

INTERNATIONAL

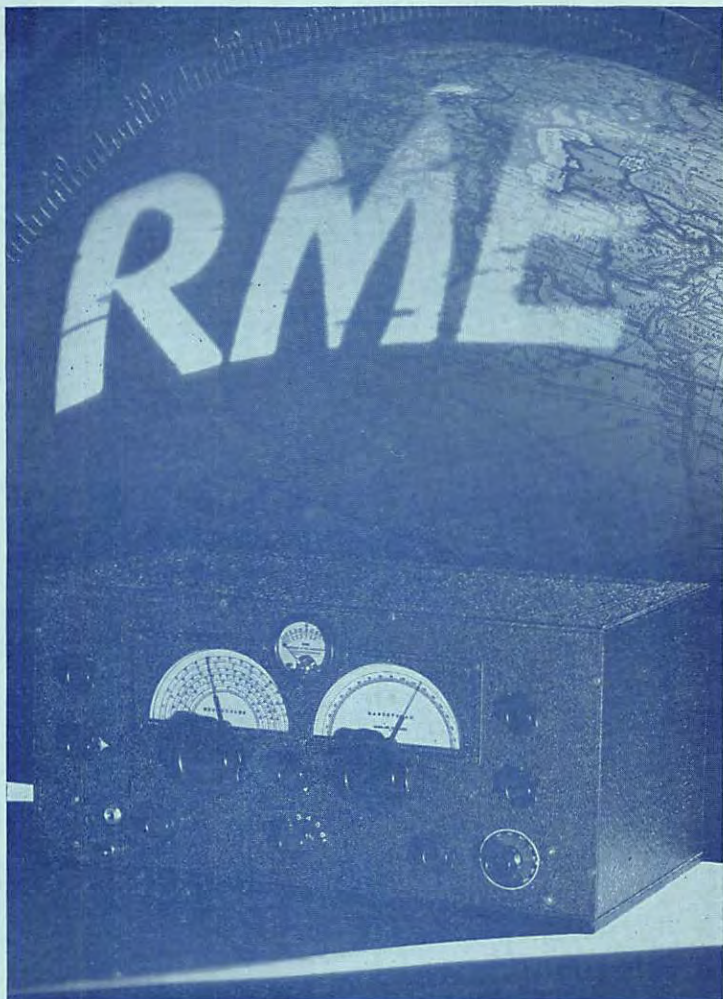


- Short Wave News.
- Accurate Station List.
- Hourly Tuning Guide.

- Ten Cents a Copy.
- One Dollar a Year.
- Published Monthly.

THE VOICE OF THE
INTERNATIONAL SHORT WAVE CLUB

EAST LIVERPOOL, OHIO, U. S. A.



Only because the RME-69 was originally engineered as a really fine receiver has it been possible for owners to possess an instrument which TODAY is strictly up-to-the-minute in every detail.

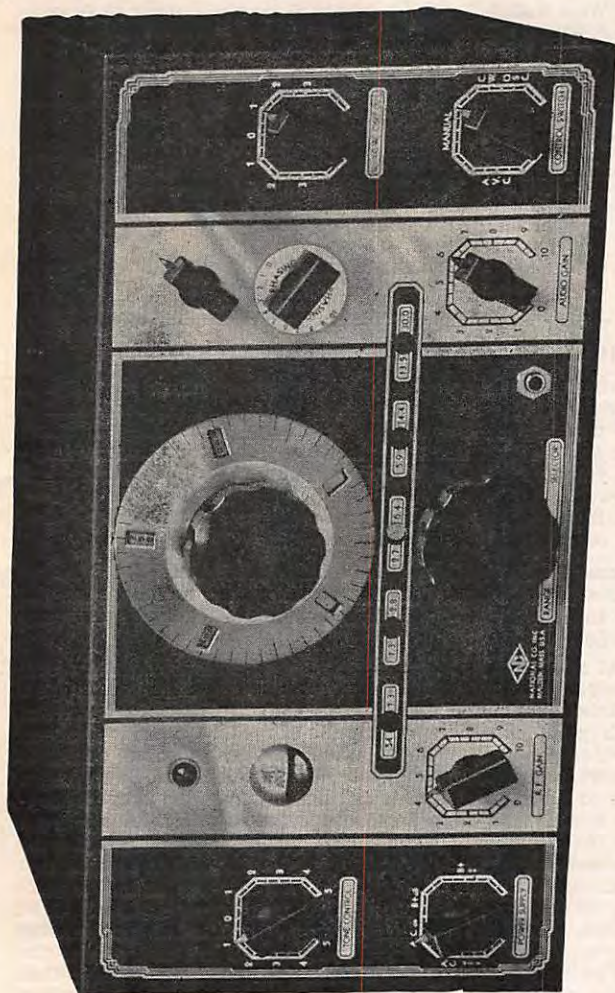
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306 FIRST AVENUE

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The 12-tube NC-100 Receiver includes every refinement for difficult short wave work. The Movable Coil Tuning Unit combines the high electrical efficiency of plug-in coils with the convenience of the coil switch, and covers from 540 kc. to 30 mc. in five ranges. Idle coils are isolated in cast aluminum shields, leads are short, and calibration is exact. Panel controls are complete, and includes separate switches of B-supply, Filaments, C-W Oscillator, and AVC; as well as dials for Audio Gain, RF Gain, Tone Control, and CW Oscillator Tuning. The precision Micrometer Dial, direct reading to one part in five hundred, provides exceptional ease of tuning together with great accuracy in logging. These are but a few of the features that combine to make the NC-100's performance so outstanding and its low price so remarkable.

An illustrated folder will be sent on request.

NATIONAL COMPANY, INC., MALDEN, MASS.

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

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

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

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ARTHUR J. GREEN, Editor.

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SHORT WAVE LISTENER'S SUPPLIES

Writing Paper Many station owners are members of this organization and will verify your report faster if they know you are a member. Nearly all station owners are acquainted with this organization. Some firms offer special discounts to members. In order to let everyone know you are a member, write your reports on, and send your orders on, our special stationery. It has the club emblem printed in blue ink, on a good grade of paper, typewriter size. The price, only 50c per hundred, postpaid.

Club Seals Many members have their own private stationery and wish to use it and still let it be known that they are members of the club. For these members we have seals, or stickers as they are called, at 25c per hundred, postpaid.

Globes We do not sell a map. Distances can not be measured correctly on most maps. For accuracy, beauty, and distinction we suggest a world globe. We have two models for sale. One a beautiful twelve-inch globe which usually sells for \$12.00. It is modern and up-to-date, has many short wave stations marked on it, is washable and is printed in eighteen different colors. It makes a wonderful addition to your radio and adds interest to short wave reception when visitors come. We have hundreds of unsolicited letters from people who bought these globes. Six different people have bought five or more of them after getting their first one. Many others have bought two or more. Seldom do we sell one without receiving a letter from the purchaser commenting on the beauty and the price. The price is \$2.75 F. O. B. Indianapolis, Indiana. You must send postage. Ask your postmaster for the postage rate on eight pounds from Indianapolis and add this to the \$2.75. The second globe is exactly the same as the first one except that it stands on the floor and uses a higher pedestal. The first one is sixteen inches high, the second forty inches high. The second one sells for \$3.75 plus postage on ten pounds.

Send all orders addressed to—

International Short Wave Club, East Liverpool, Ohio

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**LESS
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3 reasons why short wave fans like new RCA antenna!

RCA Magic Wave Antenna System
cuts noise to minimum on all wave
bands from 530 to 23,000 kcs....
operates up to 16 outlets
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YOU don't have to wait till the bands are "hot" to pull in those short wave stations—when you have an RCA Magic Wave Antenna System working for you!

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The Magic Wave System provides one antenna coupling unit and one receiver

coupling unit. Each unit has two transformers, both of which use magnetite cores! For operation of 16 outlets, special distribution transformers and additional receiver coupling units are required.

In spite of its splendid performances, the new Magic Wave antenna costs only \$6.95 (single outlet), assembled in one complete unit ready for installation. Is very easy to install. Get one today—and enjoy new short wave thrills! Write to Dept. A for further details.



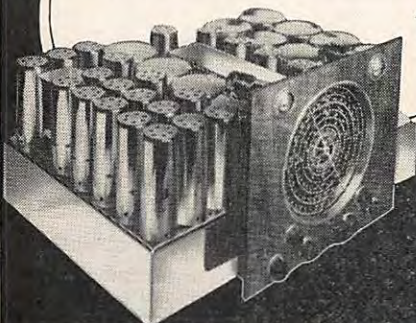
RCA PARTS

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Scott Research and Scott Pioneering have developed a sensational "DX" Receiver . . . the new "Philharmonic". Its tremendous controllable power brings in stations far beyond the receiving range, we believe, of any other receiver ever built! An exclusive noise reducing feature makes this remarkable receiver *1000 times more efficient* in eliminating electrical interference. The powerful as well as the weak, far distant stations come in clearer and with less noise than you ever thought possible. A variable selectivity control permits adjustment to any difficult receiving location. It is impossible to conceive the almost uncanny "DX" ability of this magnificent new Scott receiver unless you sit at the controls yourself. Sold on 30-day free trial. Liberal terms. Prices no higher than many ordinary radios.

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REUVEN SOKOLOVSKY

Mr. Sokolovsky lives at 4 Nach at Benjamin Street, Tel-Aviv, Palestine, in one of the world's most historical countries. He recently told us that he would like to have pen-pals from all parts of the world and that he would answer each and every letter sent to him. After this picture appears, he will have to dig deep into those pockets for postage money, we bet. Anyh'ow, thanks for the nice photo, Reuvan, and may the DX bug bite you again and again.



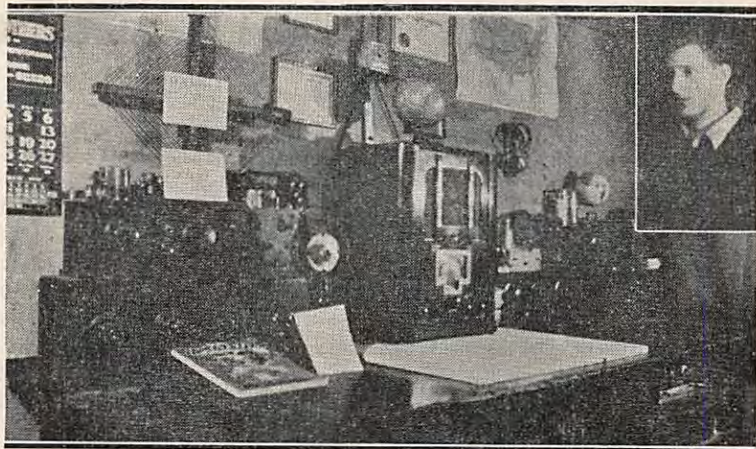
IN MEMORIUM

Marchesa Guglielmo Marconi

The Father of Radio passed from this world while at work trying to improve radio reception by eliminating static and utilizing ultra-short wave radio.. Although 63 years of age and financially able to spend his days in comfort, this wonderful man, who has brought happiness and jobs to millions, was still working to make radio an even greater thing than it is today. This only goes to illustrate just how wonderful a person he was. The world can never forget Marchesa Guglielmo Marconi.

SPECIAL PROGRAM FROM CURACAO.

On August 27th, from 7:36 to 8:36 P.M., E.S.T. (August 28th, 0036 to 0136 G.M.T.) Station PJC1, Curacao on 50.60 meters or 5.93 mc. will broadcast a program for you I.S.W.C. members. This was arranged by Johan P. Curiel, Mundo Nobo No. 143, Curacao. A special verification card will be printed and mailed to all those sending in a report and an International Postage coupon. Send reports either to Mr. Curiel or to PJC1, Breedstraat No. 181, Willemstad, Curacao.



FRED KARPEN, JOHNSTOWN, PA.

Mention the name Fred Karpen and short wave fans the world over say "from the flood city." Mr. Karpen has been a DX fan for many years and a leading reporter of short wave station news. This picture is the result of two years of coaxing on our part. Congratulations, Fred.

SPECIAL PROGRAM FROM DJD

DJD, Germany on 11.77 mc. will broadcast a program dedicated to members of this club on August 7th at 2030 M.E.S., 1930 G.M.T. or 2:30 P.M., E.S.T. Reports are urgently requested. This was arranged by George W. King, of Liverpool, England, whom we thank.



CARL AND ANNE EDER

Two people dearly loved by hundreds of short wave fans are Carl and Anne Eder of Willmar, Minnesota. They have over 200 pen-pals, most of them I.S.W.C. fans.

Ladies and Gentlemen: Between the cover pages of this little magazine lies the key to years of pleasure and contentment. Innocent as this little magazine may be in appearance, hidden between the lines is a little microbe given the technical name of "Longdistanttuningurge" or as we commoners call it "the DX bug." We hope it bites each and every one of you, for your own good.

Short wave radio is like a bank account—the more you put into it the more you get out of it. And vice versa. You can tune idly and get a few powerful stations and save yourself a lot of trouble. Or, you can sit down at your radio and dial conscientiously, carefully and methodically and find years of pleasure. So much so that other people will envy you. Seriously, a person can find more real fun, more real entertainment, in a short wave set, a good short wave magazine and a log book than in anything that has been invented or handed down to us in many years.

Visiting the home of one short wave receiver owner we see a beautiful receiver sitting in the corner and a man and wife looking for pleasure. Across the street we find a home with the walls decorated with cards, letters, postage stamps, books, wood carvings from Japan, a grass skirt from Hawaii, a hunting knife from Australia and many other things. "What manner of thing is this that makes people live so differently?" you ask. Well, the second man was bitten by this mysterious microbe, the DX bug.

