

VOL. VIII

OCTOBER, 1936

NO. 1

# INTERNATIONAL

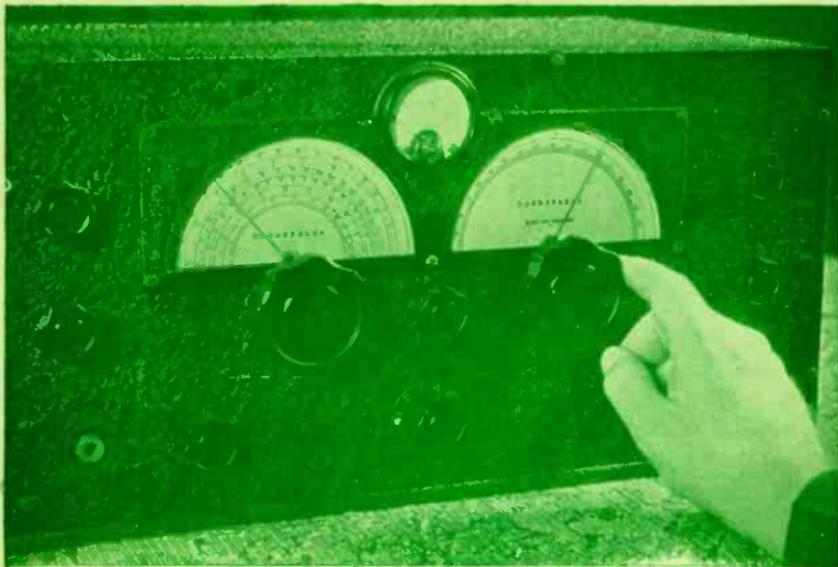


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- Hourly Tuning Guide.

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- And Other Features.

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# RADIO MFG. ENGINEERS, INC.

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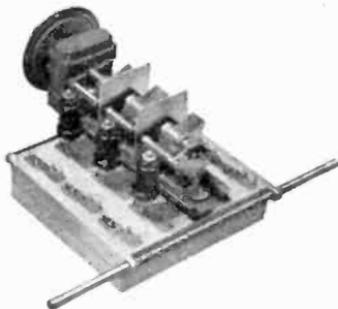
# NC-100

*"Automatic Coil-Shift"*

## RECEIVER



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



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Do you want to listen at night or early morning without disturbing family or neighbors? Do you want to tune in stations not heard on the loudspeaker? Do you want to identify stations easily? Then try the "MISSING LINK."

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AT NO RISK, OR OBLIGATION TO KEEP IT

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List Price \$6.75. Shipping Weight 1 lb. **YOUR NET PRICE . . . . . \$3.95**

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TECHNICAL ADVISOR  
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## The New 4-TUBE AMPLIVOX NOISE BUCKER



Suitable for any SUPERHETERO-DYNE regardless of make or model. Embodies the famous J. J. Lamb circuit. **UNIVERSALLY RECOGNIZED BY RADIO AUTHORITIES** throughout the world as the revolutionary method of suppressing man-made interference from automobiles, motor, power lines, signs, oil burners, etc.

**NOT A FILTER** but a noise control which does not allow noises to rise above the level of the signal. Reduces man-made noises at a ratio as high as 1000 to 1, in most cases eliminating it entirely. Uses 4 metal tubes, drawing filament voltage from AC line. Shipping **\$9.75** Wt. 4 lbs. List Price \$16.50. **YOUR NET PRICE**.....  
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# Only MIDWEST GIVES YOU PUSH BUTTON TUNING

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**ELECTRIK-SAVER**  
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*Doubles  
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in Half!*



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Easier tuning is made possible with the Midwest Automatic Push Button Tuning System, doubling radio enjoyment.



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This Super Deluxe Midwest is so powerful, so amazingly selective, so delicately sensitive that it brings in distant foreign stations with full loud speaker volume on channels adjacent to powerful locals. Scores of marvelous Midwest features, many of them exclusive, make it easy to parade the nations of the world before you. You can switch instantly from American programs... to Canadian, police, amateur, commercial, airplane and ship broadcasts... to the finest and most fascinating foreign programs. With a Midwest, the finest entertainment the world has to offer is at your command. It is preferred by famous orchestra leaders, musicians, music stars and discriminating radio purchasers everywhere. You can order your Midwest "Air-Tested" radio from the new 40-page catalog with as much certainty of satisfaction as if you were to come yourself to our great factory. (It pictures the beautiful 1937 radios in their actual colors!) You pay as little as \$5.00 down! Three iron-clad guarantees protect you: (1) A Foreign Reception Guarantee — (2) Absolute Guarantee of Satisfaction — (3) One-Year Warranty.



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I FIND MYSELF SINGING ALONG WITH MIDWEST'S MARVELOUSLY LIFE-LIKE PROGRAMS—  
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Note:—Readers who may find it more convenient may send 5 shillings to Arthur Bear, 100 Adams Gardens Estate, London, SE16, England.

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

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ARTHUR J. GREEN, Editor.

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## This Beautiful Globe for only \$2.75

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

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

A free globe hand-book included in each sale.

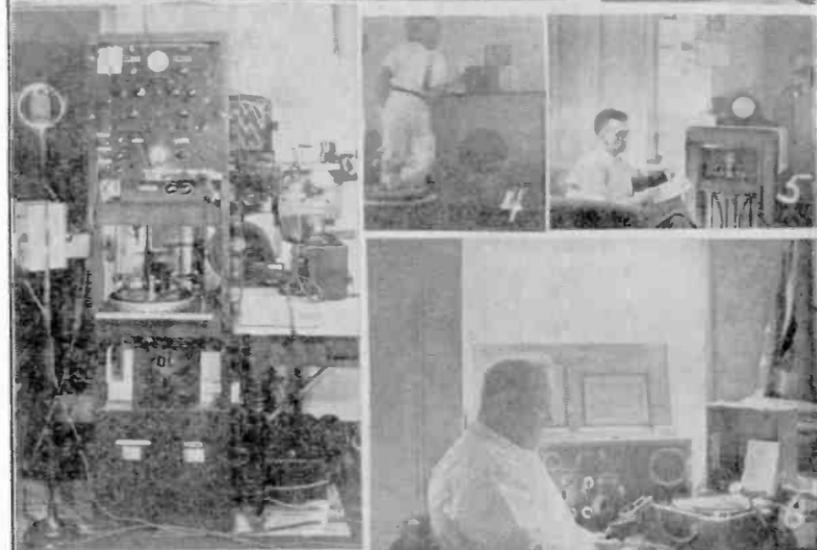
### PLEASE SEND POSTAGE

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

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

Address your letters to—

**INTERNATIONAL SHORT WAVE CLUB, East Liverpool, Ohio**



### WITH OUR READERS

On the opposite page we see some interesting photos of some of our members and their radio dens. Photo No. 1—The radio den of Ronald N. W. Gittens of Bridgetown, Barbados. Mr. Gittens operates an amateur station. No. 2—Fred Corey of San Jose, California. Mr. Corey operates an amateur radio station also. No. 3—The receiving, recording and transmitting outfit used by member Robert Emory Base of Baltimore, Maryland. No. 4—A photo of club-member J. G. Van Gendt, Aruba, who is either directly or indirectly responsible for us receiving over 150 new memberships. He has helped the club wonderfully and we appreciate his work. We regret that we do not have a better photo to use. No. 5—W. F. Herzog of Center Moriches, New York, whose reports have been read by many. No. 6—A photo of Mr. John Hughes of Brooklyn, New York, who has been a member of the club for many years. No. 7—Mr. G. Len De Cou of Bartlesville, Oklahoma. No. 8—The radio den delonging to Mr. De Cou.

### CHAPTER NEWS

The London Chapter meets every Friday, excepting the second in each month at RACS Hall, Wandsworth Road, SW8. This chapter created much interest at the London Radio Show held last month, receiving excellent help from Stratton and Company, Lissen, Ltd., and J. J. Eastick. This chapter is publishing a monthly booklet on short waves which is very interesting.

The Manchester Chapter has scheduled the BBC Program Director for a talk on October 6th and a lecture on tracing radio interference will be heard October 20th. For details write to H. Wild, 1 Elm Street, Middleton, Manchester.

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

The Brighton Chapter will open shortly. For details write to John Bennett, 205 Braeside Avenue, Brighton 6, England. A DX contest for British listeners is planned by the chapters in England for the coming season. For details write to Arthur Bear, 100 Adams Gardens Estate, London, SE16.

The New York Chapter will open the fall season with a meeting at Stuyvesant High School, East Fifteenth Street on Friday, October 2nd at 8:00 P.M. A Midwest Receiver will be demonstrated and Clifford E. Denton will give a non-technical talk. The chapter broadcasts over station WNYC on 810 kc. every Saturday afternoon from 2:30 to 2:45 P.M.

### LATE NEWS

F. S. Anderson, Jr., of Virginia and Joe Child of Pennsylvania each report letters saying that the Bandoeng, Java. stations will not verify any more reports after January first, 1937. Grace M. Beck of Chicago reports a letter saying that HBF, Geneva, is on 16.13 mc. CR6AA, Lobito, Africa, is said to have moved from 7.177 mc. to 9.66 mc. and broadcasts Wednesdays and Saturdays 4:45 to 6:30 P.M. This is not official.

### THE EDITOR WRITES

Greetings, fellow-members, on this, the seventh birthday of the International Short Wave Club. May I take a little space to offer my most sincere thanks to all of you for the kindness and consideration that you have shown me, and for your earnest work which has enabled us to carry on throughout all these years. It is my earnest desire to make you each understand just how much I, and the other officers of the organization appreciate your work.

Short wave radio has made wonderful progress since the organization was first formed. Seven years ago there was just a hand-full of stations on the air. Today anyone with an all-wave receiver can tune in many foreign countries every day. There will be arguments for many years to come over whether the old-time short wave fan or the new short wave fan is better off. As for me, I miss the days when you had to almost hold your breath to log some DX station. And when you got your verification, it was something to shout about.

But, DX is not dead. It is true that out of millions of new short wave listeners, only a very few seem to be interested in it. It is the purpose of such organizations as our own to keep it alive. Through such things as our Heard-All-Continents Club and DX news, we hope to be able to keep the candle of DX burning. It is true that most anyone can log those powerful stations every day, and many people believe that they have been accorded all the thrills of short waves once they log a few of these stations. But they are wrong, badly wrong. The real thrill of short waves comes only through dialing for the hard-to-get stations, in collecting verifications from these same stations, in logging new stations before the other fellow does, in keeping your H-A-C rating ahead of others, in hearing your name called out over some distant station, in making friends in foreign lands. These things are the real thrills of short waves. You know it and I know it, but there are millions now who do not. It is up to you and I to see that they find it out.

The International Short Wave Club has not grown according to the growth of short wave fans. Many magazines that have been born since ours has passed us up in size (but never in news value). But we are not discouraged nor downhearted. Quite the opposite. We really have no desire to publish the largest radio magazine in the world. We would rather have one friend than a thousand readers. During the next year, we hope to be able to discover many new friends but most of all, we want to hold those friends that we already have. And with this thought uppermost in our minds, we are bound to succeed. In conclusion, I take great pleasure in thanking each of you for your help in the past and wish you every success in the years to come.

Arthur J. Green, Editor.

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Every day someone writes and asks us about some particular receiver or part they are interested in. If members and readers will write and tell us when they buy something new and tell us how they like it, we can pass the information along to others who ask about it.



H. S. BRADLEY OF HAMILTON, NEW YORK,

Who holds the highest rating in the Heard-All-Continents Club at the present time. His 35-A certificate and many of his verifications are shown in the above photo. The Denton Trophy that he won in 1934 can also be seen.

## HEARD-ALL-CONTINENTS CLUB

The Heard-All-Continents Club was formed for two purposes; to keep listeners interested in tuning for distant stations and to show just how much can be accomplished when a person really puts forth some effort. The leading Heard-All Continent Club member can claim, at all times, to be the world champion DX-er, regardless of these DX contests that are put on from time to time. For this contest goes on forever.

The rules are simple to understand, but to get up near the top of the list takes real hard work, and there is no mistake about it. Whether it is openly admitted or not, the leading H-A-C members are envied by short wave fans the world over.

We here set down the rules and regulations concerning this organization. (1) Any person entering the H-A-C must have verifications from each of the continents; namely Asia, Africa, Australia, Europe, South America and North America. (2) These verifications must be sent to the Club at East Liverpool, Ohio. No photos, photostatic copies or sworn statements will be accepted. The real verification must be sent. (3) Verifications must bear a postmark unless there is reasonable proof that

it is real and original, such as a verification on a private stationery. (4) All amateur verifications must indicate that the station was heard on voice, by having words like "Phone," "Voice" or "Broadcast" on it. This must be written by the station operator and all must bear a postmark. (5) A station operating on two frequencies will be counted as two stations only if two veries are received. (6) Stations on islands will be counted with the nearest mainland. (New Zealand and Fiji Islands are counted with Australia; Java with Asia, etc.) (7) Postage to prepay the return of the veries must be sent with the verifications. If insufficient postage is sent, the veries will be held till the required amount is sent. Do not send any veries unless you send postage to pay for their return. (8) If a certificate is desired, 15 cents must be sent to cover the cost of handling and mailing. In a case where the member already has a certificate and he is applying for a higher rating, he need only send one cent to cover the cost of a new seal which will be sent. This seal may then be pasted on the certificate already on hand. These certificates measure  $8\frac{1}{2} \times 11$  inches, are printed in two colors and are suitable for framing. (9) One verification from each continent entitles the member to class A, two to class AA, three to class AAA, etc.

And here is the list of active H-A-C members today. The leading member is H. S. Bradley of Hamilton, New York, who has sent in 37 verifications from each of the six continents, or a total of 222.

The second leading member is Sgt. H. J. Dent of Bombay, India, an ordinary listener who is certainly showing the world how to tune. He has a 30A rating. Third place goes to Sgt. Terry Adams also of Bombay, with 21A. Next in line is Charles Miller of Covington, Kentucky, with 17 and following him is Robert Rossi of Philadelphia, with 15. Ed Lips of Pittsburgh, Pa., has 13A. Pierre Portmann of Woodside, New York, has 11A and then comes D. R. D. Wadia of Bombay, India, with 10A. Bombay must be the short wave fan's paradise.

