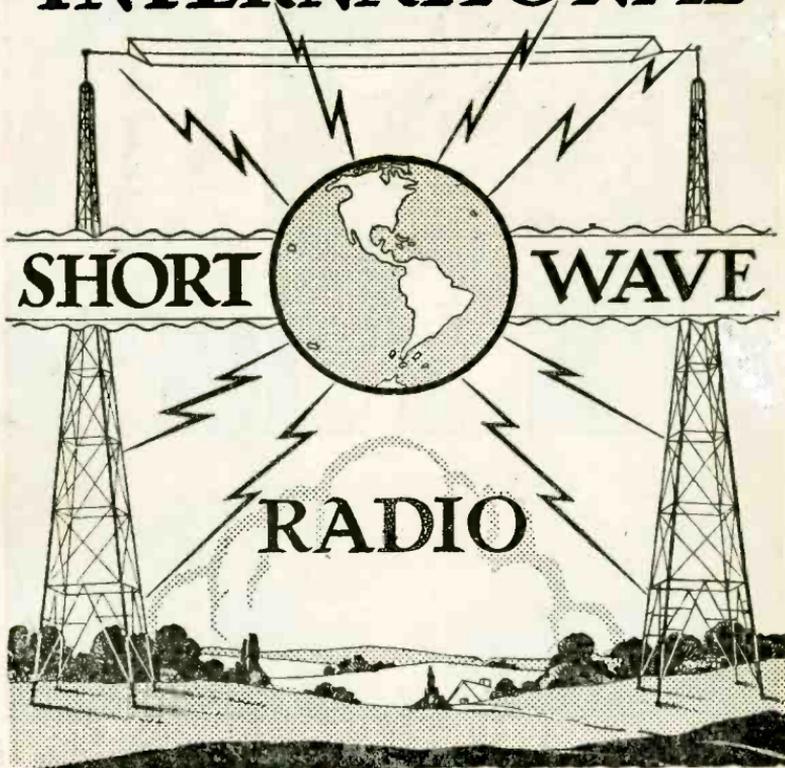


VOL. XII

SEPTEMBER, 1941

NO. 10

INTERNATIONAL



Next Edition Mailed September 15th

This Edition Mailed August 15th

One Dollar per Year

VOICE OF THE
INTERNATIONAL SHORT WAVE CLUB

EAST LIVERPOOL, OHIO, U. S. A.

These "Handies" Are Important



These look like "handies." Actually, they are signals used by radio producers in directing a program. At center, Gordon Waltz, WLW producer, signals that the show is "on the nose," i. e., timing is correct. At right, a graphic gesture meaning "cut." Other signals, reading from top left counter-clockwise, are a direct cue telling the person pointed at to go ahead; finger and thumb forming circle to indicate that all's well; clenched fist calling for music; up-held finger for "one minute to go;" crossed index fingers for a half-minute to go; fingers interlacing as a signal to blend music and spoken words; and a "T" formed with the index fingers to signal "theme."



NC-45

Series valve noise limiter.
 Improved AVC circuit.
 Eight-tube superheterodyne circuit.
 Separate bandspread condenser.
 Tone control.
 CW Oscillator.
 Four Range Coil Switch, 550 kc. to 30 mc.
 Three models; for AC-DC, for AC only and for Batteries.

THE NC-200

Sensitivity better than 1 microvolt.
 Series valve noise limiter.
 Improved crystal filter with rejection ratios as high as 10,000 to 1.
 Stability 3 parts in 100,000 for 20 volt line fluctuation.
 AC line or portable operation.
 Speaker in matching cabinet.

NC-200



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

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ARTHUR J. GREEN, Editor.

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THE EDITOR WRITES

Dear Friends: Most all of you know that an organization such as this one is certain to be affected by present world conditions. That our membership in foreign lands is certain to grow smaller as war and threats of war spread. The only way in which we can compensate for this loss is to work that much harder to get members here in America. How can we find such members? Only through the efforts of those of you who know us and know them.

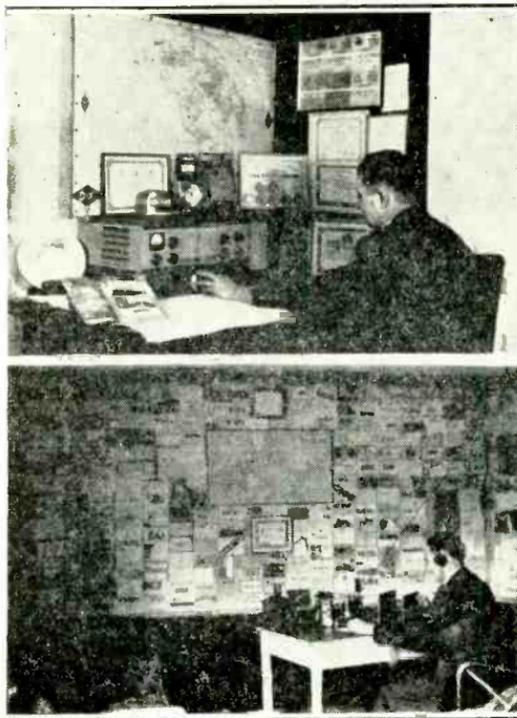
Right now, with many people on vacation, others enjoying the hobbies of summer and with radio taking a back seat temporarily, it seems like a poor time for us to bring up this topic of getting members. But, in the past few weeks we have received many letters from readers commenting on the fact that they want to help us, but they do not know how. Most of them say they are not good enough to be a reporter, not acquainted with a great many other short wave fans and yet they want to help.

Every member of this organization can be of help in some manner. If you know of one other short wave listener, tell us who he is and tell him if this little job of ours is helping you. Send us his name and address. If you know a hundred such listeners, send us the entire list. Whenever you meet a short wave listener, mention the club. All such things help.

In writing to stations for verifications, mention the club. When writing to some friends of yours who owns a short wave receiver, mention the club and tell him how you enjoy your membership in it. When you decide to buy a new receiver or some equipment, mention the club, even if the sale is not made through one of our advertisers. Patronize our advertisers whenever possible. You will find this is more to your benefit than ours, by the way.

If every member of this organization made it a point to take advantage of every opportunity to help us this Fall and Winter, this organization would grow like a mustard plant. Why not make up your mind now to do your part. First thing to do is see how many friends you know who might want to join us, and then tell us who they are. After that, just keep us in mind at every opportunity. And we will appreciate it all.

SHORT NOTES ABOUT SHORT WAVES

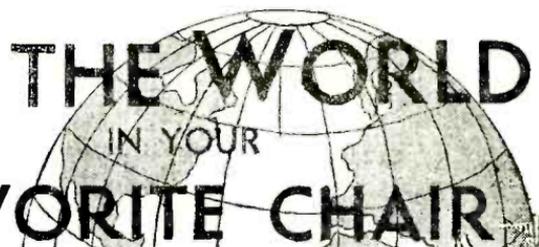


You asked for some more pictures of members, so here they are. The top picture is that of Eric Bristow and his den. Mr. Bristow makes his home at 5674 Ridge Avenue, Chicago, Ill. He is using a brand new National receiver. His Heard-All-Continents certificate, with seven seals shows up plainly in this picture. The second picture is that of T. W. Moss, 2 Bear Street, Exeter, Devon, England. This same picture was used recently in a British newspaper with the heading "Geography Up To Date." On the wall are cards and letters from 92 countries, all 48 states in the U. S. A. on amateur bands, and many ships and other stations. —The Balston Spa Journal and the Saratogian of Saratoga, New York, each gave LeRoy Waite a write-up on taking down second prize in our DX contest which ended last month.

—Dixon Russell of Baltimore, is now a rookie, as

he says, in Company C, 176th Infantry, Fort Meade. Stick out your chest, Dixon, you are in fine company. —Leon A. Hutchinson of Milford, New Hampshire, is back home after a period of time in the hospital. He says he feels better but has been instructed to stop working and that hurts. He thanks all of those who wrote him at the hospital. —Captain R. B. Oxrieder, formerly of State College and Canal Zone is now Major Oxrieder of Fort Belvoir, Virginia. —Hilding Westerberg of Roxbury, Mass., stepped out and got us a new member. For which we are thankful. —Our story on the network of the Americas published last month brought many replies of varied sorts. In answer to them, we can say we do not have all the facts, but we understand that programs will originate in New York and be relayed by the twenty three stations mentioned. They will not carry all Columbia Broadcasting programs, but only special International programs. Many members commented on having all these stations sending

just one program all night. This is not the case, from what we understand and each will carry regular local programs daily.—The General Electric Company recently made a survey of short wave listener habits in Argentina. A total of 1518 persons of select ages were interviewed in forty areas. Of these owners of short wave sets 23.3 per cent said they listened oftenest to the stations of the U. S. A. Germany was second with 19.5, and England third with 17.4 per cent. Italy had 11.3. The survey also revealed signal strength of U. S. A. stations were stronger. Fifty per cent reported U. S. A. stations very good while that rating was given German stations by 46.1, and England by only 31.3. The good rating was U. S. A. 36.8, Germany 34.8 and England 36.3. Eighty four per cent of all persons interviewed owned a radio set. Of these 47.7 per cent were able to receive short wave programs and 16.72 per cent, a larger percentage than revealed to date in the U. S. A., were short wave listeners.—The editor gave up an all-expense paid fishing trip to Rice Lake, Canada, in order to get this magazine out on time. We hope that our friends will appreciate it that much more for having told you this.—The amount of news, especially that on new stations, revealed this summer equals any winter we have had to date. There has been a lot of things happening in short wave radio this summer.



