

VOL VII

JULY, 1936

NO. 10

# INTERNATIONAL



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

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

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

EAST LIVERPOOL, OHIO, U. S. A.

## HELP YOURSELF BY BOOSTING THE CLUB

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.

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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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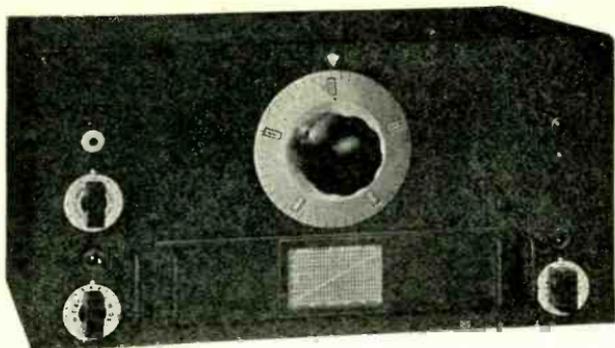
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### MRS. WILLIAM DARBY

Mr. and Mrs. William Darby, of Dublin, Ireland, are ardent I. S. W. C. boosters. Mr. Darby was one of our first Irish members. He and Mrs. Darby have contributed quite a lot of information on stations. They are not content, however, just to send in information. They want people to know they are deeply interested in the welfare of the Club. So, together they built this large kite and marked on it the words "Join the International Short Wave Club, East Liverpool, Ohio, U. S. A." Then, on windy days they take the kite out and fly it over Dublin, attracting the attention of short wave fans there. The photo shows Mrs. Darby holding the kite. Such kindly interest as shown by Mr. and Mrs. Darby deserves our sincere thanks, which we offer to them here.

### MEMBERSHIP CONTEST

The membership contest is rapidly growing to a close. Members in North America must have their memberships in by midnight July 31st. Members in Central America and the West Indies have till August 5th. Members in Europe have till August 15th and African members have until August 31st. The first prize is a beautiful Hallicrafter Super-Seven Receiver, complete. There are other prizes, of course.

On June 24th, the standings are as follows: Bernard Heckel, Struthers, Ohio—25. L. E. Hansen, Durbin, Natal, Africa—16. Dr. Reist, Wasau, Wisconsin—13. S. Ogden, Manchester, England—9. Ralph Brady, Brooklyn—8. D. S. Valentine, Nelson, B. C., Canada—6. Fred Baines, Sydney Mines, N. S., Canada—5. Howard Muir, Racine, Wisconsin—4. The contest has been a complete failure. We never expected that a beautiful receiver like this one, a set of dishes, radio globes and other prizes would bring in only a total of 86 memberships. The value of the prizes exceed by far the amount of money taken in on new memberships. Several people are going to get some valuable prizes mighty easy.

### DR. SAYLOR DIES

Members will regret to learn that Dr. H. S. Saylor, who up until about four months ago, was one of our most consistent reporters, died in June.



### W. BERNARD KINZEL, NEW YORK CITY

Mr. Kinzel, who lives at 319 East 197th Street, New York City, is a real short wave DXer. He uses three different receivers, has a number of different aerials, uses every new attachment that is brought out and logs every station he can get. By means of switches, which can be seen in the photo, Mr. Kinzel is able to use several aerials till he gets the one that brings the station in best. He is also an athlete, and many trophies can be seen in the picture. He was also decorated for war service. In the left of the picture are five gold, two silver and two bronze medals Mr. Kinzel won in sports. On the cabinet radio is a trophy he won in sports, a cup he also won, and a trophy he won for short wave reporting. In between these is his Heard-All-Continents Club certificate. Next to the trophy is a barometer and above this hangs three war decorations, only one of which appears in the photo. Directly above the clock is his membership certificate and verifications from stations may be seen in the right hand corner of the photo, in the cabinet at the right and on the floor near the feet of Mr. Kinzel. All in all, this is a very interesting photo and we congratulate Mr. Kinzel.

### BOOSTERS

We are thankful to the following people for having secured new members for us during the past month. They are: H. Wild, Manchester, England; E. C. Bedford, London, England; S. Ogden, Manchester, England; Ernest Tippett, San Diego, California; W. Brown, Nelson, B. C.; Canada; Ingvar Gullberg, Hedemora, Sweden; Paul Horton, Baton Rouge, La.; Jeewandas Bhagwandas, Bombay, India; F. R. Scott, London, Eng.; Philco Radio, London, England.

### WNYC BROADCASTS

The New York Chapter is now broadcasting a series of programs over station WNYC, owned by the City of New York. WNYC operates on 370.2 meters or 810 kc. and has 1000 watts power. The programs take place each Tuesday from 7:00 to 7:30 P. M. E.S.T. or 8:00 to 8:30 P. M. E.S.T. There will be talks by radio experts, talks by foreign dignitaries and tips on reception given. Later on there will be re-broadcasts of foreign stations. Members in New York, Pennsylvania, New Jersey and the New England states can hear these programs. Sent reports to the station or to the New York Chapter at 2610 Glenwood Road, Brooklyn. Our thanks to the officers in charge of WNYC for this wonderful privilege.

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The London, England, Chapter meets at the RACS Hall, Wandsworth Road, London, S. W. 8, every Friday except the second in each month. They are now printing a "news letter" which gives the latest information on members and their reports. They intended to visit the Daventry stations on Sunday June 21st. They also plan many other special events for the summer, including several field days.

The Manchester Chapter has closed down until September.

The Philadelphia Chapter will meet on the second Friday of the month during the summer at 438 Market Street.

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### RALPH STRANGER INJURED

Ralph Stranger, editor of "Science Review," associate editor of "World Radio" and one of the most outstanding radio men of England, met with a serious accident last month. He fell from a horse early in the month. We feel sure that we speak for every member of the International Short Wave Club when we wish him a speedy recovery.

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### THE AMATEURS

For real DX thrills, we suggest the amateur band between 20.97 and 21.26 meters, 14.30 and 14.11 mc. There are stations from no less than ninety countries now in this band. Of course you can not hear this many countries every day, or anything of the sort. But, by careful tuning, an ordinary receiver can bring in quite a few countries every day.

Due to the fact that members seldom agree on call-letters, and that these stations do not work regularly, we have not mentioned many of these stations. But, we hope to be able to arrange a list very soon, particularly those in Asia, Australia and Africa.

We can not furnish the addresses of these stations. Every day we receive several letters asking us for the address of some amateur station. Seldom does anyone send postage for a reply. Some have sent as many as fifty requests. We suggest that members send for a copy of the Radio Amateur Call-Book, which lists over 60,000 amateurs, press, time and weather stations, amateur prefixes, International abbreviations and high frequency commercial stations. It sells for \$1.25 a copy and we will have your order filled for you.

## 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.

VK2ME, Sydney, on 31.28 meters, 9.59 mc. broadcasts Saturdays from midnight to Sundays 2:00 A.M., 4:30 to 8:30 A.M. and 11:30 A.M. to 1:30 P.M. during July.

VK3ME, Melbourne, on 31.55 meters, 9.51 mc. broadcasts week-days 4:00 to 7:00 A. M.

VK3LR, Melbourne, on 31.31 meters, 9.58 mc. broadcasts daily 3:15 to 8:30 A.M., adding another hour to the schedule (Erwin, Ill., and Sparks, Calif.) Is heard daily and Sundays now, with a special program Fridays 12:30 to 2:15 A.M. (Crafts, Calif.)

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

VJZ, Rabaul, New Guiana, reported on 21.88 meters, 13.75 mc. broadcasting a special program to the U. S. A. to determine if it was heard there. This was one Sunday between 4:00 and 5:30 A.M. Also reported on 21.19 meters, 13.88 mc. and 21.90 meters, 13.70 mc. between 1:00 and 7:00 A.M. and at 5:00 P.M. Address is Amalgamated Wireless, Rabaul, Territory of New Guiana. (Keenan, Australia). The special program was reported by Fred Karpen of Pennsylvania.

ZLT4, Wellington, New Zealand, on 27.15 meters, 11.05 mc. can be heard phoning almost every night between 10:30 P.M. and 8:00 A.M. next day.

Stations VHZ2 and VHZ3 in Australia, address not known, are heard on 69.3 meters and on their first harmonic on 34.6 meters between 2:00 and 4:00 A.M. (Keenan, Australia).

VK6ME, Perth, the much talked-about new station, will go on 31.28 meters, 9.59 mc. with 500 watts power in September. (Sparks, Calif.)

### AFRICA

ZEC, Salisbury, Rhodesia, on 50.00 meters, or 6.00 mc. and ZEB, Bulawayo, Rhodesia, on 48.80 meters, 6.147 mc. broadcast the same programs Sundays, 3:30 to 5:00 A.M., Mondays 11:00 A.M. to noon, Tuesdays 1:15 to 3:15 P.M., Thursdays 10:00 A.M. to 10:45 A.M. and 11:00 A.M. to noon, and Fridays 1:15 to 3:15 P.M. The address is Postoffice Department, Salisbury, Rhodesia. (Burdett, Rhodesia).

ZTJ, Johannesburg, relays station JB, on 49.20 meters, 6.09 mc. week-days 11:45 P. M. to 12:30 A.M., 3:15 A.M. to 7:00 A.M., 9:00 A.M. to

11:30 A.M., 11:45 A.M. to 4:00 P.M. Sundays they are on from 4:00 to 5:00 A. M., 7:55 to 1:00 A. M. and 12:00 P. M. to 5:15 P. M. (Burdett, Rhodesia).

CR7AA, Lourenco Marques, on 48.87 meters, 6.137 mc. broadcasts week-days 12:45 P.M. to 3:15 P.M., and Sundays 8:00 A.M. to 10:30 A.M. (Burdett, Rhodesia).

CR6AA, Lobito, Angola, on 41.80 meters, 7.177 mc. broadcasts Wednesdays and Saturdays 2:45 P.M. to 4:45 P.M. (Burdett, Rhodesia).

FIQA, Tananarive, Madagascar, on 49.83 meters, 6.02 mc. relays FIU between 7:00 A.M. and 1:00 P.M. (Burdett, Rhodesia). Is on 49.90 meters around 10:45 A.M. (Super Wasp, Australia). Reply says 6.00 mc., 50.00 meters, 3:30 to 4:45 A.M. and 10:00 to 10:45 A.M. week-days and 2:00 to 4:00 A.M. Sundays. (Adams, India).

ETB, Addis Ababa, Ethiopia, has of course, been taken over by the Italians. Rumor has it destroyed by the Ethiopians. H. S. Bradley tells us the Italians now have set up the following stations at this place. IUA on 5.88 mc., IUB on 7.62 mc., IUC (old ETB) on 11.955 mc., IUD on 18.27 mc., IUF on 6.922 mc. and IUG on 15.45 mc. None have been heard on voice as yet.

FZE9, Djibout, French Somaliland, is a new phone on the air. It was heard on 35.01 meters, 8.57 mc., giving this call-sign and saying "Ici Tibuti" between 4:48 and 6:00 P.M. by J. Studholme of England and on 17.44 meters, 17.20 mc., between 9:00 and 9:45 A.M. by Mr. Walcott of California.

VQG, Nairobi, Kenya, on 15.28 meters, 19.63 mc. phones London between 7:00 and 8:30 A.M. daily and is heard by quite a few. The address is the same as that for VQ7LO, which is Box 777, Nairobi (Barron, Scotland, and Rossi, Pa.)

A station at Algiers, Algeria, on 33.48 meters or 8.96 mc. phones Paris around 12:30 A.M. The call is not FVA according to a letter. (Miller, Ky.)

Canary Islands, EA8AB, Santa Cruz, Tenerife, on 41.60 meters or 7.21 mc. broadcasts Mondays, Wednesdays and Fridays from 3:15 to 4:15 P.M. Amateur stations EA8AF, EA8AO, and EA8AJ, all in the Canary Islands, were reported using phone on 20 meters (14.03 mc. amateur band) between 3:00 and 10:30 P.M. Amateur EA8AL on 42 meters, 7 mc., was heard at 4 P.M. (Orchard, Eng.). EDR3, El Tablero, also called EHZ, telephones Spain (EHY) between 3:30 and 4:00 A.M. according to a letter received from Spain. (Chambers, Okla.) Amateurs EA8LW, EA8AL and EA8AH on 20 meters are also reported by R. Rossi, Pa.