Luther Henderson of Fort Worth, Texas, a fifteen-year-old boy, can boast, if he wishes, of a 11A standing. Arthur Lunn, Maplewood, New Jersey, has 9, while Emmett Riggle of Massillon, Ohio, has 8. Frank Grey, Berwyn, Illinois, and J. R. McAllister, Struthers, Ohio, each have 7A. W. A. Dean of Hartford, Connecticut; Harry V. Miner of Wallaston, Mass. and Ernest Orchard of Weymouth, England, have 6A. Mr. Orchard is the leading European member. Nick Gaug of New York City and Walter Kurtz of Kansas City, Missouri, also have 6A, while T. W. Moss, Exeter, England, John W. May of Wilkinsburg, Pa. and J. Wendall Partner of Tacoma, Washington, each have 5A.

In the 4A class we have Arthur F. G. Bruder, Allston, Mass. and H. F. Fey, Long Island, N. Y. In the 3A we have Bernard Kinzel, New York City; F. A. Beane, Ridgewell, England; F. Edward Fellows, Short Hills, New Jersey; Lowell F. Barrows, Delaware, Ohio; Edwin Hatch, Philadelphia, Pa.; Howard Eck, East Lansing, Michigan; R. Lawton, Whitefield, England; L. D. Brewes, Phoenix, Arizona; G. P. Burdett, Monze, North Rhodesia, Africa, and S. W. Parr, London, England.

Class 2A has David McIntosh, L. G. Chavez, Kenneth Albrecht, Russell Leader, W. E. Doty, W. C. Motz, Shokichi Yoshimura, S. J. A. McNicol, K.

G. Schram, Howard Muir, J. H. A. Hardemann, Warren O'Orsay, Thomas Tynan and George Lowrey.

In the 1A class we have members Alden Fowler, Flavio Mascarenhas, Robert Base, James Pickering, James Alexander, Stanley Elphring, Lewis Greenman, R. B. Law, R. O. Glovigen, Charles Hoffman, D. D. Lowmiller, Peter Losorelle, F. S. Anderson, Jr., W. C. Flaming, P. E. Donnelly, Dr. J. S. Pugh, R. Brewster Williams, Mario Cassio, Mills Van Bergen, Fred Karpen, T. F. Tynan, James Gallagher, C. H. Broughton, Gasper Mulle, Charles Dutrow, William Neal, H. A. Vosburgh, Antonio Martinez, J. E. Oram, John McConomy, Luis Salazar, George Lowry, James Tucker, Tom Erwin, Pedro Rodriguez, A. J. Eagen, August Ulrich, Stanley Baldwin, Eric Butcher, D. M. M. Williamson, C. G. Hurtado, F. S. Le Pavoux, J. Dowding, J. M. R. Studholme, Ned Hooper, R. F. Schulte, C. O. Gray, L. E. Hansen, Perry Friedle, Albert Young, W. F. Eady, Charles Ward, Thaddeus Grabeck, Cyril Gilmour, James S. Dodge, Jr. George Trisdorfer, Doland Walsh, J. R. Rodrigues, Robert Stuart, Bengt Lindbergh, S. H. Perry, G. W. Duke, F. F. Parrand, W. G. Graham and J. H. Georgi.

In this list we find members in U. S. A., India, England, Rhodesia, Scotland, Japan, Java, Canada, Brazil, New Zealand, Norway, Hawaii, Australia, Ireland, Wales, Curacao, Channell Islands, Natal, Trinidad and Sweden, indication of the fact that short wave DXing is not confined to one or two countries.

### MEMBERSHIP CONTEST

Readers the world over will be interested to know that we are starting another membership contest. This time we have some really wonderful prizes. The grand prize is a new 1937 model HalliCrafter Skychief, a seven tube receiver incorporating the very latest radio features. This is an all-wave receiver tuning from 1700 to 540 kc., or from 16 meters to 550 meters. It comes complete, with seven tested tubes, built-in speaker and power supply. Second prize is a National SW-35 receiver, a five-tube AC receiver. This receiver is too well-known to be described here. Such a receiver is used by thousands of short wave fans. There will be many other prizes, and anyone sending in five or more new memberships or renewals will receive some prize.

Anyone, excepting officers of the club and relatives, may take part in this contest. New readers and old alike may take part. The contest is already open. It will close at midnight May 1st to members in North America; at midnight May 5th to members in the West Indies; midnight May 15th to members in South America and Europe, and midnight May 30th, 1937 to members elsewhere. All memberships must be received, not just be mailed, by the closing dates mentioned.

Here is how you win. For each new subscriber we receive, one point will be granted. For each renewal received, one point will be granted. For each two year subscription, two points will be counted, etc. The contestant may send in the subscription or the new subscriber may send in and mention the name of the contestant. The person having the most points at the close of the contest will get the Skychief Receiver.

## SHORT WAVE NEWS

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

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

### AUSTRALIA

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

VPD2, Suva, Fiji Islands, is broadcasting now on 9.54 mc. It was heard testing between 11:00 P.M. and 8:00 A.M. but now seems to be on a regular schedule which is weekdays 5:30 A.M. to 7:00 A.M. Reported by members Walcott, Calif.; Miller, Kentucky; Solito, Pa.; Riggle, Ohio; Worcester, Hawaii; Rossi, Pa.; Grey, Ill.; Bradley, Md.; Vandecar, Mich.; Moots, Mo.; Balbi, Calif.; Jessen, Ore., and Gallagher, Calif. The station is heard as well as VK2ME is heard Sunday mornings.

VK2ME, Sydney on 9.59 mc. will broadcast Sundays 12:30 to 2:30 A.M., 4:30 to 8:30 A.M. and 9:30 to 11:30 A.M. in October.

VK3ME, Melbourne, on 9.51 mc. broadcast weekdays 4:00 to 7:00 A.M. Is on 9.595 mc. (Oxrieder, Pa.) Not on 9.595 but 9.51. (Fowler, Ind.)

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

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

VK8SC, Port Hedland, Western Australia, on 6.96 mc. reported testing with VK3LR near 9:00 A.M. (Walcott, Calif.)

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

VK6ME, Perth, Western Australia, will be on 9.59 mc. or 31.28 meters broadcasting with 500 watts power weekdays. (Craft, Calif.) Scheduled to open up this month.

VK9MI on the ship "Kanimble" on her maiden voyage in July was heard on 11.74 and 5.075 mc. and on 6.00 mc. between 6:00 and 6:30 A.M. Is still heard on 6.00 mc. at that time. (Palmer, Ohio.) Send reports to Miss Foley, c/o Messrs. McIlwraith & McEachern, Melbourne. ZLT, Wellington, New Zealand, is heard phoning Australia between 11:00 P.M. and 6:00 A.M. on 11.05 mc. Australia is heard on 10.52 mc. and 9.76 mc. answering. VIY Rockbank, on 12.02 mc. was testing with Canada between 3:00 and 3:10 A.M. one Friday (Palmer, Ohio.)

## AFRICA

CR6AA, Lobito, Angola, on 7.177 mc. broadcasts Wednesdays and Saturday 2:45 to 4:45 P.M. (Burdett, Africa). Is very weak station.

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

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

ZEC, Salisbury, Rhodesia, on 5.80 mc. and ZEB, Bulawayo, on 6.147 mc. broadcast the same program Sundays 3:30 to 5:00 A.M., Mondays 11:00 A.M. to noon, Tuesdays 1:15 to 3:15 P.M., Thursdays 10:00 A.M. to 10:45 A.M. and 11:00 A.M. to noon, Fridays 1:15 to 3:15 P.M. Send reports to the postmaster at Salisbury. (Burdett, Africa; Graham, Africa, and Cram, England.) Seem to be very hard stations to get.

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

Canary Islands. The rebels have set up a station under the call EHZ at Teneriffe, Canary Islands, and they are broadcasting on 28.93 meters or 10:37 mc. They have been heard at 2:00 P.M. 3:00 to 6:00 P.M., 6:15 to 7:30 P.M. and 9:30 to 10:30 P.M. according to different reports received. These reports all varied with few exceptions, so the station must be on an irregular schedule. One member (Fey, N. Y.) reports it between 3:00 and 5:00 A.M. also. Some called it EHZ, some EDK and some EAJ43. They do relay station EAJ43, a long wave station. Some said it was on 27.96 meters or 10.73 mc., but we believe this was a mistake made when they transposed 10.37 to 10.73 mc. (Studholme, Eng.; Orchard, Eng.; Sloper, Eng.; Miller, N. Y.; Karpen, Pa.; Oxreider, Pa.; De Souza, Venezuela; Rossi, Pa.)

EASAB, Canary Islands, is really on 42.78 meters or 7.01 mc. We have several schedules for this station. One is Mondays, Wednesdays and Fridays 3:15 to 4:15 P.M. and Saturdays 4:15 to 5:15 P.M. (Miller, Ky.) Another is Saturdays 3:15 to 4:15 P.M. (Miller, N.Y. and Orchard, Eng.) Heard 6:15 to 7:15 P.M. (Henderson, New Zealand.) Amateurs EA8AT, EA8LW, EA8AL, EA8AH, EA8AJ and EA8AO are all heard on about 14.10 mc. afternoons and evenings. VQ7LO Nairobi, Kenya, Africa on 6.08 mc., broadcast now Monday, Wednesday and Friday from 5:45 to 6:15 A.M. and 11:30 A.M. to 2:30 P.M.; Tuesday and Thursday from 5:45 to 6:15 A.M.; 8:30 to 9:30 A.M. and 11:30 A.M. to 2:30 P.M.. Saturday from 11:00 A.M. to 3:00 P.M. and Sunday 11:00 A.M. to 2:P.M.

African phones. SUX, Cairo, Egypt, on 7.98 mc. phones England around 4:00 to 6:00 P.M. SUV, same city, on 10:05 mc. phones around 1:00 to 5:00 P.M. SUZ, same city, on 13.83 mc. phones around 11:00 A.M. to 1:00 P.M. VQG, Nairibo, Kenya, on 19.63 mc. phones London between 7:00 and 8:30 A.M. daily. Address is Box 777. OPL, Leopoldville, Belgian Congo,

on 20.04 mc. phones Belgium 10:00 A.M. to 3:00 P.M. OPM, same city, on 10.14 mc. phones between midnight and 2:00 A.M. and 2:00 and 3:00 P.M. ZSS, Capetown, on 18.89 mc. phones England between 6:30 A.M. and 1:00 P.M. CNR, Rabat, Morocco, on 12.82 mc. phones Paris between 3:00 and 4:00 P.M. irregularly. FZE9, Djibout, French Somaliland, heard on 9.67 mc. at 12:30 A.M. phoning TYA2, Paris. This was on Saturday. (Carville, France). FZE9 was reported on 8.57 mc. between 4:48 and 6:00 P.M. in May, and on 17.20 mc. between 9:00 and 9:45 A.M. in May. A station at Algiers, Algeria, on 8.96 mc. phones Paris around 12:30 A.M. (Miller, Ky. and Fey, N. Y.; Moots, Mo.) OPL is heard at 6:00 A.M. now. (Studholm, Eng.) IUC, Addis Ababa on 11.955 mc., once called ETB, heard phoning and sending music to Rome between midnight and 2:00 A.M. and 5:00 and 6:00 P.M. (Karpen, Pa.) Send reports to Ministero Centro Marina, Carlo Matteini, Direzione Centro R. T. Antonomo R. Marina, Rome, Italy. (Solito, Pa.)

### ASIA

HS8PJ, Bangkok, Siam, is broadcasting every Thursday on 9.35 mc. from 8:00 to 10:00 A.M. They were also broadcasting on Mondays at the same time on 10.955 mc., but letters received from the station say they are on 19.32 meters or 15.23 mc. now. (Eggenweiler, and Crafts, California.) However, member Walcott of California said he heard the announcer say they were on 15.77 meters or 19.02 mc. Mondays now and Member Studholme of England reports them there two Mondays between 8:30 and 9:00 A.M. The signals must reach Europe best at that time. We suggest trying on both 19.02 and 15.53 mc., Mondays 8:00 to 10:00 A.M. The station on 9.35 mc. is reported by many. HSP, a phone on 17.74 mc. phones Japan every Sunday at 11:00 P.M. and every Friday at 4:00 A.M. (Walcott, Calif.) Monday at 6:00 A.M. calls Berlin. (Karpen, Pa.) The owners of HS8PJ say they have an amateur station HS1PJ with 300 watts power on 21.12 meters or 14.20 mc. and they are on the air every Saturday 10:00 A.M. to 12:30 P.M. (1500 to 1730 G.M.T.) Amateur station VS2AR at Kuala Lumpur, Federated Malay States, on 14.025 mc. is heard Saturdays 9:30 to 11:00 A.M. (Walcott, Calif.) At 6:30 A.M. (Rossi, Pa.)

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

Java. A letter from J. H. A. Hardeman of the NIROM tells us that the regular broadcasts from Java come over stations YDA, YDB, PLP, PLM, only and that stations PMK, PLQ and YDC are just experimental. YDA is on 3.04 mc. 5:30 to 10:30 A.M. daily and Mondays, Wednesdays and Fridays until 11:00 A.M. YDB is on 9.65 mc. at these same times. PMN on 10.26 mc. and PLP on 11.00 mc. are also on the air at these same hours, all relaying the same programs. Lately YDC on 19.80 meters or 15.15 mc. has been heard, too. Two or more of these stations have been

reported by a hundred members. Mr. Hardemann also says that PMH on 44.60 meters, 6.72 mc., is relaying the eastern NIROM network. It is reported between 5:30 and 10:30 A.M. by members Walcott, Gallagher, Miller, Solito and McDonough. A new broadcasting station on 4.87 mc. heard from 4:30 to 10:30 A.M., the address of which is Batavische Radio Vereenging, Koningsplein Zuid 12, Batavia-C. Java. (Kolibonso, Java.) Heard on schedule. (Walcott, Calif. and Gallagher, California.)

Java Phones. PMA on 19.35 mc. phones Holland between 5:30 and 11:00 A.M. PLE on 18.83 mc. phones Holland between 5:30 and 11:00 A.M. and phones the U. S. A. and Japan between 6:50 and 8:00 P.M. PLV on 9.42 mc. is heard between 9:30 and 11:00 A.M. and 6:50 and 11:00 P.M. YBG, Medan, Sumatra, on 10.42 mc. was broadcasting one Thursday 7:00 to 7:40 A.M. (Starr, Canada.) Heard phoning 5:00 to 6:30 A.M. (Walcott, Calif.) YBZ at Menado, Celebes Island, is a new phone on 7.68 mc. Walcott, Calif.) Amateurs PK4SN, PK4CR and PK4AU on 14.30 mc. are heard between 6:00 and 11:00 A.M. (McMenamy, Calif.) A PMC on 18.135 mc., reported phoning Holland 5:50 to 6:15 A.M. (Solito, Pa.) A station PMK on 11.50 mc. broadcasting music at 6:00 A.M. one Saturday. (Fey, N.Y.) YBG on 10.43 and not 10.40 mc. phoning Bandoeng 4:45 to 6:00 A.M. PNI heard 4:30 to 5:15 A.M. and 7:30 to 8:00 A.M. (Moots, Mo.) PMA broadcasting Sundays 7:00 to 8:30 A.M. (Fey, N. Y.) PMA, PLE and YDC all heard 7:30 to 8:30 A.M. one Wednesday (Legge, N.Y.)