ROUND THE WORLD IN YOUR FAVORITE CHAIR



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.

NEW STATIONS

Australia. Since July 27th, VLR-3, Melbourne, on 11.88 mc. has been broadcasting from 3:30 A. M. to 11:10 A. M. and VLR-4 on 15.23 from 3:30 P. M. to 3:15 A. M. This comes direct from the station. According to Gus Gallagher the call was changed to VLG-3 on 15.23 mc. Each has ten kw. power and have been heard by many now, (Legge, N. Y., Gallagher, Calif.) VLG, Melbourne, is a new one on 9.58 mc. transmitting at 10:30 A. M. to

Western North America and VLG-5 is the call-sign now used on 11.88 mc. heard till 6:00 A.M. for Australia, 6:20 to 7:05 A.M. for America and at 8:10 A.M. for Asia. (Legge, N. Y.)

Andorra. "Radio Andorra," in that tiny province between France and Spain, is in the news again. It is reported on 11.67 mc. at 6:30 A.M. This station first hit this magazine in 1936 when it was reported by a European listener. Later on the station denied being on short waves, claiming the reception was a harmonic of their long wave station. Just whether this is still true is something we can not say, as we do not know their long wave frequency.

Cameroons. One American radio magazine continues to claim a station FIB, at Yaunde, is on 6.285 mc. and 11.29 mc. daily at 3:10 A. M., but we have never seen a reception report on it. Further news will be appreciated.

Denmark. A station announcing "Radio Denmark" is on 9.71 mc., 30.90 meters daily 12:30 to 12:45 A.M. and is very strong in Australia, (Keast, Australia).

Fiji Island. VPD-4, Suva, on 14.425 mc. reported twice in July by a listener in Australia at 12:45 A.M. (Australian Radio World). This may be just a telephone.

Free France. A station announcing "Unconnu" which is French for "Unknown" is heard on 9.749 mc. every day 2:30 to 3:00 P.M. always closing at 3:00 P.M. (Keast, Australia).

Free French Africa. A station on 9.94 mc. heard at 4:10 P.M. once in French. Location unknown, (Legge, N. Y.) A newspaper received from Brazzaville says that "Radio Club" operates 2:00 to 2:20 A.M., 3:00 to 3:20 A.M., 4:00 to 4:20 A.M., 6:30 to 7:20 A.M., 8:30 to 8:50 A.M., 9:30 to 9:50 A.M., 2:00 to 3:00 P.M., 4:30 to 6:00 P.M., on 24, 25, 36, and sometimes 17 meters, (Legge, N. Y.)

Ireland. New EIRE station is on 15.12 mc. 1:30 to 4:00 P.M. now. They also use 17.84 mc. 7:30 to 8:30 A.M. and 12:30 to 1:15 P.M. and on 9.59 mc. 4:10 to 5:00 P.M., (Legge, N. Y.)

Philippines. KZND, Manila, is on 8.79 mc. or 34.13 meters daily 6:00 to 8:00 A. M. (Keast, Australia).

Salvador. YSR, "La Voz de El Salvador" at San Salvador heard evenings till 9:30 P. M. on 6.515 mc. (Legge, N. Y.)

Slovakia. "Radio Bratislava," at that city heard on 9.525 mc. Mondays and Fridays 6:00 to 7:00 P.M. (Legge, N. Y.) Announces 9.530 mc. but on 9.525, (Legge).

Surinam. PZH, Paramaribo, is heard on 11.516 mc. irregularly 6:00 to 7:00 P.M., usually in Dutch, but sometimes in English, (Legge, N. Y.)

GENERAL NEWS

OCEANIA

Australia. VLQ-6 on 9.68 mc. and VLG-5, a new one on 11.88 mc. heard 7:20 to 8:05 A.M. to U. S. A. daily, (Hutchinson, N. H.) VLG-6 now the

call-sign in place of VLR-4 on 15.23 mc. daily 3:30 P.M. to 3:15 A.M., VLR 3 on 11.88 heard midnight to 3:00 A.M., contrary to schedule. VLR-8 on 11.76 mc. discontinued broadcasting June 29th, (Gallagher, Calif.) A program sheet direct from Australia shows VLR-8 still in operation daily 3:30 to 7:15 P.M. and 9:00 P.M. to 3:15 A.M. as of August 2nd—Editor.) VLW-3, Perth, on 11.83 mc. still operates midnight to 3:00 A.M. (All from Gallagher, Calif.)

Fiji Islands. VPD-2, Suva, on 9.53 mc. is broadcasting a French program nightly midnight to 12:30 A.M. (Gallagher, Calif.) VPD-4 on 14.425 mc. heard at 12:45 A.M. in Australia.

New Caledonia. FKSAA, Noumea, on 6.13 mc. has added the Star Spangled Banner, to God Save the King and the Marseillaise in their closing theme. Schedule is 2:30 to 3:30 A.M. (Australian Radio World).

AFRICA

Algeria. TPZ-2 on 8.95 mc. is heard at 2:00 A.M. now as well as 4:00 P. M.

Free French Africa. "Radio Dakar," FGA, in the Sengal District, is reported on three frequencies now. It is on 6.435 mc., 8:15 to 9:00 A.M., on 9.40 mc. 3:15 to 4:15 P.M. and on 13.355 mc. 8:15 to 9:00 A.M. Brazzaville does not show FZI as call-sign, but gives schedule as 1:00 to 1:15 A.M., 8:30 to 9:15 A.M., 2:45 to 4:15 P.M. and 10:00 to 11:00 P.M. with English used at 2:45 and 10:45 P.M. The announcer once said that General De Gaulle was opening another more powerful station soon, but did not give details, (Keever, Ohio). Heard at 2:45 and 10:00 P.M. (Greenman and Russell). Heard last month at 7:00 P.M. (Anthony, D. C.) Heard at midnight, (Gallagher, Calif.)

French Morocco. CNR, Rabat, on the frequency of 8.03 mc. is reported 2:45 to 6:00 P.M. by an American DX editor in one magazine. This station is on 12.83 mc. at that time. It may be on 8.03 mc. also.

South Rhodesia. Salisbury is heard on 7.317 mc. at 2:00 P.M. to 3:00 P.M. (Australian Radio World). Heard at 1:30 P. M. Address is Box 792, Salisbury (New Zealand DX-tra). Note: African Radio Announcer, a magazine published for Rhodasian listeners still insists that it is 7.21 mc., not 7.31, and the schedule is 4:00 to 4:40 A.M., 6:00 to 6:15 A.M., 10:55 to 11:30 A.M. and 11:50 to 3:00 P. M.

Tangiers. "Radio Falange" at Tangiers, is on 7.09 mc. daily 3:00 to 5:00 P.M. according to Australian Radio World. One on 5.88 mc. is reported in an American magazine 2:00 to 4:00 A.M., but that would be an odd time.

Tunisia. "Radio Tunis" at Tunis, is on 15.65 mc. between 11:30 A.M. and 3:00 P.M. (Australian Radio World)

ASIA

China. Australian radio magazines list these stations, all at Shanghai. FFZ on 12.09 mc. 4:00 to 10:00 A.M., XGRS on 12.01 mc. 3:30 to 10:00 A.M., XIRS on 11.98 mc at 7:00 A.M., and XMHA on 11.85 mc. 3:30 to 10:00 A.M. They used to list these, too. XOZ, Chengtu, on 15.51 mc. at 6:00 A.

M.; XHHB, Shanghai, on 7.97 mc. at 8:00 A.M.; XGAP, Pekin, on 9.56 mc. at 8:00 A.M., and XEAP, location unknown, on 15.13 mc. at 6:30 A.M. XIRS is a new Italian-owned station, but may be the old German-owned station under a new call. (Thanks to members Simpson and Keast).

India. The latest issue of Australian Radio World drops those Indian station mentioned last month on the 3 mc. band, heard at 9:00 A.M. Our list is made up from schedule received direct from the station. It does not show Delhi on 6.08 mc. at 7:30 A.M. nor Calcutta on 6.11 mc. at 11:30 P.M. as shown in Australian magazine last month.