African Phone Stations. 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. to 1:00 P.M. OPL, Leopoldville, Belgian Congo, on 14.97 meters, 20.04 mc. phones Belgium 10:00 A. M. to 3:00 P. M. OPM, same city, on 29.58 meters, 10.14 mc., phones around 2:00 to 3:00 P.M., and reported between

midnight and 2:30 A. M. by members W. Chambers and R. Leeder. ZSS, Capetown, South Africa, on 15.88 meters, 18.89 mc., phones England between 6:30 A.M. and 1:00 P.M. CNR, Rabat, Morocco, on 23.38 meters, 12:82 mc., phones Paris irregularly between 3:00 and 4:00 P.M. (Miller, Kentucky).

### ASIA

Colombo, Ceylon, on 49.50 meters, 6.06 mc., was heard between 8:00 and 11:00 A.M. broadcasting. (Super Wasp, Australia). Letter from Chief Tele-Communications Engineer, Broadcasting Office, Torrington Square, Colombo, says they are on 49.60 meters from 1300 to 1500 G.M.T. or 8:00 to 10:00 A.M., E.S.T. (Keenan, Australia).

Japan. JVD, Nazaki, on 18.91 meters, 15.86 mc. is heard phoning almost all day and all night now. JVE on 19.15 meters, 15.66 mc. was heard between midnight and 2:00 A.M. and 6:00 and 7:30 A.M. JVF on 19.20 meters, 15.62 mc. was heard around 1:30 A.M. JVH on 20.55 meters, 14.60 mc. broadcasts programs every night from midnight to 1:00 A.M., every Monday and Thursday from 4:00 to 5:00 P.M. and every Tuesday and Thursday from 2:00 to 3:00 P.M. It is also heard relaying programs between 1:00 A.M. and 7:40 A.M. irregularly. JVL on 25.73 meters, 11.66 mc. was heard around 9:00 A.M. JVM was reported between 3:30 and 7:40 A.M. daily by one member. It is on 27.93 meters, 10.74 mc. It is also reported broadcasting the program intended for Europe each Tuesday and Thursday from 2:00 to 3:00 P.M. JVN on 28.14 meters, 10.66 mc. was reported broadcasting between 1:30 A.M. and 7:40 A.M., often relaying baseball games between 1:40 and 2:40 A.M. JVO on 28.93 meters, 10:37 mc. was reported at 9:00 A.M. News in English is broadcast at 12:05 A.M. by JVH and at 4:55 A.M. by JVN. (Crafts, Calif.)

A letter from the Chureki Transmitting Station, International Telephone Company of Japan, Chureki Gai, Shinchiku State, Taiwan, Japan, says they have JIA on 15.74 mc.; JIB on 28.49 meters, or 10.53 mc., and JIC on 50.93 meters, 5.89 mc. JIB is used all day, and JIC on winter nights. On the second Sunday of each month they relay a program from station JFAK around 5:00 to 6:00 P.M., Japan Time, or 3:00 to 4:00 A.M., E.S.T. JIB is reported daily 1:00 A.M. to 5:00 A.M., sometimes phoning, sometimes sending music. (Crafts, Calif.) At 10:00 A.M. (Gallagher, Calif.) Heard 3:00 to 7:00 A.M. daily. (Sparks, Calif.)

Kanjoshi Station, Manshu Denshin Denwa Kaisha, Ltd. of Shinkio, (Hsinking), Manchuko, has stations TDE (also called JZB) on 29.80 meters or 10.065 mc. and TDD (also called JZC) on 5.83 mc. that may be heard telephoning Japan quite often between 10:00 P.M. and 7:00 A.M. JZB Heard 3:00 to 7:00 A.M. daily. (Sparks, Calif.)

ZBW, Hong Kong, on 34.29 meters, 8.75 mc., say they broadcast from 4:30 to 6:15 and 9:00 to 3:00 P.M., G.M.T., or 11:30 P.M. to 1:15 A.M. and 4:00 to 10:00 A.M., E.S.T. (Tynan, N. Y.) It is heard in North America between 3:00 and 7:00 A.M. and on the west coast until 10:00 A.M.

CQN, Macao, Portuguese China, on 31.00 meters, 9.665 mc., broadcasts Mondays and Fridays from 7:00 to 8:30 A.M. Send reports to the post-

office there. Moved to 31.28 meters, 9.59 mc. (Karpen, Pa.)

XGOA, Nanking, China, is on 31.45 meters, 9.54 mc., between 3:30 and 5:30 A.M. nearly every day, giving an English program at 5:10 A.M. (Walcott and Sparks, California); On 9.46 mc. at 10:00 A.M. once with special program (Gallagher, Calif.); On 31.3 meters (Keenan, Australia). Heard on 9.54 daily except Wednesdays 4:00 to 6:00 A.M. (Karpen, Pa.). Uses call XGOX (Gallagher and Keenan).

Chinese phones. XOJ, Shanghai, on 18.99 meters, 15.795 mc., works London from 5:00 to 6:00 A.M. and Tokio almost any time. Calls GBX at 7:15 A.M. daily (Rossi, Pa.) XGN on 17.00 meters, 17.64 mc., phones London around 7:00 A.M. XGW on 28.79 meters, 10.42 mc., phones Japan between Midnight and 3:00 A.M. Sent special programs to U.S.A. for rebroadcasting May 22 at 10:00 A.M. and May 23 at 3:00 P.M. (Walcott, California). Address is Sassoon House, Jinko Road, Shanghai.

Java. Station YDB on 31.10 meters, 9.65 mc., and PLP on 26.26 meters, 11.00 mc., broadcast a musical program every day from 4:30 A.M. to 10:00 A.M. and on Saturdays until 11:00 A.M. (Horton, Sparks, Herzog, Van Honk, Grey, Gallagher, Davison, Crafts and Gavin). PMN on 29.25 meters, 10.26 mc., is also heard daily except Saturday from 6:00 to 7:30 P.M. (Davison, P. R.). PMA on 15.50 meters, 19.35 mc., phones Holland between 5:30 and 11:00 A.M. PLE on 15.93 meters, 18.83 mc., phones Holland between 5:30 and 11:00 A.M. and tests with the U.S.A. and Japan between 6:50 and 8:00 P.M. PLV on 31.86 meters, 9.42 mc., was heard phoning at 10:00 A.M.; 6:45 and 11:00 P.M. YBG on 28.80 meters, 10.40 mc., phones Bandoeng between 3:00 and 11:00 P.M. A station PMH on 44.64 meters, 6.72 mc., was broadcasting music between 8:30 and 9:30 A.M. (Keenan, Australia).

Siam. A station HSSPJ, Bangkok, on 27.30 meters, 10.99 mc., is broadcasting a program every Monday between 8:00 and 10:00 A.M. They use English and have a lady announcing. Heard on 10.955 mc. (Sparks, Calif.) Heard on 10.15 mc. sending music one Wednesday at 6:00 A.M. and another Wednesday between 5:00 and 6:00 A.M. (Karpen, Pa.) An amateur HS1CD, Bangkok, on 20.7 meters, 14.09 mc., was heard at 11:10 P.M. (Williams, N. Y.)

Siberia. Station RV15 on 70.65 meters, 4.25 mc., broadcasts 1:00 to 9:00 A.M. Station RWJ, Alma-Ata, on 24.61 meters, 12.19 mc., phones Moscow at 6:00 A.M. ROU, Omsk, on 20.29 meters, 14.79 mc.; RFL, Khabarovsk, on 22.74 meters, 13.19 mc., and RVU, Vladivostok, on 21.75 meters, 13.79 mc., were all phoning at 6:00 A.M. often (Keenan, Australia). RRR, Khabarovsk, on 15.95 mc., is heard Wednesdays and Saturdays from 5:00 to 7:00 A.M. ROU was heard 5:00 to 7:00 A.M. RKL, address unknown, on 17.38 mc., was heard 6:00 to 8:00 P.M. one Friday. RVU on 13.78 mc. sent music one Monday 6:00 to 8:00 A.M. (Karpen, Pa.)

Philippines. The Long Distance Telephone Company, Box 1635, Manila, say they have KZGB on 8.70 mc.; KZGM on 7.885 mc., and KZGF on 5.81 mc., all 400 watt stations. Another letter says KBB is on 8.71 mc.; KZGF is on both 7.855 and 5.81 mc. (Walcott, Calif.) There are many phones heard daily.

KZRM. A letter from Frank Spair of station KZRM (long waves) says they will go on 30.15 meters, 9.95 mc., the first of July and broadcast daily (McMenamy, California). For the past six weeks, station KAZ, a phone on 30.09 meters, 9.97 mc., has been relaying programs from KZRM between 1:30 and 3:00 A.M. (Lane, Calif., and Vandecar, Mich.) Perhaps this means that KAZ will relay KZRM daily, or it may mean that KZRM will have their own transmitter, as the waves are given slightly different.

### SOUTH AMERICANS

HJ1ABE, Cartagena, Colombia. A letter from Antonio Fuentes, L, of station HJ1ABE, Box 31, Cartagena, tells us that they will have within a few days, a new 1000 watt transmitter on 31.58 meters, 9.50 mc. They will probably test at all hours of the day and night for awhile.

HJ1ABP, Cartagena, Colombia, on 31.25 meters, 9.61 mc., broadcasts from 11:00 A.M. to 1:00 P.M., and 5:00 to 11:00 P.M. weekdays and 10:00 A.M. to 1:00 P.M. and 3:00 to 6:00 P.M. Cards say they are on 9.60 mc., but reports say 9.61. They tell us they want reports on their 11:00 A.M. daily program and their 10:00 A.M. to 1:00 P.M. Sunday program. Their address is Apartado 37. With HJ1ABE and HJ1ABP so close together now, they should each get some sort of identifying signal. Certainly only a few people will be able to distinguish the stations by call signs.

HJ1ABM, Cartagena, on 21.23 meters, 14.13 mc., sent a special test program May 29 at 8:30 P.M. and asked for reports to be sent to Box 31, the address of HJ1ABE. (Kash, Tenn.)

HJ1ABG, Barranquilla, on 49.65 meters, 6.04 mc., has increased the power of their station and it is now the best South American heard.

HJ3ABX, Bogota, on 49.00 meters, 6.122 mc., "La Voz del Colombia," is heard between 7:00 and 11:30 P.M. now. The address is Calle 14, No. 738.

HJ4ABE, Medellin, has moved from 5.93 mc. to 49.20 meters, 6.092 mc. A card says this and gives the schedule as 11:00 A.M. to Noon and 6:00 to 10:30 P.M. daily now (Herzog, N. Y.) Reported on new wavelength (Oxrieder, Pa., and Gallagher, California). Mr. Gallagher also says an HJ4ABT, Medellin, is heard on 6.03 or 6.04 mc. between 8:00 and 11:00 P.M. often.

HJ5ABC, Cali, Colombia, has gone up on long waves. HJ3ABX is not HJ5ABC as reported last month by a member (Bradley, N.Y.) HJ5ABD, Cali, La Voz del Valle, has moved to 49.30 meters, 6.085 mc. (Oxrieder, Pa.) They were on 46.30 meters, 6.48 mc., for years.

HJU, Buenaventure, Colombia, on 31.55 meters, 9.51 mc., after a long silence was heard again relaying the Louis-Schmeling Fight (Erwin, Ill). Was heard at 12:10 A.M. once (Sloper, Engand). A station called "La Voz de Girardot" on 39.95 meters, 7.51 mc., is heard broadcasting until 11:30 P.M., and once said they would be on at 3:00 P.M. next day. (Quijano of California).

