPG gives English program Saturdays 9:00 to 10:00 P.M. (Stark, Mo.) TIEP on 7.71 mc. one Monday at 11:20 P.M. (Cobb, N. Y.) TIRCC moved to 6.53 mc. between

4RB and 6RB. (Flagg, Mass.) TILS, not TIMS is on 5.90 mc. and gave address as P. O. Box 3, San Jose, and not Puntarenas. (Oxrieder, Pa.) A Costa Rican was heard on 6.88 mc. once. (Oxrieder)

XEDQ, Guadalajara, Jalisco, Mexico, was on 9.43 mc., 9.52 mc., and 9.48 mc. last month, moving around. The schedule is 8:00 P.M. to midnight and the address is Apartado 197. Now on about 9.48 mc. (Espoy, Calif.; Wade, Texas; Bradley, N. Y.) They have 500 watts power and verify.

XEBM, El Pragonero del Pacifico," P. O. Box 50, Mazatlan, Sinaloa, Mexico, veries say they are on 15.30 mc. with 50 watts power but give no schedule. (Purkey, Calif.; Wade, Texas.) Is usually heard 8:00 to 10:00 P.M. and almost all day Sundays—Editor. On 15.37 at 6:30 P.M. (Hersowitz, Md.) On 15.36 to 15.40 mc. moving. (Gallagher, Calif.)

XEBR, Hermosilla, Sonora, gives their address as Box 68 and they relay XEBH, which accounts for it being reported as XEBH. It is on 11.82 mc. and is owned by the Herald De Sonora, a newspaper. Heard between 2:00 and 4:00 P.M. daily. (Purkey, Chavez, and Espoy, Calif.)

XEPW, XECW and XEJW comes in for some argument. This station whatever the right call, is heard on about 6.12 mc. around 11:00 P.M. to 1:00 A.M. Here are the reports: Old XECW once on 6.04 mc. (Oxrieder, Pa.) It is really XETW, Apartado 8403, Mexico City. (Wade, Texas) It is XEPW and relays XEJW, Mexico City. (Walcott and Espoy, Calif.) On 6.12 mc. (Gallagher, California.)

XEUZ on 6.117 mc. relays station XEFO. Mexico City, "Radio Nacional," from about 11:00 P.M. to 2:00 A. M., sometimes until 3:00 or 4:00 A.M. Gave address as 5 de Mayo 21, Mexico City. (Espoy, Calif.) Information on correct call. (Oxrieder, Pa.; Walcott, Calif.; Seymour, Md.; Shaneyfelt, Indiana; Shaffer, Iowa; Eutts, Ohio). An XETU at Guadalajara is on 6.11 mc. also. (Espoy, Calif.) XEBT on 6.00 mc. was heard until 1:12 A.M. (Pegge, England.)

XEWI on 11.90 mc. say they broadcast Monday, Wednesday and Friday 3:00 to 4:00 P.M. and 9:00 P.M. to midnight; Tuesday and Thursday 7:30 P.M. to midnight; Saturday 9:00 P.M. to midnight; Sunday 12:30 to 2:00 P.M. and the third Sunday of the month at 6:00 P.M. (Orchard, England.)

Mexican phone station XEM1 on 6.55 mc. and XEM2 at Guanacebi, Durango, on 6.74 mc. was heard nearly every night. (Wade, Texas.)

WEST INDIES

The Dominican Republic has the following stations: HI9B, Santiago City, on 5.88 mc.; HI1J, San Pedro de Macoris, on 5.86 mc.; HI3U, Santiago City, on 6.02 mc.; HI5N, Trujillo City, on 6.15; HI1A, Santiago de los Cabaleros, on 6.19 mc.; HIN, Trujillo City, on 6.24 mc.; HI8Q, Trujillo, on 6.20 or 6.24 mc.; HIG, Trujillo, on 6.28 mc.; HIZ, Trujillo, on 6.31 mc.; HIT, Trujillo, on 6.33 mc.; HIX, Trujillo, on 6.34 mc.; HI1S, Santiago City, on 6.42 mc.; HI8A, Trujillo, on 6.48 mc.; HI4V, San Francisco de Macoris, on 6.48 mc.; HIL, Trujillo, on 6.50 mc.; HI4D, Trujillo, on 6.55 mc.; HI3C, La Romana, on 6.73 mc.; HIH, San Pedro de Macoris, on 6.78 mc.; HI7P, Trujillo, on 6.80 mc.; HI2D, Trujillo, on 6.90 mc.; and HIN, Trujillo, on 11.28 mc. News is given below.