Indo-China. The latest schedule from Saigon shows 6.185 mc. midnight to 12:35 A.M., 4:20 to 4:35 A.M. and 5:15 to 11:00 A.M. and the same on 11.78 mc. English is used 5:45 to 6:15 A.M. and 10:20 to 11:00 A.M. (Trisdorfer, N. Y.) We are wondering if this is Eastern Standard Time, however.

Iraq. Latest schedule for Iraq stations, according to a letter received direct from the manager is on 7.08 mc. 9:00 A.M. to 2:00 P.M. and the frequency of 9.88 mc. is used for special programs only. An American listener in another magazine reports hearing a Lahoer station on 15.29 mc. from 9:30 to 9:45 A. M.

Japan. We do not have the latest schedule direct from the station, but reports show these broadcasts. JZJ on 11.80 and JLG-4 on 15.10 mc. 10:00 A.M. to 3:00 P.M. JLG-4 and JLU-4 on 17.795 mc. 4:30 to 7:30 P.M. Same stations also 7:30 to 9:30 P.M. JZK on 15.16 mc. and JZJ on 11.80 mc., 10:30 to 1:00 A.M. Once transmitters on 17.795 mc. and 11.74 mc. were heard, 1:30 to 3:30 A.M. both using call-sign JLU-4, (Gallagher, Calif.)

Java. PMA on 19.34 mc. heard sending program for re-broadcasting in America 6:30 to 7:00 P.M. twice in July, (Gallagher). PLE on 18.83 mc., PLT on 9.42 mc., PLS on 11.65 mc., PLQ on 19.68 mc., PLN on 11.60 mc., PLG on 15.95 mc. all have been heard testing around 7:00 to 8:00 A.M., according to word from Australia. We do not know how long ago this may have been.

Manchoukuo. MTCY, Hsinking, is heard on 9.195 mc. or 32.63 meters, opening at 9:30 and closing at 10:30 A.M. daily. This is a new frequency, (Keast, Australia). Schedule on 11.78 mc. changed to 12:30 to 1:30 A.M. now, (Gallagher).

Syria. The station on 8.03 mc. that was heard midnight to 12:20 A.M. daily has not been heard since the war opened on this front.

Straits Settlements. ZHP-2, Singapore, is now on 6.175 mc. 3:40 to 9:40 A.M. according to Australian Radio World. A letter says they will increase power by end of year, (Legge, N. Y.)

EUROPE

England. Because the BBC is using many stations that broadcast only for ten or fifteen minutes in some foreign language and others that may use English and then stop suddenly to broadcast in a foreign language, we find the schedules of these stations hardest to understand and keep correct of all the stations in the world. Our list is made up from the official

program sheet for August 23rd. Noticable changes are that they are on 6.08 mc. 11:30 to midnight and 5:20 to 5:30 P.M., on 6.11 mc. 6:45 to 7:00 P.M., on 7.23 mc. 11:00 P.M. to 5:45 P.M. next day, on 7.06 mc., a new frequency, midnight to 3:15 A.M., on 17.79 mc. 6:45 to 7:00 A.M. and on 21.63 mc. 6:15 to 8:15 A.M.

Finland. OFD on 9.50 mc., OFE on 11.78 mc. and OIE on 15.19 mc., all at Lahti, have been operating irregularly since war with Russia began. The schedule is supposed to be 10:30 A.M. to 5:00 P.M., but has been reported near 1:00 A.M. by Gallagher, of California.

France. Stations announcing "Paris Mondial" on 11.85 mc., 11:00 A.M. to noon and 11:15 to 11:30 P.M. and on 15.24 mc., 1:00 to 2:00 A.M. and midnight to 12:15 A.M. (Jones, Tenn. and Gallagher, Calif.)

Germany. A German "Secret station" is on 9.80 mc. at 5:00 P.M. according to Australian papers. New station heard on 14.26 mc. evenings, (Bird, Del.) Some German on 15.24 mc. sending same program as DJR midnight to 2:00 A.M. (Gallagher, Calif.) New one on 6.25 mc. called DXX at 8:30 P.M. almost daily, (Stecher, N.J.) One called DGL heard on 12.035 mc. twice 10:00 to 11:00 P.M. (Gallagher, Calif.) Same one heard 4:00 P.M. to 5:00 P.M. (Anthony, D. C.) DZE on 12.13 mc. heard 9:00 to 10:00 P.M. four times recently and call-sign on 10.54 mc. is DXF. They also use this call on 15.22 mc. (Gallagher, Calif.) Australian radio fans report these. DXT on 15.23 mc. at 11:00 P.M., DZA on 10.087 mc. 2:30 to 3:30 P.M., DZB on 10.04 mc. at 3:30 P.M. and DXM on 7.27 mc. 3:00 to 5:00 P.M. Most of these are new to us.

Italy. 2RO-14 on 15.23 mc. and 2RO-15 on 11.76 mc. heard 12:30 to 1:30 A.M. irregularly, (Gallagher, Calif.)

Netherlands. PCJ, Eindhoven, on 15.22 mc. heard relaying Berlin after 5:00 P.M. now, (Bird, Del.)

Norway. LKQ, Oslo, on 11.735 mc. heard again after long silence according to Australian listeners. Schedule is midnight to 2:00 A.M. and 10:00 A.M. to 4:00 P.M. Heard very plainly 4:00 to 5:30 P.M. one Wednesday, (Anthony, D. C.)

U. S. S. R. No schedules have been received for two months, although they used to come weekly. News in English is given 10:00 to 10:50 A.M. on 16 and 19 meters. 6:00 to 6:55 P.M. on 16 meters, 7:30 to 8:00 P.M. on 19 and 31 meters and 9:30 to 10:30 P.M. on 19 and 21 meters according to announcements. Gallagher of California, reports these stations. On 9.55 mc. and 9.56 mc. at midnight, on 9.60 mc. 9:30 to 11:00 P.M., on 15.04 mc. 10:30 to 11:00 A.M., on 15.11 mc. 6:00 to 11:00 P.M., on 15.18 mc. 7:00 P.M. to 2:00 A.M. next day, and 10:30 to 11:00 A.M. and 11:00 P.M. to midnight. Many of these are new frequencies and most are new schedules. Van Bergen of New York, reports Moscow on 15.26 mc., another new one, at 8:45 P.M. Nichols of Pennsylvania, reports English is used at 7:05 A.M., 10:30 A.M., 7:30 P.M. and 9:30 P.M.

Spain. Can anyone hear Malaga on 7.12 mc., EAJ-9, also Malaga, on 7.17 or San Sabastian on 7.21 mc. at 3:30 P.M.? Some magazines still list

them. They also report a new one, EAJ22, at Oviedo, on 7.14 mc. at 3:30 to 4:30 P. M.

Sweden. SBT, on 15.15 mc. and SBP on 11.71 mc. can be heard evenings till 9:00 P. M. sending programs, (Van Bergen, N. Y.; Burrell, New Mexico, and Pickering, N. J.)

Switzerland. A letter says the summer schedule of broadcasts are as follows: HER-3, Berne, on 6.165 mc. broadcasts week-days 12:20 to 1:40 A. M., 6:00 to 7:45 A.M. and 1:00 to 5:00 P.M. and Sundays 12:45 to 1:40 A.M., 3:00 to 7:45 A.M. and 1:00 to 5:00 P.M. HER-5 on 11.865 mc. broadcasts daily 8:00 to 8:30 A.M. The address given is Service de la Radio-diffusion Suisse, Section des Ondas Cortes, Neuengasse 30, Berne, (Legge, N.Y.) HER-3 heard 12:20 to 12:40 A.M. also, (Keast, Australia). HER-3 heard on 9.53 mc. 8:00 to 9:00 P.M. once, using slogan "This is Switzerland calling," (Gallagher, Calif.) Is HER-4 on 9.53 and heard Mondays and Wednesdays along with HBO and HBL till 9:10 P.M. (Legge, N. Y.)

Anti-Fascist station. Is heard on 9.66 mc. or 31.06 meters, noon, 2:00 P.M., 4:00 P.M., 6:00 P.M., 7:00 P.M. and midnight, (Australian Radio World. There is also "Christian Peace Movement" station on 9.44 mc., heard 2:45 to 3:00 P.M. almost daily, (same reporter).

SOUTH AMERICA

Chile. Some station believed to be CB-950, Santiago, is heard on 9.50 mc. evenings. (Miner, Mass.) CEC, a telephone station on 10.67 mc. sent musical program 8:00 to 10:00 P.M. once. (Gallagher, Calif.)

Ecuador. HCJB, Quito, on 12.46 mc. heard till 8:30, not just 8:00 A.M. (Dippy, N. J.) Heard till 10:35 A.M. (Jones, Tenn.)