Argentina. A letter says that LRU, Buenos Aires, on 19.62 meters, 15.29 mc., broadcasts from 7:00 A.M. to 4:45 P.M. and LRX on 31.25

meters, 9.58 mc., broadcasts from 5:00 to 9:00 P.M. (Henderson, Texas). But, LRX is no longer on that wave. Most members say it is on 31.06 meters or 9.66 mc., although all do not agree on this. LRU has been reported daily 7:00 to 11:00 A.M. (Davison, P. R.); 10:00 to 11:00 P.M., and at 11:30 A.M. (Sparks, California); 8:30 A.M. and 3:00 P.M. (Kash, Tenn.); 2:15 P.M. (Herzog, N. Y.); 7:00 A.M. (Van Honk, Pa.); while LRX has been reported between 7:00 and 9:00 P.M. (Van Honk, Pa.; Hofmaster, Ohio; Atherton, Vt.; Crafts, Calif.; Gullberg, Sweden; Kash, Tenn.; Salazar, N. Y.; Tughes, England; Gallagher, Calif.; Sparks, Calif.; Ebbecke, Pa.). Heard signing off at 11:00 P.M. (Erwin, Ill.). LSX, Buenos Aires, was testing several times last month around 7 to 9 P.M.

CEC, Santiago, Chile, on 28.12 meters, 10.67 mc.; broadcasts daily 7:00 to 7:15 P.M. and Thursdays and Sundays 8:30 to 9:00 P.M. although they say on cards they are on from 7:00 to 8:00 P.M. daily. CB960, Santiago, on 31.25 meters, 9.60 mc., broadcasts irregularly from 8:30 to 11:30 P.M.

PZH, Surinam, Paramaribo, Dutch Guiana, on 42.88 meters, 7.00 mc., say they have 25 watts power on the air Monday, Wednesday and Friday from 5:40 to 9:40 P.M.; Tuesday, Thursday and Saturday 8:40 to 10:40 A.M. and Sunday 9:40 to 11:40 A.M. Send reports to the Supt. Government Radio Service, Surinam. PZ1AA, on 20 meters, 13.98 mc., that was reported in April say they are not an amateur station. It is owned by the Supt. of Government Radio Service, the same as PZH (Atherton, Vt.).

YV7RMO, Maracaibo, Venezuela, is on 49.42 meters or 6.07 mc. They have been heard between 9:50 P.M. and midnight by members Oxrieder, Pa., Rossi, Pa., Sloper, England, Legge, N. Y., Sparks, Calif. and Gallagher, Calif. Mr. Gallagher said they announced their address as Apartado 100, Maracaibo. This is a brand new station, of course.

YV11RB, Ciudad Bolivar, "Ecos del Orinoco" on 45.85 meters or 6.545 mc., between 6:00 and 10:30 P.M. (De Souza, Venezuela and Oxrieder, Pa.) At midnight (Gallagher, Calif.) On 6.53 mc., 10:45 to 11:15 P.M. (Palmer, Ohio). It is rumored that there will be a YV14RC, Caracas, going on 6.27 mc. from 10:30 A.M. to 1:30 P.M. and 3:40 P.M. to 10:30 P.M. and a YV15RV, Valencia, on 5.91 mc. daily 6:00 to 10:30 P.M. Several people tell us this, but none give the source of information.

OAX4G, Lima, Peru, on 48.00 meters, 6.25 mc.; broadcasts daily 7:00 to 10:00 P.M. Comes in on top of HRD (Sparks, Calif.) It is above HRD in wavelength. (Oxrieder, Pa.) OAX4D, Lima, on 51.90 meters, 5.78 mc., broadcasts Wednesdays and Saturdays 8:00 to 11:30 P.M. OAX4J will be on the air soon on 6.00 mc. with a 2000 watt transmitter. It will be ready around August first. (Bradley, N. Y.)

VP3MR, Georgetown, British Guiana, 41.37 meters, 7.08 mc. say they have 150 watts power and broadcast Sundays 7:45 A.M. to 10:15 A.M. and week-days 4:45 P.M. to 8:45 P.M. (Kash, Tenn.) VP3BG, same city, operates as an amateur on 20 meters almost daily. They were heard broadcasting on 41.55 meters, 7.22 mc. from 5:57 to 6:15 P.M., then on 20 meters at 7:00 P.M. (Barron, Scotland). Was on 41.55 at 9:55 to 10:00 P.M. (Reese, N. Y. C.) Verie simply says 4:15 P.M. (Kash, Tenn.)

PRF5, Rio de Janeiro, Brazil, on 31.56 meters or 9.50 mc. broadcasts

daily 4:45 P.M. to 5:45 P.M., but sometimes runs later than this and other times signs off earlier. PPQ, a phone on 25.73 meters, 11.66 mc. was heard testing, calling Geneva and New York between 7:30 P.M. and 8:45 P.M. (Atherton, Va.) Relayed the Louis-Schmeling fight (Childs, Pa.) PSE, a phone on 14.93 mc. was calling New York at 6:00 P.M. before the fight. (Childs, Pa.)

HCJB, Quito, Ecuador, has moved again (about once a week they do, it seems). They are now on 8.95 mc. according to Mr. Miller, of Kentucky.

### CENTRAL AMERICANS

Guatemala. TGW, Guatemala City was heard on Sunday mornings until 6:00 A.M. often this spring but no one reports them now. They were on 31.75 meters, 9.45 mc. and 50.51 meters, 5.94 mc. TG2X on this last wavelength, is still heard evenings between 6:00 P.M. and 11:30 P.M. TGS on 52.50 meters or 5.714 mc. broadcasts Sundays, Wednesdays and Thursdays 6:00 to 7:00 P.M. TGWA on about 12.07 mc. was heard between midnight and 1:30 A.M. in June (Gallagher, Calif.)

YSJ, a new telephone station at Salvador, El Salvador, on 11.37 meters, 13.41 mc. has been heard phoning WNC Florida, between 9:50 A.M. and 6:00 P.M. It is heard by several members. A verification came from Victor M. Escobar, Director General de Telephones and Telegraphes y Radio Nacionales, San Salvador (Bradley, N. Y.) Reported by members Rossi, Herzog, Legge, Karpen. Heard on 8.15 mc. at 10:00 P.M. one Saturday working MNC. (Erwin, Ill.) On 13.35 mc. 10:00 to 11:00 A.M. (Palmer, Ohio.) Call YSL on 13.45 mc. once 11:30 A.M. to noon (Herzog, N. Y.)

YNLF, Managua, Nicaragua, has been reported on 31.06 meters, 9.66 mc. and 30.99 meters, 9.68 mc. between 8:00 and 9:00 P.M. by the following: (Kash, Tenn., Legge, N. Y., Crafts, Calif., Salazar, N. Y., Childs, Pa., and Gallagher, Calif.)

HRD, La Ceiba, Honduras, on 48.11 meters, 6.235 mc., "La Voz de Atlantida," broadcasts daily 8:00 to 11:00 P.M. and Sundays 4:00 to 6:00 P.M. They have 250 watts power. Dr. Tulio Castaneda is the owner. (Erwin, Ill. and Crafts, Calif.)

Panama. HP5B, Panama City, on 49.75 meters, 6.03 mc., broadcasts Noon to 1:00 P.M. and 7:00 to 10:30 P.M. HP5F, Colon; on 49.34 meters; 6.08 mc., broadcasts weekdays 11:45 A.M. to 1:15 P.M. and 7:45 P.M. to 10:00 P.M. and Sundays 10:45 to 11:30 A.M. and 4:00 to 6:00 P.M. The address is Box 423 (Flagg and Siddle). HP5J, Panama City, on 31.28 meters, 9.59 mc., broadcasts 7:30 to 10:00 P.M. weekdays and 2:00 to 3:00 P.M. Sundays, they say, while it is reported at 7:00 P.M. and 11:00 P.M. by W. D. Flagg, Mass. HP5K, Colon, on 49.96 meters, 6.005 mc., broadcasts 7:30 to 9:00 A.M., Noon to 1:00 P.M. and 6:00 to 9:00 P.M. relaying HP5O, "La Voz del Victor." The address is Box 33. Power now 200 watts. (R.C.A. Bulletin.)

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, 7.61 mc., broadcasts 5:00 to 10:00 P.M. irregularly. TIGP, San Jose, on 46.86 meters, 6.41 mc., "La Voz del Victor," broadcasts Noon to 2:00 P.M. and 6:00 to 11:30 P.M.

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

R. De Souza, Venezuela, sends us word that a station TI4WX in Heredia, Costa Rica, is on 8.00 mc. relaying station TIWX, "La Voz de la Patria," daily 8:30 to 11:00 A.M. and 2:30 to 10:00 P.M. He has a verification that gives the power as 50 watts. A station TIMC, San Jose, is on 57.40 meters, 5.225 mc., broadcasting daily 7:00 to 8:00 P.M. The signature is "Radiodifusora Cultura" and they verified, the verification being signed by M. L. Coronado. A station TIOW, Puerto Limon, on 43.79 meters, 6.85 mc., Box 45, signature "Ondas del Caribe," sometimes announces the call TI6RW is heard around Midnight Saturday up to 1:30 A.M. Sundays.

XBA, Tacubaya, D. F., Mexico, on 43.00 meters, 6.977 mc. sends out weather reports from 9:30 to 1:00 P.M. and broadcasts programs from 7:00 to 8:30 P.M. daily. This news was sent by Sr. Jose C. Gomez, Servicio Meteorologico Mexicano, Tacubaya, D. F. Mexico, to H. S. Bradley and W. Siddle.

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

XEWI, Mexico City, say in a letter to headquarters that they are looking for a better frequency and they will tell us when and where they move. The present schedule is Mondays 3:00 to 4:00 P.M., Tuesdays and Thursdays 7:30 to 8:45 P.M. and 10:30 P.M. to midnight; Wednesdays 3:00 to 4:00 P.M.; Fridays 3:00 to 4:00 P.M. and 9:00 P.M. to midnight, and Saturdays 9:00 to 10:00 P.M., and Sundays 1:00 to 2:15 P.M. They seem to be on about 25.10 meters or 11.95 mc. most of the time, but may also be heard on 50.20 meters or 5.975 mc. at times. This station is operated by an organization that deserves help and they are interested in reports. The address is Box 2874, Mexico City.

La Cadena, Indo-Latina, is a chain of stations in Central America, South America and the West Indies, that get together two or three nights a week around midnight. Each time there is a "toastmaster station" which calls and talks to the different stations taking part. By locating the "toastmaster station" and dialing for the station he calls, it is possible to log a good many stations in a short time. (Quijano, California).

## WEST INDIES

Everyone should know the schedules of such stations as HIT, HIZ, HIG, HIL, HIH, HI5V, HI4D, HI9B, HI1S, as they are well-known stations, Station HIX moved to about 12.28 mc. once to send a special program. (Kash, Tenn. and Stempel, Conn.), but did not move back exactly to 50.17 meters or 5.98 mc., but seem to have decided to stay on about 48.90 meters or 6.132 mc. (Oxrieder, Pa.) Letters from the station say they are on 50.17 meters, Sundays 7:40 to 10:40 A.M., Tuesdays and Fridays 12:10 to 1:10 P.M., 4:40 to 5:40 P.M. and 8:10 to 10:10 P.M., other days 12:10 to 1:10 P.M. and 4:40 to 5:40 P.M.

HI5N, Santiago, Dominican Republic, on 48.80 meters, 6.15 mc., says "N for Nebraska." Their address is P. O. Box 195. It is heard often. (Lane, Calif., Craft, Calif.)

HI8Q, Trujillo, on 48.08 meters, 6.24 mc., say they broadcast 11:00 A.M. to 2:00 P.M. and 5:00 to 8:00 P.M. local time, or 10:40 A.M. to 1:40 P.M. and 4:40 P.M. to 7:40 P.M., E.S.T. Their address is Avenida Espana No. 12, Ciudad Trujillo. (Rossi, Pa., Coleman, N. Y., Kash, Tenn., Bradley, Md.)