HI4V moved from Trujillo to San Francisco de Macoris, Provincia Duarte. (Bradley, N.Y.) HIH veries say 6.78 mc. from 5:50 to 6:40 P.M. with 150 watts power. (Stark Mo.) HIH heard on 6.795 mc. and said they would be on the air Sunday from 5:00 to 6:18 P.M. (Fuller, Quebec.) HIN verie says no longer called "La voz del Partido Dominicano" and address is Calle Arzobispo Merino, No. 97, Trujillo. (Swope, Calif.) The schedule is 7:10 to 9:10 P.M. but heard at 6:28 P.M. and 10:10 P.M. (Cobb, N.Y.) Heard at 6:45. (Pegge, England) Heard at 2:00 A.M. once. (Gallager, Calif.) HI8A verie says apartado 1312, Trujillo, is the address. Heard 11:00 P.M. to Midnight once. (Gallagher) HIT, La Voz de la RCA Victor, veries say they are on 6.63 mc. with 200 watts power weekdays only 12:30 to 2:00 P.M. and 6:00 to 9:00 P.M. and Saturday nights have a special DX program 11:00 P.M. to 1:00 A.M., Sundays. (Stockbridge, Mass.) Time is twenty minutes ahead of E.S.T.—Editor. A new station, HI5G, Trujillo, is on 9.50 mc. around 5:30 to 6:00 P.M. (Flagg, Mass.) HI2D, Trujillo, on 6.90 mc. signs off around 6:30 P.M. now and not 9:00 P.M. (Brensiber, N. Y.) HIG on 6.28 mc. schedule says 12:40 to 2:10 P.M. and 8:10 to 10:00 P.M., but heard 7:05 P.M. HI9B schedule is until 10:00 P.M. but heard signing off at 7:40 P.M. (Legge, Pa.)

Cuba has COCO, Havana, on 6.00 mc.; COCD, Havana, on 6.13 mc.; COKG, Santiago, on 6.20 mc.; COHB, Sancti Spiritus, on 6.28 mc.; CLX, Havana, on 6.99 mc.; CO9JQ, Camaguey, on 8.66 mc.; COCH, Havana, on 9.43 mc.; COCQ, Havana, on 9.75 mc.; and COCX, Havana, on 11.43 mc. COCX heard on 12.20 mc. now instead of 11.43. (Kash, N.Y.) On 12.48. (Herzog, N. Y.) COHB uses identifications like train whistles, bells, horns and baby crying, now. (Flagg, Mass.) Comes on the air at 8:00 P.M. instead of 9:00 now. (Solito, Pa.) CLX, Observatorio Nacional, Havana, verification says they broadcast weather reports at 12:00 P.M. daily and on Saturdays at 9:30 P.M. work XBA, Mexico. Signed by Jose Carlos Millas, Director. (Beck, Ill.) CLX at 9:30 P.M. one Saturday. (Atherton) COCD on 6.13 mc. sends special DX programs Sundays 1:00 to 3:00 A.M. (Stockbridge, Shaneyfelt) COCO on 6.00 mc. has a strong

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harmonic on about 11.99 mc. Heard also signing off at 11:30 P.M. when schedule says 11.00 (Pegge).

FZF6, "Radio Fort de France," Martinique, seems to be moving a lot. Letters from the station say they are on the air from 11:30 A.M. to 12:30 P.M.; 6:15 to 7:15 P.M. and 8:00 to 9:00 P.M. daily. (Stempel, Conn., and Bradley, N.Y.) Heard 7:30 to 8:00 P.M. when not scheduled and on 9.445 mc. (Flagg, Mass.) Moved to 9.36 mc. (Oxrieder, Pa.) On 9.40 mc. (Spuhler, Ohio) On 9.44 mc. (Groves, Mass.) On 9.48 mc. (Flagg) Heard 11:00 A.M. to 12:30 P.M. (Peterson, St. Martins.)