Paraguay. A station believed to be ZP-14 heard nightly 7:30 to 8:00 P.M. on 11.72 mc. (Legge, N. Y. and Bird, Del.)

Peru. OAX3A, "Radio Huanuco" of that city verified. Owner's name is Victor Priano and address is Apartado 27, Huanuco. Station is heard on 6.205 mc. till midnight, (Legge, N. Y.) OAX1A, Chiclayo, moved from 6.15 mc. to 6.29 mc. again, (Legge, N. Y.) OAX6D "Radio Continental" at Arequipa, heard on 9.45 mc. till 11:00 P.M. (Legge). OAX6D heard till midnight, (Simpson, Australia). OAX5C, Lima, on 9.80 mc. in place of 9.77 and OAX4G, Lima, on 6.19 in place of 6.29 mc. (Legge, N. Y.)

Uruguay. CXA-2 "Radio Continental" (same as OAX6D) heard on new frequency of 12.00 mc. near RNE, Moscow. Is at Montevideo. (Legge, N.Y.) Some station at Montevideo heard on 9.77 mc. after 6:00 P.M. (Bird, Del.)

CENTRAL AMERICA

Costa Rica. TI4NRH, Heredia, on 9.69 mc. heard 11:30 P.M. to 12:15 A.M. one Saturday and announcing a Monday broadcast to be 6:00 to 7:00 P.M. and 11:00 P.M. to midnight. Evidently this is a new schedule, (Keever, Ohio).

Nicaragua. YNLAT, "La Voz del Mombacho" at Granada, heard on 7.62 mc. 8:00 to 10:00 P.M. and YN2FT, Granada, "La Voz de la Sultana," heard on 7.49 mc. daily 8:00 to 10:00 P.M. Were former amateurs, but

now broadcast, (Legge, N.Y.) Managua station heard on 8.58 mc. 8:00 to 9:00 A.M. (Simpson, Australia).

Salvador. HUB, on 5.56 mc. operates 1:00 to 2:00 P.M. and 8:30 to 11:00 P.M. now, (Jones, Tenn.)

WEST INDIES

Bahamas. ZNS, Nassau, on 6.09 mc., sends this late schedule: 8:00 to 8:30 A.M., 1:00 to 1:15 P.M. and 6:00 to 9:00 P.M. Believe they operate till 9:45 P.M. only when able to relay program from London. (Keever, O.)

Cuba. Some Cuban station is heard between 9.43 and 9.50 mc. advertising Westinghouse and not on list, (Burt, Mexico).

Haiti. HHBM, a new 100 watt station at Port-au-Prince, on 9.66 mc. heard regularly starting up at 7:00 A.M. now. (Legge, N.Y.) HH3W, same city, on 9.90 mc. heard signing off at 9:45 instead of 9:00 P.M. (Keever, Ohio). Signed off at 4:10 P.M. once, off schedule, (Pickering). Uses English every Monday evening, (Keever and Dippy). Moved to 10.10 mc. late in May, (Gallagher, Calif.) Heard on 10.15 mc. (Jones, Tenn.)

NORTH AMERICA

Canada. CBFY, Montreal, on 11.705 mc. has replaced CBFW on 6.16 mc. and now operates 7:00 A.M. till 11:00 P.M. (Legge, N. Y.)

Hawaii. KKH on 7.52 mc. relayed programs of KGU 10:00 to 11:00 P. M. once and 11:30 to midnight once last month and KHE on 17.79 mc. relayed KGMB at 8:30 P.M. once and at 11:30 P.M. once, (Gallagher, Calif.) These are telephone stations, and we believe KHE is on 17.95 mc., not 17.79, which was probably a misprint in a long report sent us.

U. S. A. KGEI, Belmont, California, moved back to 9.67 mc. from 9.53, (Gallagher, Calif.) WGEA, Schenectady, is on 6.19 mc. 8:30 to 9:30 P.M. daily. (Priest, Georgia). Heard at 12:30 A.M. is New Zealand, (New Zealand DX-tra).

WITH THE REPORTERS

Our list of reporters is small, but the amount of news is wonderful and we certainly wish to thank them. They are: Dixon Russell, Fort Mead, Maryland; Thomas Nichols, Philadelphia, Pa.; George Trisdorfer, Brooklyn, New York; Howard Keever, Lebanon, Ohio; Leon Hutchinson, Milford, New Hampshire; Lewis Greenman, Conneaut, Ohio; F. Anthony, Washington, D. C.; Mills Van Bergen, Syracuse, New York; G. C. Gallagher, San Francisco, California; Roger Legge, Jr., Binghamton, New York; John Priest, Atlanta, Georgia.

ADVISE DESIRED

Ever since the first issue of this paper went to press nearly twelve years ago we have used the suggestions of members to guide our course. We still want that advise. After all, this is an organization of, by and for short wave fans, and operated by short wave fans. If you have any ideas on how to improve the magazine, what new departments might be added to help us, how to get new members, or any other helpful ideas, do not hesitate to send them in.

LATE NEWS

Reports received too late to classify. From LeRoy Waite, Balston Spa, New York. Finland, using OFD on 9.50, OFE on 11.78 and OIE on 15.19 mc. all heard 7:45 to 8:05 or 8:10 P.M. many times lately. Asked for reports to be sent to Finnish Legation in Washington, D. C. PZX, Paramaribo, Suriname, heard 7:00 P.M. till 7:30 P.M. closedown, on 11.52 mc. And VLG-5, Australia, on 11.88 mc. heard 6:20 to 7:05 A.M.

From Gus Gallagher of San Francisco. Australian schedule is 9.56 mc., 8:10 to 9:40 A. M., 9.61 mc. 3:25 to 4:25 A. M., 8:10 to 9:40 A. M. and 10:25 to 11:10 A. M. On 9.68 mc. 6:20 to 7:05 A. M. On 11.87 mc. 6:40 to 7:15 A. M. and 12:55 to 1:40 A. M. On 11.88 mc. 6:20 to 7:05 A. M., 8:10 to 9:40 A. M. and 10:25 to 11:10 A. M. on 15.23 mc. 12:55 to 1:40 A. M. The 12:55 to 1:40 A. M., 6:20 to 7:05 A. M. and 10:25 to 11:10 A. M. programs are for North America. (According to our understanding VLG-5 on 11.88 mc. and VLG-6 on 15.23 mc. broadcast continuously as shown in our list while these programs shown here are the National programs only).

From J. W. Commane, Lafayette, New York. VLG-5 on 11.88 mc. heard 6:20 to 7:05 A. M., JLG-4, Tokyo on 15.105 mc. heard at 4:30 P. M. and Switzerland on 9.53 mc. heard in English at 8:00 P. M.



STATION DETAILS

In an effort to make stations easier to identify and to help readers get those enraptured verifications from stations, we set aside each month a certain amount of space to give you station details. (S) means the slogan, or words used by the station announcer when referring to the station. (SO) means special songs used to identify the station as they come on or leave the air. (I) means the special signal used when the station is standug-by. (QRA) means the address of the station, where reports should be sent.

COSTA RICA

TIRCC, San Jose, 6.18 mc., 50 watts. Relays TIAC. (I) Four bells (S) "Radioemisora Catholica Costarricense." (SO) "The Lost Chord." Dr. Carlos Borge C., director. Catholic Church, owners. QRA: Apartado 1064.

TI2RS, San Jose. 7.45 mc. (S) "Radioemisora Athenea." QRA: Rogelio Sotela, San Jose.

TI7RM, Guanacaste, 5.98 mc., was on 6.03. (S) "La Voz de Guanacaste" John Gilbert Daly, owner and operator. QRA: Radiodifusora TI7RVM, John Gilbert Daly, Guanacaste.

TI4NRH, Heredia, 9.69 mc., 500 watts. Makes English announcements. (I) All sorts of signals, like train puffing, bells ringing, etc. Amando Cespedes Marin, owner. QRA: Apartado 40, Verifies for a dime, with beautiful veri. Must have exact details of reception.

CUBA

COBC, Habana, 9.35 mc., 1000 watts. Relays CMBC. (S) "El Progreso." (SO) "Morir Sonyando," (I Die Dreaming), a waltz. Adalberto Fernandez and Antonio Estruch, announcers. Manuel Fernandez, manager. Domingo Fernandes, owner. QRA: Apartado 132 or Mazimo Gomez 139.

COBX, Habana, 9.15 mc., 500 watts. Relays CMBX. (S) "De los Talleres de Radio Alvarez." (SO) "El Manisero" (The Peanut Vendor, song). Adolpho Ulloa, announcer. Alberto Alveras, owner. QRA: San Miguel 194, Altos.

COBZ, Habana, 9.03 mc., 250 watts. Relays CMBZ. (S) "Radio Salaz." (SO) Record "Popular Melodies" with birds singing. (I) Four chimes. Manuel and Guillermo, owners. QRA: Apartado 866 or San Safael 14.