HI3U, Santiago, D. R., in a letter say they are on 49.88 meters, 6.015 mc. from 7:30 to 9:00 A.M., noon to 2:00 P.M., 5:00 to 7:00 P.M. and 8:00 to 9:30 P.M. week-days and Sundays 12:30 to 2:00 P.M. and 5:00 to 6:00 P.M. The address is Apartado 123.

HI3C, La Romano, D. R., "La voz de la Feria," say they are now on 49.14 meters, 6.015 mc., from 12:30 to 2:00 P.M. and 5:00 to 6:00 P.M. (Swimmer, Ohio). On 6.097 mc. not 6.105. (Oxrieder, Pa.)

HI1A, Santiago de los Caballeros, "La Voz del Yaque," on 48.50 meters, 6.19 mc., say they are now on the air 12:20 to 2:40 P.M. and 8:20 to 9:40 P.M. They have 100 watts power and the address is Box 423. (Crafts, Calif.)

HI1S, Puerto Plata, "La Voz de Hispanola," is on 46.73 meters, 6.42 mc., and cards say they broadcast daily 11:40 A.M. to 1:40 P.M. and 5:40 to 7:40 P.M. and 9:40 to 11:40 P.M. The operator was once heard saying they were now at Santiago de los Caballeros instead of Puerto Plata (Siddle, Alabama).

Cuba. We believe most members know the schedules of stations COCO, COCD, CO9JQ, COCH and CO9WR. These are shown in our list. Some time ago, CO9GC at Santiago on 48.79 meters, 6.15 mc., said they were going commercial and the call-sign would be COKG hereafter. But they still say CO9GC at times, and a powerful harmonic of the station is heard on 24.39 meters, 12.30 mc., and many think this is a new station. The schedule is daily Noon to 1:00 P.M. and 5:00 to 8:45 P.M.; Tuesdays, Thursdays and Saturdays 10:00 to 10:30 P.M. and Sundays Noon to 1:00 P.M. and 1:00 to 2:00 A.M. (Vance, England).

CO9RY, Matanzas, Cuba, is a new station heard on 48.08 meters, 6.24 mc., relaying station CMGF, owned by Sr. Bernabe de la Torre. It is reported by L. Henderson, of Texas and Bradley, of New York. Mr. Bradley says it moved to 6.29 mc. recently. The phone CMA 5 on 15.505 mc. was reported testing at 3:20 P.M. one Thursday in June (Herzog, N. Y.)

## THE EUROPEANS

The Daventry, England, schedule for the present time is as follows:  
 GSB on 31.55 meters, 9.51 mc., 11:30 P.M. to 1:30 A.M.; 12:15 to 5:45 P.M.  
 GSC on 31.32 meters, 9.58 mc., 6:00 to 8:00 P.M.; 9:00 to 11:00 P.M.  
 GSD on 25.53 meters, 11.75 mc., 12:15-3:40; 9-11; 11:30 P.M. to 1:30 A.M.  
 GSF on 19.82 meters, 15.14 mc., 9 A.M. to Noon; 3:40 to 5:45; 6 to 8 P.M.  
 GSG on 16.86 meters, 17.79 mc., 6 to 8:45; 9 A.M. to Noon; 3:40-5:45 P.M.  
 GSH on 13.97 meters, 21.47 mc., 6:00 to 8:45 A.M. and 9:00 A.M. to Noon.  
 GSI on 19.66 meters, 15.26 mc., 12:15 to 3:40 P.M.  
 GSO on 19.76 meters, 15.18 mc., 12:15 to 3:40 P. M.  
 GSP on 19.60 meters, 15.31 mc., 6:00 to 8:00 P.M.

The programs to America from 6:00 to 8:00 P.M. will be over GSP, GSF and GSC and from 9:00 to 11:00 P.M. over GSD and GSC.

Stations GSI or GSO, either one or both, may be used from 12:15 to 3:40 P.M., so we list both. GSF may be used from 9:00 to 11:00 P.M. also.

The Queen Mary. This proud liner, using the call GBTT has been heard on 17.74 mc., 13.30 mc., 8.80 mc., 12.78 mc., 17.60 mc., 8.77 mc., 8.20 mc. and 8.80 mc. according to reports received this month. They tested with WOO on 17.74, 13.30 and 8.80 mc. and WQV and WQP also worked them. Then on 12.78 mc. and 17.60 mc. they worked GSB. (Wooten, Ala.) The British Broadcasting Corporation usually relay GBTT at 3:30 P.M., E.S.T. or 9:30 P. M., GBTT., using the best wavelength at the time. (Ewing, England). For best reception tune in the 17 mc. band in the mornings and afternoons and evenings for this station. (Atherton, Va.; Vandecar, Mich.; Bradley, Md.; Parr, England; Sparks, Calif.; Ebbecke, Pa.; Diamond, N. Y.; Vavison, P. R.) A new phone at Rugby, GBD or GBB on 18.04 mc. phones Montreal daily at 8:00 A.M. (Karpen, Pa.)

France. Judging by the reports received, TPA2 on 19.68 meters, 15.24 mc. broadcasts from 1:00 A.M. to 4:00 A.M. and 5:00 A.M. to 10:00 A.M. TPA3 on 25.23 meters 11.90 mc. is on from 2:00 A.M. to 4:00 P.M. and 10:15 A.M. to 5:00 P.M. TPA on 25.63 meters or 11.71 mc. is on from 5:15 to 9:15 P.M. and 9:45 P.M. to midnight. We thank G. Ebbecke, A. Walcott and Wm. Sparks. A Paris phone on 38.80 meters or 7.73 mc. was calling the ship "Île de France" at 1:00 P.M. (Hughes, England). A station on 24.49 meters, 12.25 mc. is broadcasting the programs of Pontoise around 6:00 A.M. (Niederle, Czechoslovakia).

Germany. The program schedule announced for July follows:

DJA on 31.38 meters, 9.56 mc., 12:30 to 3; 8 to 11 A.M.; 4:50 to 10:45 P.M.  
 DJB on 19.74 meters, 15.20 mc., 3:50 A.M. to 11:00 A.M., 4:50 to 10:45 P.M.  
 DJC on 49.83 meters, 6.02 mc., 11:35 A.M. to 4:20 P.M.  
 DJD on 25.49 meters, 11.77 mc., 11:35 to 4:20 P.M.; 4:50 to 10:45 P.M.  
 DJE on 16.89 meters, 11.76 mc., 8:05 to 11:00 A.M.  
 DJL on 19.85 meters, 15.11 mc., 5:45 to 7:30 A.M.  
 DJM on 49.34 meters, 6.08 mc., 7:30 to 9:30 P.M.  
 DJN on 31.45 meters, 9.54 mc., 12:30-3:50; 8:05-11 A.M.; 4:50-10:45 P.M.  
 DJO on 25.43 meters, 11.79 mc., 3:00 to 4:20 P.M.  
 DJP on 25.31 meters, 11.85 mc., Noon to 2:00 P.M.

DJQ on 19.63 meters, 15.28 mc., 12:30 to 7:00 A.M.

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

In addition to the above, they have been testing with these stations:

DZA on 31.00 meters, 9.675 mc., from 5:00 to 7:00 P.M.

DZB on 29.88 meters, 10.04 mc., from 7:00 to 9:00 P.M.

DZC on 29.15 meters, 10.29 mc., from 3:00 to 10:45 P.M.

DZE on 24.73 meters, 12.13 mc., from 7:00 to 9:00 A.M.; 5:00 to 7:00 P.M.

DZH on 20.75 meters, 14.46 mc., from 3:45 A.M. to 5:45 A.M.

DJB has been used for the past month between 4:45 P.M. and 10:45 P.M. (VanHonk, Grey, Walcott, Sparks, Craft and Kash). DZH is now broadcasting daily 3:45 A.M. to 5:45 A.M. (Pegge, England). DZD on 15.5 mc. was heard one Sunday 11:00 A.M. to 12:30 P.M. (Erwin, Ill.)

The Hindenberg, DEKKA, was not reported last month by anyone although they are still using voice at times. They usually use 51.72 meters or 5.80 mc. and 29.13 meters or 10.30 mc. Remember the waves.

TFJ, Reykjavik, Iceland, on 24.52 meters, 12.24 mc., has been broadcasting again on Sundays from 1:40 to 2:00 P.M.

LZA, Sofia, Bulgaria, send verifications saying they are on 20.04 meters, 14.97 mc. They have 2000 watts power and the address is simply LZA, Radio Garata, Sofia. The schedule is Sundays 12:30 A.M. to 8:00 A.M. and 10:00 A.M. to 4:30 P.M., other days 5:00 to 7:00 A.M., and Tuesdays and Thursdays only from 1:00 to 3:00 P.M. (Fuller, R. I.; Kash, Tenn.; Stempel, Conn., and Rossi, Pa.)

Belgrade, Yugoslavia, on 49.18 meters, 6.10 mc. sends out a free radio schedule sheet like the German stations do. At least no price is stated on them and we get them every week. These show the schedule to be daily from 2:00 A.M. to 5:45 P.M. The address given is "Poste de Radio a ondas Courtes, 16 milosa Velikog, Belgrade, Yugoslavia. Mr. Dick, of Brooklyn, also gets these program booklets.

2RO, Rome, Italy, is now broadcasting on 25.40 meters, 11.81 mc.; from 8:15 to 9:00 A.M.; 9:15 to 11:15 A.M. and 11:30 A.M. to 5:15 P.M. They go on 31.13 meters, 9.64 mc., at 6:00 P.M. daily excepting Sundays and stay until 7:45 P.M. Most members know the Italian phone list, which we show in our list. 2RO on 9.64 and IAC on 12.80 sent a special program to America for rebroadcasting on June 15th at 4:00 P.M. (Hertzog, N. Y.)

Switzerland. HBH is on 16.22 meters, 18.48 mc. HBJ is on 20.64 meters, 14.54 mc. HBO is on 26.35 meters, 11.385 mc. HBL is on 31.27

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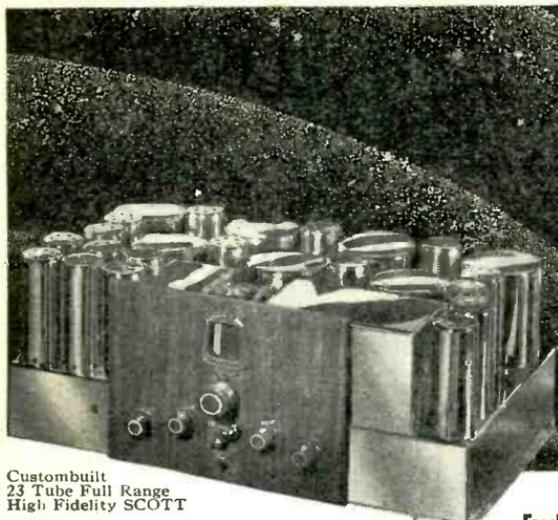
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**SEND COUPON**

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. They were also reported on the first Monday of each month from 4:00 to 7:00 P.M. (Oxrieder, Pa., and Childs, Pa.) These stations may be heard relaying special programs to America from six to eight times a month and in the event of a crisis from twenty to twenty-five times a month. When you hear a program coming from Switzerland, start dialing. Last month members Wooten, Herzog, Teague, Hughes, Kash, Walcott, Atherton and Studholme reported special programs.

PHI, Huizen, Holland, on 16.88 meters, 17.77 mc., broadcasts daily excepting Tuesdays and Wednesdays between 8:00 and 10:30 A.M. They are sometimes heard on Sundays between 1:00 and 2:00 P.M. with a special program for Africa. PIIJ, Dordrecht, Holland, on 42.35 meters, 7.08 mc., broadcasts Saturdays 10:10 A.M. to 11:10 A.M. They have 50 watts power only (Barron, Scotland).