He comes home from work and runs to his set. Just in time to get London and Berlin, he says. "Tonight I get Prado," he tells his wife. "They tell me they have a nice verie card," he adds. "That one from TI4NRH looks nice on the mantel," his wife says, as she brings him the mail. "Ah, a package," he says, but his wife holds it back saying that she was forced to open it before he got home. "And what do you think," she says, "Joe Dunban sent us a boomerang from New Zealand." "We will have to send him something nice for that," he fairly shouts. "Am I glad I joined the International Short Wave Club and got started DXing."

And so it is, dear folks, that one man finds happiness where another finds nothing. In your home is an innocent little box called a radio. This radio, combined with this magazine, plus a little effort in learning to tune, will pay big dividends in the way of pleasure—if you put them together.

When you dial, do not be content to listen to a few high-powered stations. Tune for those hard-to-get stations. Use your skill against old Mother Nature and land those tough ones. Then write to the stations and start collecting veries. These are replies from the stations that tells you that your log and their log coincide and that you heard their station. The harder these are to get, the more pleasure comes from getting them. Pick up some pen-pals, too. These are people who are interested in short waves, but who live in other parts of the world. You will find that people everywhere are all subject to the same emotions and we all have much in common. "Darkest Africa" becomes a land of sunshine when you have a pen-pal there writing to you. The newspapers may headline war threats between Germany and England, but you will find that short wave fans in both Germany and England are pretty nice sort of people to know. You

will never grow tired of short wave radio if you hook up with some good pen-pals and strive to add to your collection of verifications.

In this issue we have tried to tell you how to identify stations, how to write to them for verifications and where to address such letters. We have shown you where and when to tune for stations. We have told you everything, almost, that you need to know in order to get years of real, pure, unadulterated FUN out of life. The rest is up to you. It would not be your fault if you never knew how much fun there was in short wave DXing, but now you know it and it will be your fault if you go on tuning for the powerful stations and do not try to improve your DXing. The "Magic Key" to real enjoyment is now in your hands. Use it. If you are not a regular subscriber to this magazine, you should sign up at once. For the regular monthly magazines tell you what changes have taken place, how to log the new stations, how to write to new stations, and information you MUST have to get good short wave results.

CHAPTER NEWS

Many local chapters of the I. S. W. C. have been organized, only a few of which are now in operation. Members who live in or near cities where chapters are located should avail themselves of the opportunity to attend meetings and take part in chapter affairs.

The New York Chapter may take some excursions this summer to transmitting stations, ships and telephone exchanges, but will hold no meetings until fall, we are told. For details write to Jacob Kleimans, 3610 Glenwood Road, Brooklyn. He will notify you in case of an outing or meeting.

The London Chapter meets every Friday evening at 80 Theobald's Road, W. C. 1, in the center of London. Once each month they give a television demonstration which is very interesting. A new receiver is demonstrated every meeting, interesting speakers are introduced and there is always something new. The chapter holds open house at their club rooms every day. The room is equipped with a very attractive library, a short wave receiver and various other things. This chapter also publishes a monthly News Letter, a copy of which will be sent to anyone in the world sending them postage or a reply coupon.

The Brighton Chapter meets every Wednesday evening at 100 Cromwell Road, Hove, where there are spacious rooms. Every meeting adds interest. Receivers are demonstrated, members exchange notes, show verifications and similar things take place. For details write to John Benet, 205 Braeside Ave., Brighton, 6.

The Guernsey Chapter meets every other Tuesday. Many special features are planned for the summer, details of which may be had by writing to F. S. LaPavoux, 8 Upper Canischers, St. Peters Port, Guernsey. The meeting place is 5 Wells Road, St. Peters Port.

FOR SALE—Silver Masterpiece III, crystal, extremely selective. Glenn Watt, Chanute, Kansas.

FOR SALE—Scott Custom-Built Fifteen, cabinet, complete. Glenn Watt, Chanute, Kansas.

STATION SLOGAN, POWER AND IDENTIFICATION

The following symbols are used in this list:

- (P)—Power of station.
 (S)—Slogan or special announcements used.
 (SB)—Stand-by signal used to fill in time when not sending programs.
 (CO)—Special song used when coming on the air.
 (GO)—Special song used when going off the air.
 (CGO)—Special song used when Coming on and going off the air, both.
 (OW)—Station owned by.

OCEANIA

- VPD—(P) 2 kw., (S) Radio Suva, (CO) Song of The Islands, (GO) God Save the King, (OW) Amalgamated Wireless, Ltd
 VK2ME—(P) 20 kw., (S) The Voice of Australia, (CGO) Laughter of Koo kaburra or Laughing Jackass bird, (OW) Amalgamated Wireless, Ltd.
 VK3ME—(P) 1.5 kw., (SB) and (CGO) Song of the Lyre Bird, (OW) Amalgamated Wireless, Ltd.
 VK3LR—(P) 1 kw., (S) Australian Broadcasting Commission, (OW) Government.
 F08AA—(P) 200 watts, (S) Radio Club Oceania, (CO) La Marseillaise, (GO) Aloha Oe, (OW) Radio Club Oceanien, Papeete, Tahiti.
 ZMBJ—(P) 300 watts, (S) The Voice and Ears of Tasmania, (OW) Union Steamship Lines.
 VK9MI—(P) 50 watts, (S) 9MI calling, (OW) McIlwraith & McEachard.

AFRICA

- CR6AA—Uses several languages. (P) 1 kw., (S) Radio Eddystone, (SB) Three notes on piano.
 CR7AA and CR7BH—(P) 1 kw., (S) uses English.
 EAJ43—(P) 20 kw., (S) Radio Club Teneriffe and Viva Franco, (OW) Radio Club Teneriffe.
 EA9AH—(P) 1 kw., (S) Viva Franco and The Voice of the Trenches.
 VQ7LO—(P) 500 watts, (S) This is Nairobi calling, (CGO) God Save the King, (SB) lion roar.
 ZTJ—(P) 5 kw., (SB) Trumpet calls often, (GO) Playing National Anthem of South Africa "Die Stem Van Suid Afrika "The Voice of South Africa," and "God Save The King," (OW) African Broadcasting Company.
 Guardia Civil—(S) ..Attencion, Attencion, aqui es Radio Guardia Civil.

ASIA

- CQN—(P) 500 watts, (S) Uses English and Portugese, (GO) National Anthem "A Portuguesa."
 HS8PJ—(P) 20 kw. Uses Siamese music. English announcement at close down.

- JZJ, JZI and JZK—(P) Soon 50 kw., (CGO) National Anthem of Japan, "Kimigayo," (SB) Uses many musical chimes; uses English quite often.
- JVM, JVN, etc.—(P) 5 kw. Same as JZJ when broadcasting.
- YDB—(P) 1 kw., (CGO) song "End of a Perfect Day." YDA, 10 kw., same.
- PLP, PMN—(P) 3 kw. Relays YDB prográms. PLC same.
- ZBW2, etc.—(P) 250 watts, (S) Hong Kong calling, (OW) Hong Kong Broadcasting Committee. Does not verify.
- R....., RAN, RNE, RKI, RV59, (P) 20 kw.; (S) This is Moscow calling; (CGO) plays "L Internationale."
- OER2—(P) 1.5 kw., (S) "Hier Radio Wein," (SB) clock ticking.
- LZA—(P) 2 kw., (S) Radio Sofia, (CGO) National Anthem and Hymn of His Majesty the King. Uses French, English, German and Bulgarian.
- OLR, Etc.—(P) variable, (CGO) new World Symphony, by Anton Dvorak. Uses English; lady announces most of the time.
- CSW—(P) 500 watts, (S) Emisora National, (OW) Government.
- CT1AA—(P) 2 kw., (S) Radio Colonial, (SB) three cuckoo calls, (GO) National Anthem "A Portuguesa," (OW) Abilio Nunes dos Santos, Jr.
- DJ..... All German broadcasters), (SB) nine musical notes very prettily played, (CGO) Nazi marching song, and "Deutschlandlied." Uses English often.
- GS..... (S) Announcer states what stations are being used, like "GST, T for Transmission; GSB, B for Broadcasting, etc." (CO) whistle, then "God Save the King;" (SB) Chimes of Bells in Bow Church. Big Ben strikes the hour, (GO) God Save The King.
- EAQ—(P) 20 kw., (CO) playing of "Pasodoble," (GO) National Anthem, "Himno de Rigo." Uses English at intervals.
- EAR (or EAQ2)—(P) 20 kw., (S) La Voz de Libertade La Voz de Espana. La Voz de Madrid.
- HAT, HAS—(P) 5 kw., (S) "Justice for Hungary." Radio Budapest, (CGO) National Anthem "Isten ald mega Magyart."
- HBL, etc.—(P) 20 kw., (S) Radio Nations calling.
- YTC—(P) 1 kw., (S) Radio Belgrade.
- LKJ1—(P) 1 kw., (S) Hello, Hello, Oslo calling, followed by short piano selection.
- TPA—(P) 15 kw., three transmitters, (S) Ici Parea, (SB) chimes at quarter hour, (CGO) National Anthem "La Marseillaise."
- TFJ—(P) 7½ kw., (CGO) National Anthem "O Gud Vors Lands," lady announcing.
- SBG—(P) 1 kw., (S) Radio Motalo relaying programs of Oslo.
- SPW—(P) 10 kw., (S) Polskie Radjo, (CGO) National Anthem "Dabrowski Mazurka."
- OXY—(P) 500 watts, (S) "Der er et Yndigt Land" or "This is a Winsome Land."
- PCJ—(P) 20 kw., (S) The Happy Station, (or if with PHI) The Happy Dutch Twins, (CGO) National Anthem "Wilhelmus Van Nassouwe."

- PHI—(P) 24 kw., (S) "The Happy Dutch Twins" and "The PHOHI Station."
 ORK—(P) 9 kw., (S) "Ici Bruxelles I. N. R. emission speciale pour le Congo la station de Ruysselede ORK," (SB) carrillon chimes, (GO) song Brabansonne.
 HVJ—(P) 20 kw., (S) Laudetur Jesus Christus, (SB) clock ticking. Chimes of St. Peter, on the hour.
 I2RO—(P) 25 kw., (S) Radio Roma, (SB) twittering of canaries; lady announces, (CGO) plays "Giovinezza" and "Marcia Reale," National anthem.

SOUTH AMERICA

- CEB—(P) 500 watts; sometimes uses call CE3AG, sometimes CB615, (S) Radio Service and La Voz de Santiago, Chile, (OW) Sr. Luis M. Demaras.
 CB960—(P) 500 watts, (S) Radio Difusora Pilot, (CG) playing of Babes in Toyland, by Victor Herbert, (GO) playing of Rhapsody in Blue, by Gershwin.
 CEC—(P) 2 kw. No special signals or slogans.
 HC1PM—(S) Estacion El Palomar, (OW) J. Leonardo Ponce.
 HC2CW—(S) Ondas Del Pacifico (Waves of the Pacific), (OW) Alvaro & Wilmot.
 HC2ET—(S) Radio El Telegrapho Guayaquil, (SB) 12 chimes.
 HC2JSB—(S) Ecuador Radio, Guayaquil, (SB) one deep-toned chime or gong, (OW) Juan S. Behr.
 HC2RL—(S) "Hello, America" and "Quinta Piedad," (CGO) Ecuadorian National Anthem "Salve O Partia," (OW) Dr. Roberto Levi.
 HCETC—(S) Radio Teatro, Bolivar, Ecuador.
 HCJB—(P) 250 watts, (S) La Voz del Andes, (OW) Clarence W. Jones.
 HCK—(P) 250 watts, (S) Radio Difusora Del Estado, Quito, (OW) Government.
 HCODA—(S) La Voz de Alma, Guayaquil, Ecuador.
 HJ1ABB—(P) 1 kw., (S) La Voz de Barranquilla, (GO) organ solo "La Colondrina" (The Swallow), (OW) Ellias P. Pellet B.
 HJ1ABC—(S) La Voz del Choco, (OW) Dept. of Education, Quibdo.
 HJ1ABD—(S) Ondas de la Heroica, (GO) Stars and Stripes Forever, by Sousa.
 HJ1ABE—(P) 1 kw., (S) La voz de los Laboratories Fuentes, (CGO) organ solo, "Aloha Oe."
 HJ1ABG—(P) 1 kw., (S) Emisora Atlantico, Barranquilla.
 HJ1ABJ—(P) 1.5 kw., (S) La Voz de Santa Marta, (OW) Julio A. Sanchez T.
 HJ1ABP—(P) 750 watts, (S) Radio Cartagena, (CGO) March, "Under the Double Eagle."
 HJ2ABC—(S) La Voz de Cucuta, (OW) Pompilio Sanchez C.
 HJ2ABD—(P) 1 kw., (S) Radio Bucaramanga, (OW) Hector McCormick.
 HJ3ABD—(S) Colombia Broadcasting and Alfords Radio.
 HJ3ABF—(S) La Voz de Bogota, (SB) 6 chimes, (OW) Urbi & Moreno.
 HJ3ABX—(S) La Voz de Colombia, Bogota.