KZRM, Manila, P. I., has been heard through short wave station KAZ, Manila, on 9.97 mc. between 3:00 and 6:00 A.M. (Stevens, England, and Karpen, Pa.) Every day phone station KAX, Manila, on 19.98 mc. calls a station ZGB at Kuala Lumpur, French Malay States, at 7:55 P.M. ZGB is a 250 watt station on 39.98 meters, 7.50 mc., and 33.50 meters, 8.955 mc. (Hodge, Calif.) ZGE, Kuala Lumpur, on 6.13 mc reported again till 5:45 A.M. one Tuesday. (Sparks, Calif.)

ZBW, Hong Kong, on 8.75 mc. say they broadcast from 4:30 to 6:15 A.M. and 8:00 A.M. to 3:00 P.M., G.M.T. which equals 11:30 P.M. to 1:15 A.M. and 4:00 to 10:00 P.M., E.S.T. It is heard best 3:00 to 7:00 A.M.

Two new Chinese stations are broadcasting in the early mornings. One is heard on approximately 9.53 mc., near VPD2, between 6:00 and 7:00 A.M. while the other one is heard on about 15.18 mc., near DJB between 5:30 and 8:00 A.M.

CQN, Macao, Portuguese China, broadcasts Mondays and Fridays from 7:00 to 8:30 A.M. on 9.57 mc. they say. Now heard on 9.60 mc. between 5:00 A.M. and 7:45 A.M. (Gallagher, California.)

XGOX. A letter from P. F. Woo, director of stations XGOA and XGOX, says they moved to 6.82 mc. and broadcast daily 6:40 to 8:40 A.M., E.S.T.; Sundays from 4:40 to 6:05 A.M. A new 35 kw. station will be opened soon he says. (Craft, Calif.) Several letters from the station said they were on 8.62 mc., but they meant 6.82. The station is reported actually on 6.85 mc. (Sparks, Walcott, Balbi, Gallagher of Calif., Moot, Mo., and McDonough, New Zealand.) The station is at Nanking, China, and Mr. Moots says it is on 6.69 mc.

Chinese phones. XOJ on 15.795 mc. phones England and Japan most any time. Calis GBX every day at 7:15 A.M. (Rossi, Pa.) XGN phones

London daily at 7:00 A.M. on 17.64 mc. XGW on 10.42 mc. phones Japan between 10:00 P.M. and 3:00 A.M. XGR on 11.53 mc. phoned Manila one Saturday at 6:00 P.M. and XGC on 33.01 meters or 9.09 mc. phoned London between 2:00 and 3:00 A.M. (Karpen, Pa.) A phone at Shanghai on 9.28 mc. and a phone on 9.09 mc. was heard between 4:30 and 6:30 A.M. once. (Moots, Mo.) Shanghai on 11.41 mc. and Hankow on 11.70 mc. were phoning each other 3:00 to 4:15 A.M. Shanghai on 9.285 mc. and Hankow on 9.08 mc. was heard between 6:00 and 7:00 A.M. Shanghai on 3.449 mc. and Hankow on 3.27 mc. was heard from 8:00 to 9:00 A.M. And once Shanghai was heard on 5.73 mc. between 8:00 and 10:00 A.M. All this comes from Mr. Walcott of California.

Afghanistan. A letter from the Ministre de PTT, Kaboul, Afghanistan, says they have two small 500 watt stations. One is at Kaboul, YAA on 71 meters, one at Herat, YAH, on 58 meters. The phone each other daily at 1330 G.M.T. or 8:30 A.M., E.S.T. And telegraph Russia at other times. They want reports, having received only one other, that from the U. S. A. (Oram, England). A Scala, of Bronx, New York, received a letter last March saying they had AFK on 71.50 meters, 4.193 mc. and 30.90 meters, 6.607 mc. and AFH on 71.50 meters or 4.193 mc. and 50.80 meters, 5.135 mc. but 5.135 is not 50.80 meters. We suggest trying on 4.19 mc. and 5.13 mc. at 8:30 A.M., E.S.T. or 1330 G.M.T.

Saigon, Indo-China, on 11.73 mc., is broadcasting daily between 5:30 and 9:30 A.M. now, using the slogan "Philco Radio." They use French and English and ask for reports. They announce the address as Box 295, Saigon. (Walcott, Craft and Leader, California.)

VUC, Calcutta, India, on 6.11 mc. broadcasts daily 3:06 to 4:06 A.M. and Saturdays 12:40 P.M. to 4:00 A.M. (Palmer, Ohio) Station replies say 9:30 A.M. to Noon and Saturdays 11:45 P.M. to 3:00 A.M. This station has not been reported to us for two years. It is on the air, but weak. VUB, Bombay, on 9.57 mc., has sent out hundreds of cards saying they broadcast Wednesdays, Thursdays and Saturdays from 11:00 A.M. to 12:30 P.M., but Mr. Palmer says it is on the air Saturdays 12:30 P.M. to 1:00 P.M., Sundays 2:00 to 3:00 A.M. and Tuesdays Noon to 1:40 P.M. It is heard Sundays at 11:30 A.M. (Lindbergh, Sweden). So Palmer must be wrong. VWY, a phone on 33.41 meters, 8.98 mc. calls London every day at 1:00 P.M. and stays on until 2:00 P.M. (Orchard, England). VWY2 on 17.54 mc. phones London 6:00 to 8:30 A.M. (Karpen, Pa.)

Japanese broadcasts come over station JVH on 14.60 mc. every night from midnight to 1:00 A.M., every Tuesday and Friday from 2:00 to 3:00 P.M. and Monday and Thursday from 4:00 to 5:00 P.M. This station may also be heard relaying JOAK programs between 1:00 A.M. and 7:40 A.M. irregularly. It sometimes phones between 9:30 and 10:00 P.M. and broadcasts around 9:00 P.M. (Gallagher). Programs are also broadcast over JVM on 10.74 mc. on Tuesdays and Fridays 2:00 to 3:00 P.M. and over JVN on Mondays and Thursdays 4:00 to 5:00 P.M. JVA on 18.91 mc. phones around 4:00 A.M. JVD on 15.86 mc. phones around 1:00 A.M.; Noon and 8:00 A.M. according to reports. JVE on 15.66 mc. heard at 1:00 A.M. JVF on 15.62 mc. heard at 1:30 and 6:00 A.M. JVM on 10.74 mc. heard at 2:00 A.M. JVN on 10.66 mc. heard broadcasting baseball

games around 1:40 to 2:30 A.M. phoning from then on till 8:00 A.M. JVO on 10.37 mc. heard 5:00 to 6:00 A.M. JVT on 6.75 mc. heard 2:00 to 4:00 A.M. The ship "Chichibu Maru" heard on 17.70 mc. most every day 8:00 P.M. to midnight. (Sparks, Calif.)

TDE, Shinkio, Manchuko, on 10.065 mc. phones Japan daily 1:00 to 9:00 A.M. (Walcott, Calif.) Heard 5:00 to 9:00 A.M. (Sparks, Calif.) and 6:15 to 7:30 A.M. (Solito, Pa.) and 5:00 to 6:00 A.M. (Fey, N. Y.)

JIB, Taiwan, Japan, on 10.53 mc. phones JVL, Japan, between 1:00 A.M. and 9:00 A.M. (Walcott, Calif.) Sent music 4:30 to 5:30 A.M. once, called JVL 5:00 to 6:00 A.M. (Fey, N. Y.) Heard 5:00 to 6:00 A.M. (Solito, Pa.) Heard 5:00 to 9:00 A.M. (Sparks, Calif.)

Siberia. Station RV15 on 4.25 mc. broadcasts 1:00 to 9:00 A.M. daily. Heard in the U. S. A. in winter time. RWJ, Alma-Ata, on 12.15 mc. phones Moscow around 6:00 A.M. ROU, Omsk, on 14.79 mc. phones around 6:00 A.M. RFL, Khabarovsk, on 13.19 mc. phones around 6:00 A.M. RVU, Vladivostok on 13.79 mc. phones around 6:00 A.M. RRR, Khabarovsk, on 15.95 mc. heard between 4:00 and 5:00 A.M. (Kriebel, Pa.) RRR heard between 5:00 and 8:00 A.M. (Karpen, Pa.)

### SOUTH AMERICANS

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

CX16 and CX24, "Radio Caldas" and "La Voz del Aire," Montevideo, Uruguay, is heard on 19.63 meters, 15.25 mc. No time stated in report (De Souza, Venezuela). Looks like there are some Montevidean stations on the air.

CP5, La Paz, Bolivia, on 6.08 mc. has not been used for some time and CP7 on 15.28 mc. is used irregularly according to a letter received. (Fey, N.Y.) CP5 is heard between 7:00 and 10:00 P.M. and CP6 on 9.12 mc. was heard between 3:00 and 4:00 A.M. in August. (Erwin, Ill.) These reports do not agree.

CED, Antofagasta, Chile, on 10.23 mc. is heard testing in the evenings between 7:15 and 8:30 P.M. (Walcott, Calif.) CED called amateurs and sent music one Saturday from 11:00 P.M. till 12:30 A.M. Sunday. (Karpen, Pa.) Call is CEE, not CED and heard at 6:13 P.M. (Studholme, England.) CEC, Santiago, on 10.67 mc. broadcasts daily 7:00 to 7:15 P.M. CB960, Santiago, on 9.60 mc. broadcasts between 8:00 and 11:00 P.M. now. A reply said they also had a station CB615 on 6.15 mc. broadcasting 6:00 to 9:00 P.M. daily. (Fey, N.Y.) CB960 and CB615 address is apartado 1342.

HJ1ABB, Barranquilla, is on 9.55 mc. most every day, but was also heard on 6.13 mc. several times. (Oxrieder, Pa.) Heard between noon and 11:00 P.M. now.

HJ1ABE, Cartagena, on 9.50 mc. is broadcasting every evening between 7:30 and 9:30 P.M. and on Mondays from 9:30 to 10:30 P.M. broadcast a

special program dedicated to the I.S.W.C. The address is box 31. Heard in Australia now (Shaw). Special programs heard. (Heglund, Gallagher, and Craft.)

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

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

HJ1ABP, Cartagena, on 9.60 mc. broadcasts from 11:00 A.M. to 1:00 P.M. and 5:00 to 11:00 P.M. weekdays and 11:00 A.M. to 1:00 P.M. and 3:00 to 6:00 P.M. Sundays. Their address is Box 37. On 9.61 mc. (Oxrieder, Pa.) Heard until 7:00 P.M. Sundays. (Fey, N.Y.)

HJ2ABC, Cucuta, is heard on 9.59 mc. between 8:00 P.M. and Midnight now. (Oxrieder, Pa.) On 9.60 (Kash, Tenn.); On 9.58 (Gallagher, Calif.); On 9.57 (Fowler, Ind.); At 10:00 P.M. (Salazar, N.Y.)

HJ3ABX, Bogota, on 6.122 mc. is heard between 7:00 and 11:30 P.M. The address is Calle 14, No. 738.

HJ4ABD, Medellin, "La Voz de Citia," has moved again, this time to 5.93 mc. (Oxrieder, Pa.) On 5.94 (Gallagher, Calif.); On 5.75. (Eder, Minn.)

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

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

HJ4ABU, Pereira, on 6.145 mc., broadcasts 9:00 to 11:00 A.M. and 7:00 to 8:00 P.M. daily.

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

La Voz de Armenia, Caldas, Colombia, is heard on 31.45 meters, or 9.533 mc., evenings. (Oxrieder, Pa.) Heard 8:30 to 9:30 P.M. (Salazar, N.Y.) Heard 9.54 mc (Quayle, Canal Zone) HJ2ABD, Bucaramanga, on 5.987 mc. is heard again in the evenings. (Oxrieder, Pa.) HJU, Buenaventura on 9.51 mc. broadcasts noon to 2:00 P.M. and 8:00 to 11:00 P.M. Mondays, Wednesdays and Fridays according to a reply. (Eady, England.) This station is not on the air now. (Oxrieder, Pa.)

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

VP3MR, Georgetown, British Guiana, has moved to about 50.00 meters, 6.00 mc. They broadcast weekdays from 4:45 to 8:45 P.M. and Sundays from 7:45 to 10:15 A.M. They may not stay on 6.00 mc. long. (Rossi, and Oxrieder, Pa.) VP3BG, same city, on 41.55 meters or 7.22 mc., was heard from 5:56 to 6:40 P.M. (Eady, England.)

OAX4G, Lima, Peru, say they are on 6.23 mc. and broadcast daily from 7:00 to 10:00 P.M. OAX4D, Lima, on 5.78 mc. broadcasts Wednes-

days and Saturdays from 8:00 to 11:30 P.M. Nothing has been heard of OAX4J which was supposed to open in August on 6.00 mc. OCJ, a phone on 10.97 mc. sent a musical program at 1:30 A.M. Sept. 6. (Gallagher, Cal.)

Prado, Rio Bamba, Ecuador, on 6.62 mc. broadcasts Thursdays 9:00 P.M. to 11:30 P.M. HC2RL, Guayaquil, an 6.67 mc., broadcasts Sundays 5:45 to 7:45 P.M. and Tuesdays 9:15 to 11:15 P.M. HC2JSB, Guayaquil, moved to 9.51 mc. and broadcasts every day from 11:00 A.M. to 2:00 P.M. and 4:00 to 11:00 P.M. (Kriebel, Pa.)

HC2CW, Guayaquil, Ecuador. "Ondos del Pacifico," moved from 8.41 mc. to 8:52 mc. and is heard around 10:00 P.M. (Rossi, Pa.) Heard on 8.25 mc., not 8.52, signing off at 1:00 A.M. Address Box 1156 (Kash, Tenn.) Heard on 8.404 mc. Sunday 3:30 to 5:00 P.M. (Fey, N. Y.) Another Guayaquil station heard on 8.20 mc. evenings. (Oxrieder, Pa.)