PCJ, Eindhoven, Holland, broadcasts on 31.28 meters, 9.59 mc., each Wednesday from 7:00 to 10:00 P.M. This is especially for America. They also broadcast Sundays 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. They also broadcast on 19.71 meters, 15.22 mc., Tuesdays 3:00 to 6:00 A.M.; Wednesdays 7:00 to 11:00 A.M., and Sundays 8:30 to 10:30 A.M. On June 11th they sent a special program from 2:00 to 2:15 P.M. on 19.71 meters, then went to 31.28 (Herzog, N. Y.) Was heard on 19.71 signing off at 7:30 A.M. one Sunday and heard from 7:00 to 11:00 P.M. Wednesdays instead of 10:00 P.M. (Van Honk, Pa.)

Russia. Russia has started short wave broadcasting in earnest. Their schedule is as follows:

On 19.76 meters, 15.18 mc., Sundays, 1:30 to 2:30 P.M.

On 19.89 meters, 15.08 mc., Sundays, 10:00 to 11:00 A.M.

On 25.00 meters, 12.00 mc., daily 2:00 to 5:00 P.M., Wednesdays 6:00 to 7:00 A.M.; Sundays 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M.

On 31.51 meters, 9.52 mc., daily 6:00 to 8:00 P.M.

Station RAN on 31.51 meters, 9.52 mc., broadcasts from 6:00 to 8:00 P.M. daily, using English from 7:00 to 8:00 P.M. It is reported by (McCann, Md.; Oxrieder, Pa.; Rossi, Pa.; Parr, England; Gullberg, Sweden; Salazar, N. Y.; Childs, Pa.; Studholme, England; Karpen, Pa.; Davison, P. R.; Ebbecke, Pa., and Niederle, Czechoslovakia). RV96 on 19.94 meters, 15.04 mc., was heard one Sunday at 1:30 P.M. (Rossi, Pa.) RV96 on 15.17, was heard one Sunday, 1:30 to 3:30 P.M. (Karpen, Pa.)

Russian European Phones. We gave news on the Russian Asian phones under the heading of Asia. RNE, 25.00 meters, 12.00 mc., phones almost all morning now, from midnight to about 10:00 A.M. RKI on 19.89 meters, 15.08 mc., phones from about 3:00 A.M. to 10:00 A.M. Heard till 1:00 P.M. (Kuzmin, Canada). Broadcasting Sundays 1:30 P.M. (Legge, N. Y.) Veries say the wave is 19.89 meters. (Herzog, N. Y. and Erwin, Ill.) RIM, Tashkent on 19.68 meters, 15.25 mc., in heard 5:00 to 9:00 A.M. and 11:00 P.M. to 4:00 A.M. RIO Bakou, on 29.50 or 10.17 and RIR, Tiflis, on 29.76 or 10.08 mc., are also heard between 10:00 P.M. and 4:00 A. M.

**NORTH AMERICAN**

VE9DR is now called CFCX. This station is on 49.96 meters, 6.005 mc. and the address is Box 1690, Montreal, Canada. They say they have 750 watts power and broadcast week-days 6:00 A.M. to 11:15 P.M. Sundays 9:00 A.M. to 11:15 A.M. (Atherton, Vt., and Diamond, N. Y.)

CJRX and CJRO, Winnipeg, Manitoba, Canada, do not come on the air at 4:00 P.M., they are on from 6:00 P.M. to midnight. (Adler, N. Y.; Erwin, Ill.; Stempel, Conn.) VE9CA, Calgary, Alberta, on 49.75 meters, 6.03 mc. is heard daily till 12:30 A.M. and on Thursdays till 2:00 A.M. (Crafts, Calif.) Their schedule was given as daily 6:00 A.M. to noon and 7:00 P.M. to midnight. CRCX, Bowmanville, is supposed to broadcast week-days 5:30 to 11:30 P.M. and Sundays 11:45 A.M. to 11:30 P.M., but was heard signing off at 3:00 P.M. and coming back at 5:00 P.M. till 11:00 P.M. (Teague, Mich.) CFU, the phone station on 5.66 mc. was heard on 8.70 mc., a new wave, at 7:15 P.M. once. (Sparks, Calif.)

VE9HX, Halifax, N. S., Canada, say they have 200 watts on 48.9 meters, 6.13 mc., Monday to Friday 9:00 A.M. to 1:00 P.M. and 5:00 to 11:00 P.M.; Fridays 1:00 to 3:00 P.M.; Saturdays and Sundays 9:00 A.M. to 1:00 P.M. and 2:00 to 11:00 P.M.

W1OXDA, on the Schooner "Effie Morrissey" is going to the Arctic again this summer according to Charles Ward of Brooklyn. They leave New York on June 21st. They can work on 12.862 mc., 8.655 mc. and on the 20 meter amateur band. W2OJ of Brooklyn will be the operator this year, and it was he who told Mr. Ward. Listen on 20 meters for W1OXDA.

W1XAL, Boston, must be using a mixed schedule. Reported on 11.79 mc. signing off at 3:44 P.M. one Sunday and on 6:04 mc. the next Sunday at 3:00 P.M. (Teague, Mich.) Was on 11.79, 10:00 to 11:00 P.M. once and on 6.04 P.M. once at 10:00 P.M. (Sparks, Calif.) W2XAF and W2XAD were both used to carry the political conventions and also the Louis-Schmeling fight, so neither has been on a regular schedule due to this.

W2XE, Wayne, New Jersey, is using a new schedule it seems. They said they were on 15.27 mc. from 1:00 to 5:00 P.M., on 11.83 mc. from 5:00 to 10:00 P.M. and on 6.12 mc. from 10:00 to 11:00 P.M. (Hughes, England).

W9XAA has moved to Downers Grove, Illinois. Their address is now 666 Lake Shore Drive, Chicago, (Atherton, Vt.) They are not on the air regularly now. Was heard on 11.83 till 2:45 P.M. then on 6.08 mc. (Herzog, N. Y.) Is on 6.08 till midnight most every day. (Sparks, Calif.) W9XF, Chicago, say they are on the air daily 12:00 midnight to 1:00 A.M. Tuesdays, Thursdays, Fridays and Sundays 8:00 P.M. to midnight, not 1:00 A.M. (Atherton, Vt.)

Hawaii. KKH on 39.89 meters, 7.52 mc. relays station KGMB from 11:30 P.M. to midnight every Monday. (Hastings, Calif.) It is also heard at other times relaying special programs and phoning California. KKP on 18.71 meters, 16.04 mc. used the call K6XO and worked the ship "Chichibu Maru" several times at 9:35 P.M. (Walcott, Calif.)

Alaska. Some may call these long wave stations, but there are some Alaskan stations heard above 100 meters that may interest some members.

KIJB, Cape Pole, was heard at 2:40 A.M., 4:30 A.M. and 5:30 A.M. KKE Hawks Inlet, was heard on 2.63 mc. at 1:30 A.M. KAED, Angoon, on 2.616 at midnight. WXA, Juneau, on 2.604 at 12:45 A.M. Tanakee on 2.66 at 12:45 A.M. KIJW, Shearwater Bay, 2.912, and KIJP, Uganak, on 2.912 at 12:15 A.M. WXH, Ketchikan on 2.604 at 12:30 A.M. KGQ, Todd, KIJR, Port San Juan, on 2.986 at 2:00 A.M. and KLGK, La Merced, on 2.738 at 2:00 A.M. (Walcott, Sparks, and Gallagher, Calif.)

Ultra-short stations. There are several stations now operating on about 9.48 meters or 31.60 mc. that can be heard by some listeners that have sets that tune down that low. W8XWJ, Detroit, operates from 6:00 A.M. to 12:30 A.M. next day, and on Sundays 8:00 A.M. to midnight. Send reports to W8XWJ, the Detroit News, Detroit. (Verbrughe, Mich. and Vandecar, Mich.)

KOU, Wilmington, California, works ships on 2.566 mc. or 2.174 mc. from 10:00 P.M. to 1:00 A.M. nightly (Walcott, Calif.) KOW, Edmonds, Washington, on 2.522, phones ships between 11:00 P.M. and 1:00 A.M. (Sparks, Calif.) Station WQV, Rocky Point, N. Y., on 20.27 meters, 14.80 mc. was accidentally left off our list the past few months. They work irregularly. (Studholme, England).

### WITH THE REPORTERS

We are indebted to the following members for information which enabled us to publish this issue. We regret that space does not permit us to mention the stations each reported, but we hope to be able to continue that practice this fall. The number of stations reported this month would fill several pages of this issue, and we believe it would be best to use this space to give the information rather than acknowledge the reports. Credit for outstanding news has been given in the news section.

We thank the following for reports: S. J. A. Nicholl, Salop, England; Arthur Lovell, Southampton, England; R. Baldwin, London, England; C. E. Sutton, Coventry, England; Frank Ewing, Broadwater, Worthing, England; D. Sloper, Melksham, Wilts, England; S. W. Parr, London, England; J. R. Garrett Pegge, Chesham, Bucks, England; J. M. R. Studholme, London, England; R. J. Hughes, Trowbridge, England.

G. P. Burdett, Monze, Rhodesia, Africa; Thomas McLean, Belfast, Ireland; John Barron, Aberdeen, Scotland; J. B. Keenan, Sydney, Australia; Ingvar Gullberg, Hedemora, Sweden; L. J. Niederle, Praha, Czechoslovakia; H. J. Davison, Bayamon, Puerot Rico; W. Kuzmin, Agincourt, Ont., Canada.

Norman Lane, Long Beach, California; Frank Quijano, Glendale, Calif.; Fred M. Craft, Oakland, Calif.; Ashley Walcott, San Francisco, California; Walter McMenamy, Los Angeles, Calif.; G. C. Gallagher, San Francisco, Calif.; William Sparks, San Francisco, Calif.; A. Antognini, Greenfield, California; Luther Henderson, Ft. Worth, Texas.

H. S. Bradley, Hamilton, N. Y.; W. F. Herzog, Center Moriches, N. Y.; Gus Adler, Little Neck, N. Y.; Mills Van Bergen, Syracuse, N. Y.; Roger Legge, Binghamton, N.Y.; George Diamond, Jamaica, N.Y.; R. B. Williams, Garden City, N. Y.; Luis E. Salazar, New York City; Jimmie Reese, New

York City; G. H. Trisdorfer, Brooklyn; Adolph Dick, Brooklyn; James Coleman, Brooklyn; Charles Ward, Brooklyn.

Fred Karpen, Johnstown, Pa.; Joe Childs, Philadelphia, Pa.; George Van Honk, Erie, Pa.; Robert Rossi, Philadelphia, Pa.; George Ebbecke, Philadelphia, Pa.; Capt. Oxrieder, State College, Pa.; George Swimmer, Hubbard, Ohio; Miss Eileen Hofmaster, Sandusky, Ohio; M. L. Gavin, Cleveland, Ohio; Wm. C. Palmer, Cleveland, Ohio; Charles Miller, Covington, Kentucky.

Frank Grey, Berwyn, Illinois; Tom Erwin, Herrin, Illinois; Floyd Murphy, Palestine, Illinois; Dr. R. C. Kash, Sevierville, Tenn.; J. Stempel, Bridgeport, Conn.; Sam Swope, Rockville, Indiana; James B. Wooten, Mobile, Ala.; P. M. Horton, Baton Rouge, La.; Richard Bradley, Baltimore, Maryland; M. McCann, Baltimore, Maryland; R. Verbrugge, Jr., Detroit, Michigan; Alan Teague, Millington, Michigan; W. D. V. Vandecar, Grand Rapids, Michigan; Fred Atherton, Rutland, Vermont.

The International Short Wave Club certainly has the reporters. Each of the above persons sent in news on from one to seventy stations.