- HJ4ABB—(P) 1 kw., (S) Radio Manizales, en Manizales, Colombia
 HJ4ABC—(P) 1 kw., (S) La Voz Ecos del Combeima, Ibague.
 HJ4ABD—(P) 1 kw., (S) La Voz Citia Medellin, (CGO) William Tell overture.
 HJ4ABE—(P) 1 kw., La Voz de Antioquia, Medellin. Relays HJ4ABK, (CGO) March "Dos de Abril."
 HJ4ABH—(P) 1 kw., (S) announces both HJ4ABH and HJ4ABN, "La Voz Armenia," single musical note before announcement, (CGO) Spanish Soldier's March.
 HJ4ABP—(P) 1 kw., (S) Radio Philco, Medellin. Relays HJ4ABQ.
 HJ4ABU—(S) LaVoz de Periera.
 HJ5ABC—(P) 250 watts, (S) La Voz de Colombia, (OW) Rafael Angulo.
 HJ5ABD—(P) 500 watts, (S) La Voz del Valle, Cali, Colombia; (OW) Eduardo Cordoba V.
 HJN—(P) 5 kw. soon, (S) Radiodifusora National, (OW) Minister of Education.
 HJU—(P) 1 kw., (S) La Voz del Pacifico, Buenaventura.
 LRU—(P) 5 kw., (S) Radio El Mundo; announces LR one, (CGO) Special station song.
 LRX—(P) 5 kw. Same as LRU.
 LSX—(P) 20 kw., (S) Ellie Essay Aixey, Buanos Aires, (GO) San Lorenzo March.
 PRF5—(P) 60 kw., (S) The Brazilian Hour, (SB) three note gong, (GO) Brazilian National Anthem.
 PRA8—(S) A Voz do Norte en Pernambuco, (OW) Radio Club, Pernambuco.
 OAX1A—(S) Radio Delcar and La Voz de Chiclayo; also La Voz de Ica and Radio Philco, (GO) Good Night Song by Ted Lewis, (P) 200 watts.
 OAX4D—(P) 3.5 kw., (S) Radio Dusa, (OW) Difusora Universal, (CGO) Morse code.
 OAX4G—(P) 400 watts, (S) Radio Grellaud, (OW) Robert Grellaud, (CGO) Good Night waltz.
 OAX4J—(P) 200 watts, (S) Radio Internacional. Relays OAX4I.
 OAX4K—(P) 200 watts, (S) Radio Ciocochea, (OW) Juan P. Goicochea, Lima.
 OAX4P—(P) 250 watts, (S) Radio Andiana Junin, Huancayo, (OW) J Alberta Madueno.
 OAX4T—(P) 10 kw., (S) Radio Nacional, Lima; (OW) Peruvian Government.
 OAX4Z—(P) 15 kw., (S) Radio Nacional, Lima; (OW) Peruvian Government.
 OAX5A—(P) 100 watts, (S) Radio Universal, (OW) J. Antonio Umbert F.
 OAX5C—(P) 100 watts, (S) Radio Universal, (same as OAX5A).
 OAX6A—(P) 100 watts (S) Radio Arequipa, (OW) Eduardo L. Caceres, Arequipa, Peru.
 OAX7A—(P) 100 watts, (S) Radio Cuzco, (OW) Carlos Lizarragua Fisher, Cuzco, Peru.
 VP3MR—(P) 150 watts, (S) The Voice of British Guiana, (CGO) God Save The King.

- VP3BG—(P) 20 watts, (S) The Voice of Georgetown, British Guiana, (CGO) God Save The King.
- YV1RB—(P) 25 watts, (S) Ecos Del Zulia, (OW) Luis Garcia.
- YV1RI—(P) 5 watts, (S) Radio Coro, and La Habla a la Republics, (OW) Roger Leyba.
- YV1RD—(P) 15 watts, (S) Radiodifusora Maracaibo, (OW) Luis Mantilino H.
- YV1RH—(P) 25 watts, (S) Ondas Del Lagos, Maracaibo, (OW) Valle Quintero.
- YV1RG—(P) 20 watts, (S) La Voz de Valera, (OW) L. Jalambi.
- YV1RL—(P) 100 watts, (S) Radio Populares. Maracaibo; (CGO) National Emblem March.
- YV2RA—(P) variable, (S) La Voz de Tachira, San Cristobal.
- YV3RA—(P) 25 watts, (S) La Voz Del Lara en Baraquisimeto.
- YV4RB—(P) 10 watts, (S) La Voz de Carabobo, (OW) Herman Degwitz, Valencia.
- YV4RD—(S) La Voz de Arakua, en Maracay; (GO) Dance "El Araguero."
- YV4RH—(S) Radio Valencia.
- YV5RC—(P) 1 kw., (S) Radio Caracas; announces "YV5RB le habla a la Nacion."
- YV5RD—(P) 1 kw., (S) Radiodifusora Venezuela.
- YV5RF—old YV4RC, (S) Ecos de Caribe, YV5RE y YV5RF.
- YV5RH—(S) Ondas Populares en Caracas, (OW) Veloz Mancera.
- YV5RJ—(S) La Voz de la Esfera, en Caracas.
- YV5RP—(S) Radio Philco; announces YV5RQ and YV5RP.
- YV6RB—(P) 30 watts, (S) Ecos del Orinoco, en Bolivar.
- YV6RC—(S) Radio Bolivar.

CENTRAL AMERICA

- HC1PM—(P) 20 watts, (S) Estacion El Palomar, (OW) J. Leonardo Ponce.
- HP5B—(P) 100 watts, (S) Estacion Miramar, (GCO) "Panama," a march.
- HP5F—(S) La Voz de Colon, en Panama.
- HJ5I—(P) 500 watts, (S) La Voz del Interior and La Voz del Agudulce.
- HP5H—(P) 50 watts, (S) Radio-Difusora, Panama-American.
- HP5J—(P) 160 watts, (S) La Voz de Panama.
- HP5K—(P) 1 kw, (S) La Voz de la Victor.
- HP5L—(P) 200 watts, (S) La Voz del Ismo.
- HRD—(P) 250 watts, (S) La Voz de Atlantida, La Ceiba, Honduras.
- HRN—(P) 500 watts, (S) La Voz de Honduras, (GO) Good Night Melody by Ted Lewis.
- HRP1—(S) El Ecos de Honduras. San Pedro Sula, Honduras
- TG2X—(P) 500 watts, (S) La Voz de la Policia Nacional, Guatemala.
- TGS—(P) 200 watts, (S) Radiotransmisora de la Casa Presidential, (OW) Government.
- TGW—(P) 200 watts, (S) Radiodifusora Nacional de Guatemala.
- TI4NRH—(P) 100 watts, (S) bugle calls, bells, trains puffing, etc; (CGO) Costa Rican National Anthem, sang by choir.
- TIEP—(P) 500 watts, (S) La Voz del Tropica, San Jose, (OW) Eduardo Pinto Hernandez.

- TIGPH—(P) 1 kw, (S) Estacion Alma Tica. Relays TIX and TIGPH and announces all calls. Sometimes says "La Reina del Aire.
- TI5HH—(P) 200 watts, (S) La Voz del San Roman, San Roman.
- TI8WS—(P) 120 watts, (S) Ecos del Pacifico en Puntarenas, Costa Rica.
- TI2RS—(S) Radiomisoras Athenea, San Jose.
- TILS—(P) 20 watts, (S) Radio Parati.
- TIPG—(P) 1 kw. (S) La Voz de la Victor and "Perry Girton," (OW) Perry Girton.
- TIRCC—(P) 500 watts, (S) Radioemisora Catholica Costarricense, en San Jose.
- XEBM—(P) 50 watts, (S) El Pragonero del Pacifico.
- XEBR—(S) La Voz del Herolda De Sonora.
- XEBT—(P) 1 kw., (S) El Bueno Tono, (CO) Las Mananitas, Mexican melody, (GO) Liebestraum, a piano solo, (SB) Siren ,cuckoo calls, train whistle.
- XEAW—(S) Auditor del Continent, Vera Cruz de Mexico.
- XECR—(P) 20 kw., (S) The Voice of Mexico.
- XEDQ—(P) 500 watts, (S) uses chimes, sirens, cuckoo calls, etc.; announces Radio Phonographica.
- XEFT—(P) 20 watts, (S) La Voz de Vere Cruz, Vera Cruz de Mexico, (GO) Vals Poeticos.
- XEME—(S) La Voz de Yucatan, desde Merida, Yucatan.
- XEPW—(P) 500 watts, (S) "American Buick" and "La Voz del Agulia Azteca Desde Mexico."
- XEUW—(S) La Eco de Sotaventa Desde Vera Cruz, Vera Cruz de Mexico, (CGO) La Golondrina, Spanish Tango.
- XEUZ—(P) 500 watts, (S) Radio Nacional; also uses chimes at quarter hour.
- XEWW—(P) 5 kw., (S) Relays XEW, uses English at times. "La Voz del Latin America" or "The Voice of Latin America."
- XEXA—(GO) March of the Toys, by Victor Herbert.
- XEYU—(P) 500 watts, (S) National University of Mexico, Mexico City.
- XEWI—(P) 250 watts, (S) My Voice to the World From Mexico, (CGO) Ah Sweet Mystery of Life, by Victor Herbert.
- YNAM—(S) La Voz del Pacifico, (GO) Washington Post March.
- YNGU—(S) La Voz de Los Lagos, (GO) Blue Danube waltz, organ solo.
- YNOP—(P) 10 kw., (S) Radiodifusora Bayer.
- YNPR—(P) 200 watts, (S) La Voz de Pilot or Radioemisora Pilot.
- YNLG—(P) 500 watts, (S) Nicaragua Patria de Dario.
- YNLF—(P) 1 kw., (S) La Voz de Nicaragua, Managua.
- YNLAT—(S) La Voz de Mombacha, Granda, Nicaragua.
- YNLGG—(S) La Voz del Lagos.

WEST INDIES

- COCD—(P) 250 watts, (S) La Voz del Aire, Habana. Relays CMCD.
- COCH—(P) 750 watts, (CGO) Maria La O, Spanish love song, (S) General Electric.
- COCO—(P) 1 kw. (S) Say Oh, Say Oh, Habana de Cuba.

- COCQ—(S) Say Oh, Say Co, Habana, La Voz de La RCA Victor, (CGO) "Siboney," a miramba.
- COCX—(P) 2 kw., (S) La Casa Lavin, Habana. Say Oh, Say Exsie. Five bells before an announcement, English used every half hour. Says "Radio Philco" at times.
- COGF—(S) La Voz de la Provincia, Matanzas, Republic de Cuba. Says G as in Georgia, F as in Florida.
- COBC—(S) Say Oh, Bay Say, en Habana, La Capital de Republic of Cuba.
- COHB—(P) 100 watts, (S) Say Oh, Achie Bay.
- COJK—(P) 2 kw. Relays CMJK.
- COKG—(P) 240 watts, (S) Ask for Bacardi.
- HH3W—(P) 30 watts, (OW) C. Ricardo Widmaier.
- HI1A—(P) 50 watts, (S) La Voz del Yaque, Ciudad Santiago, (OW) Rafael Western.
- HI1J—(P) 42 watts, (CGO) organ solo, "Indian Love Song."
- HI1S—(P) 20 watts, (S) La Voz de la Hispaniola, Puerto Plata.
- HI1X—(P) 300 watts HI2X also 300 watts and HI3X 300 watts, (OW) Government.
- HI3C—(P) 50 watts, (SO) La Voz de la Feria, La Romana, (OW) Moises Garip & Robert Pali.
- HI3U—(P) 100 watts, (S) La Voz del Comercio, Santiago de Los Caballeros, (CGO) organ solo, "Maria My Own."
- HI4D—(P) 25 watts, (S) La Voz de Quisqueya, Ciudad Trujillo.
- HI4V—(P) 25 watts, (S) La Voz de la Marina, Ciudad Trujillo.
- HI5N—(P) 20 watts, (S) La Voz del Moca, Ciudad Moca.
- HI7P—(P) 25 watts, (S) Emisora del Comercio, Ciudad Trujillo. (OW) J. M. Roques R.
- HI8A—(P) 100 watts, (S) La Fa Doc en el Aire, Ciudad Trujillo.
- HI8Q—(P) 300 watts, (S) Emisora Carta Reale, Ciudad Trujillo.
- HI9B—(P) 25 watts, (S) Hotel Mercedes, Santiago de Los Caballeros, (CGO) piano solo.
- HI2D—(P) 25 watts, (CGO) Ava Maria, Christian song.
- HIG—(P) 50 watts, (S) Achie eye Gee, Ciudad Trujillo, (SG) lamb bleat.
- HIH—(P) 150 watts, (S) La Voz del Higuamo, San Pedro de Macoris.
- HIL—(P) 50 watts, (S) Achie eye Ell, Ciudad Trujillo, and "L as in London" in English.
- HIN—(S) Broadcasting Nacionales en Trujillo, Republic de Dominicana.
- HIT—(P) 200 watts, (S) La Voz de la RCA-Victor, Ciudad Trujillo.
- HIZ—(P) 100 watts, (S) La Voz de Los Muchachos, Ciudad Trujillo.
- PJC1—(P) 150 watts, (S) Radio CUROM.
- Martinique—(P) 100 watts, (S) Radio Fort de France.

A new station, HP5A, Panama City is on 25.64 meters, 11.70 mc. and was heard between 8:30 P.M. and 11:00 P.M. They announce as "Radio Teatro Starren de Panama" and in English says "Herald Star Radio Theatre." The address was given as P.O. Box 954, Panama City. Reported by members Rossi, Pa.; Lynch, Texas; Oxrieder, Pa.; Nichols, Pa.; Eder, Minn.; Dement, Pa., and Stark, Mo. Heard at 1:00 A.M. using call HP5L (Nash, N. Y.)

HOW TO WRITE FOR VERIFICATIONS

If you have never written to a station and received a "verie" from them saying they have checked your report and find you heard their programs, they you have never really enjoyed short waves.. It is a grand thing to match your skill against the elements that go to make reception of a certain station hard, but it is a grander feeling when you get a letter or card proving your reception of the station. Here we tell you how to go about it. First of all, you must hear the station, of course. Keep a clock handy and mark down the exact time of each selection and each announcement, or whatever it is you hear. Write a letter to the station telling exactly what you heard and what time you heard it. Below we will give an example of such a letter. Ask them for a verification. Enclose an International Postage Reply Coupon, which you can buy for nine cents each at your postoffice. If they do not have them, they can get them for you. Sign your letter carefully and show your name and address plainly, so there will be no mistake about that. Do not use stationery with a lot of names and addresses on it. It pays to buy stationery from the International Short Wave Club, which we sell at 50c per hundred sheets, post-paid. Be sure you put enough postage on the envelope. The stamp clerk at the postoffice will tell you what is needed. Here is a typical report:

Radio Club Oceanien,

Alfred T. Poria, President,
Papeete, Tahiti, Ocenia.