COCA, Habana, 9.10 mc., 100 watts. Relays CMCA. Testar and Gonzales, owners. QRA: Ave de Italis No. 120 or Galiano 120.

COCD, Habana (Vedado), 6.13 mc., 250 watts. (S) "La Voz del Aire." Relays CMCD. (SO) On with "In a Clock Store," off with famous "Good Night Melody." English used every fifteen minutes. J. Benitez, manager. QRA: Apartado 2294 or Hotel Palace, Calle 25 y G, Vedado, Habana.

COCH, Habana, 9.43 mc., 5000 watts. Relays CMCF. (S) "General Electric Station." (SO) "La Golondrinas" (The Swallow). (I) Three raps on gong. Leonardo Cano, manager. General Broadcasting Co., owners. QRA: Apartado 41 or Prado 9, Altos.

COCM, Habana (Vedado) 9.84 mc. 1,000 watts. Relays CMBL. (SO) March "uno B. C." Laureano Suarez, Director. QRA: Apartado Num. 541, Vedado or Calle 25 No. 1113, Vedado.

COCO, Habana, 8.70 mc., 2500 watts. (SO) A waltz, "Caribe." (I) Three musical notes. E. Casas Rodriguez, announcer. Luis Casas Romero, manager. Luis Casas and Sons, owners. QRA: Apartado 98 or San Miguel 86, Altos.

COCQ, Habana (Aidecoa), 8.83 mc., 5000 watts. Relays CMQ. (S) "Del Jabon Candado." (SO) "Siboney." Miguel Gabriel, manager. Angel Cambo, director. Cambo and Gabriel, owners. QRA: Calle 25, No. 445

COCW, Habana, 6.32 mc., 200 watts. (S) "La Voz de las Antillas." (I) Three chimes. (SO) "Estrellita" (Little Star) an organ number. P. Medina, C. Irigoyen, V. Gonzales and F. Fernandez, announcers. A. Gil and M. Troncoso, managers. Adolfo Gil Izquierdo, owner. QRA: Apartado 130 or Paseo de Marti 105, Altos.

COCX, Habana, 9.20 mc. 1,000 watts. Relays CMX. (S) "Cigarros Y Tabacos La Corona." (SO) Two recordings, "Good Night My Love" and "Pajarillo Barranqueno." Mario Lavin, Mamon Menendez and Juan Dominguez, announcers. Gilberto Lavin, manager. Francisco Lavin, owner. QRA: Apartado 32 or Ave. Simon Bolivar 76, Altos.

COGF, Mantanzas, 11.80 mc., 1000 watts. Relays CMGF. (S) "La Ecos del Valle del Yumuri." (SO) Waltz, "Vals Diana." Miguel A. Diaz del Castillo, Eusebio Valls and Luis Villabella, announcers. Dr. Salvador de

la Torre, manager. Bernabe R de la Torre, owner. QRA: General Betancourt 51.

COIIB, Sancti-Spiritus, Santa Clara Prov., 6.28 mc., 2000 watts. Relays CMHB. (I) Four strokes of gong. (SO) Drinking song "La Traviata." Adolfo Rubio and Ernesto Gonzales, announcers. Ortelio Ramirez Isla, director. Vicente Weiss Ariss, manager. Vicente Feiss and Ortelio Ramirez, owners. QRA: Apartado 85 or Serafin Sanchez No. 3.

COHI, Santa Clara, 6.45 mc., 300 watts power. (S) "La Frente al Paraque Vidal." Relays Cuban Blue Network and CMHI. QRA: P. O. Box 376, Santa Clara.

COJK, Camaguey, 8.66 mc., 1000 watts. Relays CMJK. (S) "Radio Zenith." (I) Three-toned gong. Vincent Jones and Juan Castrillon, announcers. Juan Castrillon, manager. Frank H. Jones, owner. QRA: Finlay 3, Altos.

CKK, Havana, 11.62 mc. QRA: Sports Palace, Havana. 2,000 watts.

COKG, Santiago de Cuba, 8.96 mc., 2400 watts. Relays CMKG. (S) "Enisor Grau." (I) Three gongs. (SO) "La Conga." Juanita Tremble and Mrs. Marilu, announcers. Manuel Grau Medina and Emilio Grau Medina, managers and owners. QRA: Apartado 137 or Sagarra Alto 26.

COX-4, Havana, 6.39 mc. Relays programs of CMZ. Operated by military section of Cuban government. Details lacking.

COX-7, Havana, 4.29 mc. Same as COX-4.

CZECHOSLOVAKIA

OLR, Prague (Podebrady), 25,000 watts. (uses many frequencies and calls like OLR2A on 6.01, OLR2B on 6.03 etc.) (S) "The Czech-slovak Short Wave Station." (I) Melody from Dvorak's New World Symphony on hunter's horn. (SO) Recording of bells from St. Vitus Cathedral at Prague. J. Horvath (Slovak), Leslie Hill (English) and J. Durdil Richard (Czech), announcers. Bohuslay Tyrdy, manager. Government owned station under supervision of Ministry of Posts and Telegraphs. QRA: Praha XII, Fochova 16. Operating on 11.84 mc. now.

DENMARK

OZF, 9.52 mc., OZG, 11.81 mc., OZH, 15.16 mc., OZI, 17.81, mc., Skamlebaek, 6000 watts. Relays Copenhagen programs. (S) "Danmarks Radio, Koebenhaven, Kalundberg." (SO) "Der er et yndigt Land," national anthem (This is a Winsome Land). Government operated. QRA: Postog Telegrafvaesent Radioingenioertjenesten, Bernstorffsgade 32, Copenhagen V, Denmark. Operating under German control now.

DOMINICAN REPUBLIC

HI1A, Santiago de los Caballeros, 6.19 mc., 15 watts. (S) "La voz del Yaque." (SO) Recording "All Hands." Rafael Western, owner. QRA: Apartado 423.

HI1G, Trujillo, 6.28 mc., and HI2G, 9.30 mc., 200 watts each. A Cordero Puello, owner. Carlos Andreoni and Naomi Gomez, announcers. QRA: Radio HI1G, A. Cordero Puello, Trujillo.

HI1J, San Pedro De Macoris, 5.96 mc., 400 watts. (SO) Nacional Hymn. Antonio Zaglul, announcer. Bebe Bazan, director. Manuel Zaglul, manager. Fausto Donastorg, owner. QRA: Apartado 204 or Calle Jose Trujillo Valdez.

HI1L, Santiago de los Caballeros, 6.49 mc., 250 watts. (S) "Radio-emisora Nacional El Dairio." (SO) National hymn. (I) Six or eight notes on xylophone. Jose Antonio Braga, announcer. Julio Alberto Hernandez, manager. Maria J. Tavares, owner. QRA: Apartado 356 or Calle Presidente Trujillo No. 97, Altos.

HI1N, Ciudad Trujillo, 6.24 mc., 740 watts. (S) "Broadcasting Nacional." (SO) "Himno Dominicano," national hymn. Juan Jose Bravo, Pedro J. Santana and Vinicio Saladin, announcers. Juan Jose Bravo, director. Frank Hatton, manager. Dominican Government, owners. QRA: Calle Arzobispo Merino 79, (poor verifying).

HI1S, Santiago de los Caballeros, 6.42 mc., 250 watts. (S) "La Voz de la Hispaniola." G. Sarnelli, owner. QRA: Apartado 112.

HI1X, 6.35 mc., 900 watts; HI2X, 11.97., 300 watts; HI3X, 15.27 mc., 300 watts; HI3X, 17.76 mc., 300 watts, Ciudad Trujillo. Relay HIX. (I) Bells. (SO) National Anthem of Dominican Republic. Government owned under supervision of J. R. Saladin, Director of Radio Communications. QRA: To Mr. Saladin, care station.

HI1Z, Ciudad Trujillo, 6.31 mc., 280 watts. (S) "Broadcasting Nacional." (SO) Dominican National Anthem. (I) Four chimes on hour and half-hour. Carlos Vallejo, Hector Diaz and Rafael Pellermo, announcers. Frank Hatton, owner and manager. QRA: Apartado 1092, apartado 771 or Ave. Mella 58.

HI2D, Ciudad Trujillo, 6.20 mc., 100 watts. (S) "La Voz de la Accion Catolica." (SO) Violin number "Ave Maria." QRA: Templo Patronal de las Mercedes.

HI3C, La Romana, 6.15 mc., 100 watts power. (S) "La Voz del Papagayo." Miguel Herrero, announcer.

HI3U, Santiago de los Caballeros, 6.01 mc., 125 watts. (S) "De la Ferreteria Alemans" also "La Voz de Comercio" (I) Five chimes. (SO) National hymn and "Maria My Own," an organ number. Moises Franco, owner. Fernando Beltram, manager. Jose Franco, announcer. QRA: Apartado 23 or Calle beller equina a Espana.