### STATIONS DO VERIFY

Every day or so someone writes to us and tells us we should have a list showing what stations verify and what stations do not. We have explained many times that just about every station has verified to some member, and has been accused of not verifying by some other member. In the May issue we used a list of stations sent in by a Florida member who claimed they did not verify. She said PCJ, W1XAL, 2RO, CT1AA, Pontoise, PRF5, CRCX and Prado did not verify. Fred Baines, of Sydney, Mines, Canada, sends word that PCJ verified for him twice, W1XAL 3 times, 2RO three times, CT1AA twice, Pontoise three times, PRF5 once, CRCX three times and Prado once, which only goes to show what we say is true, that you can not be fair and run a list showing stations that do not verify, for all stations verify at times and many times stations are accused unjustly of not verifying when the fault lies with the reporter.

## RADIO SUPPLIES

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

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

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

# BEST STATIONS AND HOURLY GUIDE

Meg. Meters Station Country Day A. M. P. M.  
 Write Local Time Here. 1 2 3 4 5 6 7 8 9 10 11 N 1 2 3 4 5 6 7 8 9 10 11 M

17.79.	16.86—GSG	England.	Daily	6 7 8 9 10 11 s	4 5 s
17.78.	16.87—W3XAL	U. S. A.	See List.	7 8 9 10 11 N 1 2 s	
17.77.	16.88—PHI	Holland	See List.	3 8 9 3	
15.34.	19.56—W2XAD	U. S. A.	Daily	10 11 N 1 s	6 7 s
15.31.	19.60—GSP	England	Daily		
15.27.	19.64—W2XE	U. S. A.	Daily	N 1 2 3 4 s	
15.26.	19.66—GSI	England	Daily	N 1 2 3 s	
15.24.	19.68—TPA2	France	Daily	1 2 3 4 5 6 7 8 9 s	
15.22.	19.71—PCJ	Holland	Irreg.	8 9 10 1/2	
15.21.	19.72—W8XK	U. S. A.	Daily	9 10 11 N 1 2 3 4 5 6 s	
15.20.	19.73—DJB	Germany	Daily	4 5 6 7 8 9 10 s	5 6 7 8 9 10 s
15.13.	19.82—GSF	England	Irreg.	9 10 11 s	3 4 5 6 7 s
15.11.	19.84—HVJ	Vatican	Daily	1/2	
13.63.	22.00—SPW	Poland	M., W, F	1 1/2	
13.07.	22.95—VPD	Fiji Isl's	Daily	1	2
12.00.	25.00—RNE	Russia	Daily		2 3 4 5 s
11.87.	25.27—W8XK	U. S. A.	Daily	2 3 4 s	5 6 7 8 s
11.88.	25.27—TPA3	France	Daily	11 N 1 2 3 4 5 s	
11.85.	25.31—DJP	Germany	Daily	N 1 s	
11.83.	25.36—W2XE	U. S. A.	Daily		5 6 7 8 s
11.81.	25.40—2RO	Italy	Daily	8 9 10 11 N 1 2 3 4 s	
11.81.	25.40—HJ4ABA	Colombia	Daily	N s	6 7 8 9 10 s
11.76.	25.51—JJD	Germany	Daily	N 1 2 3 4	
11.75.	25.53—GSD	England	Irreg.	N 1 2 3 4	9 10 s M
11.72.	25.60—CJRX	Canada	Daily		6 7 8 9 10 11 s
11.71.	25.63—TPA4	France	Daily		6 7 8 9 10 11 s
10.74.	27.93—JVM	Japan	Tues., Fri.	2 s	
10.67.	28.12—CEC	Chile	Th., Sat.		3 s
10.66.	28.14—JVN	Japan	See List.	2 3 4 s	
10.33.	29.04—ORK	Belgium	Daily	3 2 s	
9.86.	30.43—EAQ	Spain	Daily		5 6 7 8 3
9.65.	31.09—CT1AA	Portugal	Tu., Th., Sat.		3 4 5 s





## "ON-THE-AIR"

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

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

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

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

Meters	Meg.	STATION	TIME
B-13.92	-21.54	W8XK, Pittsburgh, Pa., relays KDKA,	7:00 to 9:00 A.M.
B-13.95	-21.52	W2XE, Wayne, N. J. Relays WABC	6:30 A.M. to 10:00 A.M.
B-13.97	-21.47	GSH, Daventry, England,	6:00 to 8:45 A.M.; 9:00 A.M. to Noon.
T-14.01	-21.41	WKK, Lawrenceville, N. J. Phones	LSN, 8:00 A.M. to 4:00 P.M.
T-14.17	-21.16	LSI, Buenos Aires, Arg.	8:00 A.M. to 1:00 P.M. GAA and PSE.
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-15.28	-19.62	VQG, Nairobi, Kenya, Africa. Phones	London, 7:30 to 8:00 A.M.
T-15.39	-19.50	LSQ, Buenos Aires, Argentina. Heard	testing near 2:00 P.M.
T-15.50	-19.35	FTM, Assise, France. 10:00 A.M. to	2:00 P.M. LSG.
T-15.50	-19.35	PMA, Bandoeng, Java. Phones	Holland, mornings.
T-15.57	-19.27	PPU, Rio de Janeiro, Brazil. Phones	FTM, 10:30 A.M. to 3:00 P.M.
T-15.58	-19.25	DFA, Nauen, Germany. Phones	10:00 A.M. to 2:00 P.M. irregularly.
T-15.62	-19.21	ORG, Brussels, Belgium. Phones	OPL, mornings.
T-15.68	-19.13	LSM, Buenos Aires, Argentina. Phones	EAQ, DHO, GAA, mornings.
T-15.88	-18.89	ZSS, Klipkeval, S. Africa. Phones	GAS, 6:30 to 7; 10 to 10:45 A.M.
T-15.93	-18.83	PLE, Bandoeng, Java. Phones	Holland 6 to 11 A.M. KWX irregularly.
T-16.06	-18.68	OCI, Lima, Peru. Testing with	HJY near 2:00 P.M.
T-16.11	-18.62	GAU, Rugby, England. Phones	New York mornings.
E-16.22	-18.48	HBH, Geneva, Switzerland. Used	for special programs.
T-16.30	-18.40	PKK, Kootwijk, Holland. Phones	Java near 7:00 A.M.
T-16.35	-18.35	WLA, Lawrenceville, N. J. Phones	England 8:00 A.M. to 4:00 P.M.
T-16.38	-18.31	GAS, Rugby, England. Phones	New York mornings.
T-16.39	-18.30	YVR, Maracay, Venezuela. Phones	Germany, 10:00 A.M.
T-16.44	-18.25	FTE, St. Assise, France. Phones	LSM, PPU, mornings.
T-16.48	-18.20	GAW, Rugby, England. Phones	New York mornings.
T-16.50	-18.18	PMC, Bandoeng, Java. Phones	PCV, 3:10 to 9:20 A.M.
E-16.55	-18.12	LSY, Buenos Aires, Argentina.	Irregular.
T-16.63	-18.04	GAA, Rugby, England. Phones	Argentina, 10:00 A.M. to 2:00 P.M.
T-16.82	-18.05	PCV, Kootwijk, Holland. 6:00 to	9:00 A.M. Java.
B-16.68	-17.79	GSG, Daventry, England. 6:00 to	8:45 A.M., 9:00 A.M. to Noon.
B-16.87	-17.78	W3XAL, Bound Brook, N. J. 8:00	A.M. to 3:00 P.M. daily.
B-16.88	-17.77	PHI, Huizen, Holland. Daily, ex.	Tues. and Fri., 7:30 to 10:30 A.M.
B-16.89	-17.86	W2XE, Wayne, N. J. Relays	WABC 10:00 A.M. to Noon.
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	-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	WVY, Poona, India. Phones	GBU, 2:00 to 8:00 A.M.
T-17.12	-17.52	DFB, Nauen, Germany. Phones	LSM and YVQ near 9:00 A.M.

Meters	Meg.	STATION	TIME
T-17.44	-17.20	FZE9, Djibouti, French Somaliland, testing	9:00 to 10:00 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.
T-18.44	-16.30	WLK, Lawrenceville, N. J.	Phones England.
T-18.47	-16.24	KTO, Manila, P. I.	Phones Japan 5:00 to 9:00 P.M., irregularly.
T-18.51	-16.20	FZR, Saigon, Indo-China.	Phones Paris mornings.
T-18.71	-16.04	KKP, Kauhuku, Hawaii.	Phones KWU 1:00 to 7:00 P.M.
T-18.89	-15.88	FTK, St. Assise, France.	Phones Saigon 8:30 to 11:00 A.M.
T-18.99	-15.80	XOJ, Shanghai, China.	Phones Japan 5:00 P.M. to midnight.
T-18.91	-15.86	CEC, Santiago, Chile.	Phones OCJ 11 A.M., 1 and 4:40 P.M. irreg.
T-19.02	-15.81	LSL, Buenos Aires, Arg.	Phones GAA 8 A.M. to 1 and FTM 1:2 P.M.
T-19.15	-15.66	JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A.M.
T-19.20	-15.61	JVF, Nazaki, Japan, phones U.S.A.	near 5:00 A.M. and 8:00 P.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU.
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, New York,	10:00 A.M. to 2:00 P.M. daily.
B-10.60	-15.31	GSP, Daventry, England.	6:00 to 8:00 P.M.
B-19.62	-15.29	LRU, Buenos Aires, Arg.,	7:00 A.M. to 4:45 P.M.
B-19.63	-15.28	DJQ, Zeesen, Germany,	12:30 A.M. to 7:00 A.M.
B-19.64	-15.27	W2XE, Wayne, N. J.	Relays WABC noon to 5:00 P.M.
T-19.68	-15.25	RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
B-19.68	-15.15	TPA2, Pontoise, France,	1:00 to 4:00 A.M.; 10:15 A.M. to 5:00 P.M.
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 9:00 A.M. to 7:00 P.M.
B-19.74	-15.20	DJB, Zeesen, Germany,	3:50 to 11:00 A.M.; 4:50 to 10:45 P.M.
B-19.82	-15.14	GSF, Daventry, England,	9:00 A.M. to Noon; 6:00 to 8:00 P.M.
B-19.84	-15.11	HVI, Vatican City.	10:30 to 10:45 A.M. daily.
B-19.76	-15.18	GSO, Daventry, England,	3:40 to 5:45 P.M.
B-19.76	-15.18	Moscow, U.S.S.R.,	Sundays 1:30 to 2:30 P.M.
B-19.85	-15.11	DJL, Zeesen, Germany.	5:45 to 7:30 A.M.
B-19.89	-15.08	KKI, Moscow, U.S.S.R.,	Sundays 10-11 A.M.; phones 10 P.M.-10 A.M.
T-19.92	-15.06	WNC, Hialeah, Florida,	phones many stations in daytime.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
B-20.04	-14.97	LZA, Sofia, Bulgaria.	Sunday 12:30 to 8:00 A.M.; 10:00 A.M. to 4:30 P.M.; weekdays 5:00 to 7:00 A.M.; Tues. and Thurs. 1 to 3 P.M.
T-20.08	-14.94	HJB, Bogota, Colombia,	phones WNC daytime.
T-20.08	-14.94	HBJ, Trujillo, Dominican Republic,	phones WNC daytime.
T-20.08	-14.94	HIA3, Barranquilla, Colombia,	phones WNC, Florida.
T-20.19	-14.86	OCJ2, Lima, Peru.	Phones HKB-HJY-LSN, daytime.
E-20.27	-14.80	WQV, Rocky Point, N. Y.,	heard irregularly.
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-20.42	-14.69	PSF, Rio de Janeiro, Brazil.	7 A.M. to 6 P.M. LSL, WLK, WOK.
T-20.45	-14.67	GBI, 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	-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	HRK5, 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	DZII, Zeesen, Germany,	3:45 A.M. to 5:45 A.M.
E-20.97	to 21.26	-14.30 to 14.11	Amateur phones heard in daytime.