Gentlemen:

It is with extreme pleasure I report reception of your short wave station F08AA on 7.10 mc. from 11.05 P.M., Tuesday, July 20th, till 12:32 A. M. Wednesday, July 21st Eastern Standard Time. This is the same as July 21st, 0405 to 0532 G. M. T. The station was troubled with code interference much of the time, but below I indicate the portions of the program that was heard well enough to log. If this log checks with the one at the station, I would appreciate it very much if you would send me a verification, as I would like to add one from your station to my collection. Enclosed you will find an International Postal Reply Coupon. My log follows:

- 11:05 P.M.—Man talking about Tahiti.
- 11:09 P.M.—Announcement concerning Radio Club Oceanien.
- 11:15 P.M.—Soprano selection by Miss Eileen Joyce or Boyce.
- 11:17 P.M.—Station faded out for twenty minutes.
- 11:37 P.M.—Man singing "On the Road to Mandalay."
- 11:39 P.M.—Announcement.
- 11:42 P.M.—Baritone solo. Title of song not known.
- 11:45 P.M.—Faded out till 12:23 A. M.
- 12:23 A.M.—Beautiful orchestral number with violins leading.
- 12:25 A.M.—Orchestra playing "Blue Danube Waltz."
- 12:30 A.M.—Announcer says they are signing off.
- 12:32 A.M.—Station left the air.

In conclusion, let me thank you for giving me this opportunity of hearing your program. Please thank the artists and others who took part

in the program for me. If I merit a verification, you may rest assured that I will prize it highly.

Thanking you in anticipation of an early reply, I am,
Very sincerely yours,

MY ADDRESS:

Arthur J. Green,
907 Vine Street,
East Liverpool, Ohio, U. S. A.

(Signed) Arthur J. Green.

PEN-PALS

The following people would like to exchange letters and cards with other short wave fans. Remember the first rule of a Pen Pal is to answer each and every letter. Those marked "overseas" mean the person wants to exchange letters with members overseas, and U. S. listeners should not write them. Mrs. Alice Wilbur of 203 Mulberry Street, Newark, New Jersey, now has 154 Pen-Pals in all parts of the world, she says.

Felix Quayle, P. O. Box 4, France Field, Canal Zone, (overseas).

Wm. Buchanan, 189 Park Street Sydney N. S., Canada.

Lee Frankenberg, 38 Crawford Street, East Orange, New Jersey (overseas).

Rd. Merlehan, 5 Valentia Parade, North Circular Road, Dublin, Ireland.

George Epps, 693 Tenth Avenue, New York City (Super-Pro owners).

Dr. R. C. Kash, 15 Randall Avenue, Staten Island, N. Y.

Dr. F. Earle Hall, Postoffice Bldg., Winchendon, Mass. (British Colonies stamps).

W. A. Seyd, 563 Argyle Avenue, Orange, New Jersey, (overseas).

L. E. Hansen, 502 Smith Street, Durban, Natal, South Africa.

Holly M. Shepperd, 75 Coolidge Road, Arlington, Mass.

Carl and Anne Eder, Pouch A, Willmar, Minn. (exchange cards).

Joe Rudolph, 1403 Farnam Street, La Crosse, Wisconsin.

Reuven Sokolozsky, 4 Nachlat Benjamin Street, Palestine.

Jacob Zimpelman, R. R. 4, Wabash, Indiana.

Frank Grey, 4416 Florence Avenue, Dowers Grove, Illinois.

Emmett G. Riggle, 31 Maple Avenue S. E, Massillon, Ohio, (overseas).

Elmer Caldwell, 209 Maple Avenue, Altoona, Penna.

Philip Malvern, 10 Selkirk Street, Cheltenham, Glos., England, (Hawaiian.)

J. Backhouse, 143 Thornes Lane, Wakefield, Yorks, England.

Cuba has three new stations on the air. One is COBZ, Apartado 866, Havana, which opened up on about 9.17 mc., moved around a lot and last heard on 9.00 mc. No telling where it will be heard, as it was on six frequencies during July. At last they started using the call CO9BZ, too. Slogan is "Radio Sales." Usually signs off at 10:00 P.M., but heard until 1:00 A.M. testing, (Stark, Rossi and Oxrieder). COBC, giving address as Apartado 132, Havana, is next. They roam between 9.30 mc. and 9.39 mc. They relay CMBC and use the slogan "Progreso Cubano." Heard between 7:00 P.M. and midnight. Last heard about 9.30 mc. (Oxrieder, Rossi, Stark, Worcester, Gallager, Stempel). Third is COCW, Apartado 130, Havana, heard relaying CMW on 6.33 mc. between 7:00 P.M. and midnight, usually signing off at 10:00 P.M. (Rossi, Oxrieder, Seymour, Dement).

STATION ADDRESSES

Here is how you address your letters to the different stations. Write or type them, plainly on the envelope. Be sure you have enough postage on each one. The stamp clerk at the post office will tell you.

AFRICA

- CNR—Director General des Postes, Rabat, Morocco.
 TPZ, TPZ2—Service Algerien des Postes, Telegraphes, Telephones, 137 Rue de Constantine, Alger, Algeria.
 CR6AA—Estacao Radio Difusora, Caixa Postal 103, Lobito, Angola, Portugese West Africa.
 ZUD—Chief Engineer, General Postoffice, Petrorria, Union of South Africa. . .
 ZNB—P. O. Box 106, Mafeking, Bechnan, land, Union of South Africa.
 CR7AA—Caixa Postal 594, Lourenco Marques, Mozambique, Portugese East Africa.
 ZEC-ZEB—Postmaster General, P. O. Box 782 Salisbury, Rhodesia, Africa.
 IUA, IUB, IUC—Ministerio Della Marina, Direzione General Armi, Division E. R. T. C., Rome, Italy.
 Radio Guardia Civil—Lorenzo Gomez Benitez, Sargento Radio Guardia Civil, Tetuan, Marruecos Espanol.
 ITK—Commando Marno Mogadiscio, Italian Somililand, Africa.
 EA9AH—P. O. Box 124, Tetuan, Spanish Morocco.
 OPL-OPM—Radio Leopoldville, Congo Belge, Africa.
 SUV-SUX—P. O. Box 795, Cairo, Egypt.
 VQ7LO—Cable and Wireless Ltd., P. O. Box 777, Nairobi, Kenya Colony, Africa.
 ZSR-ZSS—Overseals Communications, Kodak House, Shortmarket St., P. O. Box 962, Capetown, So. Africa.
 ZTJ—African Broadcasting Co., Ltd., P. O. Box 4549, Johannesburg, Transvaal, South Africa.
 FIQA—Radio Station FIQA, Tananarive, Madagascar.
 EA8AB-EAJ43—Radio Club Tenerife, Alvarez de Lugo, 1, Apartado 225, Santa Cruz de Tenerife, Canary Islands.

AUSTRALIA AND PACIFIC ISLANDS

- VK2ME—Amalgamated Wireless, Ltd., Wireless House, 47 York St., Sydney, N. S. W., Australia.
 VK3LR—Australian Broadcasting Commission, G.P.O. Box 1686, Melbourne, C. I., Australia.
 VK3ME—Amalgamated Wireless, Ltd., 167-9 Queen St., Melbourne, Australia.

- VK9MI—SS. "Kanimbla," McIlwraith and McEacharn, P. O. Box 255C, Melbourne C1, Australia.
 ZMBJ—L. H. Jones, operator, "Awatea," Union Steamship Lines, Wellington, New Zealand.
 VPD-VPD2—Amalgamated Wireless, Ltd., Suva, Fiji Islands.
 FO8AA—Radio Club Oceanien, Alfred T. Poria, Pres., Papeete, Tahiti.
 ZLT-ZLW—Supt. Post & Telegraph. G. P. ZLR O., Wellington, New Zealand.

ASIA

- Java Broadcast—Netherland Indies Broadcasting Co., Koningsplein West 5, Batavia-Centrum, Java.
 Japanese Phones—International Wireless Telephone Company of Japan, Osaka Bldg., Kojimachiku, Tokyo, Japan.
 Japanese Broadcast—Broadcasting Corporation of Japan, Overseas Section, Atagoyama, Shiba-Ku, Tokyo, Japar.
 KAY—Philippine Long Distance Telephone Co., Manila, P. I.
 PMY—Radio Station PMY, Nillmy Bldg., Bandoeng, Java, Netherland Indies.
 RV15—Radio Station RV15, Khabarovsk, U.S.S.R.
 VPB—Radio Club of Ceylon and South India, P. O. Box 282, Colombo, Ceylon.
 CQN—Government Broadcasting Station CON, Post Office Bldg., Macao, (Portuguese), China.
 XGOX—The Central Broadcasting Administration—Central Broadcasting Committee of Kuomintang, Nanking, China.
 VUC—Indian State Broadcasting Service, 1 Garstin Place, Calcutta, India.
 VUB—C. B. Sethna, Esq., director, All-India Radio, Irwin House, Ballard Estate, Bombay, India.
 Chinese Phones—Radio Administration, Sassoon House, Shanghai, China.
 YBG—Radio Service, Serdangweg 2, Sumatra, Dutch East Indies.
 YDA-YDB—Mr. A. H. K. Mulder, Gen'l Mgr., The Netherlands Indies Bdc. Co., Ltd., (N.I.R.O.M.), Batavia, Java.
 ZBW2, Etc.—Station ZBW, Hong Kong Broadcasting Committee, P.O. Box 200, Hong Kong, China.
 ZGE—Radio ZGE, Kuala Lumpur, Malay States.

ZHJ—Radio Station ZHJ, Radio Society of Penang, Penang, Malay Straits.
 "Radio Philco" Establishment Boy-Landy 211-213 D. Rue Catinat, Saigon, Indo-China.
 FZS—Postale Boic 238, Saigon, Indo-China.
 HSJ-HSP—Superintendent Engineer, Post HS8PJ and Telegraph Dept., Radio Technical Section, Bangkok, Siam.
 Java Phones—J. Sanders, Chief Engineer, Java Wireless Stations, Bandoeng, Java.
 JIA-JIB-JIC—International Telephone Co. of Japan, Station Chureki, Taiwan, Japan.
 YAA-YAH—Director of Radio Communications, Kabul, Afghanistan, Asia.
 TDE-TDD-Etc.—Manchu Denshin Denwa Kaisha, Shinkyo, Manchukuo, Asia.
 KZEG—Erlanger & Gallinger, Inc., Manila, Philippines.

EUROPE

LZA—Radio Station LZA, Radio Garata, Sofia, Bulgaria.
 LKJ1—Ministere Du Commerce, Administrateur des Telegraphes, Oslo, Norway.
 OER2—Radio OER2 Osterr, Radioverkehrs A. G., Wein, 1, Johannesgasse 4 b, Vienna, Austria.
 SBG—Radio Motalo, Motalo, Sweden.
 Belgrade—Director, Bureau Central de Presse, Belgrade, 16 Milosa Velikag, Yugoslavia.
 2RO—5 Via Montello, Rome, Italy.
 CSW—Radio Nacional, Lisbon, Portugal.
 CT1AA—Antonio Augusto de Aguiar, 144, Lisbon, Portugal.
 SPW—Polskie Radio, 5, Mabowiecka St., Warsaw, Poland.
 Dutch Phones—Parkstaat 29, S'Gravenhage, Holland.
 EAQ—Transradio Espanola, P. O. Box 951, Madrid, Spain.
 EHY-EDM—Piy Margall 2, Madrid, Spain.
 English Phones—Engineer-in-Chief's Office (Radio Branch), G.P.O. Armour House, London, E. C. 1.
 English Ships—Connaught House, 63, Aldwych, London, W. C. 2, England.
 TFJ—Icelandic State Broadcasting Service, P. O. Box 547, Reykjavik, Iceland.
 French Phones—166 Rue de Montmartre, Paris, France.
 German Broadcast—German Short Wave Station, Broadcasting House, Berlin, Germany.
 British Broadcast—British Broadcasting Corporation, Broadcasting House, London, W. 1, England.
 HAS-HAT—Radio Labor, Gyali St. 22, Budapest, Hungary.

HBL-HBP—Radio-Suisse S. A., 12, Quai de Etc. la Poste, Geneva, Switzerland.
 HVJ—Stazione Radio HVJ, Citta del Vaticano, Vatican City.
 IAC—Director, Centro di Coltano Radio, Pisa, Italy.
 IRM-IRW-IRG-IRJ—Italo Radio, Via Calabria N. 46/48, Rome, Italy.
 TPA2-3-4—Minister des Postes, Boulevard Haussman, 98 Bis., Paris, France.
 RNE-RKI-RAN-RV96—Radio Centre, Solianka 12, Moscow, U.S.S.R.
 ORK-ORG—Director of Communications, Bruxelles, Belgium.
 OXY—Statsradiofonien Heibergsgade 7, Copenhagen, Denmark.
 PCJ—Philips Radio PCJ, Hilversum, Holland.
 PHI—Philips Radio PHI, Huizen, Holland.
 PI1J—Radio Station PI1J, Dr. M. Hellingman, Owner and Operator, Dordrecht, Holland.
 OLR—Radiojournal, Praha XII, Fochova Tr. 16, Prague (Praha), Czechoslovakia.