WCU in Puerto Rica, on 9.94 mc. sent a special program to Hawaii at 8:07 P.M. on Feb. 9th. (Spuhler, Ohio.) Heard near 7:00 P.M. several times. (Walcott, Calif.) Call is WKU and wave 9.90 mc. and works WMK at 7:00 P.M. (Gallagher, Calif.)

A station in Curacao near 50.6 meters or 5.93 mc. was broadcasting at 7:00 P.M. February 9th and asked for reports to be sent to D. Molenhamp, Riffort, Curacao. (Peterson, St. Martin.)

ZFD, Hamilton, Bermuda, on 10.33 mc. tested with New York at 11.24 P.M. (Teague, Mich.) and sent a special program from St. Georges from 11:30 to noon. (Seymour, Md.)

NORTH AMERICA

A new Canadian, CFRX, is relaying CFRB, Toronto, Ontario, on 6.07 mc. Is called "Rodgers Short Wave Station," and is reported between 10:00 A.M. and 4:00 P.M. often and 5:00 to 10:00 P.M. quite regular and several times tested around 3:00 A.M. (Oxrieder, Pa.; Stempel, Conn.; Shaffer, Iowa; Hersowitz, Md.; Seymour, Md.; Teague, Mich.)

A letter from the Canadian Marconi Company says CFCX and VE9DN are not the same although both are on 6.005 mc. CFCX is located on the Mount Royal Hotel and relays CFCF programs. VE9DN is a high powered transmitter located at Drummenville and is used Saturdays 11:30 P.M. to about 12:30 A.M. to send messages to Far North listeners. VE9BM, mentioned in December, is operated by the Northern Electric Company, 121 Shearer Street, Montreal. CGS is owned by General Airways at Ronyn Quebec. It can operate on 3.43 mc., 4.755 mc., 5.63 mc. (Fuller, Quebec.)

CRCX, Bowmanville, Ontario, is on a new schedule. They are on 6.09 mc. daily except Saturday and Sunday noon to 8:00 P.M.; Saturdays noon to 8:00 P.M. and 11:00 P.M. to midnight and Sundays 11:00 A.M. to 8:00 P.M. This is direct from W. A. Shane, station manager.

W2XE is using a new frequency and is not keeping what might be called a regular schedule. They have been heard on 17.76 mc. between 8:00 A.M. and 1:00 P.M. at times. Heard on 21.52 mc. as late as 7:00 P.M. at times. (Karpen, Pa.) The schedule they give is shown in our list and it does not mention 17.76 mc. and 21.52 mc. is used only till 1:00 P.M. according to what they say.

A station W6XKG, Los Angeles, California, is broadcasting 24-hours a day on 25.95 mc. or around 11 meters. (Murphy, Butts, Bradley, Child, Thoreson.)

WITH THE REPORTERS

This organization can boast of more reporters than any short wave club or magazine in the world. We are grateful for this and thank each and every person that sent in news last month. Letters were received from each of the following people since the last magazine was printed. L. E. Hansen, Durban, Natal, Africa. Ajodhya Pershad Saigal, Delhi, India. Clive Peterson, Philipsburg, St. Martin. B. Lindbergh, Pitea, Sweden. Ingvar Gullberg, Hedemora, Sweden. Johann P. Curiel, Curacao, D. W. I. W. J. Wilson, London, England. H. G. Hughes, London; L. Smith, London; J. M. R. Studholme, London; J. R. Garrett, Pegge, Chesham, Bucks, England; J. Jeffs, Cadishead, Manchester, England; R. Stevens, Romford, Essex, England. Philip Malvern, Cheltenham, Glos, England. S. Boothroyd, Uppermill, Lancs, England. Ernest Orchard, Waymouth, England. Fred Baines, Sydney Mines, N. S., Canada; Dr. George F. L. Fuller, Cowansville, Quebec; P. I. Ogilvie, Sudbury, Ont. Fred Hummerstone, Ponoka, Alta. L. E. Thorseon, Ponoka, Alta.