HI4V, San Francisco de Macoris, 6.20 mc., 100 watts. (S) "La Voz de los Almacenes Hermanos Chababe." (SO) National hymn. Luis R. Betances Ricart, Jose N. Chabebe Haddad and Ana A. Fdez de Betances, announcers. Luis Betances Ricart, owner. QRA: Mella No. 25.

HI6H, Ciudad Trujillo. 6.115 mc., 250 watts. (S) "La Radio de Pueblo." Emilio Garden and Homero Hoepelman S., owners: QRA: Isabel la Catolica No. 20.

HI9B, Santiago de los Caballeros, 6.39 mc., 200 watts. (S) "Broadcasting Hotel Mercedes." (SO) Dominican National anthem. Eugenio Perdomo, announcer. J. L. Sanchez, Jr., director. QRA: Apartado 95, or Call 30 de Marzo esquina a Libertad. (Verifies now).

HI9T, San Cristobal, 6.12 mc., 40 watts. (S) "La voz de Fundacion" and "The Voice of the Foundation Farms." Raul Henriquez, owner and announcer. QRA: Raul Henriquez, San Cristobal.

HIH, San Pedro de Macoris, 6.78 mc., 250 watts. (S) "La voz del Higuamo." Domingo Mominguez, owner. QRA: Calle Arzobispo Merino No. 97, Ciudad Trujillo.

HIL, Ciudad Trujillo, 6.50 mc., 250 watts. (S) "Achie eye Ell." J. C. Pellicer, director. F. C. Teixido, owner. QRA: Apartado 623 or Ave. Independencia 103.

HIT, Ciudad Trujillo, 6.63 mc., 100 watts. (SO) "LaVoz de la RCA-Victor." (S) "El Hit del aire le habla e la Nacion." (I) Bells. F. A. Sanabia, manager. A. L. Pichardo, owner. QRA: Apartado 1105 or Nicolas de Ovando No. 14, (does not verify).

IDENTIFICATION CONTEST

Here is something that might interest a lot of you. We are offering to give unused Australian postage stamps to value of about 50c to first person to identify the station on 11.91 mc. heard midnight to 1:00 A.M., and another prize of same size to person identifying station on 10.14 mc. heard 8:15 to 10:00 P.M., using English and French, saying "Let's Have a Good Time." The identification must be fairly positive, of course. Tune them in and see what you think about them.

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THE 3.00 MC. GROUP

- 3.30..90.90—YV1RJ, Coro, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.31..90.60—YV4RX, Maracay, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.34..89.80—YV1RO, Trujillo, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.35..89.60—YV5RS, Caracas, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.36..89.30—YV1RT, Maracaibo, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.38..88.80—YV5RY, Caracas, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.40..88.20—YV5RW, Caracas, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.41..88.00—YV5RN, Baraquismeto, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.42..87.70—YV2RC, Merida, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.43..87.50—YV5RX, Caracas, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.44..87.20—YV1RU, Maracaibo, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.45..87.20—YV6RC, Barcelona, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.46..86.70—YV4RP, Valencia, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.48..86.20—YV4RQ, Puerto Cabello, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.49..86.00—YV3RF, Acarigüe, Venezuela. 4:30 to 9:30 or 10:30 P. M.
 3.50..85.70—YV5RV, La Guaira, Venezuela. 4:30 to 9:30 or 10:30 P. M.

Meg. Meters Station City Day A.M. P.M.

Meg.	Meters	Station	City	Day	A.M.	P.M.
6.12	49.00	—H19T	San Cristobal, Dom. Rep.	2:30-4:00 P.M. and 5:40-7:40 P.M.	1 2 3 4 5 6 7 8 9 10 11 N	1 2 3 4 5 6 7 8 9 10 11 M
6.12	49.00	—HP5H	... Panama City	... SMTWTFS	10 11 N	8 . . . 5 6 7 8 9 10 8 . .
6.12	49.00	—FK3AA	Noumea, New Caledonia	Wed., Thurs., Fri., Sat., 2:30 to 3:30 A.M.		
6.13	48.92	—CHNX	Halifax, N. S., Canada	Sat. 8 A.M. to 11:30 P.M., Sun. noon to 11:15 P.M., other days 7:00 A.M. to 11:15 P.M.		
6.13	48.92	—COCD	... Hayvana	... SMTWTFS	8 9 10 11 N	1 2 3 4 5 6 7 8 9 10 11 M
6.18	48.92	—ZFY	Georgetown, British Guiana	6:00-7:30 A.M., 11:00-noon, 3:00-9:00 P.M.		
6.14	48.86	—HJDE	... Medellin	... SMTWTFS		5 6 7 8 9 10 1/2 . .
6.14	48.86	—KZRF	Manila, P. I.	Irreg. 4:30 P.M. up to 11:00 A.M. next day.		
6.14	48.80	—ZRD	Durban, Africa	Weekdays 11:45 to 12:45 A.M.; 3:30 to 7:30 A.M.; 9:00 A.M. to 4:00 P.M.; Sundays same		
6.15	48.78	—H3C	La Romana, Dom. Rep.	6:40 to 11:40 A.M., 5:40 to 7:40 P.M.		
6.15	48.78	—TIRH	... San Jose, C.R.	... SMTWTFS		6 7 8 9 10 1/2 . .
6.15	48.78	—CJRO	... Winnipeg	... SMTWTFS		8 9 10 11 1/2 . .
6.16	48.70	—HJCD	... Bogota	... SMTWTFS		7 8 9 10 1/2 . .
6.16	48.70	—TILS	... San Jose	... SMTWTFS	7 s . . . N	1 s . . . 6 7 8 9 10 1/2 . .
6.16	48.68	—HER-3	Berne, Swit.	... MTWTFS	6 7 . . . 1	2 3 4 s . . . 1/4
6.17	48.62	—ZHP-2	Singapore, S.S.	3:40 to 9:40 A.M.	5 6 7 . . . 1	2 3 4 s . . . 3/4
6.17	48.62	—XEXA	... Mexico City	... Irreg.	6 7 8 s . . . N	1 s . . . 5 6 7 8 9 10 8 . .
6.17	48.62	—WCBX	... New York	... SMTWTFS		1/4 11 s . . .
6.18	48.54	—TROC	... San Jose	... MTWTFS		7 s . . .
6.18	48.54	—	... Saigon	... SMTWTFS	4 5 6 7 8 9 10 1/4	
6.19	48.50	—H1IA	... San de LaCab.	... SMTWTF	4 8 s . . . 1	8 s . . . N 1 s . . . 4 5 6 7 . . .
6.19	48.50	—TG2	... Guatemala	... SMTWTFS	4 8 9 s . . .	6 7 8 9 10 1/2 . .
6.19	48.47	—WGEA	... Schenectady	... SMTWTFS		8 9 . . .
6.19	48.47	—HVJ	... Vatican	... S T		8 9 . . .
				Tues.-Fri., Sat. 2:00-3:00 P.M., Tues. 5:00-5:30 A.M., Thurs. 6:30-7:00 A.M., 1:30-3:00 P.M. and 8:00-9:30 P.M.		
6.19	48.97	—OAX4G	... Lima, Peru	... SMTWTFS		7 8 9 10 11 s . . .
6.20	48.39	—H14V	... San F de J	... SMTWTFS		7 8 9 10 s . . .
6.20	48.39	—H12D	... Trujillo	... S		2 s . . .
6.20	48.39	—CS2WD	Lisbon, Portugal	Daily 3:00 to 6:00 P.M.		
6.20	48.39	—CP-5	La Paz, Bolivia	Heard around 7:00 to 11:00 P.M. at times.		
6.20	48.35	—OAX3A	Huanuco, Peru	Heard 7:00 P.M. to midnight.		
6.21	48.35	—H1IX	Trujillo, Dom. Rep.	Mon. 7-8 P.M., Tues. 8:30-10 P.M., Wed. 7-10 P.M., Thurs. 7:30-10 P.M., Fri. 8:30 to 11 P.M., Sat. 2-6, 7-8, 10-11 P.M.		