SOUTH AMERICA

HJ1ABB—Radio HJ1ABB, Apartado 715, Barranquilla, Colombia.
 HJ1ABC—Radiodifusora HJ1ABC, Quibdo, Colombia.
 HJ1ABE—Radio HJ1ABE, Apartado 31, Cartagena, Colombia.
 HJ1ABG—Radio HJ1ABG, Apartada 674, Barranquilla, Colombia.
 HJ1ABJ—Radio HJ1ABJ, Santa Marta, Colombia.
 HJ1ABP—Radiodifusora Cartagena, P. O. Box 37, Cartagena, Colombia.
 HJ2ABC—Pompilio Sanchez, Cucuta, Colombia.
 HJ2ABD—Hector McCormick, Prop., Radiodifusora HJ2ABD, Calle 2A, No. 1205, Bucaramanga, Colombia.
 HJ3ABD—Colombia Broadcasting, Apartado 509, Bogota, Colombia.
 HJ3ABF—Radio HJ3ABF, Apartado 317, Bogota, Colombia.
 HJ3ABH—Radio HJ3ABH, Apartado 565, Bogota, Colombia.
 HJ3ABX—Radiodifusora HJ3ABX, Apartado 26-65 Bogota, Colombia.
 HJ4ABB—Radio HJ4ABB, Apartado 175, Manizales, Colombia.
 HJ4ABC—Radiodifusora HJ4ABC, Apartado 39, Ibague, Colombia.
 HJ4ABD—Radiodifusora HJ4ABD, Medellin, Colombia.
 HJ4ABE—Radiodifusora HJ4ABE, Medellin, Colombia.
 HJ4ABH—Emisora HJ4ABH, Armenia, Colombia.

- HJ4ABP—Radiodifusora HJ4ABP Medellin Colombia.
- HJ4ABU—Radiodifusora Pereira, Caldas, Colombia.
- HJ5ABD—Radiodifusora, Cali, Colombia.
- HJB—Marconi Telegraph Co., Apartado 1591, Bogota, Colombia.
- HJN—Estacion Radiodifusora HJN, Ministerio de Education Nacional, Teatro de Colon No. 5-28, Bogota, Colombia.
- HJU—Radio HJU, Buenaventura, Colombia.
- HJY—All-American Cables, Inc., Bogota, HKV—Radiodifusora HKV, Ministerio de Guerra, Military Service, Bogota, Colombia.
- El Prado—Apartado 98, Riobamba, Ecuador, HC1PM—Estacion HC1PM, P.O. Box 664, Quito, Ecuador.
- HCVT—La Voz re Tanghuria, Apartado 109, Ambato, Ecuador.
- HC2FA—Radio Paris, Dr. Francisco Andronde, Guayaquil, Ecuador.
- HC2JSB—Juan S. Behr, Apartado 805, Guayaquil, Ecuador.
- HC2ET—Estacion Radiodifusora HC2ET, P. O. Box 824, Guayaquil, Ecuador.
- HCETC—Director Manuel Mantilla, Apartado 134, Quito, Ecuador.
- HC2CW—Radiodifusora HC2CW, Casilla 1166 Guayaquil, Ecuador.
- HC2RL—Estacion HC2RL, P. O. Box 759, Guayaquil, Ecuador.
- HCJB—Director, Clarence W. Jones, Casilla, 691, Quito, Ecuador.
- HCK—Radiodifusora HCK, Quito, Ecuador.
- YV1RB—Radio YV1RB P. O. Box 37, Maracaibo, Venezuela.
- YV1RD—Radiodifusora YV1RD, P. O. Box 100, Maracaibo, Venezuela.
- YV1RG—Radiodifusora, YV1RG, Valera, Venezuela.
- YV1RH—Radiodifusora YV1RH, P. O. Box 261, Maracaibo, Venezuela.
- YV1RI—Radio Coro, A. Urbina R y Cia, Coro, Venezuela.
- YV1RL—Jose A. Higuera, Apartado 247, Maracaibo, Venezuela.
- YV2RA—Sr. Juan A. Chason, Director, La Voz de Tachira, San Cristobal, Venezuela.
- YV3RA—Radiodifusora YV3RA, Barquist-meto, Venezuela.
- YV4RB—Radio YV4RB, Valencia, Venez.
- YV4RD—Avenida Bolivar 125, Maracay, Venezuela.
- YV5RC—Radio YV5RC, P. O. Box 2009, Caracas, Venezuela.
- YV5RD—Radiodifusora YV5RD, Caracas, Venezuela.
- YV5RF—Estacion S.A.R., YV5RF, Apartado 983, Caracas, Venezuela.
- YV5RH—Radiodifusora YV5RH, Apartado 1931, Caracas, Venezuela.
- YV5RJ—Diario de la Esfera, Srs. Suegart y Cia, Caracas, Venezuela.
- YV5RP—Radiodifusora YV5RP, P. O. Box 508, Caracas, Venezuela.
- YV6RB—Radiodifusora YV6RB, Apartado 34, Ciudad Bolivar, Venezuela.
- YV6RC—Radio Bolivar, Ciudad, Bolivar, Venezuela.
- YVQ-YVR—Servicio Radiotelegraphico, Maracay, Venezuela.
- LSN-LSL-Etc.—Compania Internacional, 143 Defensa, Buenos Aires, Argen.
- LSX—Transradio Internacional, San Martin, 329 Buenos Aires, Argentina.
- LRU-LRX—Radio El Mundo, Calle Maipu 555, Buenos Aires, Argentina.
- OAX4D—Radiodifusora OAX4D, All-American Cables, Inc. (L. N. Anderson, Mgr.), Calle de San Antonio 677, Casilla 2336, Lima, Peru.
- OAX4G—Radiodifusora OAX4G, Roberto Grellaud, Avda. Abancay, 915-923 Lima, Peru.
- OAX5A—Radio Ica, (Universal) c/o Macchiavello & Umberto, S. C., Tacna 112, Ica, Peru.
- OAX6A—Radio Arequipa, Casilla Correo 293, Arequipa, Peru.
- OCI-OCJ—All-American Cables, Inc., Lima, Peru.
- PPU-PPQ-Etc.—Companhia Radiotelegraphica Brasileira, Caixa Postal 500, Rio de Janeiro, Brazil.
- PZH—Radio Station PZH, Paramaribo, Surinam, Dutch Guiana.
- PRA8—Radio Station PRA, Radio Club of Pernambuco, Pernambuco, Brazil.
- PRF5-PSK—Comp. Radio Internacional Do Brazil, P. O. Box 709, Rio de Janeiro, Brazil.
- VP3BG—Radio Station VP3BG, Georgetown British Guiana.
- VP3MR—The British Guiana Broadcasting Co., No. 1 Wellington St., Georgetown, British Guiana.
- ZP10—Radio Prieto ZP10, Asuncion Paraguay.
- CEC-CED—Cia Internacional de Radio, Casilla 16-D, Santiago, Chile.
- CEB-CB615—Casilla 761, Santiago, Chile.
- CB960—Radiodifusora CB960, Casilla 1342, Santiago, Chile.
- CP5—Radio CP5, Casila 637, La Paz, Bolivia.
- CP12—Radio Tunari, Cochabamba, Bolivia.
- CXA4—Radio Electrico de Montevideo, Director Hector M. Labordo, Mercedes, 823, Montevideo, Uruguay.
- CXA2—Rio Negro 1631, Montevideo, Uruguay.
- OAX4Z—Radio Nacional, Av. Petit Thonars, Lima, Peru.
- OAX4P—J. Alberto Madueno, Apartado 187, Huancayo, Peru.

- OAX1A—Carlos J. Montjoy, Casilla No. 9, Chiclayo, Peru.
 OAX4I—Radio Interaccional S. A., Ed. Minería, 605, Lima, Peru.
 OAX4T—Rado Nacional, Av. Petit Thonars, Lima, Peru.
 OAX4J—Antonio P. Vazquez, Casilla 1166, Lima, Peru.

CENTRAL AMERICA

- TGS—Radio TGS, Casa de Presidencial, Guatemala City, Guatemala.
 TG2—Director General Communication Electrico de Guatemala, Guatemala City.
 TGW-TGWA—Radiodifusora Nacional TGW, Republic de Guatemala.
 TG2X—Direction general de la Policia Nacional, Guatemala City, Guatemala.
 TILS—P. O. Box 3, Puntarenas, Costa Rica, C. A.
 TIOW—Radio TIOW, P. O. Box 45, Port Limon, Costa Rica, C. A.
 TIPG—Radio TIPG, Perry Girton, Prop., Apartado 225, San Jose, Costa Rica, C. A.
 TI4NRH—Estacion TI4NRH, Apartado 40, Heredia, Costa Rica, C. A.
 TI8WS—Radio TI8WS, Sr. Abel Salazar F., Apartado 75, Puntarenas, Costa Rica.
 TIEP—Radio TIEP, Apartado 257, San Jose, Costa Rica, C. A.
 TIGPH—Radiodifusora TIGPH, Apartado 800, San Jose, Costa Rica.
 TIRCC—Radioemisora Catolica Costaricense Apartado 1064, San Jose, Costa Rica, C. A.
 TI5HH—Sr. R. Herrera, Manager, Radiodifusora, T15HH, San Ramon, Costa Rica, C. A.
 TI2RS—Rogelio Sotela, San Jose, Costa Rica, C. A.
 TI2M—Apartado 26, San Jose, Costa Rica.
 HRD—Radiodifusora HRD, La Ceiba, Honduras, C. A.
 HRN—Radio HRN, Tegucigalpa, Honduras.
 HRP1—Manual Escota, Director y Gerente, San Pedro Sula, Honduras.
 HP5B—Radio HP5B, P. O. Box 910, Panama City, Panama.
 HP5F—Radio HP5F, Hotel Carlton, Colon, Panama.
 HP5I—Radio HP5I, Aguadulce, Panama.
 HP5J—Radio HP5J, Apartado 867, Panama City, Panama.
 HP5K—Radio HP5K, P. O. Box 33, Colon, Panama.
 HP5L—Radiodifusora, HP5L, Apartado 129, David, Chiriqui, Panama
 YNA—Tropical Radio Telegraph, Managua, Nicaragua, C. A.
 YNLG—Sr. Benjamin J. Guerral, Franquicia No. 250, Managua, Nicaragua.
 YNGU—Radiodifusora YNGU, Apartado 295, Managua, Nicaragua, C. A.
 YNLF—Radiodifusora YNLF, c/o Ing. Moises Le Franc Calle, 15 de Set No. 206, Managua, Nicaragua.
 YN1GG—Radiodifusora YN1GG, Managua, Nicaragua, C. A.
 YNOP—Radiodifusora YNOP, Ernest Andreas, owner, Managua, Nicaragua, C. A.
 XDA-XDC—Secretaria de Comunicaciones, Mexico, D. F.
 XEBT—El Buen Tono, S. A. Apartado 79-44, Mexico, D. F.
 XECC—Estacion XECC, Departamento de Publicidad de la Secretaria de Relaciones Exteriores, Mexico, D. F.
 XEFT—Radio XEFT, Av. Independencia 28, Vera Cruz, Mexico.
 XEBQ—Estacion XEBQ, Sr. Roberto G. Mata, Prop. Astillero 35, Mazatlan, Son, Mexico.
 XEBM—Estacion XEBM, Sr. Ignacio L. Sais, Prop., Angel Flores 390, Mazatlan, Son, Mexico.
 XEDQ—Estacion XEDQ, Apartado 197, Guadalajara, Jalisco, Mexico.
 XEXF—El Jefe del Departamento Secretaria de la Economia Nacional, Mexico, D. F.
 XEPW—Estacion XEPW, Apartado 8403, Mexico, D. F.
 XEUW—Radiodifusora XEUW, Av. Independencia 98, Vera Cruz, Mexico.
 XEWI—Estacion Difusora XEWI, P. O. Box 2874, Mexico, D. F.
 XEXA—Secretaria de Educacion Publica, Mexico, D. F.
 XAM—Director General de Correos, Merida, Yucatan, Mexico.
 XEBR—Estacion XEBR, Apartado 68, Hermosillo, Son, Mexico.
 XEXR—Estacion XEXR, Secretaria Educacion Publica, Argentina L. G. Obregon, Mexico, D. F.
 XECU—Estacion XECU, Sr. Ramon Loreto, Hildago 599, Guadalajara, Jalisco, Mexico.
 XETM—Apartado 74, Villa Hermosa, Tabasco, Mexico.
 XEWV—Apartado 3808, Guadalajara, Jalisco, Mexico.
 XEYU—Napoles 60, Mexico City, Mexico.
 XEUZ—Apartado 2641, Mexico City, Mex.
 XETU—Hidalgo 579, Guadalajara, Jalisco, Mexico.
 XEWW—Apartado 2516, Mexico City, Mex.