Captain R. B. Oxrieder, State College, Pa.; Chester Dement, Upper Darby, Pa.; Robert Rossi, Philadelphia, Pa. Fred Karpen, Johnstown, Pa. Mills VanBergen, Syracuse, N. Y.; Stanley Cobb, Scarsdale, N. Y.; H. S. Bradley, Hamilton, N. Y.; W. F. Herzog, Cnter Moriches, N. Y.; Roy Waite, Ballston Spa, N. Y.; Dr. R. C. Kash, Staten Island, N. Y.; Charles Ward, Brooklyn, N. Y.; David Brensilber, Brooklyn.; Mario Bruscia, Brooklyn; L. E. Sarazar, New York City; Nick Gaug, New York City.

Roy Myers, Los Angeles; E. D. Purkey, Los Angeles; Henry Espoy, Los Angeles; L. G. Chevez, Los Angeles; Walter B. McMenamy, Beverly Hills, Calif.; Sam Swope, Hollywood, Calif.; Jake Field, San Diego, Calif.; Robert Wade, Amarillo, Texas; Carl Eder, Willmar, Minn.; O. E. Stark, Pierce City, Mo.; Lester Elchlepp, Stevens Point, Wisc.; Ray Shaffer, Waterloo, Iowa; Emil Anderson, Racine, Wisc.; William Vandecar, Grand Rapids, Mich.

W. D. Flagg, Holyoke, Mass.; W. Stockbridge, Westboro, Mass.; F. E. Woodward, Malden, Mass.; E. M. Hackley, Deerfield, Mass.; H. O. Shepard, Andover, Mass.; Dixon Russell, Baltimore, Md.; J. B. Wooten, Mobile, Ala.; Nathan Ives, Southington, Conn.; J. Stempel, Bridgeport, Conn.; Sidney Tinley, Jr., Baltimore, Md.; A. H. Dorr, Wetherfield, Conn.; Ed. Davenport, Pittsford, Vermont; Alan Teague, Millington, Mich.; Richard Verbrughe, Jr., Detroit, Mich.; Fred Atherton, Rutland, Va.

C. E. Johnstone, Cornell, Ill.; Mrs. Grace M. Beck, Chicago, Ill.; Floyd M. Murphy, Palestine, Ill.; J. D. Bennett, Springfield, Ill.; Russell Shaneyfelt, Indianapolis, Indiana; Miss Eileen Hofmaster, Sandusky, Ohio; Emmett Riggle, Massillon, Ohio; Albert Spuhler, Cleveland, Ohio; G. Swimmer, Hubbard, Ohio; Walter E. Butts, Worthington, Ohio.

L. L. Groves, Somerville, Mass.; Ray G. Metty, Kansas City, Mo.; Oliver Hersowitz, Baltimore, Md.; Paschall Lynch, Colorado, Texas; G. C. Gallagher, San Francisco, Calif.; Ashley Walcott, San Francisco, Calif.; Tom Erwin, Herrin, Illinois; W. H. Jessen, Eugene, Oregon; Joe Child, Philadelphia, Pa.; Roger Legge, Jr. Philadelphia, Pa.; Alan Teague, Millington, Michigan; N. C. Seymour, Baltimore, Md.

Reports were received too late to be used from W. F. Herzog, Fred Atherton, E. Scala, Jr.

(Continued from last month.)