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

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

YV11RB, Ciudad, Bolivar, "Ecos del Orinoco," says they have 30 watts power, the address is apartado 34 and they are on 6.545 mc. It is heard between 6:00 and 10:30 P.M. We believe everyone knows the waves and schedules of such stations as YV2RC, YV3RC, YV6RV and YV4RC.

YV7RMO, Maracaibo, on 6.07 mc., was heard between 8:00 P.M. and midnight for a time. R. E. DeSouza, Venezuela, tells us it is now off the air, but it may return again. Captain Oxrieder asks if YV4RC is still on the air. It was on 6.41 mc. A station announcing as YV1RG was heard on 6.34 mc. once at 9:00 P.M. (Legge, N.Y.)

YV1RB or V and YV1RH, "Emisora Philco" at Maracaibo, on 6.358 mc. (announces 6.36) is heard in the evenings. A station YV1RV. Valera, is on almost the same wavelength. (Oxrieder, Pa.)

LRU, Buenos Aires, Argentina, on 15.29 mc. broadcasts from 7:00 A.M. to 3:45 P.M. and LRX on 9.66 mc. broadcasts from 4:00 to 9:00 P.M. according to one schedule they send out. Max Horlick of Ohio has one now that says LRU broadcasts from 8:00 A.M. to minight. He heard them between 12:30 and 2:00 A.M. in August and has a verification to prove it. Dr. Kash of Tennessee says LRU is heard until 7:30 P.M. So, they must be using an irregular schedule. He also reports LRX at 6:30 P.M. LSL on 15.81 mc. was sending music several times around 7:00 to 7:30 P.M. last month. (Walcott, Calif.) LSX on 10.35 mc. was also heard testing and sending music between 6:00 and 10:00 P.M. (Many.)

### CENTRAL AMERICANS

A letter signed by Victor Federico Hemmer S. says that they operate two stations under the calls XEKL and XEKM, one is on long waves and

the other on 49.55 meters, or 6.05 mc. The address is apartado 181, Leon, Gto, Mexico. The power is 100 watts and no schedule was given. This station has never been reported to us, so it must not be on the air yet.

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

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)

XEXA, Mexico City, 48.55 meters, 6.18 mc., sent a booklet to Fred Atherton of Vermont, showing they relay station XEXM weekdays only (no Sundays), 6:00 A.M. to 9:00 A.M., 1:00 P.M. to 2:45 P.M. and 5:00 to 9:00 P.M. A station XEXO on 15.33 mc. is heard relaying XEB, Mexico City almost daily 9:00 to 11:00 P.M. (Karpén, Pa.)

XEWI, Mexico City, on 11.90 mc. broadcasts Mondays 3:00 to 4:00 P.M.; Tuesdays and Thursdays 7:30 to 8:45 P.M. and 10:30 P.M. to midnight; Wednesdays 3:00 to 4:00 P.M.; Fridays 3:00 to 4:00 P.M. and 9:00 P.M. to midnight; Saturdays 9:00 to 11:00 P.M. and Sundays 1:00 to 2:15 P.M. They sent a special program to Europe between 1:00 and 4:30 A.M. Sunday mornings last month. This may be a regular feature so far as we know. (Jessen, Ore.; Fey, N.Y.; Gallagher, Calif.; Oxrieder, Pa.; and Mack, N.Y.)

HRD, La Ceiba, Honduras, on 6.235 mc., "La Voz de Atlantida," broadcasts daily 8:00 to 11:00 P.M. and Sundays 4:00 to 6:00 P.M. and is heard good in America. Station HRN on 5.87 mc. is getting a bad name for promising verifications and not sending them.

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

TGWA, Guatemala City, on 9.45 mc. is broadcasting nearly every night now between 9:00 P.M. and 1:00 A.M. And every Saturday night at 10:00 P.M. they start a program that ends at 6:00 A.M. Sunday mornings. They relay TGW. TGWA was not heard the last Sunday morning in September.

TG2X, Guatemala City, on 5.94 mc. has 250 watts power and broadcasts Mondays, Tuesdays and Saturdays from 4:00 to 6:00 P.M.; 10:00 to midnight, and Sundays 1:00 to 2:00 P.M. according to one schedule they give. Mr. Sloper of England says 500 watts power and weekdays 4:00 to 6:00

P.M., 10:00 to 11:30 P.M. and Sundays 4:00 to 6:00 P.M. only. Heard Mondays, Thursdays and Saturdays only until 11:30 P.M. (Sparks, Calif.)

TGS. Presidents Palace, Guatemala City, on 5.713 mc., is heard once in a long time. They have 100 watts and broadcast Wednesdays, Fridays and Sundays 6:00 to 8:00 P.M. they say. A station TGVV, Guatemala, on 10.45 mc., was heard one Tuesday last month at 9:10 P.M. (Carmen, Mich.)

Panama. HP5B, Panama City, on 49.75 meters, 6.03 mc., broadcasts Noon to 1:00 P.M. and 7:00 to 10:30 P.M. HP5F, Colon; on 49.34 meters; 6.08 mc., broadcasts weekdays 11:45 A.M. to 1:15 P.M. and 7:45 P.M. to 10:00 P.M. and Sundays 10:45 to 11:30 A.M. and 4:00 to 6:00 P.M. The address is Box 423 (Flagg and Siddle). HP5J, Panama City, on 31.28 meters, 9.59 mc., broadcasts 7:30 to 10:00 P.M. weekdays and 2:00 to 3:00 P.M. Sundays, they say, while it is reported at 7:00 P.M. and 11:00 P.M. by W. D. Flagg, Mass. HP5K, Colon, on 49.96 meters, 6.005 mc., broadcasts 7:30 to 9:00 A.M., Noon to 1:00 P.M. and 6:00 to 9:00 P.M. relaying HP5O, "La Voz del Victor." The address is Box 33. The address of HP5J is Apartado 867, Panama City. (Siddle, Ala.)

T14NRH, Heredia, Costa Rica, now say they broadcast on 9.67 mc. from 8:00 to 9:00 P.M. and 11:30 P.M. to midnight. In spite of this, the station is heard by many until as late as 1:00 A.M. and has been heard and reported between 7:30 P.M. and 1:00 A.M. (Siddle, Ala.; Erwin, Ill.; Kash, Tenn.; Eggenweiler, Calif.; Fey, N. Y.; Hofmaster, Ohio; Fowler, Ind.; Miller, Ky., and Solito, Pa.)

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

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

T14WX, "Emisora Costa Rica" and "La voz de la Patria, Apartado 48, Heredia, Costa Rica, is heard around 9:00 P.M. now. Heard daily 8:30 to 11:00 A.M. and 3:00 to 10:00 P.M. (De Souza, Venezuela). T10W, Port Limon, Costa Rica, called T160W some times "Ondos del Caribe," has 400 watts power on 6.85 mc. and broadcast 10:00 P.M. to 11:30 P.M. weekdays and 2:00 to 3:00 P.M. Sundays. The address is Box 45, Port Limon. Heard around midnight Saturdays. (De Souza, Venezuela.)

TIPG, San Jose, after a trial on 9.55 mc. is back on 6.41 mc. broadcasting noon to 2:00 P.M. and 6:00 to 11:30 P.M.

## WEST INDIES

HIN, Trujillo, "La Voz del Partido Dominicana," or "The voice of the Dominican Party," sent out two different schedules. One says 26.57 meters,

11.28 mc., and 48.05 meters, 6.243 mc., from noon to 2:00 P.M. and 7:30 to 9:30 P.M. Their power is 750 watts. (Dement, Pa.; Blecha, N.Y.; Legge, N.Y.) Another says noon to 2:00 P.M. and 7:30 to 9:30 P.M. on 6.243 and 5:00 to 6:00 P.M. on 11.28 (Curiel, Curacao). They announced they were on from 11:40 A.M. to 4:10 P.M. and 7:10 to 9:10 P.M. (Verbrughe, Mich.) This station does not operate on both waves at once. It is reported from 3:00 to 6:00 P.M. on 11.28 and then on 6.243 from 6:00 P.M. (Orchard, England). Others reporting it are Palmer, De Souza, Eder, Oxrieder, Fey and Spuhler.)

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

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

HI8Q, Trujillo, on 48.08 meters, 6.24 mc., say they broadcast 11:00 A.M. to 2:00 P.M. and 5:00 to 8:00 P.M. local time, or 10:40 A.M. to 1:40 P.M. and 4:40 P.M. to 7:40 P.M., E.S.T. Their address is Avenida Espana No. 12, Ciudad, Trujillo. Heard on 6.40 mc. (De Souza, Venezuela) and 7:45 to 8:00 P.M. (Palmer, Ohio.)

HI9, Trujillo, Dominican Republic, say they are on 48.92 meters, 6.13 mc. now. The schedule is Sundays 7:40 to 10:40 A.M., Tuesdays and Fridays 12:10 to 1:10 P.M., 4:40 to 5:40 P.M. and 8:10 to 10:10 P.M. and other days 12:10 to 1:10 P.M. and 4:40 to 5:40 P.M. (Oxrieder, Pa. and Herzog, N. Y.).

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. 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.

HI1S, Santiago de los Caballeros, on 6.42 mc. 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.

HI3C, La Romano, D. R., is now on 6.723 mc. (Oxrieder, Pa.) On 6.75 (Legge, N. Y.) The schedule is 12:30 to 2:00 P.M. and 5:00 to 6:00 P.M. on 6.73 mc. (De Souza, Venezuela). HI5N, Santiago, is still heard on 6.15 mc. irregularly. Their address is Box 195. HI5E, Trujillo, on 31.58 meters or 9.50 mc., heard from 7:50 to 8:40 P.M. one Saturday (Atherton, Vt.) Heard on 9.50, no time given. (De Souza, Ven.) HI6F, Trujillo, on about 7.00 mc. heard calling EA9H, Tetuhan, Morocco, 8:40 P.M. (Soneira, N.Y.)

COCX, Havana, Cuba, Box 32, called "Radio Philco," relays station CMX. They have been roaming around on the dial and seem to have three different signals now, just like three different stations. The main one is on about 11.50 mc., the second on 11.40 mc. and the other on 11.60 mc. We do not guarantee any wavelength for this station, as it is roaming around although they announce 11.65 mc. Verifications say they are on the air from 8:00 A.M. to 1:00 A.M. next day excepting Sundays. Reported by members Wooten, Walcott, Orchard, Bradley, Lane, Leader, Horlick, Nichols, Fowler, Balbi, Jessen, Verbrughe, Vandecar, Craft, Sidel, Eder,

Hofmaster, Atherton, Teague, Miller, Kash, Soneira, Rossi, Davenport, and Oxrieder.

COCQ, Havana, Cuba, on 30.77 meters, 9.75 mc., relays CMQ between 6:50 A.M. one day and 1:00 A.M. next day. They call themselves "Radio Victor." Letters say they have 400 watts power and the address is Calle 25, No. 445. (Hofmaster, Ohio; Erwin, Ill.; Nichols, Pa.; Kash, Tenn.; Siddle, Ala.) They use many signals like a man laughing, baby crying, train puffing and others to identify different products they advertise. Reported on 9.85 mc. (Palmer, Ohio); on 9.72 (Orchard, England). Both must be wrong as it is on 9.75 mc.

CLX, Observatorio Nacional de la Habana, on 7.10 mc. is heard around 11:00 P.M. and midnight working amateurs. (Salazar, N. Y. and Solito, Pa.) CMB, Havana, a phone on 25.95 meters, 11.56 mc., heard broadcasting and phoning WNC, Florida. No time stated. (Diamond, N.Y.) Most people know the schedule of stations CO9JQ (8.66 mc.); COCO (6.01); COCD (6.13); CO9WR (6.28); COCH (9.42); COKG (6.15). All are well known stations.

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

WTDX, St. Johns, Virgin Islands, was heard on 69.90 meters at noon giving weather reports. (Palmer, Ohio) VRR4, Stony Hill, Jamaica, was working WNC, Florida, on phone between 4:00 and 7:00 P.M. on 25.87 meters, 11.59 mc. (Fey, N.Y., and Atherton, Vt.)

## THE EUROPEANS

The programs from England for October follow:

GSB on 9.51 mc., from 2:15 to 4:15 A.M. and 12:15 to 5:45 P.M.  
 GSC on 9.58 mc., from 6:00 to 8:00 P.M. and 9:00 to 11:00 P.M.  
 GSD on 11.75 mc., from 2:15 to 4:15 A.M.; 12:15 to 3:25 P.M.; 6 to 8 P.M.  
 GSF on 15.14 mc., from 9:00 A.M. to noon; 3:40 to 5:45 P.M.; 9 to 11 P.M.  
 GSG on 17.79 mc., from 6:00 A.M. to noon and 3:40 to 5:45 P.M.  
 GSH on 21.47 mc., from 6:00 to 8:45 A.M. and 9:00 A.M. to noon.  
 GSI on 15.26 mc., from 12:15 to 3:40 P.M.  
 GSP on 15.31 mc., from 6:00 to 8:00 P.M.

GBTT on the "Queen Mary," that broke the record in August for the transatlantic crossing, may be heard on 12.40 mc. and 4.42 mc. Their



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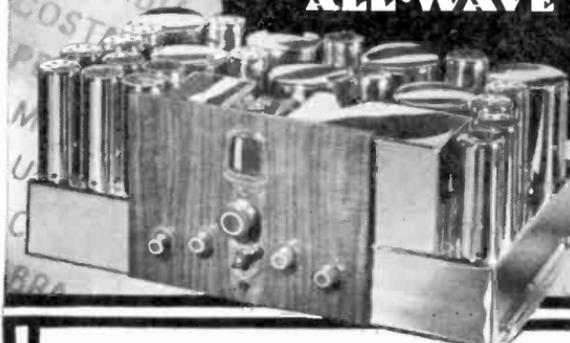
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address is Chief Operator, Queen Mary, Pier 90, North River, New York City. A station GBA, a new phone, on 16.14 mc. calls XGN China, between 6:00 and 9:00 A.M. (Karpen, Pa.)

TFJ, Reykjavik, Iceland, now broadcasts on 12.24 mc. Sundays from 1:40 to 2:00 P.M. in English and from 2:00 to 2:30 P.M. in German or Danish. Heard in U.S.A. and Europe well now.

SPW, Warsaw, Poland, on 13.63 mc. broadcasts Mondays, Wednesdays and Fridays 11:30 A.M. to 12:30 P.M. (Kriebel, Pa.) SPF Glynia, Poland, was heard on 12.32 mc. and 8.22 mc. between 12:45 P.M. and 1:35 P.M. and report brought a reply from SP1CC, Emil Jurkiewicz Aadjotoya, Glynia, Poland. (Sloper, England.)