WEST INDIES

- (Note) When writing to stations shown R. D., write the words Dominican Republic, West Indies.
- HI1A—Radiodifusora HI1A, P.O. Box 423, Santiago de los Caballeros, R. D.
- HI1S—Radiodifusora HI1S, Santiago de los Caballeros, R. D.
- HI2D—Radiodifusora HI2D, Ciudad Trujillo, R. D.
- HI3C—Radiodifusora HI3C, Sr. Roberto Palli B. Prop., La Ramona, R. D.
- HI3E—Sr. Ignacio Agramonte, Apartado 343, Puerto Plata, R. D.
- HI3U—Radiodifusora HI3U, Apartado 23, Santiago de los Caballeros, R. D.
- HI4D—Radiodifusora HI4D, Ciudad Trujillo, R. D.
- HI4V—Radio HI4V, San Francisco de Macoris, Prov. Duarte, R. D.
- HI5G—Radiodifusora HI5G, Las Vega, R. D.
- HI5N—Radio HI5N, Moca City, R. D.
- HI7P—Sr. J. M. Roques, Calle Jose Reyes No. 35, Ciudad Trujillo, R. D.
- HI8A—Radiodifusora HI8A, Apartado 1302, Ciudad Trujillo, R. D.
- HI8Q—Abbes and Garcia, Ciudad Trujillo, R. D.
- HI9B—Sr. J. L. Sanchez, Director, Apartado 95, Santiago de los Caballeros, R. D.
- HIG—Sr. A. Cordero, P. Director, Radiodifusora HIG, Av. Jose Trujillo, No. 20, Ciudad Trujillo, R. D.
- HIH—Radiodifusora HIH, Calle Arzobispo Merino No. 97, Ciudad Trujillo, R. D.
- HIL—Radio HIL, Apartado 623, Ciudad Trujillo, R. D.
- HI1X—HI2X—Radio HIX, J. R. Saladin, Director of Radio Communication, Ciudad Trujillo, R. D.
- HI1J—Radiodifusora HI1J, Apartado 204, San Pedro de Macoris, R. D.
- HIT—Radiodifusora HIT, Apartado 1105, Ciudad Trujillo, R. D.
- HIZ—Radiodifusora HIZ, Calle Duarte No. 68, Ciudad Trujillo, R. D.
- HH2T—HH2R—HH2S—Societe Haitienne de Radiodifusora, P.O. Box 103, Port-Au-Prince, Haiti.
- HH3W—HH3NW—Radiodifusora HH3W, P. O. Box A117, Port-Au-Prince, Haiti.
- Radio Fort De France—Martinique, French West Indies.
- COKG—Emisora Grau, Estacion COKG, Apartado 137, Santiago, Cuba.
- COJK—Finlay No. 3, Altos, Camaguey, Cuba.
- CO9XX—Frank H. Jones, Tuninucu, Cuba.
- COBC—Apartado 132, Havana, Cuba.

the AMPERITE VELOCITY

with NEW DESK STAND



Ideal for desk, pulpit, footlights, banquets. Leaf spring suspension acts as shock absorber **STAND ONLY . . . LIST \$4.00** NAME PLATE with call letters . . . LIST \$2.00

MICROPHONES: Model RBHn (High Imped.) or RBMn (200 ohms) with cable connector & switch . . . LIST \$42.00 Models RBSn, RSHn, with switch only . . . LIST \$32.00

NEW "HAM MIKE"

No Peaks! No Splashing! Real Broadcast Quality! RF Choke Circuit included in microphone. Output, -68 db. Operates directly into grid. MODEL HAM (High Imped.) or MODEL HAL (200 ohms) . . . Gunmetal, LIST \$22.00. Chrome LIST \$23.00. Price includes Ham Desk Stand, Call Letters, and 6 feet of cable.



MODEL RAL \$22.00 LIST

A popular Ampelite Velocity of very high excellence. Used for both speech and music. No peaks. Flat response over audible range. Output, -68 db. Triple shielded. Shock absorber, swivel bracket. MODEL RAL (200 ohms); or MODEL RAH (2000 ohms) high impedance . . .

FREE: Window Decal & Window Display

AMPERITE Co. 561 BROADWAY, N. Y.

AMPERITE Velocity **MICROPHONE**



- COGF—Betancourt 51, Matanzas, Cuba.
- CMA-3—Cuba Transatlantic Radio Corporation Apartado No. 65, Havana, Cuba.
- COHB—P. O. Box 85, Sancti-Spiritus, Santa Clara, Cuba.

- CGCO—P. O. Box 98, Havana, Cuba.
 COCD—Radio Estacion COCD, P. O. Box 2294, Havana, Cuba.
 COCH—Estacion COCH, General Electric Co. of Cuba, P.O. Box 41, Havana, Cuba.
 COCQ—Sr. Miguel Gabriel, Administrador Gerente, Calle 25, No. 445, Havana, Cuba.
 COCX—Radiodifusora COCX, P. O. Box 32, Havana, Cuba.
 VPN—Station VPN, Nassau, Bahama Is.
 WTDV-WTDX—Donald S. Boreham, Supt. of Public Works, St. Thomas, Virgin Islands.
 WTDW—H. N. McKenzie, Supt. of Public Works, Christiansted, St. Croix, Virgin Islands.
 WCT-WCV-WDF—Mr. David Brown, Mgr. Radio Corp. of Puerto Rico, San Juan, Puerto Rico.
 ZFB-ZFD—Engineer-in-Charge, Wireless Receiving Station, Devonshire, Bermuda.
 PJC1—Curacao Radio Vereenging, Willemstad, Curacao.
- VE9CA—Toronto General Trusts Building, Calgary, Alberta, Canada.
 CRCX—Rural Route No. 4, Bowmanville, Ontario, Canada.
 VE9HX—P. O. Box 998, Halifax, N. S., Canada.
 VE9BM—121 Shearer St., Montreal, Quebec, Canada.
 VE9EW—J. E. Smith, 60 Rochester Street, Toronto, Ont., Canada.
 CFU—Radio Station CFU, Rossland, B. C., Canada.
 W1XAL—World-Wide Broadcasting Corp., University Club, Boston, Mass.
 W1XK—Westinghouse Electric & Mfg. Co., Springfield, Mass.
 W2XAD-W2XAF—General Electric Co., 1 River Rd., Schenectady, N. Y.
 W2XE—485 Madison Ave., New York City.
 W3XAU-W3XKA—1622 Chestnut Street, Philadelphia, Pa.
 W3XAL—30 Rockefeller Plaza, New York, N. Y.
 W4XB—Isle of Dreams Broadcasting Corp., Radio W4XB, Herald Bldg., Miami, Florida.
 W8XWJ—4465 Penobscot Building Detroit, Michigan.
 W8XAL—Crosley Redio Corp., Cincinnati, Ohio.
 W8XK-W8XKA—Grand Bldg., Pittsburgh, Pa.
 W9XAA—666 Like Shore Drive, Chicago, Illinois.
 W9VF—20 N. Wacker Drive, Chicago, Ill.
 WVD—Radio WVD, 517 Federal Office Bldg., Seattle, Wash.
 Dixon Stations—140 Montgomery St., San Francisco, Calif.
 W2XGB—Press Wireless, Hicksville, L. I., New York.

NORTH AMERICA

- CGA-CJA, Etc.—Marconi Station, Drummondville, Quebec, Canada.
 CJRX-CJRO—Royal Alexander Hotel, Winnipeg, Manitoba, Canada.
 VE9BK—Radio Sales Service, Ltd., 780 Beatty St., A. M. Jagoe, Manager, Vancouver, B. C., Canada.
 VE9CS—743 Davie St., Vancouver, B. C., Canada.
 VE9DN-CFCX—Canadian Marconi Co., Box 1690, Montreal, Quebec, Canada.

Manila. The station operated by Erlanger and Galinger heard testing on 11.84 mc. from 9:00 P. M. to 9:00 A. M. last month now uses 11.84 mc. some and if not on one wave it on the other. They relay KZEG "The Sunshine Station of Manila" and KZRM "Radio Manila." When not on 11.84, try 9.57, (Walcott, Chavez, Rossi, Cooke, Keenan, Gallagher, Karp.)

New! **CATALOG OF AMPLIFIERS**

All types, embodying latest principles of design and construction. Superior quality. Many new features and advantages. Superb values, remarkably low-priced. Used by leading P. A. Men. Write for free catalogue now! **AMPLITONE PRODUCTS CO., 137 Liberty St. N.Y.**

AMPLITONE



XEWW, Mexico City, operates on 15.16 or 15.17 mc. and 9.50 mc. sometimes broadcasting XEW programs on 15.16 from noon to 6:00 P.M., then changing to 9.50 and sometimes staying on 15.16 till midnight. Slogan is "La Voz de la America Latina desde Mexico." Uses four bells and signs off with a march and calls sent in code, (Dement, Karpen, Oxrieder, Ebbecke, Rossi, Edwards, Atherton, Grey, Stark).

PHONETICAL ALPHABET

Most all short wave stations can be identified by the frequency they operate on. But it is nice to be able to understand a few letters and numbers as they are spoken in several languages, as it may come in handy some day. The letter W does not belong to the Spanish, Portuguese or Italian alphabets. It is used only by those people when writing foreign words.

	German	French	Italian	Portuguese	Spanish	Dutch
A	ah	ah	ah	ah	ah	ah
B	bay	bay	bay	bay	bay	bay
C	tsay	say	chay	thay	thay	say
D	day	day	dee	day	day	day
E	ay	ay	ay	ay	ay	ay
F	eff	ef	e aff	effay	effay	ef
G	gay	zay (z as s pleasure)	ge (as in genius)	zhay	hay	ghay
H	hah	ash	ak-kah	ah'-tchay	ah'-tchay	hah
I	ee	ee	ee (as i in machine)	ee	ee	ee (as y in pretty)
J	yot(yah)	.zee (z as s pleasure)		zhota	ho'-ta	ja (yay)
K	kah	kah	kappa	kah	kah	kah
L	ell	el	ella	ay'-lay	ay'-lay	el
M	em	em	emma	em'-ay	em'-ay	em
N	en	en	enna	en'-ay	en'-ay	en
O	oh	oh!	o (as in toll)	o (as in for)	o (shorter than o in oh)	oah (as in woah)
P	pay	pay	pay	pay	pay	pay
Q	koo	keeu	koo	keh	koo	keeu
R	err	air (aer)	erra	err (airr)	er'-ay	err
S	ess	ess	essa	es'-ay	es'-ay	es
T	tay	tay	tay	tay	tay	tay
U	oo	eeu	oo	oo	oo	eeu
V	foo (as in found)	vay	vay	vay	vay	vay
W	vay	dooble-vay	doppio-vay	vay-dobrado	doblay-vay	way
X	iks	eeks	iks	sheeze	ay'-kis	iks
Y	ipsilon	ee-grec	e-greco	ipsilon or e-gray-goo	e'-ay	aai
Z	tset	zett	dzay-ta	zay	they-dah	zett

POLICE STATIONS

(These stations are used by Police Departments to relay messages to police cars that patrol the cities. They come on the air, send their message and go right off again. Since there are several stations on each wavelength, when one is tuned-in just keep your dial set and others will be heard. The first figure given is the wavelength in megacycles and the second is the wavelength in meters. Write dial numbers in space provided.)

- 2.490 mc. 120.48 meters
 KNFC..S.S. Gov. I. I. Stevens
 WPHI..Charleston, W. Va.
 WFPF..Clarksburg, W. Va.
 KNFM..Compton, Calif.
 WPHJ..Fairmont, W. Va.
 WPDZ..Fort Wayne, Ind.
 WPGO..Huntington, N. Y.
 W PDT..Kokomo, Ind.
 KGZU..Lincoln, Nebr.
 WPGS..Mineola, N. Y.
 KGHX..Santa Ana, Calif.
 KGZD..San Diego, Calif.
 WPGN..South Bend, Ind.
 KNFC..S.S. Gov. I. I. Stevens
 KNFD..S.S. Gov. J. R. Rogers
 KGHA..Portable, Mobile.
 KGHB..Portable, Mobile.
 KGHC..Portable, Mobile.
 KGH D..Portable, Mobile.
 KGHE..Snoqualmie Pass, Wash.
 KGHQ..Chinook Pass, Wash.
 K GHR..Mobile
 KNFK..Olympia, Wash.
 KNFK..Bellingham, Wash.
 KNFL..Shuksan, Wash.
- 2.482 mc. 120.87 meters
 WPGT..New Castle, Pa.
 KGZE..San Antonio, Texas.
- 2.474 mc. 121.26 meters
 WPF S..Asheville, N. C.
 KNFH..Garden City, Kansas.
 WPGZ..Johnson City, Tenn.
 W PFO..Knoxville, Tenn.
 KGHG..Las Vegas, Nevada.
 WPD P..Philadelphia, Pa.
 KGHM..Reno, Nevada.
 W PFO..Swarthmore, Pa.
 WRDQ..Toledo, Ohio.
- 2.466 mc. 121.65 meters
 WPGA..Bay City, Michigan.
 W PFW..Bridgeport, Conn.
 KGOZ..Cedar Rapids, Iowa.
 WPGK..Cranston, R. I.
 KGNP..Davenport, Iowa.
 KGZG..Des Moines, Iowa.
 WPHA..Fitchburg, Mass.
 WPDF..Flint, Mich.
 KGHF..Lawton, Okla.
 WPEC..Memphis, Tenn.
 KGPI..Omaha, Nebr.
 W PFW..Pawtucket, R. I.
 W PGB..Port Huron, Mich.
- KGPD..San Francisco, Calif.
 KGPK..Sioux City, Iowa.
 WPEM..Woonsocket, R. I.
 WPGX..Worcester, Mass.
- 2.458 mc. 122.05 meters
 WPD O..Akron, Ohio.
 WPDV..Charlotte, N. C.
 WRBH..Cleveland, Ohio.
 KNFB..Idaho Falls, Idaho.
 KGZW..Lubbock, Texas.
 WPGD..Rockford, Illinois.
 WPHD..Steubenville, Ohio.
 KGZI..Wichita Falls, Texa
 WPDG..Youngstown, Ohio.
- 2.450 mc 122.40 meters
 KGZF..Chanute, Kansas
 KGZP..Coffeyville, Kansas.
 KGPO..Honolulu, Hawaii.
 WPEP..Kenosha, Wis.
 W PDK..Milwaukee, Wis.
 W PEE..Brooklyn, N. Y.
 W PEF..New York, N. Y.
 WPEG..New York, N. Y.
 KGPH..Oklahoma City, Okla.
 WPHF..Richmond, Va.
 KGPO..Tulsa, Okla.
 KG PZ..Wichita, Kansas.
 CGZ..Vancouver, B. C.
 CJW..St. Johns, N. B.
 VYV..Winnipeg, Man.
- 2.442 mc. 122.85 meters
 KGHU..Austin, Texas.
 W PGL..Binghamton, N. Y.
 W MJ..Buffalo, N. Y.
 KGPX..Denver, Col.
 W PDX..Washington, D. C.
 W PEB..Grand Rapids, Mich.
 WMDZ..Indianapolis, Ind.
 W PFG..Jacksonville, Fla.
 W PFT..Lakeland, Fla.
 W PDL..Lansing, Mich.
 W PDE..Louisville, Ky.
 W PFE..Miami Beach, Fla.
 W PGP..Muncie, Ind.
 W PFC..Muskegon, Mich.
 W PFM..Orlando, Fla.
 W PFX..Palm Beach, Fla.
 K GPP..Portland, Oregon.
 W PFE..Reading, Pa.
 W PDI..Richmond, Ind.
 W PES..Saginaw, Mich.
 K GZR..Salem, Oregon.
- WPHN..Tampa, Florida
 WPFY..Yonkers, N. Y.
- 2.430 mc. 123.45 meters
 W PFK..Hackensack, N. J.
 W PDM..Dayton, Ohio.
 W PDI..Columbus, Ohio.
 KGPB..Minneapolis, Minn.
 KGPB..Minneapolis, Minn.
 WPEK..New Orleans, La.
 KGZJ..Phoenix, Ariz.
 WPGI..Portsmouth, Ohio.
 W PDS..St. Paul, Minn.
- 2.422 mc. 123.80 meters
 KGPE..Kansas City, Mo.
 KNFF..Leavenworth, Kan.
 WPHB..Nashua, N. H.
 W NFP..Niagara Falls, N. Y.
 W PPU..Portland, Maine.
 W PDR..Rochester, N. Y.
 K GPM..San Jose, Calif.
 KGZT..Santa Cruz, Calif.
 KGZC..Topeka, Kansas.
 KGP G..Vallejo, Calif.
 W PSP..Harrisburg, Pa.
- 2.414 mc. 124.37 meters
 KGZV..Aberdeen, Wash.
 W PGH..Albany, N. Y.
 KGZX..Albuquerque, N. M.
 W PDU..Atlanta, Ga.
 KGPS..Bakersfield, Calif.
 W PPH..Baltimore, Md.
 KGHW..Centralia, Wash.
 KNFA..Clovis, N. M.
 W PFI..Columbus, Ga.
 WCK..Belle Isle, Mich.
 W PDX..Detroit, Mich.
 KGZM..El Paso, Texas.
 KGZA..Fresno, Calif.
 WRDR..Grosse Pointe, Mich.
 WMO..Highland Park, Mich.
 KGZO..Santa Barbara, Calif.
 KGP F..Santa Fe, N. M.
 KGPA..Seattle, Wash.
 KNFI..Mt. Vernon, Wash.
 KGH S..Spokane, Wash.
 KGNZ..Tacoma, Wash.
 W PDA..Tulare, Calif.
 W PGI..Utica, N. Y.
- 2.406 mc. 125.69 meters
 KGHZ..Little Rock, Ark.
 KGPW..Salt Lake City, Utah