TELEPHONE STATIONS

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

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
T-19.68	-15.25	-RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
T-19.92	-15.06	-WNC, Hialeah, Florida,	phones many stations in daytime.
T-20.03	-14.98	-KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
T-20.08	-14.94	-HJB, Bogota, Colombia,	phones WNC daytime.
T-20.08	-14.94	-HII, Trujillo, Dominican Republic,	phones WNC daytime.
T-20.08	-14.94	-HJA3, Barranquilla, Colombia,	phones WNC, Florida.
E-20.27	-14.80	-WQV, Rocky Point, N. Y.,	heard irregularly.
Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M.			
T-20.29	-14.79	-ROU, Omsk, Siberia,	phones Moscow 7:00 to 9:00 A.M. irregularly.
T-20.37	-14.73	-IQA, Rome, Italy,	phones 8:00 to 11:00 A.M. irregularly.
T-20.45	-14.67	-GBL, Rugby, England.	Phones JVH 1:00 to 7:00 A.M.
T-20.55	-14.60	-JVH, Nazaki, Japan.	Phones and also broadcasts at times.
T-20.56	-14.59	-WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64	-14.54	-HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65	-14.53	-LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.71	-14.48	-YSJ, San Salvador, Salvador.	Phones WNC afternoons.
T-20.71	-14.48	-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, 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.
E-20.75	-14.46	-DZH, Zeesen, Germany.	Irregular.
E-20.97	-12.26	-14.30 to 14.11	-Amateur phones heard in daytime.
E-21.46	-13.98	-PZ1AA, Paramaribo, Dutch Guiana,	in the evenings.
E-21.58	-13.90	-WQP, Rocky Point, N. Y.	Testing with RNE irregularly, mornings.
T-21.70	-13.83	-SUZ, Cairo, Egypt.	Phones GAA 7:00 A.M. to 3:30 P.M.
T-21.77	-13.76	-TYE2, St. Assise, France,	Phones Africa daytime.
E-21.91	-13.69	-KKZ, Bolinas, California.	Used irregularly.
T-21.98	-13.65	-HJY, Bogota, Colombia.	Phones irregularly.
T-22.09	-13.58	-GBB, Rugby, England.	Phones Canada and Egypt, daytime.
T-22.37	-13.41	-YSJ, Salvador, San Salvador,	phones WNC daytime.
T-22.40	-13.38	-IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:30 P.M. irregularly.
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	-13.35	-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.
T-23.33	-12.86	-IAC, Piza, Italy.	Phones Africa 8:00 A.M. to 1:00 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-23.47	-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.
T-24.52	-12.24	-TFJ, Reykjavik, Iceland.	Phones GCB and OXT 5:00 to 10:00 A.M.
T-24.56	-12.22	-TYA, Pontoise, France.	Phones the Normandie, irregularly.
T-24.63	-12.18	-RWJ, Alma-Ata, U.S.S.R.	Phones 1:00 to 8:00 A.M. irregularly.
T-24.69	-12.15	-GBS, Rugby, England.	Phones New York.