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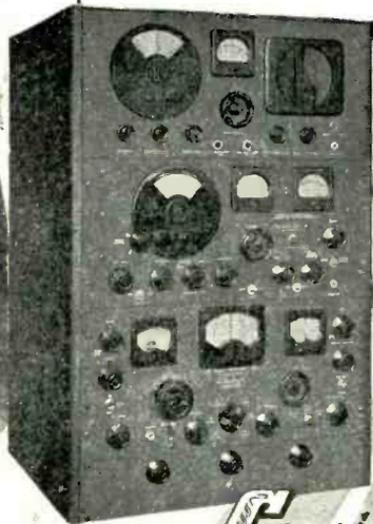
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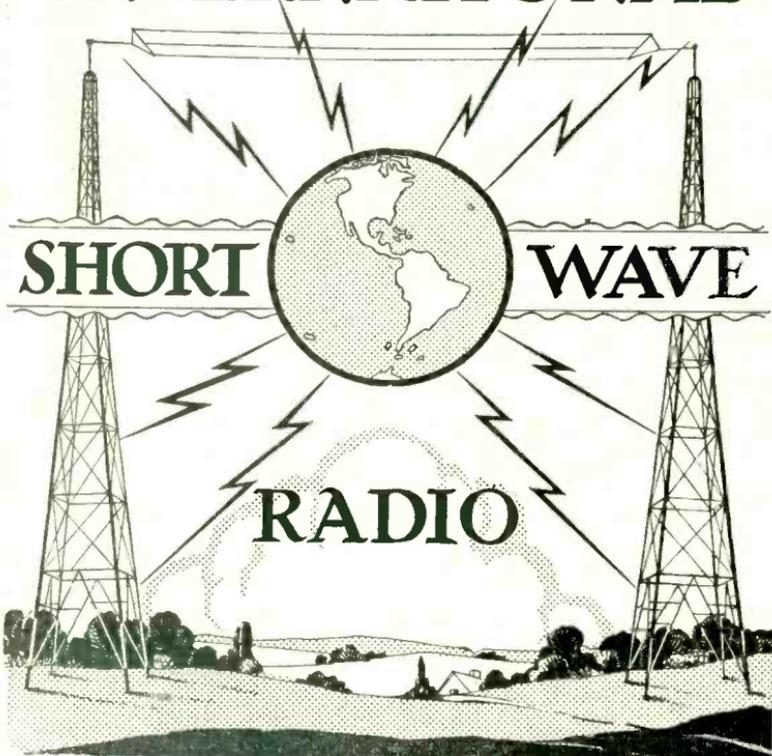
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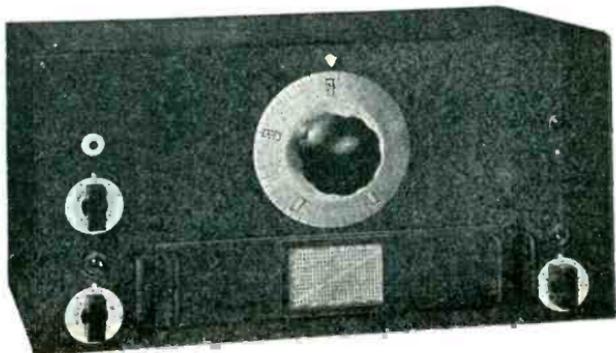
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Address ISW-6-36.

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ARTHUR J. GREEN, Editor.

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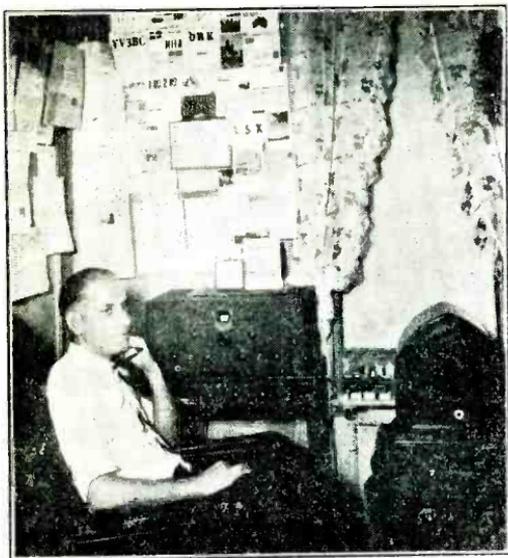
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GASPER MULLE

Here we see Gasper Mulle of Brooklyn, New York, who has long been an active member of this organization. Mr. Mulle joined the Club in December, 1933, at which time he first became interested in short waves. He is an ardent verification fan and holds a class A certificate in Heard-All-Continents-Club. He is also a member of our New York Chapter.

In the photo we see quite a number of interesting verifications. His Certificate of Membership in the I.S.W.C. holds the center position on the wall and this is surrounded with verifications. Directly above the certificate may be seen a photo of the New York Chapter members. You will also notice a copy of the Club

magazine on top of the radio set, next to the clock. You will also notice four switches on the window sill. Mr. Mulle uses several antennas and switches from one to the other to get the one that brings in a certain station the best.

CHAPTER NEWS

The Philadelphia Chapter will meet on the second Friday of each month during the summer at 438 Market Street. The Chapter contest was won by members Charles Lamm and Edwin Hatch. Congratulations. Members in the area of Philadelphia are urged to attend these summer meetings.

The New York Chapter will meet on June 19th at the Stuyvesant High School, East 15th Street. Technical questions and answers, receiver demonstrations and motion pictures of foreign lands will be featured.

The London, England, Chapter will meet at R.A.C.S. Hall, Wandsworth Road, on Fridays, excepting the second in each month. On May 16 they held a stag party at the Bridge House, which was enjoyed by all. On Sunday, June 7, they will hold a field day at Westerham Heights with tennis, putting and many sports, as well as listening contests and similar things. This Chapter offers many interesting attractions.

We have no word from other Chapters and do not know what they are doing. We advise Chapter officers to get their reports to us by the 18th.

MIKE KRUGER

Over in South Africa, most every short wave fan knows of Mike Kruger. He has been interested in short waves for a long, long time. He lives in Yeoville, Johannesburg. In the photograph we see Mr. Kruger at the dials of his receiver. You will also notice quite a number of verifications. At top of the picture you will notice the letters and numbers S.A.R.S.6.M.K. In South Africa, listeners are given numbers and call-signs somewhat like stations are given. The above signature means South African Receiving Station Six Mike Kruger. The six stands for the district Mr. Kruger resides in. Above the receiver is a sign that shows that Mr. Kruger won a short wave DX contest in 1934.

**SPECIAL FOR NEW YORK MEMBERS**

The New York Chapter has arranged with station WNYC, owned and operated by the city of New York, to broadcast a series of special short wave programs Tuesday nights from 8:00 to 8:30 P.M., E.D.S.T., or from 7:00 to 7:30 P.M., E.S.T. This station operates on 810 kc. and has a power of 1000 watts. They will broadcast short wave news, talks by foreign dignitaries, diplomatic representatives, short wave experts and rebroadcast foreign short wave stations that will grant permission. The first program will be June 9 and this will be followed by regular weekly programs at the same time each Tuesday.

MEMBERSHIP CONTEST

The standing in the contest for the Hallicrafter Receiver and other prizes on May 26 is as follows: B. Heckel, 15; L. Hansen, 16; F. Baines, 5; R. Brady, 8; H. Muir, 4; H. Northey, 3; S. Ogden, 7; Dr. Reist, 13; A. Valentine, 6.

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

VK2ME, Sydney, on 31.28 meters, 9.59 mc., will broadcast Saturdays from Midnight to Sundays 2:00 A.M.: 5:00 to 9:00 A.M. and 11:30 A.M. to 1:30 P.M. during June.

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

VK3LR, Melbourne, on 31.31 meters, 9.58 mc., broadcasts daily 3:15 to 7:30 A.M., but may be heard between 10:30 P.M. and 3:00 A.M. testing. They test with Geneva stations Mondays from 2:45 to 3:10 A.M.

VPD, Suva, Fiji Islands, on 22.95 meters, or 13.075 mc., still broadcasts between 12:30 and 1:30 A.M. It is heard by many now.

VJZ, Rabaul, New Guinea, a phone station, is reported on 21.19 meters, 13.88 mc., testing around 5:00 A.M. and 5:00 P.M. by A. B. McDonough, New Zealand. J. B. Keenan, Australia, reports it on 21.90 meters, 13.70 mc., between 1:00 and 7:00 A.M. It is owned by Amalgamated Wireless.

VHE, a naval station at Adelaide, on 20 meters works amateurs around 4:00 A.M. (Vandecar, Mich.) VK6ME, Perth, Australia, a new station, is supposed to go on the air in August between 20 and 50 meters.

AFRICA

ETB, Addis Ababa, on 25.09 meters, 11.955 mc., has been taken over by the Italians and it is no longer heard. It may be used by the Italians now to communicate in code. ICY, Asmara, on the same wavelength was heard sending music the last time ETB was heard broadcasting their Sunday program. It is phoning Rome now around 3:00 P.M. (Gullberg, Sweden).

FZE9, Djibout, French Somaliland, is a new phone on the air. It was heard on 35.61 meters, 8.57 mc., giving this call-sign and saying "Ici Tibuti" between 4:48 and 6:00 P.M. by J. Studholme of England and on 17.44 meters, 17.20 mc., between 9:00 and 9:45 A.M. by Mr. Walcott of California.

VQG, Nairobi, Kenya, on 15.28 meters, 19.63 mc., is phoning London between 7:30 and 8:00 A.M. almost daily. A card gives this wavelength (Rossi, Pa.) Heard at 10:10 A.M. (Barron, Scotland).