REPLACE

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OUT
DOWN-
LEADS WITH**

**LYNCH
GIANT KILLER CABLE**

L. S. BRACH MFG. CORP.
World's Largest Makers of Antenna Systems
NEWARK, N. J.

2.382 mc.	125.94 meters	WPEI..East Providence, R. I.	WPGQ..Nr. Columbus, Ohio.
WPDN..Auburn, N. Y.		KGZB..Houston, Texas.	WPHC..Nr. Massillon, Ohio.
WPFM..Birmingham, Ala.		KGPL..Los Angeles, Calif.	WPHK..Nr. Wilmington, Ohio.
KGHT..Brownsville, Texas.		WPHG..Medford, Mass.	WPHL..Portable, Ohio.
KGHV..Corpus Christi, Tex.		WPFN..Fairhaven, Mass.	
KNFE..Duluth, Minn.		WPPA..Newton, Mass.	
KGZH..Klamath Falls, Ore.		KGJX..Pasadena, Calif.	1.674 mc.
WPGW..Mobile, Ala.		WPDU..Pittsburgh, Pa.	179.21 meters
WPEA..Syracuse, N. Y.		KNFJ..Pomona, Calif.	KGHK..Palo Alto, Calif.
		WPGF..Providence, R. I.	
1.900 mc.	157.89 meters	WPEH..San Bernardino, Cal	1.66 mc.
WBA..Harrisburg, Pa.		WPEH..Somerville, Mass.	180.07 meters
WBR..Butler, Pa.		KGZO..Waco, Texas.	WMP..Framingham, Mass.
WDX..Wyoming, Pa.		KGHY..Whittier, Calif.	WPEL..W. Bridgewater, Mass.
WIL..Greensburg, Pa.		VYR..Montreal, Que.	WPEV..Portable, Ohio.
WMB..W. Reading, Pa.			WPEW..Northampton, Mass.
		1.766 mc.	
1.712 mc.	175.23 meters	175.85 meters	1.658 mc.
WPD..Arlington, Mass.		WKDU..Cincinnati, Ohio.	180.88 meters
KGPI..Beaumont, Texas.		WPET..Lexington, Ky.	KSW..Berkeley, Calif.
WPGV..Boston, Mass.		KGPC..St. Louis, Mo.	WPGC..Schenectady, N. Y.
WPDB..Chicago, Illinois.			1.642 mc.
WPDC..Chicago, Ill.		1.682 mc.	182.70 meters
WPDD..Chicago, Ill.		178.36 meters	WRDS..E. Lansing, Mich.
WPGJ..Cohasset, Mass.		KGHO..Des Moines, Iowa.	
KVP..Dallas, Texas.		KNFO..Storm Lake, Iowa.	1.654 mc.
		KNFN..Waterloo, Iowa.	183.60 meters
		WPGG..Findlay, Ohio.	WPHE..Marion County, Indiana
			1.630 mc.
			184.05 meters
			WEY..Boston, Mass.
			WKDT..Detroit, Mich.

ON THE AIR

The following stations are known broadcasters. Telephone stations are listed in another section. A station shown on 6.00 mc. will come in on 6 on a calibrated dial. A station shown at 7.00 will come in at 7 on the dial. Stations shown between 6.00 and 7.00 will be heard between 6 and 7 on the dial. The time is Eastern Standard. Add five hours for G. M. T. When $\frac{1}{2}$, $\frac{1}{2}$ or $\frac{3}{4}$ is shown the station starts or ends the program on the quarter hour.

Meq.	Meters	Station	City	Day	A. M.											P. M.																					
21.54	13.92	-W8XK	Pittsburgh	SMTWTFS	1	2	3	4	5	6	7	8	9	10	11	N	1	2	3	4	5	6	7	8	9	10	11	M									
21.53	13.93	-GSJ	Davenport	SMTWTFS						6	7	8	9	10	11	s																					
21.52	13.94	-W2XE	New York	SMTWTFS						$\frac{3}{4}$	7	8	9	10	s																						
21.47	13.97	-GSH	Davenport	SMTWTFS						6	7	8	9	10	11	s																					
17.79	16.68	-GSG	Davenport	SMTWTFS	1	2	s			6	7	8	9	10	11	s	1	2	3	4	5	s					9	10	s								
17.78	16.87	-W3XAL	New York	SMTWTFS						$\frac{3}{4}$	7	8	9	10	11	N	1	2	3	4	5	3															
17.77	16.88	-PHI	Huizen	SMT TFS						$\frac{1}{2}$	8	9	10																								
17.76	16.89	-DJE	Berlin	SMTWTFS	1	2	3	4	5	6	7	8	9	10	s																						
17.76	16.89	-W2XE	New York	SMTWTFS											11	s																					
15.44	19.43	-XEEM	Mazatlan												10	11	N	1	2	3	4	5	6	7	8	9	10	s									
15.37	19.52	-HAS-3	Budapest	S											9	s																					
15.34	19.56	-DJR	Berlin	SMTWTFS											8	s												5	6	7	8	9	10	s			
15.33	19.56	-W2XAD	Schenectady	SMTWTFS											10	11	N	1	2	3	4	5	6	7	s												
15.31	19.60	-GSP	Davenport	SMTWTFS																																	
15.29	19.62	-LRU	Buenos Aires	SMTWTFS							7	8	9	10	11	N	1	2	3	4	5	s															
15.28	19.63	-DJQ	Berlin	SMTWTFS	1	2	3	4	5	6	7	8	9	10	s														5	6	7	8	9	10	s		
15.27	19.68	-HI3X	Trujillo	S							$\frac{3}{4}$	8	9	10	s																						
15.27	19.64	-W2XE	New York	SMTWTFS											N	1	2	3	4	5	s																
15.26	19.66	-GSI	Davenport	SMTWTFS													N	1	2	3	s							9	10	s							
15.25	19.68	-W1XAL	Boston	SMTWTFS																																	
15.24	19.68	-TPA2	Ponchoise	SMTWTFS							6	7	8	9	10	s																					
15.23	19.70	-OLR5A	Praha	SMTWTFS							$\frac{3}{4}$	8	9	10	s																						
15.22	19.71	-PCJ	Hilversum	SMTWTFS							$\frac{3}{4}$	5	6	7	8	9	10	s																			
15.21	19.72	-W8XK	Pittsburgh	SMTWTFS							7	8	9	10	11	N	1	2	3	4	s																
15.20	19.73	-DJB	Berlin	SMTWTFS	1	2	3	4	5	6	7	8	9	10	s																						
15.19	19.75	-ZBW4	Hong Kong	Irreg.						5	6	7	8	9	s																						
15.18	19.76	-BSO	Daventry	SMTWTFS	1	2	s																					4	5	6	7	s					

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-14.01	21.41	WKK, Lawrenceville, N. J.	Phones LSN, 8:00 A.M. to 4:00 P.M.
T-14.17	21.16	LSL, Buenos Aires, Arg.	8:00 A.M. to 1:00 P.M. GAA and PSF
T-14.23	21.08	PSA, Rio de Janeiro, Brazil.	Phones WKK, WLK, daytime.
T-14.24	21.06	KWN, Dixon, Calif.	Phones irregularly.
T-14.27	21.03	LSN, Buenos Aires, Arg.	8:00 A.M. to 4:00 P.M. WKK and WLK.
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	19.78	WKN, Lawrenceville, N. J.	Phones GAU, daytime.
T-15.01	19.98	KAX, Manila, P. I.	Phones 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	VOG, Nairobi, Kenya, Africa.	7:30 to 9:30 A. M., England.
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, Khipheval, S. Africa.	Phones 6 A.M. to 2:30 P.M., England.
T-15.93	18.83	PLE, Bandoeng, Java.	Phones Holland 6 to 11 A.M. KWX irregularly.
T-16.05	18.69	XGS, Shanghai, China.	Heard 7:00 to 8:00 A. M., Irreg.
T-16.06	18.68	OCI, Lima, Peru.	Testing with HJY near 2:00 P.M.
T-16.11	18.62	CAU, Rugby, England.	Phones New York mornings.
E-16.22	18.48	HBH, Geneva, Switzerland.	Used for special programs.
E-16.26	18.45	HBF, Geneva, Switzerland.	Used for special purposes.
T-16.30	18.40	PCK, Kootwijk, Holland.	Phones Java near 7:00 A.M.
T-16.35	18.35	WLA, Lawrenceville, N. J.	Phones England 8:00 A.M. to 4:00 P.M.
T-16.38	18.31	GAS, Rugby, England.	Phones New York mornings.
T-16.39	18.30	YVR, Maracay, Venezuela.	Phones Germany, 10:00 A.M.
T-16.44	18.25	FTE, St. Assise, France.	Phones LSM, PPU, mornings.
T-16.48	18.20	GAW, Rugby, England.	Phones New York mornings.
T-16.50	18.18	PMC, Bandoeng, Java.	Phones PCV, 3:10 to 9:20 A.M.
E-16.55	18.12	LSY, Buenos Aires, Argentina.	Irregular.
T-16.58	18.09	TYE2, Pontoise, France.	Phones U.S.A. 7:00 A.M. to 3:00 P.M.
T-16.63	18.04	GAB, Rugby, England.	Phones Canada 10:00 A.M. to noon.
T-16.82	18.05	PCV, Kootwijk, Holland.	6:00 to 9:00 A.M. Java.
T-16.85	18.27-18.70	Ships.	Heard in daytime.
T-16.91	17.74	HSP, Bangkok, Siam.	Phones Japan, Germany and England.
T-16.94	17.70	IAC, Piza, Italy.	Phones Africa, 5:00 A.M. to noon.
T-17.00	17.64	XGN, Shanghai, China.	Phones London 7 to 9 A.M., Mon., Wed., Sat.
E-17.33	17.31	W2XGB, Hicksville, N. Y.	Tests Irreg., relaying WOR.
T-17.12	17.52	DFB, Nauen, Germany.	Phones LSM and YVQ near 9:00 A.M.
T-17.16	17.48	VWY2, Poona, India,	phones England 7:00 to 10:00 A.M.
T-17.36	17.28	FZE8, Djibouti, Fr. Somaliland.	Phones Paris 5 A.M.-2 P.M., Irreg.
T-17.52	17.12	WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.31	16.38	ITK, Mogadiscio, Italian Somaliland.	Phones Italy daytime.
T-18.34	16.35	RTW, Moscow, U.S.S.R.	Phones midnite to 9:00 A.M.
T-18.44	16.30	WLK, Lawrenceville, N. J.	Phones England.