Meters	Meg.	STATION	TIME
T-21.19	-13.88	VJZ, Rabaul, New Guiana.	Testing at 5:00 P.M. and 5:00 A.M.
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	GCJ, Rugby, England.	Phones JVH 3:00 to 8:00 A.M.
T-22.37	-13.41	YSJ, Salvador, San Salvador,	phones WNC daytime.
T-22.40	-13.38	IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:00 P.M. irregularly.
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.
T-22.48	-13.35	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.
E-24.73	-12.13	DZE, Zeesen, Germany.	7:00-9:00 A.M., 5:00-9:00 P.M., irreg.
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.,	daily 2:00 to 5:00 P.M.; Wed. 6:00 to 7:00 A.M.; Sundays, 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
E-25.11	-11.97	KKQ, Bolinas, California.	Heard irregularly, evenings.
T-25.12	-11.95	FTA, St. Assise, France.	Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M.
B-25.21	-11.90	XEWI, Mexico City,	heard in daytime.
B-25.27	-11.88	TPA3, Pontoise, France,	2:00 to 4:00 A.M.; 10:15 to 5:00 P.M.
B-25.27	-11.87	W8XK, Pittsburgh, Pa.,	relays KDKA 5:00 to 9:00 P.M.
B-25.31	-11.85	DJP, Zeesen, Germany,	Noon to 2:00 P.M.
B-25.34	-11.79	DJO, Zeesen, Germany,	3:00 to 4:55 P.M.
B-25.36	-11.83	W2NE, Wayne, N. J.	Relays WABC 5:00 to 9:00 P.M.
B-25.36	-11.83	W9XAA, Chicago, Ill.	Schedule not known now.
B-25.40	-11.81	2RO, Rome, Italy,	8:15 A.M. to 12:15; 1:15 to 5:15 P.M.
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.,	Sun. 3:30 to 5:00; Mon., Fri., 5:30 to 7 P.M.
B-25.43	-11.79	DJO, Zeesen, Germany,	3:00 to 4:20 P.M.
B-25.49	-11.77	DJD, Zeesen, Germany,	11:35 A.M. to 4:25 P.M.; 4:50 to 10:45 P.M.
B-25.53	-11.75	GSD, Daventry, Eng.,	12:15 to 3:40; 9 to 11; 11:30 P.M. to 1:30 A.M.
B-25.60	-11.72	CJRX, Winnipeg, Canada,	6:00 P.M. to Midnight.
B-25.63	-11.71	TPA4, Pontoise, France.	6:15 to 9:00 P.M., 10:00 P.M. to 1:00 A.M.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
E-25.87	-11.59	VRR4, 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.
B-27.25	-11.00	PLP, Bandoeng, Java,	daily 4:00 to 10:00 P.M.
T-27.26	-11.00	XBJQ, Mexico City.	Testing irregularly now.

Meters	Meg.	STATION	TIME
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.
T-28.12	10.67	PLQ, Bandoeng, Java.	Heard testing broadcast 5 to 10 A.M., irreg.
B-28.12	10.67	CEC, Santiago, Chile, daily	7 to 8 P.M. Thurs., Sun., 8:30 to 9 P.M.
T-28.14	10.66	JVN, Nazaki, Japan. Bcnds.	Tues. & Fri. 2-3 P.M., Mon. & Thur. 4.5 P.M.
E-28.28	10.61	WEA, Rocky Point, N. J.	Tests irregularly with Europe.
T-28.44	10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentina, irregularly.
T-28.49	10.53	JIB, Taiwan, Japan,	phones 1:00 to 10:00 A.M.
T-28.51	10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A.M. GBP.
T-28.79	10.42	XGW, Shanghai, China,	phones Japan Midnight to 3:00 A.M.
T-28.80	10.42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.M.
T-28.80	10.40	YBG, Medan, Sumatra.	5:30-6:30, 12:30-1:30 A.M., 7:30-8:30 P.M.
E-28.85	10.40	KEZ, Bolinas, California.	Used irregularly.
E-28.91	10.38	WCG, Rocky Point, N. Y.	Tests irregularly.
B-28.98	10.35	LSX, Buenos Aires, Argentina.	Irregular.
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	LZC, 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, Tifis, 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, Shinkyo, 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.
E-29.88	10.04	DZB, Zeesen, Germany.	7:00 to 9:00 P.M.
T-30.09	9.97	KAZ, Manila, P. I.	Phones PLV near 2:00 A.M.
T-30.15	9.95	GCU, Rugby, England.	Phones New York evenings.
T-30.21	9.93	HKB, Bogota, Colombia.	Phones PSK irregularly, evenings.
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.
B-30.43	9.86	EAQ, Madrid, Spain.	5:15 P.M. to 9:30 P.M. daily. Sat. 1-3 P.M.
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-30.99	9.68	YNLF, Managua, Nicaragua,	heard between 4:00 and 10:00 P.M.
B-31.00	9.67	DZA, Zeesen, Germany.	5:00 to 7:00 P.M.
B-31.00	9.66	CQN, Macao, China, Monday	and Friday 7:00 to 8:30 A.M.
B-31.06	9.66	LRX, Buenos Aires, Argentina,	5:00 to 11:00 P.M. irregularly.
T-31.08	9.65	DGU, Nauen, Germany.	Phones Egypt in daytime.
B-31.09	9.65	CT1AA, Lisbon, Portugal.	Tues., Thur. & Sat. 3:30 to 6:00 P.M.
B-31.10	9.65	YDB, Soerabaja, Java,	daily 4:30 to 10:00 A.M.; Sat. until 11:00.
B-31.13	9.64	2RO, Rome, Italy, daily	excepting Sunday 6:00 to 7:30 P.M.
B-31.22	9.61	HJ1ABP, Cartagena, Colombia,	11:00 A.M. to 1:00; 5 to 11 P.M.
B-31.22	9.61	HH3W, Port-Au-Price, Haiti.	1:00-2:00 P.M., 7:00-8:30 P.M. P.M.
B-31.25	9.60	HPSJ, Panama City,	11:45 A.M. to 1:00; 7:30 to 11:00 P.M.
B-31.25	9.60	CB960, Santiago, Chile.	Heard 9:30 P.M. to 1:00 A.M., Irreg.
B-31.27	9.59	HBL, Geneva, Switzerland.	5.30 to 6.15 P. M., Saturday.
B-31.28	9.59	VK2ME, Sydney, Aust.,	Sunday 12-2; 4:30-8:30; 11:30 A.M. to 1:30.
B-31.28	9.59	W3XAU, Philadelphia, Pa.	11:00 A.M. to 7:00 P.M.
B-31.28	9.59	PCJ, Eindhoven, Holland,	Wednesdays 7:00 to 10:00 P.M.; Sunlays
			7:30 to 8:30 A.M.; 1:00 to 2:00; 7:00 to 8:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.

Meters	Meg.	STATION	TIME
B-31.32	9.58	GSC, Davenport, England.	6:00-8:00 P.M. and 9:00-11:00 P.M.
B-31.36	9.57	W1XK, Boston (Millis), Mass.	5:00 A.M. to 11:00 P.M.
B-31.36	9.57	VUB, Bombay, India, Wed., Thurs., and Sat.	11:00 A.M. to 12:30 P.M.
B-31.38	9.56	DJA, Zeesen, Germany.	12:30-3:50 A.M., 8-11 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-31.45	9.54	XGOA, Nanking, China.	Daily 3:30 to 5:30 A.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-31.51	9.52	RAN, Moscow, U.S.S.R., daily	6:00 to 8:00 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Week-days 4:00 to 7:00 A.M.
B-31.55	9.51	HJU, Buenaventura, Colombia.	12-2 P.M., 8-11 P.M., Mon., Wed., Fri.
B-31.55	9.51	GSB, Deventer, England, 11:30 P.M. to 1:30 A.M.; 12:15 to 5:45 P.M.	
B-31.56	9.50	PRF5, Rio de Janeiro, Brazil.	Daily 4:45 to 5:45 P.M., also irreg.
B-31.58	9.50	HJ1ABE, Cartagena, Colombia, 7:30 to 9:30 daily; Mtn.	10:30 P.M.
T-31.71	9.46	Tripoli, Africa. Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.	
B-31.75	9.45	TGW, Guatemala City.	9:00 P.M. Saturdays to 6:00 A.M. Sunday.
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.
B-31.98	9.38	CSW, Lisbon, Portugal, between 5:00 and 7:00 P.M. irregularly.	
T-32.15	9.33	CGA4, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests 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, Eogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makassar, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.21	8.77	HCBJ, 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, Camaguey, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68	8.65	VVD, Seattle, Wash.	Testing irregularly.
B-34.72	8.64	YNVA, Managua, Nicaragua.	7:30 to 9:30 P.M., Irregular.
T-35.01	8.57	FZE9, Djibouti, French Somaliland,	testing 4:00 to 6:00 P.M. irreg.
T-35.02	8.57	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-35.42	8.47	DAF, Norden, Germany.	Phones ships irregularly.
B-35.69	8.41	HC2CW, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
T-35.80	8.38	IAC, Piza, Italy.	Works ships, irregularly.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
B-36.65	8.19	XEME, Merida, Mexico, 9:00 A.M. to Noon, 5:00 to 11:00 P.M.	
B-36.95	8.12	KTP, Manila, P. I.	Phones KWX 10:30 to 11:00 A.M.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.19	7.85	HC2JSE, Guayaquil, Ecuador.	9:00 A.M. to 2:00 P.M.; 6 to 11 P.M.
B-38.47	7.80	HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
E-38.50	7.78	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M.. irreg.
E-38.89	7.71	KEE, Bolinas, California.	Tests evenings irregularly.
T-39.34	7.63	RIM, Russia.	Phones RKI 6:00 to 8:15 A.M.
T-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
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	EA8AB, Tenerife, Canary Islands, Mon., Fri., 3:15 to 4:15 P.M.	