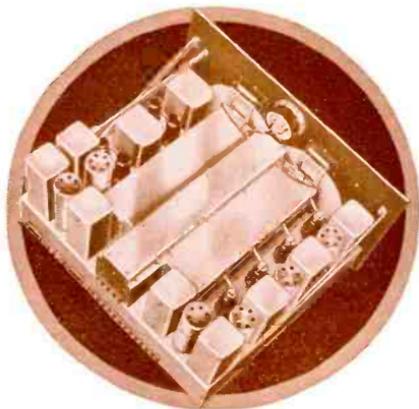
Meters	Meg.	STATION	TIME
E-24.73	-12.13	DZE, Zeesen, Germany.	7:00-9:00 A.M., 5:00-9:00 P.M., irreg.
T-24.75	-12.12	Alger, Algeria, phones Paris	midnight to 8:00 A.M. irregularly.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
T-25.09	-11.95	IUC, Addis Ababa, Ethiopia.	Phones Rome around noon and midnight.
E-25.11	-11.97	KKQ, Bolinas, California.	Heard irregularly, evenings.
T-25.12	-11.95	FTA, St. Assise, France.	Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
T-25.73	-11.66	JVL, Nazaki, Japan.	Phones 6:00 P.M. to 11:00 A.M. irregularly.
E-25.87	-11.59	VRRA4, Stony Hill, Jamaica.	Testing with WNC in daytime.
E-26.09	-11.50	XAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P.M.
f-27.35	-10.97	OCI, Lima, Peru.	Phones HJY, evenings.
T-27.67	-10.84	KWV, Dixon, California.	Phones Hawaii, daytime.
E-27.65	-10.85	DFL, Nauen, Germany.	Irregular.
f-27.86	-10.77	GBP, Rugby, England.	Phones VLK 11:00 P.M. to 8:00 A.M.
T-27.93	-10.74	JVM, Nazaki, Japan.	Phones 6:00 P.M. to 11:00 A.M. irregularly.
f-28.09	-10.68	WNB, Lawrenceville, N. J.	Phones Bermuda, daytime.
T-28.14	-10.66	JVN, Nazaki, Japan.	Phones 6:00 P.M. to 11:00 A.M. irregularly.
E-28.28	-10.61	WEA, Rocky Point, N. J.	Tests irregularly with Europe.
f-28.44	-10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentina, irregularly.
T-28.49	-10.53	JIB, Taiwan, Japan, phones	1:00 to 10:00 A.M.
f-28.51	-10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A.M. GBP.
T-28.79	-10.42	XGW, Shanghai, China, phones	Japan Midnight to 3:00 A.M.
T-28.79	-10.42	TYE3, St. Assise, France.	Phones U.S.A. 3:30 to 7:00 P.M.
f-28.80	-10.42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.M.
f-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
T-28.93	-10.37	JVO, Nazaki, Japan.	Phones 6:00 P.M. to 11:00 A.M. irregularly.
B-29.04	-10.33	ORK, Brussels, Belgium.	1:30 to 3:00 P.M., daily.
E-29.13	-10.30	LSQ, Buenos Aires, Argentina.	Used for special tests.
E-29.15	-10.29	DZC, Zeesen, Germany.	3:00 to 9:00 P.M., Irregular.
E-29.27	-10.25	LSL, Buenos Aires, Argentina,	testing 5:30 to 7:00 P.M.
E-29.33	-10.23	CED, Antofagasta, Chile,	heard 7:00 to 9:30 P.M. irregularly.
T-29.45	-10.22	PSH, Rio de Janeiro, Brazil.	Sending music, evenings.
T-29.50	-10.17	RIO, Baku, U. S. S. R.,	phones 10:00 P.M. to 10:00 A.M. irregularly.
f-29.58	-10.14	OPM, Leopoldville, Belgian Congo.	Phones ORK 9-11 A.M., 3-5 P.M.
T-29.76	-10.08	IRI, Tiflis, U. S. S. R.	Phones 10:00 P.M. to 10:00 A.M., irregularly.
T-29.79	-10.07	EHY, Madrid, Spain.	Phones YVR near 4:00 P.M., irregularly.
T-29.80	-10.06	TDE, Shinkio, Manchukuo,	phones Japan 1:00 to 9:00 A.M., irregularly.
f-29.83	-10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships, daytime.
T-29.83	-10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
E-29.88	-10.04	DZB, Zeesen, Germany.	Irregular.
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.
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.
E-31.00	-9.67	DZA, Zeesen, Germany.	Broadcasts irregularly.
T-31.08	-9.65	DCU, Nauen, Germany.	Phones Egypt in daytime.
T-31.58	-9.50	XTV, Hankow, China.	Phones Shenghia 6:00 to 11:00 A.M.
T-31.71	-9.46	Tripoli, Africa.	Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.
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-32.33	-9.28	XTC, Shanghai, China.	Phones Hankow 6:00 to 11:00 A.M.
T-32.72	-9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	-9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
T-33.26	-9.02	GCS, Rugby, England.	Phones New York evenings.