Meters	Meg.	STATION	TIME
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-18.59	-16.14	GBA, Rugby, England.	Phones China-Japan 3:00 to 10:00 A.M.
E-18.62	-16.11	IRY, Rome, Italy.	Used irregularly for special broadcasts.
T-18.71	-16.04	KKP, Kauhuku, Hawaii.	Phones KWU 1:00 to 7:00 P.M.
T-18.81	-15.95	RRR, Khabarovsk, U.S.S.R.	Phones 11:00 P.M. to 9:00 A.M. irreg.
T-18.89	-15.88	FTK, St. Assise, France.	Phones Saigon 8:30 to 11:00 A.M.
T-18.99	-15.80	XOJ, Shanshia, China.	Phones Japan 5:00 P.M. to midnight.
T-18.91	-15.86	JVD, Nazaki, Japan.	Phones almost all day and night.
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 almost any time.
T-19.20	-15.61	JVF, Nazaki, Japan.	phones U.S.A. near 5:00 A.M. and 8:00 P.M.
T-19.31	-15.53	HSG2, Bangkok, Siam.	Tests Sunday 11 P.M., Fri. 4:00 A.M.
E-19.35	-15.50	CO9XX, Tuinucu, Cuba.	Testing irregularly 5:00 to 9:00 P. M.
T-19.42	-15.45	IUG, Addis Ababa, Ethiopia.	phones Italy 7:00 to 10:00 A.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU.
E-19.53	-15.36	DZG, Zeesen, Germany.	Broadcasts irregularly.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
T-19.68	-15.25	RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
T-19.92	-15.06	WNC, Haleah, Florida.	phones many stations in daytime.
T-19.95	-15.04	RKI, Moscow, U.S.S.R.	Phones almost any time.
T-19.99	-15.01	RCH, Kerbi, Siberia.	Phones midnite to 9:00 A.M.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P. M.
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	IOA, 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-20.58	-14.58	RTV, Moscow, U.S.S.R.	Phones around 7:00 A.M.
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	ERL5, 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-20.72	-14.48	IBS, Rome, Italy.	Phones Africa mornings.
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-21.73	-13.79	RVU, Vladvostok, U.S.S.R.	4:00 to 10:00 A.M., irreg.
T-22.09	-13.58	GBB, Rugby, England.	Phones Canada and Egypt, daytime.
T-22.37	-13.41	YSJ, Salvador, San Salvador.	phones WNC daytime.
T-22.40	-13.38	IDU, Asmara, Eritrea.	phones Italy 8:00 A.M. to 3:00 P.M. irregularly
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.
T-22.44	-13.37	JVU, Nazaki, Japan.	Around 6:00 to 10:00 A.M.
T-22.48	-13.35	YVQ, Maracay, Venezuela.	Phones Florida, daytime.
T-22.50	-13.34	-12.35	Ships. Heard in daytime.
T-22.58	-13.28	CGA3, Drummondville, Canada.	Phones ships and England daytime.

Meters	Meg.	STATION	TIME
T-22.70	13.22	IRJ, Rome, Italy, phones Japan	irregularly 5:00 to 8:00 A.M.
T-22.74	13.19	RFL, Khabarovsk, U.S.S.R.	Around 4:00 to 10:00 A.M.
T-23.08	13.00	FYC, Paris, France.	Phones Ships, Irregularly.
T-23.29	12.88	RTZ, Irkutsk, U.S.S.R.	10:00 P.M. to 10:00 A.M., irreg.
T-23.31	12.87	VVS, Mingaladon, India.	Phones 5:00-7:00 A.M., irreg.
T-23.33	12.86	IAC, Piza, Italy.	Phones Africa 8:00 A.M. to 1:00 P.M.
i-23.36	12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	12.83	CNR, Rabat, Morocco.	5:00-8:00 A.M., 2:00-4:00 P.M., irreg.
i-23.47	12.78	GBC, Rugby, England.	Phones ships irregularly.
i-24.20	12.40	DAF, Norden, Germany.	Phones ships irregularly, mornings.
i-24.40	12.30	PLM, Bandoeng, Java.	Phones VK2ME near 6:30 A.M.
i-24.41	12.29	GBU, Rugby, England.	Phones America, evenings.
T-24.49	12.25	TYB, Pontoise, France.	Heard late afternoons, irregularly.
T-24.52	12.24	TFJ, Reykjavik, Iceland.	Phones GCB and OXT 5:00 to 10:00 A.M.
i-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.
i-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-24.75	12.12	TPZ, Alger, Algeria.	Phones Paris midnight to noon, broadcasts 3:30 to 4:30 P.M., irregularly.
T-24.86	12.07	XTU, Canton, China.	Phones China 2:00 to 9:30 A.M.
T-24.96	12.02	JVK, Nazaki, Japan.	Phones 4:00 to 8:00 A.M., irreg.
T-25.00	12.00	RNE, Moscow, U.S.S.R.	Almost any time. Try 11 P.M. to 10 A.M.
i-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.
i-25.12	11.95	FTA, St. Assise, France.	Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M.
T-25.38	11.82	RFM, Khabarovsk, U.S.S.R.	Phones around 7:00 to 11:00 A.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.
T-25.73	11.66	PPQ, Rio de Janeiro, Brazil.	Phones often and broadcasts, irreg.
E-25.87	11.59	VRK-4, 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.
T-26.16	11.47	XTS, Swatow, China.	Phones around 2:45 to 9:00 A.M.
T-26.29	11.41	XTB, Shanghai, China.	Phones around 3:00 to 9:30 A.M.
E-26.31	11.40	HBO, Geneva, Switzerland.	Used for special broadcasts.
i-27.35	10.97	OCI, Lima, Peru.	Phones HJY, evenings.
T-27.37	10.96	ZLT2, Wellington, New Zealand.	11:00 P.M. to 7:00 A.M., Australia.
T-27.50	10.91	KTR, Manila, P. I.	Phones ships around 7:00 to 10:00 A.M.
T-27.62	10.86	RQT, Irkutsk, U.S.S.R.	Phones around 3:00 to 5:00 A.M.
i-27.67	10.84	KWV, Dixon, California.	Phones Hawaii, daytime.
E-27.65	10.85	DFL, Nauen, Germany.	Irregular.
i-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.
T-28.09	10.68	PLQ, Bandoeng, Java.	PNT 8:00 to 10:00 A.M.
i-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.
i-28.44	10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentina, irregularly
T-28.49	10.53	JIB, Taiwan, Japan.	Phones Japan 10:00 P.M. to 10:00 A.M.
i-28.51	10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A.M. GBP.
T-28.76	10.43	YBG, Medan, Sumatra.	Phones Java 5:00 to 8:30 A.M.
T-28.79	10.42	TYE3, St. Assise, France.	Phones U.S.A. 3:30 to 7:00 P.M.
T-28.79	10.42	XGW, Shanghai, China.	Phones almost any time.
T-28.80	10.42	PDK, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.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.
T-29.04	10.33	RVV, Vladivostok, U.S.S.R.	Phones around midnight.
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.
T-29.13	10.30	PPM, Rio de Janeiro, Brazil.	Phones irregular.
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, Antofagastan, Chile,	heard 7:00 to 9:30 P.M. irregularly.

Meters	Meg.	STATION	TIME
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.
T-29.58	10.14	OPM, Leopoldville, Belgian Congo.	12-2 A.M., noon-3:00 P.M., irreg.
T-29.76	10.08	RIR, 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.
T-29.83	10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships, daytime.
T-29.83	10.05	SUV, Cairo, Egypt.	Phones England around 1:00 to 5:00 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-30.23	9.92	JDY, Dairen, Manchuguo.	Phones Japan 2-4 A.M., 8-10 P.M., irreg.
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	DGU, Nauen, Germany.	Phones Egypt in daytime.
T-31.58	9.50	XTV, Canton, China.	Phones 2:00 to 11:00 A.M., irreg.
T-31.61	9.49	KEI, Bolinas, Calif.	Used irregularly.
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.	9:00-11:00 A.M., 6:00-11:00 P.M. irreg.
T-32.02	9.37	PLC, Kootwijk, Holland.	Phones 3:00 to 10:00 A.M., irreg.
T-32.05	9.36	XTR, Swatow, China.	Phones around 4:00 to 9:30 A.M.
T-32.15	9.33	CGA, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.32	9.28	XTC, Shanghai, China.	Phones 2:00 to 11:00 A.M., irreg.
T-32.33	9.28	CBG, Rugby, England.	Phones CGA and SUV afternoons.
T-32.68	9.18	ZSR, Klipkeval, So. Africa.	Phones England 1:00-7:00 P.M., irreg.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
T-32.89	9.12	YCF, Balikpapan, Borneo.	5:00-7:00 A.M., phones East Indies.
T-33.04	9.08	XTK, Hankow, China.	Phones around 4:00 to 9:30 A.M.
T-33.19	9.03	TYA2, Paris, France.	Phones Algeria, 6 P. M. to midnight, irreg.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
T-33.41	8.98	VWY, Poona, India.	Phones England 6:00-10:00 A.M., irreg.
T-33.48	8.96	TPZ2, Alger, Algeria, Africa.	Phones Paris daytime.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.93	to 36.58	-8.84 to 8:20	-Ships. Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
T-34.44	8.71	KBB, Manila, P. I.	Phones ships 5:00-9:00 A.M., irreg.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
E-34.68	8.65	WVD, Seattle, Wash.	Testing irregularly.
T-34.68	8.65	VOWQ, North West River, Laborador.	Phones 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.
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-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.
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	YBZ, Manado, Celebes, DEL.	Phones PNI 5:00-7:00 A.M.
T-39.32	7.63	RIM, Tashkent, U.S.S.R.	Heard 5:00 to 11:00 A.M. in winter.
T-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
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-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.

Meters	Meg.	STATION	TIME
T-39.95	7.51	RKI, Moscow, U.S.S.R.	Heard 5:00 to 11:00 A.M. in winter.
T-40.71	7.37	KEO, Kauhuku, Hawaii.	Phones Dixon nights.
T-42.98	6.98	KZGG, Cebu, P. I.	1:00 to 4:45 A.M. and 6:30 to noon.
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	IVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftimes with music.
T-44.64	6.72	XEM2, Guanacebi, Dur, Mexico.	Tests around 9:30 P.M., irreg.
T-44.94	6.67	HBO, Geneva, Switzerland.	Used for special broadcasts.
T-44.96	6.67	YVQ, Maracay, Venezuela.	Phones irreg.
T-45.10	6.65	IAC, Piza, Italy.	Phones ships evenings.
T-45.11	6.65	JFZC, Ship Chichibu Maru.	Phones irregularly.
T-45.80	6.55	XEM1, Mexico.	Tests around 9:30 to midnight.
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	IZG, heard relaying JVT, JOAK	from 5:00 to 7:30 A.M., irregularly
E-47.54	6.31	TG2, Guatemala City.	Relays TGI around 5:00 to 9:00 P.M., Irreg.
50.00 to 60.00 meters or 6.00 to 5.00 Mc.—Aircraft stations.			
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	XTZ, Hankow, China.	Phones Shanghai 4:00 A.M. to noon
T-54.74	5.48	XTL, Hankow, China.	Heard around 5:00 to 7:00 A.M., phoning.
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	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

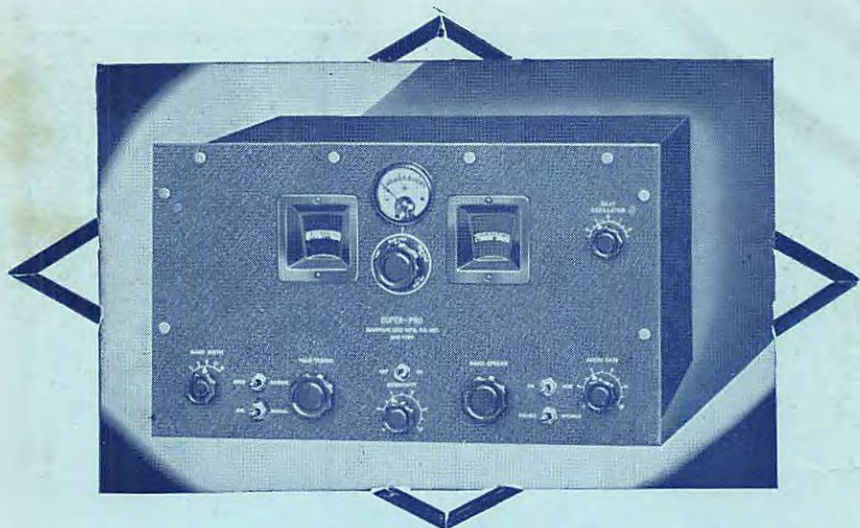
These stations are telephone stations but are sometimes rented to broadcast a special program from a ship. They operate on four bands: 16.85 to 18.27 meters, 22.50 to 24.3 meters, 33.93 to 36.58 meters and 67.87 to 73.17 meters. In megacycles this is 17.80 to 16.42, 13.34 to 12.35, 8.84 to 8.20 and 4.42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

VQJM, Monarch of Bermuda; GFJY, Caledonia; GBTT, Queen Mary; FMNS, Normandie; GMBJ, Empress of Britain; DOAH, Bremen; DOAL, Europa; DHEY, Deutschland; DHIZ, Hamburg; DOAX, Columbus; DHAA, Hansa; DHRL, New York; ICEJ, Rex, IBLI, Conte de Savonia; GBZW, Berengaria; DHDL, Cap Arcona; JFZC, Chichibu Maru.

BOOSTERS

A great big bunch of roses for Raymond Bell of State College, Pa., who presented us with a complete set of I. S. W. C. magazines since the first copy September, 1929. Thanks a lot Raymond. The following people also have helped us by securing new members for the club. They are: L. E. Hansen, Durban, Natal, South Africa. A. L. Fernandez Morrell, Camaguey, Cuba. Harve Amers, Pomona, Calif. Harold C. Baxter, Philadelphia, Pa. Ralph and Arthur Brackbill, Lancaster, Pa.

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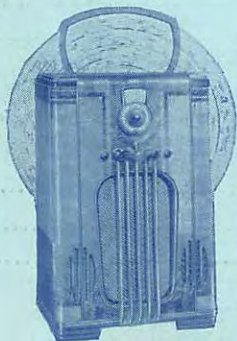
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