Meters	Meg.	STATION	TIME
B-41.80	7.17	CR6AA, Lobito, Angola, Africa, Wed., and Sat.,	2:30 to 4:30 P.M.
B-42.35	7.08	PI1J, Dordrecht, Holland, Saturdays	10:10 to 11:10 A.M.
B-42.37	7.08	VP3MR, Georgetown, Sun.	7:45-10:15 A.M.; weekdays 4:45-8:45 P.M.
B-42.88	7.00	PZHF, Paramaribo, Dutch Guiana,	2:40 to 9:40 P.M. irregularly.
E-43.00	6.98	XBA, Tacubaya, Mexico,	9:30 A.M. to 1:00; 7:00 to 8:30 P.M.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
E-43.82	6.84	KEN, Bolinas, California.	Used irregularly.
B-44.12	6.80	HI7P, Trujillo, D. R.	Heard 7:30 to 9:00 P.M.
B-44.31	6.67	HIH, San Pedro De Macoris, D. R.	7:30 to 9:00 P.M. daily.
T-44.41	6.75	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.75	JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftines with music.
B-44.71	6.71	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M., irregularly.
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-45.18	6.40	YV9RC, Caracas, Venezuela,	7:00 to 11:00 P.M. irregularly.
B-45.31	6.62	PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.25	6.63	HIT, Trujillo, D. R.,	12:10 to 1:40; 5:40 to 8:40 P.M. weekdays.
B-45.52	6.60	XDC, Vera Cruz, Mexico,	heard between 7:00 and 11:00 P.M. irreg.
E-45.80	6.55	NBC, Vera Cruz, Mexico,	8:15; 9:00; 11:00 A.M.; 6:00; 8:00 P.M.
B-45.81	6.55	TIRCC, San Jose, Costa Rica,	daily 6 to 7; Thurs., Sun., 6 to 11 P.M.
B-45.81	6.55	HI4D, Trujillo, D. R.	11:55 to 1:40 P.M., 4:40 to 7:40 P.M.
B-45.85	6.54	YV11RB, Bolivar, Venezuela,	testing between 9:00 and 11:00 P.M.
B-46.01	6.52	YV6RV, Valencia, Venezuela.	12:00-2:00 P.M. and 6:00-10:00 P.M.
B-46.13	6.50	HI1L, Trujillo, D. R.,	11:40 to 1:40; 5:40 to 7:40 P.M. daily.
B-46.30	6.48	HJ5ABD, Cali, Colombia.	7:00 to 10:00 P.M.
B-46.51	6.45	HJ4ABC, Ibague, Colombia,	11:00 A.M. to Noon; 8 to 11 P.M. daily.
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	W9XB3, 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-47.10	6.37	YV4RC, Caracas, Venezuela.	4:30 P.M. to 10:30 P.M.
B-47.24	6.35	HRY, 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	HIZ, Trujillo, D. R.,	11:30 to 2:45; 5:30 to 9 P.M. daily; Sat. 10 P.M.
B-47.51	6.30	YV12RM, Maracay, Venezuela,	8:00-10:30 daily; 4:30-11:00 P.M. irreg.
B-47.77	6.28	CO9WR, Sancti Spiritus, Cuba.	9:10 AM, 12-1 P.M., 4-6 P.M., 9-11 P.M.
B-47.77	6.28	HIG, Trujillo, D. R.	7:10-8:40 A.M., 12:40-2:10 P.M., 8:10-9:40 P.M.
B-48.00	6.25	OAX4G, Lima, Peru,	daily 7:00 to 10:30 P.M., Wed. at 6:00 P.M.
B-48.08	6.24	HI8Q, Trujillo, D. R.,	10:40 A.M. to 1:40 P.M.; 4:40 to 7:40 P.M.
B-48.11	6.23	HRD, La Ceiba, Honduras,	Sunday 4 to 6 P.M.; weekdays 8 to 11 P.M.
B-48.50	6.19	HI1A, Santiago de los Caballeros, D. R.,	11:40 to 1:40; 7:40-9:40 P.M.
B-48.55	6.18	NEXA, 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-48.70	6.16	YV3RC, Caracas, Ven.,	10 A.M. to 1:00 P.M.; 3:00 to 9:30 P.M.
B-48.78	6.15	COKG, Santiago, Cuba.	8:30 A.M. to 11:00 P.M.
B-48.80	6.15	HI5N, Trujillo, D. R.,	6:40 to 9:10 P.M.
B-48.80	6.15	CJRO, Winnipeg, Canada.	6:00 P.M. to Midnight.
B-48.86	6.14	W8XK, Pittsburgh, Pa.	Relays KDKA 9:00 P.M. to 1:00 A.M.
B-48.90	6.13	HJ4ABP, Medellin, Colombia,	6:00 to 11:00 P.M.
B-48.92	6.13	ZGE, Kuala Lumpur, S. S.	Sun., Tues, and Fri., 6:40 to 8:40 A.M.
B-48.92	6.13	VE9HX, Halifax, Canada.	9:30-1:30 P.M., 5:00 to 11:00 P.M.
B-48.92	6.13	COCD, Havana, Cuba.	Heard 5:00 P.M. to 1:00 A.M., irregularly.
B-49.00	6.12	HJ3ABX, Bogota, Colombia.	Heard 6:00 to 11:30 P.M., irreg.
B-49.02	6.12	XEFT, Vera Cruz, Mexico.	11:30 to 4:00 P.M., 7:30 P.M. to 12 M.
B-49.02	6.12	W2XE, Wayne, N.J.	Relays WABC 7:00 to 10:00 P.M.
B-49.10	6.11	VUC, Calcutta, India.	9:30 A.M. to Noon, Sat. 11:45 P.M. to 3 A.M.

Meters	Meg.	STATION	TIME
B-49.14	6.10	HI3C, La Romano, D. R.	12:30 to 2:00; 5:00 to 6:30 P.M.
B-49.15	6.10	HJ4ABB, Manizales, Colombia.	8:00 to 11:30 P.M., irregularly.
B-49.18	6.10	Belgrade, Yugo-slavakia,	2:00 A.M. to 5:45 P.M. daily.
B-49.18	6.10	W3XAL, Bound Brook, N.J.	Mon., Wed. & Sat. 4 P.M. to 1 A.M.
B-49.18	6.10	W9XF, Chicago, Ill.	Daily 12-1 A.M. Sun., Tue. & Thur. 8-1 A.M.
B-49.19	6.10	HJ4ABE, Medellin, Colombia,	11:00 A.M. to Noon; 6:00 to 10:30 P.M.
B-49.20	6.09	ZTJ, Johannesburg, Africa.	3:30 to 7:00 A.M.; 9:00 A.M. to 4:00 P.M.
B-49.22	6.09	CRXC, Bowmanville, Canada.	5:30 to 11:30 P.M. daily, 11:45 A.M. to 11:30 P.M. Sundays.
B-49.25	6.09	HJ4ABE, Medellin, Colombia,	11:00 A.M. to Noon; 6:00 to 11:30 P.M.
B-49.30	6.08	HJ5ABD, Cali, Colombia,	7:00 to 10:00 P.M.
B-49.31	6.08	VQ7LO, Nariobi, Africa.	11:00 A.M. to 3:30 P.M., 5:45 to 6:15 A.M.
B-49.34	6.08	HJ4AC, Periera, Colombia,	9:00 to 11:00 A.M.; 7:00 to 8:00 P.M.
B-49.34	6.08	W9XAA, Chicago, Illinois.	No apparent regular schedule.
B-49.34	6.08	DJM, Zeesen, Germany,	7:30 to 9:30 P.M.
B-49.34	6.08	HP5F, Colon, Panama,	11:45 to 1:15 and 7:45 to 10:00 P.M.
B-49.34	6.08	ZHJ, Perang, S. S.	Daily 6:40 to 8:40 A.M.
B-49.40	6.07	VE9CS, Vancouver, B. C.	Daily 6-7 P.M., Sun. 1:45 P.M. to 1:00 A.M.
B-49.42	6.07	YV7RMO, Maracaibo, Venezuela,	testing 9:00 P.M. to 1:00 A.M. irreg.
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	OXY, Skamlebaek, Denmark.	Daily 1:00 to 6:00 P.M.
B-49.50	6.06	W8XAL, Cincinnati, Ohio.	5:30-7:00 P.M., 10 P.M. to 1:00 A.M.
B-49.50	6.06	W3XAU, Philadelphia, Pa.	7:00 to 10:00 P.M.
B-49.59	6.05	HI9B, Santiago City, D. R.,	heard 6 to 10 P.M. 10:30 to 1:40 A.M.
B-49.55	6.05	HJ3ABD, Bogota, Colombia.	7:30 to 11:00 P.M.
B-49.65	6.04	HJ1ABG, Barranquilla, Colombia.	6:00 to 10:00 P.M.
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	W4NB, Miami Beach, Florida.	11 A.M. to 1 P.M., 7:30 to 10:30 P.M.
B-49.67	6.04	W1XAL, Boston, Mass.,	Mon. Tues., Thurs., 7 to 9; Sun. 5-7 P.M.
B-49.75	6.03	VE9CA, Calgary, Canada,	6 A.M. to noon; 7:00 P.M. to midnite Sun.
B-49.75	6.03	HP5B, Panama City,	12 Noon to 1 P.M.; 7:00 to 10:30 P.M.
B-49.80	6.02	HJ1ABJ, Santa Marta, Colombia,	6:00 to 11:30 P.M. irregularly.
B-49.83	6.02	XEUW, Vera Cruz, Mexico,	8:00 P.M. to 12:30 A.M. irregularly.
B-49.83	6.02	DJC, Zeesen, Germany.	11:35 A.M. to 4:00 P.M.
B-49.83	6.02	PRAS, Pernambuco, Brazil.	3:00 to 8:00 P.M., irreg.
B-49.85	6.01	HJ3ABH, Bogota, Colombia.	11:30 to 2, 6 to 11 P.M. Sun. 4-11 P.M.
B-49.88	6.01	HI3U, Santiago, D. R.,	weekdays 7:30 to 9:00 A.M.; 12:00 to 2:00; 5 to 7; 8:00 to 9:30 P.M.; Sundays 12:30 to 2:00; 5 to 6 P.M.
B-49.90	6.01	COCO, Havana, Cuba.	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M.; Saturdays at 11:30 P.M.
B-49.92	6.01	ZHI, Singapore.	Mon., Wed., Thurs., 5:40-8:10; Sat. 10:40-1:10 A.M.
B-49.96	6.00	CFCX, Montreal, Canada,	8:00 A.M. to 11:15 P.M.
B-49.96	6.00	HP5K, Colon, Panama.	7:30 to 9:00 A.M., 12-1 P.M., 6:00-9:00 P.M.
B-50.00	6.00	RW59, Moscow, U.S.S.R.,	2:30 to 5:00 or 6:00 P.M. daily.
B-50.00	6.00	XEBT, Mexico City,	6:00 P.M. to 1:00 A.M. irregularly.
B-50.00	6.00	HJ1ABC, Quibdo, Colombia	daily 5-6 P.M.; Wed. and Sun. 9-11 P.M.
B-50.10	5.99	HJ2ABD, Bucaramanga, Col.,	11:30-12:30; 5:30-6:30; 7:30-10:30 P.M.
B-50.17	5.98	XEWI, Mexico City.	Tues. and Fri. 6:30-7:45; 9 to 11 P.M., Sat 8-9 P.M.
B-50.17	5.98	HIX, 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, Cutuca, 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-50.85	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	HCK, Juito, Ecuador.	Monday and Friday 8:00 to 10:00 P.M.
B-51.11	5.87	HRN, Tegucigalpa, Honduras.	1:15 to 2:15 P.M., 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.

Meters	Meg.	STATION	TIME
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.	Noon-2:00 P.M., 7:00 11:00 P.M.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
B-51.72	5.80	YV2RC, Caracas, Venezuela.	11:00 A.M. to 2:30; 5:00 to 10:30 P.M.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
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, Cucuta, Colombia.	Mondays 4:30 to 7:30 P.M., irregularly
B-58.30	5.15	PMY, Bandoeng, Java.	6:00 A.M. to Noon.
T-59.08	5.08	WCN, Lawrenceville, N. J.	Phones England evenings.
T-59.76	5.02	ZFA, Hamilton, Bermuda.	Phones U.S.A. and ships at night.
T-60.26	4.98	GBC, Rugby, England.	Phones to ships, irregularly.
T-61.15	4.90	CGA8, Drummondville, Canada.	Phones ships irregularly.
T-61.98	4.84	GDW, Rugby, England,	phones U.S. A. nights.
B-62.63	4.79	VE9BK, Vancouver, B. C.	2:00-4:00 P.M., 7-9 P.M., 11 PM.-1:00 AM
T-63.13	4.75	WOO, Ocean Gate, N. J.	Phones ships irregularly.
B-65.22	4.60	HC2ET, Guayaquil, Ecuador.	Wed. and Sat. 9:00 to 11:00 P.M.
T-66.50	4.51	ZFS, Nassau, Bahamas.	Works WND evenings.
T-67.87	to 73.17	to 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.

### SHIP STATIONS

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

VQJM, Monarch of Bermuda; GLSQ, Olympic; GFJY, Caledonia; GBTT, Queen Mary, Normandie; GMBJ, Empress of Britain; DOAH, Bremen, DOAL, 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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### HEARD-ALL-CONTINENTS CLUB

After careful consideration, we have decided to alter two rules in the H-A-C. We have asked the opinion of several map makers and leading H-A-C members, and have decided that all Central American stations will be counted with North America. Map-makers say that all countries north of Colombia are considered North America. The West Indies stations will be classed with the nearest mainland. The second rule change provides that any person already holding H-A-C certificates and who does not wish to get a new certificate, may get into a higher class by sending return postage on the new varies, plus 3c (instead of 15c as before) and they will receive another seal, instead of a complete new certificate. Of course those who want a whole new certificate must send 15c extra, in addition to the return postage.

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**NOTE**—The Bucker is unlike a Filter or any similar device. It is a noise control which does not allow the noise to rise above the volume level of the signal. The louder the noise the more effective is its noise-bucking action, resulting in a reduction of interference in some cases of a ratio of 1000 to 1.

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List Price, \$16.50. **MY PRICE TO YOU** ..... **\$9.75**  
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