OLR, Podebrady, Prague, Czechoslovakia, is heard on 15.23 and 11.76 mc. This new powerful station is heard the world over. One week they are on 15.23 mc. and the next on 11.76, and some say that every third week they are on 6.115 mc., but we have no reports that back this up. Verifications have come addressed as follows: Radiojournal Ceskoslovensk Zpravodajstve Radiotelefinicae, Spolecnost S. R. O., Prague. (Eder, Minn.; Bhosys, N. Y.; McDermott, N. Y.) They announced the schedule as 4:00 to 6:00 A.M.; 11:00 A.M. to 1:00 P.M. and 2:00 to 4:00 P.M. daily. (Bradley, Md.; Atherton, Vt.; Gullberg, Sweden.) Another schedule sent us is 5:00 to 6:00 A.M. and 2:00 to 3:00 A.M. (Lindbergh, Sweden; Studholme, Eng.) Still another one is Mondays and Thursdays 9:00 to 11:00 A.M.; Tuesdays and Fridays 2:00 to 5:00 P.M.; other days 4:00 A.M., 11:00 A.M. and 2:00 P.M. (Bradley, Md.) Still another one is 5:00 A.M., noon and 3:00 P.M. (Graham, Africa, and Curiel, Curacao.) So you see we can not print the schedule. Three members say they will broadcast special programs to America every Monday and Thursday from 9:00 to 11:00 P.M. and will be heard every day at 4:00 A.M., 11:00 A.M. and 2:00 P.M. (Heglund, Fla.; De Souza, Ven.; Sloper, England.) The station uses 11.76 one week, 15.23 the next, etc. We have many reports.

The programs from Germany for October follow:

DJA on 9.56 mc.; 12:05 to 5:15 A.M. and 4:50 to 10:445 P.M.  
 DJB on 15.20 mc.; 12:05 to 5:15 A.M.; 5:55 to 11:00 AM.; 4:50 to 10:45 PM.  
 Sundays only 11:10 to 12:20 noon.  
 DJD on 11.77 mc.; 11:35 A.M. to 4:30 P.M. and 4:50 to 10:45 P.M.  
 DJE on 17.76 mc.; 12:05 to 5:15 A.M. and 5:55 to 11:00 A.M.  
 DJL on 15.11 mc.; 12:00 to 2:00 A.M., 8:00 to 9:00 A.M., 11:35 to 4:30 P.M.  
 Sundays only 6:00 to 8:00 A.M.  
 DJN on 9.54 mc.; 12:05 to 5:15 A.M. and 4:50 to 10:45 P.M.  
 DJQ on 15.28 mc.; 6:00 to 9:00 A.M., 9:15 to 11:00 A.M., 4:50 to 10:45 P.M.  
 Sunday 11:10 to 12:20 P.M.  
 DJR on 15.34 mc.; 8:00 to 10:00 A.M.

Putting it another way,

12:05 to 5:15 A. M.—DJA, DJB, DJN and DJE.  
 5:55 to 11:00 A. M.—DJB, DJE, DJQ, DJL, DJR (see above.)  
 11:35 to 4:30 P. M.—DJD and DJL.  
 4:50 to 10:45 P. M.—DJN, DJQ, DJA, DJD and DJB.

Germany also uses several experimental stations that may be heard irregularly. They are DZA on 9.675 mc., DZB on 10.04 mc., DZC on 10.29

mc., DZE on 12.13 mc., DZG on 15.36 mc., and DZH on 14.46 mc., DZE was heard at 2:25 A.M. last month. (Studholme, England.) A station DGH on 28.5 meters heard phoning Egypt at 4:00 P.M. (Sloper, England.)

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

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

2RO. Rome, Italy, broadcasts on 11.81 mc. from 6:43 A.M. to 10.30 A.M., 11:30 A.M. to 5:15 P.M. and 6:00 to 7:45 P.M. week-days, with antenna changes at 8:55 A.M., 12:30 P.M., 1:20 P.M., 2:04 P.M. 5:30 P.M. and 6:15 P.M. (Erwin, Ill., Sloper, Eng., Eady, England.) New Italian phone on 12.98 mc. 11:00 A.M. to 1:00 P.M. (Moots, Mo.) Phone on 6.285 mc. heard daily noon to 2:00 P.M. (Orchard, England.) Phone on 14.55 mc. calling Addis Ababa 11:00 to 11:30 A.M. (Studholme, England.)

PHI, Huizen, Holland, on 16.88 meters, 17.77 mc, according to a schedule received for October, will broadcast daily excepting Tuesdays and Wednesdays from 8:00 to 10:00 A.M.

PCJ, Eindhoven, Holland, on 19.71 meters, 15.22 mc. will broadcast Sundays 7:00 to 3:00 A.M., Tuesdays 4:30 to 6:00 A.M. and Wednesdays 8:00 to 11:00 A.M. PCJ on 31.28 meters, 9.59 mc., will broadcast Sundays 2:00 to 3:00 P.M. and 7:00 to 8:00 P.M., Tuesdays 1:30 to 3:00 P.M. and Wednesdays 7:00 to 10:00 P.M. PCJ on Tuesdays was reported last month also. (Sloper, England; Pegge, England; Gullberg, Sweden). A phone station PDK on 28.80 meters, 10.42 mc. was sending music September 8th at 3:45 P.M. (Sloper). Also one Sunday at 1:00 P.M. (Gullberg.)

Spain. EAQ, Madrid on 9.86 mc. is still on the air. They broadcast daily 5:15 to 9:30 P.M. A station on 7.23 gives news in Spanish and English from 7:50 to 8:27 P.M. one Thursday, was heard saying they were in Spain. Signed off at 8:27 P.M. (Oxrieder, Pa.) For news on Morocco and Canary Islands, read the African news.

SM5SK, Stockholm, Sweden, on 25.63 meters, 11.71 mc., verify and say they have 400 watts power and the schedule is daily 11:00 A.M. to 5:00 P.M. (Ward, N.Y.) The address is Royal Technical University, Stockholm. This station is heard every Wednesday between 5:00 and 6:00 P.M., testing for American listeners. (Crafts, Calif. and Karpen, Pa.) Heard 7:00 to

8:00 P.M. (Fey, N.Y.) Heard one Sunday 2:00 to 3:00 P.M. (Mrs. Wilbur, N.J.) Verie received. (Studholme, England.)

France. TPA2 on 19.68 meters, 15.25 mc. broadcasts from 1:00 A.M. to 4:00 A.M. and 5:00 A.M. to 10:00 A.M. TPA3 now comes on at 1:00 A.M. also and broadcasts till 4:00 A.M., and then from 10:15 A.M. to 5:00 P.M. TPA3 is on 25.23 meters, 11.90 mc. TPA4 on 25.63 meters or 11.71 mc. comes on from 5:15 to 9:15 P.M. and 9:45 P.M. to midnight. A station TYA2 on 9.04 mc. gives news at 11:30 A.M. to 12:45 P.M. and heard on 12.25 mc., 4:30 to 6:15 A.M. broadcasting. (Studholme, England.) TPA4 comes on between 2:00 and 3:00 P.M. now. (Bradley, Md.) A new phone on 13.04 mc. words the ship "Normandie," 3:00 to 4:00 P.M. (Moots, Mo.) New phone FYD on 13.00 mc. at 11:30 P.M. (Miller, Ky.) TYA2 on 9.04 mc. phones daily 12:30 to 1:30 P.M. (Orchard, Eng.) Heard giving news 2:40 A.M., 11:30 A.M. and 12:50 P.M. (Studholme, England.)

HAS3, Budapest, Hungary, on 15.73 mc. is heard Sundays 9:00 to 10:00 A.M. now. Many hear it.

Switzerland. HBH is on 16.22 meters, 18.48 mc. HBJ is on 20.64 meters or 15.54 mc. HBO is on 26.35 meters, or 11.385 mc. HBL is on 31.27 meters, 9.595 mc. HBP is on 38.47 meters, 7.797 mc. HBL and HBP broadcast every Saturday from 5:30 to 6:15 P.M. and the first Monday of each month from 4:00 to 7:00 A.M. HBO many times tests with VK3LR between 11:00 P.M. and 2:15 A.M. These other stations are called upon several times each month to broadcast special programs. A card shows HBO on 26.31 meters or 11.403 mc. (name lost.) A station HBF on 18.455 mc. was reported last month for the first time. (Solito and Atherton). Reports on special programs from these other stations came from members Balbi, Gallagher, Bradley, Horlick, Wooten, Irons.

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

CSW, National Broadcasting Station of Portugal was heard again last month. They were on 31.41 meters or 9.55 mc. (announced and heard) between 4:45 and 6:05 P.M. one Monday. (Oxrieder, Pa.) On 9.74 mc. daily 3:00 to 6:00 P.M. (Hersowitz, Md.) On 9.546 mc. 3:15 to 4:15 P.M. one Friday. (Orchard, Eng.) On 9.55 mc. (Irons, Conn.) Between 31.5 and 32.00 meters Saturdays 5:15 P.M. (Eady, England.)

Russia. A schedule shows the October broadcasts as follows:

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

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

On 15.08 mc. Sundays from 10:00 to 11:00 A.M.

On 15.17 mc. Sundays from 1:30 to 2:00 P.M. (McDermott, Nichol, Gaug.)

The station on 12.00 mc. broadcasts in several languages each day from

2:00 to 5:00 P.M. The above schedule is the English-speaking program only. A letter advises us that the writer of every tenth letter opened will get an illustrated journal "U.S.S.R. in Construction." Every reporter will receive a photo of some Soviet leader, Soviet stamps or postcard views of Moscow. It seems like RAN likes to move around. At first it was on 9.52 mc., then it went to 9.59 in August and now seems to be on just about 9.60 mc. They still announce 31.51 meters. however. The station on 15.17 mc. is called RV96, they announce. (Karpen, Gullberg, Hersowitz, Carmen, Salazar, Kash, Miller, Oxrieder, De Souza, Nichols, Spuhler, Gallagher, and Atherton.)

Russian Phones. RNE, Moscow, on 12.00 mc. may be heard most any time of the day or night. RKI, Moscow, on 15.04 mc. is heard between 3:00 and 10:00 A.M. We list it on 15.09 mc. but it is on 15.04 mc. (Walcott, Calif.) RIM, Tashkent on 15.25 mc. is heard 5:00 to 9:00 A.M. ROU, Bakou, on 10.17 mc. and RIR, Tiflis on 10.07 may be heard between 10:00 P.M. and 4:00 A.M. Last month stations RIR, RIO and ROU were all heard between 7:00 and 7:30 P.M. relaying the program of station RAN (Rossi, Pa.; Karpen, Pa.) RIM was heard as late as 11:30 A.M. (Karpen.) RKI on 39.97 meters, 7.50 mc. was heard broadcasting at 5:00 P.M. once. (Studholme, England.) One on 14.60 mc. was sending music 5:40 to 6:15 A.M. one Sunday, also one other time 4:00 to 4:30 P.M. sending music and announced location as Moscow. One on 16.50 mc. heard phoning 5:45 to 6:20 A.M. On 16.05 mc. heard 4:30 to 5:00 A.M. One on 15.50 mc. at 6:10 A.M. One on 10.30 mc. at 3:10 P.M. and one on 11.50 mc. heard broadcasting at 6:15 A.M. (All are reported by J.M. R. Studholme, England.)

## NORTH AMERICA

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

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

W3XAU, Philadelphia, is still off the air while building a new transmitter which will have 10 kw. power.

W3XAL, Bound Brook, on 17.78 mc. broadcasts 8:00 A.M. to 3:00 P.M. daily. W3XL on 17.31 mc. was heard relaying baseball games 5:00 to 7:00 P.M. once. (Sparks, California.)

W4XAD, University of Florida station at Gainesville, on 17.28 mc. tests irregularly between 9:00 and 11:00 A.M. (Walcott, California.)

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

W10XDA, the schooner Morrisey, is back home. They are just printing

veries according to Mr. Brady of Brooklyn. Reports will be verified by Clifton F. Foss, 8214 Eleventh Avenue, Brooklyn, we understand, although no one reports a verie as yet.

CJRX and CJRO, Winnipeg, Canada, on 11.72 and 6.15 mc. respectively broadcast from 6:00 P.M. to midnight. We do not believe that daylight saving time effects any of these schedules.

VE9HX, Halifax, N. S., Canada, on 6.13 mc. has 200 watts power and broadcasts Mondays to Fridays 9:00 A.M. to 1:00 P.M. and 5:00 to 11:00 P.M., Fridays 1:00 to 3:00 P.M., Saturdays and Sundays 9:00 to 1:00 P.M. and 2:00 to 11:00 P.M. Station VE9CA, Calgary, Alberta, on 49.75 meters, 6.03 mc. is heard daily till 12:30 A.M. and on Thursdays till 2:00 A.M. (Crafts, Calif.) Their schedule was given as daily 6:00 A.M. to noon and 7:00 P.M. to midnight. CRCX, Bowmanville, 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.). A station CGA2 on an announced frequency of 13.745 mc. phoned England at 10:00 A.M. (Erwin, Ill.). Station CGA3 on 13.28 mc. usually does this daily.

VE9CS, Vancouver, B. C., is a small 2 watt station on 6.07 mc. owned by Standard Broadcasting System, 1001 Stock Exchange Bldg., Vancouver. Heard between 11:00 P.M. and 5:00 A.M. relaying CKFC. This must be the worlds smallest station. (Craft, California.)

CFCX, Montreal, Canada, on 6.00. mc. told us they had 750 watts power and broadcasted weekdays 6:00 A.M. to 11:15 P.M. and Sundays 9:00 A.M. to 11:15 A.M. Their address is Box 1690. They told us 750 watts, told others 75 watts and now tells Member Seaman of New Hampshire, 2000 watts. Verie says 75 watts. (Sloper, England.) Sent special program for DX fans September 20 from 12:30 to 1:00 A.M. (Siddle, Ala.)

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

Hawaii. Station KKP on 16.04 mc. usually broadcasts a special program for America on Mondays 11:30 P.M. to midnight. (Hesselmann, Oxrieder, Balbi, Walcott, Sparks.) The time is 12:30 A.M. to 1:00 A.M. on Tuesday. (Gallagher.) Heard Thursdays 12:30 to 1:00 A.M. (Balbi.) KIO on 11.68 mc. handles phone calls while KKP broadcasts. (Walcott.) KIO on 11.71 sent music at 8:30 P.M. once last month. (Gallagher.)