Meters	Meg.	STATION	TIME
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
T-33.41	8.98	WVY, Poona, India.	Phones England near 8:30 A.M.
T-33.48	8.96	Algier, Algeria.	Phones Paris irregularly.
E-33.52	8.95	WEL-WXBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.93	to 36.58	8.84 to 8.20	Ships. Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
E-34.68	8.65	WVD, Seattle, Wash.	Testing irregularly.
T-35.02	8.57	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-35.42	8.47	DAF, Norden, Germany.	Phones ships irregularly.
T-35.80	8.38	IAC, Piza, Italy.	Works ships, irregularly.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
E-38.50	7.78	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M. irreg
T-39.06	7.68	YBA, Menado, Celebes, D.E.I.	Phones Java 4:00 to 7:00 A.M. irreg
T-36.95	8.12	KTP, Manila, P. I.	Phones KWX 10:30 to 11:00 A.M.
T-39.34	7.63	RIM, Russia.	Phones RK1 6:00 to 8:15 A.M.
T-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
T-39.68	7.56	KWY, Dixon, Calif.	Phones weekdays 9:30 P.M. to midnight.
T-39.68	7.56	FZE9, Djibouti, French Somaliland.	Phones Paris.
T-39.89	7.52	KKH, Kauhuku, Hawaii.	Phones KWO evenings.
T-39.97	7.50	RK1, 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	YECR, Mexico City,	broadcasts Sundays 6:00 to 8:00 P.M.
T-40.71	7.37	KEQ, Kauhuku, Hawaii.	Phones Dixon nights.
E-43.00	6.98	XBA, Tacubaya, Mexico,	9:30 A.M. to 1:00; 7:00 to 8:30 P.M.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
T-44.41	6.75	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.75	JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftimes with music.
E-44.96	6.67	YVQ, Maracay, Venezuela,	broadcasts 7:00 to 8:30 P.M. Saturdays.
T-45.10	6.65	IAC, Piza, Italy.	Phones ships evenings.
E-45.11	6.65	JFZC, Ship Chichibu Maru.	Phones irregularly.
E-46.73	6.42	W9XBS, Chicago, Illinois.	Heard irregularly broadcasting.
E-46.77	6.41	HJA3, Barranquilla, Colombia.	Phones HJA2, irregular.
E-47.39	6.35	JZG, heard relaying JVT, JOAK	from 5:00 to 7:30 A.M., irregularly.
T-50.93	5.89	JIC, Taiwan, Japan.	Phones Nazaki 5:00 to 10:00 A.M. winter.
T-51.26	5.85	WOB, Lawrenceville, N. J.	Phones Bermuda nights
T-51.46	5.83	TDD, Shinkio, Manchukuo.	Phones Japan 10:00 P.M. to 6:00 A.M.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
T-52.26	5.74	XTD, Shanghai, China.	Phones Hankow 4:00 A.M. to noon.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M., irreg
T-54.74	5.48	NTZ, Hankow, China.	Phones Shanghai 4:00 A.M. to noon
E-55.56	5.40	HJA-7, Cucuta, Colombia.	Mondays 4:30 to 7:30 P.M., irregularly
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.
T-63.13	4.75	WOO, Ocean Gate, N. J.	Phones ships irregularly.
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.
T-73.21	4.10	WND, Hialeah, Florida.	Phones irregularly with VPN
E-75	to 75.8	4.00 to 3.96	Amateurs on voice

SHIP STATIONS

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

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



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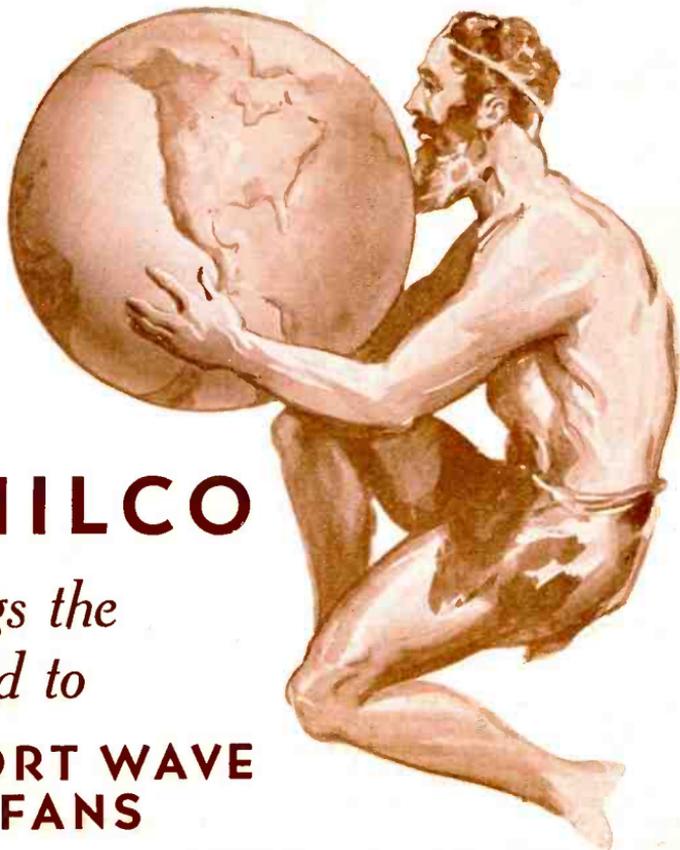
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