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**AMATEURS**

There are hundreds of distant amateur stations heard around 14.20 mc. every day. You can find many of them there most any time. Some African phones heard on voice are CN8MB on 14.10 mc., FT4AG on 14.05 mc., SU1KG on 14.04 mc., SU1SG on 14.35 mc, SU1CH on 14.28 to 14.30 mc., EA8LW on 14.10 mc. Some in Asia are KA1DH on 14.13 mc., KA1ME on 14.15 mc., KA1KY on 14.24 mc., PK1MD, PK1MX and PK1GW all real. on 14.10 mc. PK1PK on 14.27 mc, PK3ST on 14.32 mc., PK4AU on 14.38 mc. and VS6AQ on 14.30 mc. These were all heard last month by H. S. Bradley of New York. There are many others in Europe, North America and S. America heard, too many to mention. For the addresses of these stations, a listener should have a radio amateur call-book which lists over 60,000 of them. This book sells for \$1.25 and we will be glad to accept your order for one. Please do not write to us for amateur station addresses. We will simply have to refuse you, as we do not have time and postage to spend for such purposes. If you are really interested in these addresses buy a call-book.

**FOR SALE**—McMurdo Silver custom built Masterpiece IIIX with Bliley Crystal Filter. Real receiver and real price. Glenn Watt, Chanute, Kansas.

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### WITH THE REPORTERS

Someone asked last month if this was a list of our membership. It certainly is not. It is a list of those friends that sent in reports during the past month and some of these sent in more than one report. The news used in this issue of the magazine was taken from approximately 500 letters and cards. The following people sent in reports last month that was used. We thank them for their kindness.

H. G. Hesselmann, Johannesburg, South Africa; W. G. Graham, Springs, Transvaal, Africa; Johan P. Curiel, Curacao; Bengt Lindbergh, Pitea, Sweden; Ingvar Gullberg, Hedemora, Sweden; Felix Quayle, France Field, Canal Zone; J. H. A. Hardeman, Batavia, Java; Douglas Worcester, Honolulu, Hawaii; Reginald De Souza, Maracaibo, Venezuela; Jaime Rodriguez G., Trujillo, Dominican Republic; A. B. McDonough, Wellington, New Zealand; R. N. Shaw, Wauchope, Australia.

Ernest Orchard, Weymouth, England; T. Mills, Lewisham, England; Donald Sloper, Melksham, Wilts, England; J. R. Garrett Pegge, Chesham, Bucks, England; V. J. Jobson, Surbiton, Surrey, England; J. M. R. Studholme, London, England; W. F. Eady, Harrow, Middx, England; Robert J. Hughes, Trowbridge, Wilts, England.

Miss Eileen Hofmaster, Sandusky, Ohio; Wm. C. Palmer, Jr., Parma, Ohio; A. Spuhler, Cleveland, Ohio; Max Horlick, Youngstown, Ohio; Sam Solito, Leetsdale, Pa.; Fred Karpen, Johnstown, Pa.; A. Fowler, Greensburg, Ind.; Chester Dement, Upper Darby, Pa.; Ben Wapner, Philadelphia, Pa.; Capt. R. B. Oxrieder, State College, Pa.; Robert Rossi, Philadelphia, Pa.; Thomas Nichols, Philadelphia, Pa.

Fred Atherton, Rutland, Vermont, Robert Irons, New Britain, Conn.; Edmund Davenport, Pittsford, Vermont; Charles Miller, Covington, Ky.; Wilfred Siddle, Birmingham, Alabama; Jas. B. Wooten, Mobile, Alabama; Kenneth Moots, Kansas City, Mo.; Richard Bradley, Baltimore, Md.; Ned W. Carmen, Zumbrota, Minn.; Carl Eder, Willmar, Minn.; S. H. Lawrence, Anamosa, Iowa; Dr. R. C. Kash, Sevierville, Tenn.; Mrs. Irving Heglund, Lake Worth, Florida.

Alan Teague, Millington, Mich.; Richard Verbrughe, Jr., Detroit, Mich.; Bill Vandecar, Grand Rapids, Mich.; W. R. Carmen, Detroit, Mich.; H. J. Gaffney, Chicago, Illinois; Thomas Erwin, Herrin, Illinois; Frank Grey, Berwyn, Illinois.

W. H. Jessen, Eugene, Oregon; Charles Eggenweiler, West Los Angeles, Calif.; August Balbi, Los Angeles; G. C. Gallagher, San Francisco; Ashley Walcott, San Francisco; Russell Leader, San Francisco; Wm. Sparks, San Francisco; Fred M. Craft, Oakland; C. H. Hodge, Long Beach, Calif.

H. F. Fey, Long Island City, N. Y.; George Diamond, Jamaica, N. Y.; H. S. Bradley, Hamilton, N. Y.; Capt. George McDermott, New Brighton, N. Y.; Prof. C. W. Bhosys, Brooklyn; Joseph Miller, Brooklyn; Roger Legge, Binghamton, N. Y.; Harold E. Mack, New York City; Ramon Sonero, New York City; W. F. Herzog, Center Moriches, N. Y.; J. Stempel, Bridgeport, Conn.; Mrs. Alice Wilbur, Newark, New Jersey; J. B. Keenan, Sydney, Australia; O. Hersowitz, Baltimore, Maryland; Frank Quijano, Glendale, California; Joseph B. Depp, Sewickley, Pa.

### LATE NEWS

Here is some news that arrived after the other sections of the magazine were set up in type. VPD3, Suva, is on 9.548 mc. and a VPD2 is on 9.59 mc. (Erwin, Illi) EA9AA or EH9AA at Centa, Spanish Morocco, gives news in English daily at 4:00 P.M. It is operated by the Spanish rebel forces. (Keenan, Australia.) TFJ, Iceland on 12.24 mc. heard from 2:40 to 3:30 P.M. instead of 1:40 to 2:30 P.M. CED and CEC, Chile, heard 8:00 to 8:30 P.M. CSW, Lisbon, Portugal, was heard on 9.38 mc. (note frequency) at 8:00 P.M. EAQ, Madrid, moved to 9.95 mc. from 9.86. All this is from W. F. Herzog, New York. VK5DI, operated by Adelaide Short Wave Club, Adelaide, Australia, is on 21.42 meters, Sundays 12:15 to 3:45 A.M. (Super Wasp, Australia.)

Capt. Oxrieder of Penna. tells us CSW, Portugal, was heard 9.74 mc. HIX is on 6.34 mc. now. TIEP is on 6.682 mc. YV1RV, Radio Valera, Valera, Venezuela, is on 6.35 mc. J. Stempel of Connecticut reports EAJ43 on 10.36 mc. from 3:45 to 4:10 P.M. PCJ on Sundays 2:00 to 5:00 P.M. broadcasting. PDK, Holland, on 10.42 mc. broadcasting 3:45 P.M. CSW, Lisbon, Portugal, on 9.73 mc., from 5:25 to 6:00 P.M. F. B. Hetherington, Indianapolis, reports Bangkok, Siam, on 15.78 meters, or 19.015 mc., broadcasting Mondays 8:00 to 10:00 A.M. R. Soniera of New York, reports CSW, Lisbon, on 9.74 mc.; HIX now on 6.34 mc.; HKV, Colombia, on 8.795 mc. signing off at 7:45 P.M., and "La Voz del Armenia," Caldas, Colombia, on 31.45 meters, or 9.54 mc., at 6:45 P.M. H. S. Bradley of New York, says a flock of Spanish amateurs are heard near 7.10 mc. nearly every night around 10:00 P.M. to midnight giving war news.

### SPECIAL NEWS FLASHES

Apparently the new 35 kw. station in China mentioned previously in this magazine is on the air. A station relaying ZBW, Hong Kong, is heard on 9.534 mc. near where W2XAF is on the dial. It is heard in the mornings between 4:30 and 6:30 A.M. The same station is also testing on 15.19 mc. from about 4:30 to 8:00 or 9:00 A.M.

## 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.



### THE HAMMARLUND SUPER-PRO

The Hammarlund "Super-Pro" receiver might easily be called the "DX-er's Dream," for it is a receiver built to precision and one which will give the DXer the utmost in distant reception. Built in such a manner that it is pleasing both to the professional radio man and to the short wave beginner, this receiver has a large number of friends. It may be found in the home of some little-known DXer or in the receiving station of some large telephone or telegraph company. With many dials and controls on the panel, it gives the operator an opportunity to bring in the signal of any station at its very best. At the same time, it can be arranged so that there is only two main controls used, making it simple enough for even a beginner to operate successfully.

#### Features

Imagine, if you can, getting all of these features in one radio receiver. There is an electro-statically shielded input; a special silver-plated five-band eccentric-cam switch; four air-tuned I.F. transformers, continuous variable selectivity; two tuned R.F. stages; three stages of audio; visible tuning meter; accurately calibrated tuning dial; band spread tuning dial; audio frequency gain control; radio frequency gain control; intermediate frequency gain control; selectivity control; best oscillator switch; tone control; automatic volume control and manual volume control; and a C.W.-modulation control for amateurs and code listeners.

#### All-Wave

The Super-Pro is a 16-tube receiver that tunes from 20 megacycles to 540 kilocycles, or from 15 to 550 meters. It uses both metal and glass tubes, taking advantage of the characteristics of each to the best advantage.

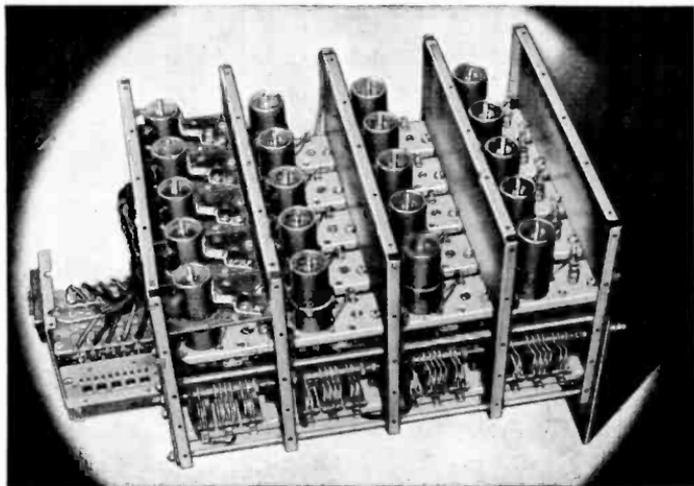
#### Crystal Filter

The crystal filter used in the super-pro provides extreme selectivity, which is essential these days with the crowding of the amateur and broadcast bands. The AVC. and manual control makes it quite simple to hold a wavering signal. With such a combination, extreme selectivity and

ability to hold a wavering signal, we have everything that can be asked of any short wave receiver.

#### Dials

The new dials, there are two of them, one calibrated in K.C. and the other for spreading stations out, are translucent celluloid, with the scales printed on the center lamination, this preventing wear or erasing of the figures. The main tuning dial has five ranges, only one of which is visible at a time. Each range is accurately calibrated and marked.



#### Band Changing Unusual

The band-changing switch is most unusual. The switch has five sections completely shielded from each other. Each section consists of a two-pole, five-position switch. Silver-plated knives, mounted on bakelite sliding guides, are raised and lowered by cams. The base contacts are of spring bronze, silver-plated. The design eliminates the necessity of pig-tail connections, wiping rotary contacts or "passing through" action on the part of the knives. This means that there is no wear and no weak places for signal losses. Nor it is possible to drag dirt or foreign matter into the contact. No moving part carries current to cause noise, and the shielding of each section is almost perfect.

#### Hammarlund Celebrates

The Hammarlund Company has been building radios and radio parts for twenty-five years. They make precision parts for many big-name radio companies, as well as for amateurs and listeners. When in need of any radio apparatus, regardless of what it is used for, it is advisable to write to Hammarlund. Free literature describing the new Hammarlund Super-Pro and a general catalog of parts may be had by writing to Hammarlund Mfg. Co., Dept. IC-10, 424 West 33rd Street, New York City.

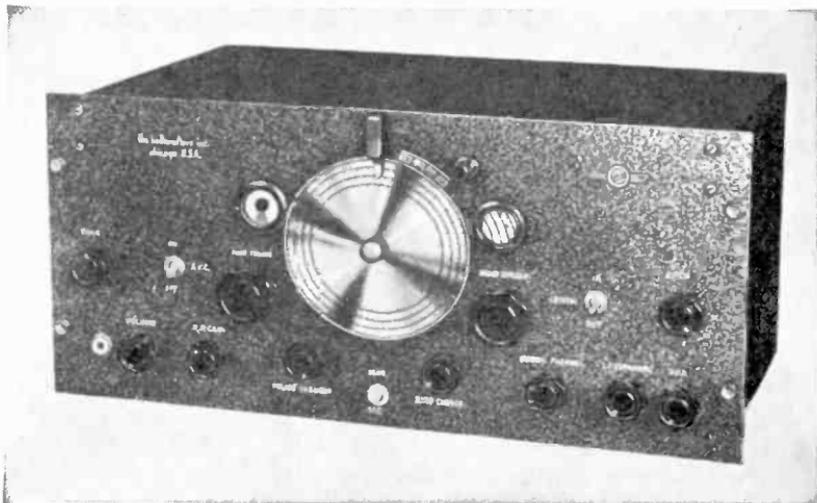






# THE NEW 1937 SUPER SKYRIDER

THE FINEST SHORT WAVE RECEIVER OBTAINABLE  
AT ANY PRICE!



Here are a few of the many new 1937 Super Skyrider features:

- 11 Tubes, 10 of them metal.
- 40 M.C. to 535 K.C. in 5 bands.
- 338 Degrees main tuning dial.
- Electro-mechanical band spread
- 14 Watts Undistorted Output.
- Direct Calibration Tuning—No Charts or Tables.
- Field Strength Indicator.
- Improved 10 meter performance.
- Single signal Crystal action.
- 465 K.C. Iron Core I.F. for improved selectivity.
- Ceramic Insulation.

**T**HE new 1937 11-tube Super Skyrider is outstanding! There are many exclusive new features of engineering—design—construction, not to be found on any other communication receivers.

No charts or graphs are needed to read the new Super Skyrider dial—station frequencies at a glance! That is only one feature of this most conveniently operated set. Higher sensitivity, new and improved phone reception—and 30 other features. And best of all, you can buy it on *Time Payments* from your radio jobber.

See it at your dealers' or  
write for full details

## the hallicrafters, inc.

SKY BUDDY

SKY CHIEF

SUPER SKY RIDER

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

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

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



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

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

Here's what they say about the Sky Buddy:

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

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

"I have found your Sky Buddy one of the best little receivers I have ever come in contact with." —Andrew Conners, Philadelphia, Pa.

"I have purchased Hallicrafters' Sky Buddy and it works wonderfully for DXing and C.W." —Edgar B. Murphy, Greensboro, N.C.

## the hallicrafters, inc.

ULTRA SKY RIDER

SKY RIDER COMMERCIAL

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

## "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	LSL, Buenos Aires, Arg. 8:00 A.M. to 1:00 P.M.	GAA and PSF.
T-14.23	21.08	PSA, Rio de Janeiro, Brazil. Phones WKK,	WLK, daytime.
T-14.27	21.03	LSN, Buenos Aires, Arg. 8:00 A.M. to 4:00 P.M.	WKK and WLK.
T-14.38	20.86	EHY-EDM, Madrid, Spain. Phones South America,	mornings.
T-14.72	20.38	GAA, Leupoldsville, Belgian Congo. Phones LSL	and PPU near 8:00 A.M.
T-14.97	20.04	OPL, Rogy, England. Phones LSL and PPU	near 8:00 A.M.
T-14.99	20.02	DHO, Nauen, Germany. Phones PPU and LSM	mornings.
T-15.14	19.18	WKN, Lawrenceville, N. J. Phones GAU,	daytime.
T-15.24	19.69	CEC, Santiago, Chile. Phones LSR, HJY	near 11 A.M. and 4 P.M.
T-15.28	19.62	VQG, Nairobi, Kenya, Africa. Phones London,	7:30 to 8:00 A. M.
T-15.39	19.50	LSQ, Buenos Aires, Argentina. Heard testing	near 2:00 P.M.
T-15.50	19.35	FTM, Assise, France. 10:00 A.M. to 2:00 P.M.	LSG.
T-15.50	19.35	PMA, Bandoeng, Java. Phones Holland,	mornings.
T-15.57	19.27	PPU, Rio de Janeiro, Brazil. Phones FTM,	10:30 A.M. to 3:00 P.M.
T-15.58	19.25	DFA, Nauen, Germany. Phones 10:00 A.M. to 2:00 P.M.	irregularly.
T-15.62	19.21	ORG, Brussels, Belgium. Phones OPL,	mornings.
T-15.68	19.13	LSM, Buenos Aires, Argentina. Phones EAQ,	DHO, GAA, mornings.
B-15.79	19.00	HS8PJ, Bangkok, Siam, broadcasts Mondays	8:00 to 10:00 A.M.
T-15.88	18.89	ZSS, Klipkeuval, S. Africa. Phones GAS,	6:30 to 7; 10 to 10:45 A.M.
T-15.93	18.83	PLE, Bandoeng, Java. Phones Holland 6 to 11 A.M.	KWX irregularly.
T-16.06	18.68	OCI, Lima, Peru. Testing with HJY	near 2:00 P.M.
T-16.11	18.62	GAU, Rugby, England. Phones New York	mornings.
E-16.22	18.48	HBH, Geneva, Switzerland. Used for special	programs.
T-16.30	18.40	PCK, Kootwijk, Holland. Phones Java	near 7:00 A.M.
T-16.35	18.35	WLA, Lawrenceville, N. J. Phones England	8:00 A.M. to 4:00 P.M.
T-16.38	18.31	GAS, Rugby, England. Phones New York	mornings.
T-16.39	18.30	YVR, Maracay, Venezuela. Phones Germany,	10:00 A.M.
T-16.44	18.25	FTE, St. Assise, France. Phones LSM,	PPU, mornings.
T-16.48	18.20	GAW, Rugby, England. Phones New York	mornings.
T-16.50	18.18	PMC, Bandoeng, Java. Phones PCV,	3:10 to 9:20 A.M.
E-16.55	18.12	LSY, Buenos Aires, Argentina. Irregular.	
T-16.63	18.04	GAA, Rugby, England. Phones Argentina,	10:00 A.M. to 2:00 P.M.
T-16.82	18.05	PCV, Kootwijk, Holland. 6:00 to 9:00 A.M.	Java.
B-16.68	17.79	GSG, Daventry, England. 6:00 to 8:45 A.M.:	9:00 A.M. to Noon.
B-16.87	17.78	W3XAL, Bound Brook, N. J. 8:00 A. M. to 3:00 P. M.	daily.
B-16.88	17.77	PHI, Huizen, Holland, daily except Tues. and	Wed. 8:00 to 10:00 A.M.
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, Zeesen, Germany, 12:05 to 11:00 A.M.	
T-16.85	18.27	17.80 to 16.42—Ships. Heard in	daytime.
B-16.91	17.74	HSP, Bangkok, Siam, phones Japan,	Germany and England.
T-17.00	17.64	XGN, Shanghai, China, phones London	7 to 9 A.M., Mon. Wed. Sat.
T-17.10	17.54	VWY, Poona, India. Phones GBU,	2:30 to 8:00 A.M.

Meters	Meg.	STATION	TIME
T-17.12	-17.52	DFB, Nauen, Germany.	Phones LSM and YVQ near 9:00 A.M.
T-17.52	-17.12	WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.20	-16.12	IRY, Rome, Italy, phoning	7:00 A.M. to 1:30 P.M.
T-18.44	-16.30	WLK, Lawrenceville, N. J.	Phones England.
T-18.47	-16.24	KTO, Manila, P. I.	Phones Japan 5:00 to 9:00 P.M., irregularly.
T-18.51	-16.20	FZR, Saigon, Indo-China.	Phones Paris mornings.
T-18.71	-16.04	KKP, Kauhuku, Hawaii.	Phones KWU 1:00 to 7:00 P.M.
T-18.89	-15.88	FTK, St. Assise, France.	Phones Saigon 8:30 to 11:00 A.M.
T-18.99	-15.80	XOJ, Shanghai, China.	Phones Japan 5:00 P.M. to midnight.
T-18.91	-15.86	CEC, Santiago, Chile.	Phones OCJ 11 A.M., 1 and 4:40 P.M. irreg.
T-19.02	-15.81	LSL, Buenos Aires, Arg.	Phones GAA 8 A.M. to 1 and FTM 1-2 P.M.
T-19.15	-15.66	JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A.M.
T-19.20	-15.61	JVF, Nazaki, Japan, phones	U.S.A. near 5:00 A.M. and 8:00 P.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU.
B-19.52	-15.37	HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A.M.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
B-19.56	-15.34	DJR, Zeesen, Germany.	8:00 to 10:00 A.M.
B-19.56	-15.33	WXAD, Schenectady, N. Y.,	10:00 A.M. to 3:45 P.M. daily.
B-19.60	-15.31	GSP, Daventry, England.	6:00 to 8:00 P.M.
B-19.62	-15.29	LRU, Buenos Aires, Arg.,	7:00 A.M. to 4:45 P.M.
B-19.63	-15.28	DJQ, Zeesen, Germany.	6:00 to 11:00 A.M.; 4:50 to 10:45 P.M., and Sunday 11:10 to 12:20 P.M.
B-19.64	-15.27	W2XE, Wayne, N. J.	Relays WABC noon to 5:00 P.M.
B-19.66	-15.26	GSI, Daventry, England.	12:15 to 3:40 P.M.
T-19.68	-15.25	RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
B-19.68	-15.24	TPA2, Pontoise, France.	1:00 to 4:00 and 5:00 to 10:00 A.M.
B-19.69	-15.23	Podebrady, Czechoslovakia.	See news section.
B-19.71	-15.22	PCJ, Eindhoven, Holland,	Sun. 7-8; Tues. 4:30-6; Wed. 8-10 A.M.
B-19.71	-15.21	W8XK, Pittsburgh, Pa.	Relays KDKA 9:00 A.M. to 7:00 P.M.
B-19.74	-15.20	DJB, Zeesen, Germany,	12:05 to 5:15 A.M.; 5:55 to 11:00 A.M.; 4:50 to 10:45 P.M. (Sunday 11:10 to 12:20 P.M.)
B-19.76	-15.18	RV96, Moscow, U. S. S. R.,	Sundays 1:30 to 2:30 P.M.
B-19.80	-15.15	YDC, Bandoeng, Java, heard	5:30 to 10:30 A.M. irregularly.
B-19.82	-15.14	GSF, Daventry, England.	9-12 A.M.; 3:40-5:45; 9:00-11:00 P.M.
B-19.84	-15.11	HVJ, Vatican City.	10:30 to 10:45 A.M. daily.
B-19.85	-15.11	DJL, Zeesen, Germany.	12:00 to 2:00; 8:00 to 10:00 A.M.; 11:35 to 4:30 P.M. (Sunday 6:00 to 8:00 A.M.)
B-19.89	-15.08	RKI, Moscow, U.S.S.R.,	Sundays 10-11 A.M.; phones 10 P.M.-10 A.M.
T-19.92	-15.06	WNC, Hialeah, Florida,	phones many stations in daytime.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
T-20.08	-14.94	HJB, Bogota, Colombia,	phones WNC daytime.
T-20.08	-14.94	HII, Trujillo, Dominican Republic,	phones WNC daytime.
T-20.08	-14.94	HJA3, Barranquilla, Colombia,	phones WNC Florida.
B-20.20	-14.85	IZA, Sofia, Bulgaria,	weekdays 5:00 to 7:00 A.M. and 1:00 to 3:00 P.M.; Sun-days 12:30 A.M. to 8:00 A.M.; 10:00 A.M. to 4:30 P.M.
E-20.27	-14.80	WQV, Rocky Point, N. Y.,	heard irregularly.
T-20.29	-14.79	ROU, 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	GBL, Rugby, England.	Phones JVH 1:00 to 7:00 A.M.
B-20.55	-14.60	JVH, Nazaki, Japan,	12:00 to 1:00 A.M.; 4:00 to 7:40 A.M. daily. Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M.
T-20.56	-14.59	WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64	-14.54	HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65	-14.53	LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.71	-14.48	YSJ, San Salvador, Salvador.	Phones WNC afternoons.
T-20.71	-14.48	HRL5, Nacaome, Honduras,	testing with WNC daytime.
T-20.71	-14.48	TIU, Cartago, Costa Rica,	phones WNC daytime.
T-20.71	-14.48	YNA, Managua, Nicaragua,	phones WNC daytime.
T-20.71	-14.48	HPE, Panama,	phones WNC daytime.
T-20.71	-14.48	HRF, Tegucigalpa, Honduras,	phones WNC daytime.

Meters	Meg.	STATION	TIME
T-20.71	-14.48	TGF, Guatemala City, phones WNC daytime.	
T-20.73	-14.47	WMF, Lawrenceville, N. J. Phones England daylight.	
T-20.75	-14.46	GBW, Rugby, England. Phones WNC 6:00 A.M. to 6:00 P.M.	
B-20.75	-14.46	DZH, Zeesen, Germany, 4:00 to 7:00 P.M.	
E-20.97	to 21.26	-14.30 to 14.11—Amateur phones heard in daytime.	
B-21.46	-13.98	PZ1AA, Paramaribo, Dutch Guiana, in the evenings.	
E-21.58	-13.90	WQP, Rocky Point, N. Y. Testing with RNE irregularly, mornings.	
T-21.70	-13.83	SUZ, Cairo, Egypt. Phones GAA 7:00 A.M. to 3:30 P.M.	
E-21.91	-13.69	KKZ, Bolinas, California. Used irregularly.	
T-21.98	-13.65	HJY, Bogota, Colombia. Phones irregularly.	
B-22.00	-13.63	SPW, Warsaw, Poland. Mon., Wed. and Fri., 11:30 A.M. to 12:30 noon.	
T-22.09	-13.58	GBB, Rugby, England. Phones Canada and Egypt, daytime.	
T-22.37	-13.41	YSJ, Salvador, San Salvador, phones WNC daytime.	
T-22.40	-13.38	IDU, Asmara, Eritrea, phones Italy 8:00 A.M. to 3:00 P.M. irregularly.	
T-22.40	-13.39	WMA, Lawrenceville, N. J. Phones England, daytime.	
T-22.48	-13.35	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	
T-23.36	-12.84	WOO, Ocean Gate, N. J. Phones ships irregularly.	
T-23.38	-12.83	CNR, Rabat, Morocco. Phones St. Assise 5:00 to 8:00 A.M.	
T-23.45	-12.80	IAC, Piza, Italy. Works ships mornings.	
T-23.47	-12.78	GBC, Rugby, England. Phones ships irregularly.	
T-24.20	-12.40	DAF, Norden, Germany. Phones ships irregularly, mornings.	
T-24.40	-12.30	PLM, Bandoeng, Java. Phones VK2ME near 6:30 A.M.	
T-24.41	-12.29	GBU, Rugby, England. Phones America, evenings.	
B-24.52	-12.24	TFJ, Reykjavik, Iceland, Sundays 1:40 to 2:30 P.M.	
T-24.56	-12.22	YJA, Pontoise, France. Phones the Normandie, irregularly.	
T-24.69	-12.15	GBS, Rugby, England. Phones New York.	
E-24.73	-12.13	DZE, Zeesen, Germany. 7:00-9:00 A.M., 5:00-9:00 P.M., irreg.	
B-25.00	-12.00	RNE, Moscow, U.S.S.R., daily 2:00 to 5:00 P.M.; Wed. 6:00 to 7:00 A.M.; Sundays, 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M.	
T-25.02	-11.99	FZS, Saigon, Indo-China. Phones Paris mornings.	
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-25.36	-11.83	W2XE, 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	2RO4, Rome, Italy, 6:43 to 10:30 A.M.; 11:30 to 7:45 P.M.	
B-25.42	-11.79	W1XAL, Boston, Mass., daily 6:00 to 6:15 P.M.; Sat. 5:00 to 7:00 P.M.	
B-25.49	-11.77	DJD, Zeesen, Germany, 11:35 to 4:30 and 4:50 to 10:45 P.M.	
B-25.51	-11.76	Polebrady, Czechoslovakia. See news section.	
B-25.53	-11.75	GSD, Davenport, Eng., 2:15-4:15 A.M.; 12:15-2:25 P.M.; 6 to 8 P.M.	
B-25.58	-11.73	Saigon, Indo-China, 5:30 to 9:30 A.M. often.	
B-25.60	-11.72	CJRX, Winnipeg, Canada, 6:00 P.M. to Midnight.	
B-25.63	-11.71	TPA4, Pontoise, France. 6:15 to 9:00 P.M., 10:00 P.M. to 1:00 A.M.	
B-25.63	-11.71	SM5SX, Stockholm, Sweden, Wednesdays 5:00 to 6:00 P.M.	
E-25.63	-11.71	KIO, Kauhuku, Hawaii. Heard in the evenings testing.	
E-25.87	-11.59	VRRA4, Stony Hill, Jamaica. Testing with WNC in daytime.	
B-26.09	-11.50	COCX, Havana, Cuba, weekdays 8:00 A.M. to 1:00 A.M. next day. Sundays 8:00 A.M. to 2:00 P.M. and 6:00 to 8:00 P.M.	49.0
E-26.09	-11.50	VIZ3, Fiskville, Australia. Phones CJA4 irregularly.	
B-26.09	-11.50	PMK, Bandoeng, Java, heard 4:00 to 9:30 A.M. irregularly.	
E-26.09	-11.50	XAM, Merida, Yucatan. Irregularly 1:00, 6:00 and 7:00 P.M.	
B-26.35	-11.39	HBO, Geneva, Switzerland. Used irregularly.	
B-26.60	-11.28	HIN, Trujillo, D. R., 11:40 to 4:10 and 7:10 to 9:10 P.M.	
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 A.M.	

Meters	Meg.	STATION	TIME
T-27.26	-11.00	-XBJQ, Mexico City. Testing irregularly now.	
T-27.35	-10.97	-OCI, Lima, Peru. Phones HJY, evenings.	
T-27.67	-10.84	-KWV, Dixon, California. Phones Hawaii, daytime.	
E-27.65	-10.85	-DFL, Nauen, Germany. Irregular.	
T-27.86	-10.77	-GBP, Rugby, England. Phones VLK 11:00 P.M. to 8:00 A.M.	
E-27.93	-10.74	-JVM, Nazaki, Japan, Tues., Fri., 2 to 3 P.M. Phone 1:30 to 7:40 A.M.	
T-28.09	-10.68	-WNB, Lawrenceville, N. J. Phones Bermuda, daytime.	
T-28.12	-10.67	-PLQ, Bandoeng, Java. Heard testing broadcast 5 to 10 A.M., irreg.	
B-28.12	-10.67	-CEC, Santiago, Chile, daily 7 to 8 P.M. Thurs., Sun., 8:30 to 9 P.M.	
T-28.14	-10.66	-JVN, Nazaki, Japan. Beds. 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	-NGW, Shanghai, China, phones Java Midnight to 3:00 A.M.	
T-28.80	-10.42	-PDK, Kootwijk, Holland. Phones Japan, 7:30 to 9:40 A.M.	
T-28.80	-10.40	-YRG, Medan, Sumatra. 5:30-6:30, 12:30-1:30 A.M., 7:30-8:30 P.M.	
E-28.85	-10.40	-KEZ, Bolinas, California. Used irregularly.	
E-28.91	-10.38	-WCG, Rocky Point, N. Y. Tests irregularly.	
E-28.93	-10.37	-EHZ, Tenerife, Canary Islands, broadcasts afternoons and evenings irreg.	
B-29.04	-10.33	-ORK, Brussels, Belgium. 1:30 to 3:00 P.M., daily.	
E-29.13	-10.30	-LSQ, Buenos Aires, Argentina. Used for special tests.	
E-29.15	-10.29	-IYZ, Zeesen, Germany. 3:00 to 9:00 P.M., Irregular.	
B-29.25	-10.26	-PMN, Bandoeng, Java, 5:30 to 10:30 A.M.	
E-29.27	-10.25	-LSL, Buenos Aires, Argentina, testing 5:30 to 7:00 P.M.	
E-29.33	-10.23	-CED, Antofagastan, Chile, heard 7:00 to 9:30 P.M. irregularly.	
T-29.45	-10.22	-PSH, Rio de Janeiro, Brazil. Sending music, evenings.	
T-29.50	-10.17	-RIO, Bakou, U.S.S.R. Phones Moscow 8-10 A.M., 10 P.M. to 1 A.M.	
T-29.58	-10.14	-OPM, Leopoldville, Belgian Congo. Phones ORK 9-11 A.M., 3-6 P.M.	
T-29.76	-10.08	-RIR, Tiflis, Siberia. Phones Moscow 5:00 to 8:00 A.M., irregularly.	
T-29.79	-10.07	-EHY, Madrid, Spain. Phones YVR near 4:00 P.M., irregularly.	
T-29.80	-10.66	-TDE, Shinkio, Manchukuo, phones Japan 1:00 to 9:00 A.M. irregularly.	
T-29.83	-10.05	-ZFB, Hamilton, Bermuda. Phones U.S.A. and ships, daytime.	
T-29.83	-10.05	-SUV, Cairo, Egypt. Phones GAA after 3:30 P.M.	
E-29.88	-10.04	-DZB, Zeesen, Germany. 7:00 to 9:00 P.M.	
T-30.09	-9.97	-KAZ, Manila, P. I. Phones PLV near 2:00 A.M.	
T-30.15	-9.95	-GCU, Rugby, England. Phones New York evenings.	
T-30.21	-9.93	-HKB, Bogota, Colombia. Phones PSK irregularly, evenings.	
T-30.30	-9.90	-LSN, Buenos Aires, Argentina. 6:00 P.M. to 6:00 A.M. WLO.	
T-30.40	-9.87	-WON, Lawrenceville, N. J. Phones England evenings.	
E-30.40	-9.87	-JYS, Kemikawa-Cho, Japan. Relays JOAK Irreg. mornings.	
B-30.43	-9.86	-EAQ, Madrid, Spain. 5:15 P.M. to 9:30 P.M. daily. Sat. 1-3 P.M.	
T-30.52	-9.83	-IRM, Rome, Italy. Phones Egypt afternoons.	
T-30.60	-9.80	-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.	
B-30.77	-9.75	-COCQ, Havana, Cuba. 7:00 A.M. to 1:00 A.M. next day.	
B-30.80	-9.74	-CSW, Lisbon, Portugal, heard around 4:30 to 8:00 P.M.	
T-30.90	-9.71	-GSA, Rugby, England. Phones Argentina around 6:00 P.M.	
B-31.00	-9.67	-DZA, Zeesen, Germany, 5:00 to 7:00 P.M.	
B-31.02	-9.67	-T14NRH, Heredia, Costa Rica. 8 to 9 and 11:30 P.M. to Midnite.	
B-31.06	-9.66	-YNLF, Managua, Nicaragua. 1:00 to 2:00 and 7:00 to 10:00 P.M.	
B-31.06	-9.66	-LRX, Buenos Aires, 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., Thurs. and Sat. 4:30 to 7:00 P.M.	
B-31.10	-9.65	-YDB, Soerabaja, Java, daily 4:30 to 10:00 A.M.; Sat. until 11:00.	
B-31.13	-9.64	-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	-HP5J, 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.	

LSX TESTING ON 10.35 - C. Coil.

Meters	Meg.	STATION	TIME
B-31.27	9.59	HLB, 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	RAN, Moscow, U.S.S.R.,	daily 7:00 to 8:00 P.M.
B-31.28	9.59	VK6ME, Perth, Australia,	weekdays 5:00 to 9:00 A.M.
B-31.28	9.59	PCJ, Eindhoven, Holland,	Sunday 2:00 to 3:00 and 7:00 to 8:00 P.M. Tuesday 1:30 to 3:00 P.M., Wednesday 7:00 to 10:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.
B-31.32	9.58	GSC, Daventry, England.	6:00-8:00 P.M. and 9:00-11:00 P.M.
B-31.35	9.57	HJ2ABC, Cucuta, Colombia,	11:00 A.M. to noon; 6:00 to 9:30 P.M.
B-31.35	9.57	QON, Macao Port, China,	Monday and Friday 7:00 to 8:30 A.M.
B-31.36	9.57	WIKK, 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	HJ1ABB, Barranquilla, Colombia,	heard Noon to 6:00 P.M. testing.
B-31.38	9.56	DJA, Zeesen, Germany,	12:05 to 5:15 A.M.; 4:50 to 10:45 P.M.
B-31.41	9.55	TIPG, San Jose, Costa Rica,	12:00 to 2:00; 6:00 to 11:30 P.M.
B-31.45	9.54	DJN, Zeesen, Germany,	12:05 to 5:15 A.M.; 4:50 to 10:45 P.M.
B-31.45	9.54	VPD2, Suva, Fiji Islands,	5:30 to 7:30 A.M. weekdays.
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-31.54	9.51	HC2JSB, Guayaquil, Ecuador,	12:00 to 2:00; 4:00 to 11:00 P.M.
B-31.55	9.51	GSB, Daventry, England,	2:15 to 4:15 A.M.; 12:15 to 5:45 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Week-days 4:00 to 7:00 A.M.
B-31.55	9.51	HJU, Buenaventura, Colombia.	12-2 P.M., 8-11 P.M., Mon., Wed., Fri.
B-31.55	9.51	GSB, Daventry, England,	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; Mon. 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,	7:00 A.M. to 1:00 A.M. next day.
T-31.86	9.42	PLV, Bandoeng, Java.	Broadcasts Tues. and Thurs. 10:00-10:30 A.M.
B-32.09	9.35	HS8PJ, Bangkok, Siam,	Thursdays 7:30 to 10:00 A.M.
T-32.15	9.33	CGA4, Drummondville, Canada.	Phones ships and England, irregularly.
B-32.26	9.30	YNGU, Managua, Nicaragua,	1-2:55; 6-7 P.M. daily; Sun 12-1 P.M.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
T-33.41	8.98	VVY, Poona, India.	Phones England near 8:30 A.M.
B-33.50	8.95	HCJB, Quito, Ecuador,	daily except Mon., 7:30 to 9:30 P.M.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.93 to	36.58-8.84 to 8:20	Ships.	Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makassar, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.29	8.75	ZBW, Hong Kong, China.	Daily 11:30 P.M. to 1:15 A.M., Mon. and Thurs. 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
E-34.62	8.66	CO9JO, Camaguey, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68	8.65	WVD, Seattle, Wash.	Testing irregularly.
B-34.72	8.64	YNVA, Managua, Nicaragua.	7:30 to 9:30 P.M., Irregular.
T-35.02	8.57	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-35.42	8.47	DAF, Norden, Germany.	Phones ships irregularly.
B-35.69	8.41	HC2CW, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
T-35.80	8.38	IAC, Piza, Italy.	Works ships, irregularly.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
B-36.65	8.19	XEME, Merida, Mexico,	9:00 A.M. to Noon, 5:00 to 11:00 P.M.
B-36.95	8.12	KTP, Manila, P. I.	Phones KWX 10:30 to 11:00 A.M.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.47	7.80	HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
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.

Meters	Meg.	STATION	TIME
B-50.26	5.97	HVJ, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.26	5.97	HJN, Bogota, Colombia.	6:00 to 11:00 P.M. irregularly.
B-50.51	5.94	HJ4ABD, Medellin, Colombia.	8:00 to 11:30 P.M.
B-50.51	5.94	TG2X, Guatemala City, Monday, Thursday and Saturday	4 to 6 P.M. and 10:00 to 12:00 P.M.; Sundays 1:00 to 2:00 P.M.
B-50.85	5.91	HHZS, 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.
B-51.28	5.85	YV5RMO, Maracaibo, V.	8:45-9:45 A.M.; 11:15-12:45; 4:45-9:45 P.M.
B-51.50	5.82	TIGPH, San Jose, Costa Rica.	Noon-2:00 P.M., 7:00-11:00 P.M.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
B-51.72	5.80	YV2RC, Caracas, Venezuela.	11:00 A.M. to 2:30; 5:00 to 10:30 P.M.
B-51.72	5.80	ZEC, Salisbury, Rhodesia.	Sun. 3-5 A.M.; Tues. & Fri. 1:15-3:15 P.M.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
B-52.26	5.74	TGS, Guatemala City, Wed., Thurs., and Sun.	6:00 to 9:00 P.M.
B-52.45	5.72	YV1ORSC, San Cristobal, Venezuela.	7:00 to 11:30 P.M. irregularly.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M. ....
B-54.74	5.48	TISHH, 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	CGAS, 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	4.42	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.	

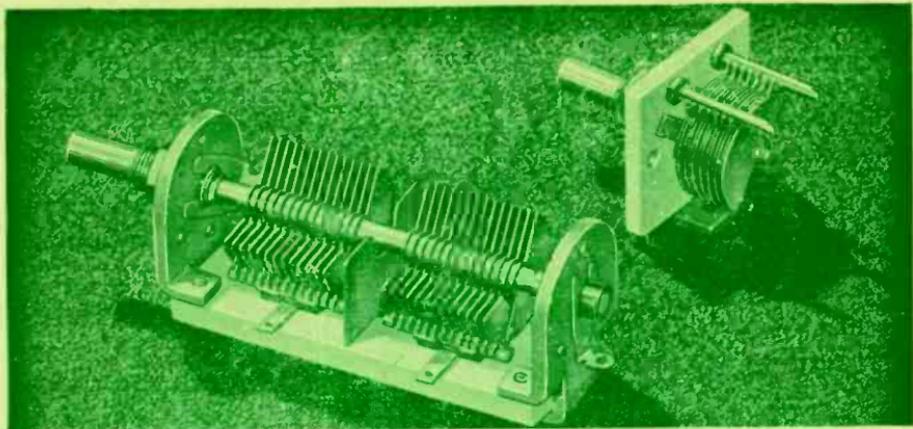
### SHIP STATIONS

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, DOAI, Europa; DHEY, Deutschland; DHJZ, Hamburg; DOAX, Columbus; DHAO, Hansa; DHRL, New York; ICEJ, Rex; IBLI, Conte de Savonia; GBZW, Berengaria; DHDL, Cap Arcona.

### BOOSTERS

To the people whose names appear below we offer our most sincere thanks for securing new members for us since the last issue was printed: Their kindness is very much appreciated. Don Cooper, Norwood, Ohio; Edward Engles, Brooklyn, N. Y.; Richard Shutte, Springfield, Ohio; C. J. Williams, Phillipsburg, St. Martins Island; Forrest D. Poole, Portsmouth, Ohio; F. S. Le Pavoux, Channell Islands; J. Dowding, Channell Islands; John Georgi, Ft. Wayne, Indiana; R. J. Starr, Briercrest, Sask, Canada; Douglas Worcester, Honolulu, Hawaii; R. N. Shaw, Wauchope, Australia; J. G. Van Gendt, Oranjestad, Aruba Island; Thomas Grey, Lyons, Illinois; Harry O. Ben, Erie, Pa.; J. Smith Lainer, West Point, Ga.; W. J. Zabel, Rochester, N.Y.; H. Brazil, London, England; F. L. Pope, London, England.



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