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

African Phone Stations. SUX, Cairo, Egypt, on 38.06 meters, 7.86 mc., phones England around 4:00 to 6:00 P.M. SUV, Cairo, on 29.83 meters, 10.05 mc., phones around 1:00 to 5:00 P.M. SUZ, Cairo, on 21.70 meters, 13.83 mc., phones around 11:00 A.M. to 1:00 P.M. IDU, Asmara, Eritrea, on 22.40 meters, 13.38 mc., phones Rome between 7:00 and 11:00 A.M. to 1:00 P.M. OPL, Leopoldville, Belgian Congo, on 14.97 meters, 20.04 mc. phones Belgium 10:00 A. M. to 3:00 P. M. OPM, same city, on 29.58 meters, 10.14 mc., phones around 2:00 to 3:00 P.M., and reported between midnight and 2:30 A. M. by members W. Chambers and R. Leder. ZSS, Capetown, South Africa, on 15.88 meters, 18.89 mc., phones England between 6:30 A.M. and 1:00 P.M. CNR, Rabat, Morocco, on 23.38 meters. 12.83 mc., phones Paris irregularly in daytime.

ASIA

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

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

Stations JVN and JVP broadcast a program for European listeners each Tuesday and Friday from 2:00 to 3:00 P.M. Sometimes JVM is also heard. JVP and JVN also broadcasts a program to America on Mondays and Thursdays from 4:00 to 5:00 P.M. These last programs are heard all over the United States by the way. JVH broadcasts nightly from Midnight to 1:00 A.M. It is also heard sending music and phoning between 1:00 and 7:00 A.M. JVI was heard at 3:20 A.M. phoning. JVE was heard at 1:00 A.M. and 4:30 A.M. JVM was heard at Midnight often times sending baseball games and heard phoning between 12:45 and 5:00 A.M. JVG was heard at 1:00 A.M., and between 7:30 and 11:30 P.M. JVL was logged between 8:00 A.M. and Midnight phoning. JVD is the most active Jap-

anese now. It calls the U.S.A. daily at 3:50 A.M. and was heard at 10:30 P.M., 3:00 P.M., 1:00 A.M. and on up to 8:00 A.M. JVF was heard at 10:00 P.M. JVN was heard at Midnight up to 8:35 A.M. JVO was logged at 10:15 A.M. A new phone on 22.56 meters, 13.30 mc., tested at 10:00 P.M. (Eggenweiler and Antognini, Calif.) And a new one on 30.80 meters was sending music between 3:00 and 7:00 A.M. (Keenan, Australia). JZE was heard phoning a ship near 7:00 A.M.

JFZC on the ship Chichibu Maru on 13.30 mc. was heard phoning Japan between 9:30 and 11:00 P.M. (Chambers, Okla.; Walcott, Calif.; Sparks, Calif.) and at 7:15 P.M. (Bradley, N. Y.) They phone Honolulu at times and work JVD and JZE.

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

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

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

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

XGOA, Nanking, China, is on the air on 31.45 meters, 9.54 mc., between 3:30 and 5:30 A.M. nearly every day, giving an English program at 5:10 A.M. (Walcott and Sparks, California).

XOJ, Shanghai, on 18.99 meters, 15.795 mc., works London at 6:00 A.M. (Dean, Conn.) and phones JVD, Japan, between 8:00 P.M. and 3:00 A.M. (Walcott, Sparks and Eggenweiler, Calif.) Reply came from the Chinese Government Radio Administration, Sassoon House, Jinko Road, Shanghai (Dean). XGN on 17.00 meters, 17.64 mc., phones London around 7:00 A.M. XGW on 28.79 meters, 10.42 mc., phones Japan between Midnight and 3:00 A.M. Heard several Saturdays around 1:30 to 2:15 P.M. (Walcott, California).

A. Scala, Jr., of Bronx, N. Y., received a letter from the Ministere des PTT, Kaboul, Afghanistan, saying they had station AFK on 71.50 meters, 4.193 mc., in daytime and on 30.90 meters, 6.607 mc., at night and station AFH on 71.50 meters, 4.193 mc., in daytime and on 50.80 meters, 5.135 mc., at night. There is something wrong here, for 50.8 meters is not 5.135 mc. and 30.9 meters is not 6.607 mc.

Java. The NIROM, a broadcasting organization in Java has a station on 31.10 meters, 9.65 mc., nearly every day between 6:00 and 10:00 A.M. PLP, on 26.26 meters, 11.00 mc., is broadcasting nearly every day between 5:00 and 8:00 P.M. PMN on 29.25 meters, 10.26 mc., has also been heard often at the same time. PMA on 15.50 meters, 19.35 mc., phones Holland between 7:00 and 10:30 A.M. PLE on 15.93 meters, 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 7:50 P.M. PLV on 31.86 meters, 9.42 mc., is heard phoning at 10:00 A.M., 6:45 P.M. and 11:00 P.M. YBG on 28.80 meters, 10.40 mc., phones Bandoeng between 3:00 and 11:00 P.M.

Siam. Station HSSPJ, Bangkok, on 27.30 meters, 10.99 mc., has been broadcasting on Mondays between 8:00 and 10:00 A.M. They announced this schedule. They have a lady announcing and use English at times. (Eggenweiler, Calif.; Sparks, Calif.; and Keenan, Australia). Is on 10.95 mc. at 6:00 A.M. (Vandecar, Michigan).

Siberia. RV15 on 70.65 meters, 4.25 mc., broadcasts from 1:00 to 9:00 A.M. A station RVU at Vladivostok on 21.76 meters, 13.78 mc., was sending music to Moscow between 6:30 and 7:30 A.M. and an RTD, Alma Ata, on 22.76 meters, 13.18 mc., was sending music at 6:30 A.M. (Kennan, Australia). A station on 13.16 mc., at 7:00 A.M. phoned one on 12.22 mc. (Walcott, Calif.)

India. Quite a few Indian amateurs are on 42 meters. A VU7MD at Akashi-Varia. was on the air for a time broadcasting. VUB, Bombay, on 31.36 meters, 9.57 mc., broadcasts Sundays 12:30 to 1:30 P.M. and Thursdays and Saturdays 11:30 A.M. to 12:30 Noon. VWY, Poona, a phone on 17.10 meters, 17.54 mc., is heard between 7:00 and 8:00 A.M. daily. On 33.4 meters it sent a special program one Sunday 7:30 A.M. to 8:15 A.M. (Stevens, England).

Philippines. The Long Distance Telephone Company of Manila has KZGB on 8.7 mc., KZGM on 7.885 mc. and KZGF on 5.81 mc. that they use irregularly. KAY on 14.98 mc., KTP on 8.12 mc., KTR on 10.91 mc., KAX on 19.98 mc., are all used for phone work. KZRM, a long wave station, was heard on 10.14 mc. at 6:00 A.M. once (Tear, Texas) and a KZBM on 10.00 mc. at 10:00 A.M. once (Gallagher, Calif.) We believe these were relays of long wave station KZRM, but we do not know what it was. KAZ on 9.97 mc. was testing with KKZ, California, at 10:00 A.M. several times (Gallagher). KZRM was on 9.99 mc. between 5:00 and 7:00 A.M. once (Sparks, California).

SOUTH AMERICANS

Venezuela. Stations like YV3RC, YV4RC, YV5RMO, YV8RB, YV12RM; YV10RSC and YVQ are all known to most readers. YV12RM now uses the signature "La Voz de Aragua" instead of "24 de Julio" (De Sauza, Venezuela). Station YV7RMO, Maracaiba, "La estacio del Pueblo y Papa el Pueblo" will be on the air soon with a short wave station. YV7RMO is long waves (De Sauza).

YV9RC, Caracas, on 46.88 meters, 6.40 mc., is now on the air on this new wave. They broadcast between 7:00 and 11:00 P.M. irregularly (Soneira, N.Y.; Rossi, Pa.; Oxrieder, Pa.; Hersowitz, Md.; Legge; N.Y.) YV2RC, Caracas, on 51.70 meters, 5.80 mc., say they broadcast weekdays from 10:30 A.M. to 2:00 P.M. and 4:30 to 10:00 P.M. and Sundays 9:00 to 11:30 A.M. and 2:00 to 6:30 P.M. and 7:00 to 10:30 P.M. local time, which is half an hour ahead of E.S.T. (Barron, Scotland). Address is now Box 2009 (Vance, England). They used the box number 290 for years.

YV11RB, Ciudad, Bolivar, "Ecos del Orinoco." on 45.85 meters; 6.545 mr., is broadcasting between 6:00 and 10:30 P.M. This is a new station. (De Sauza, Venezuela, and Oxrieder, Pa.)

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

HJ1ABJ, Santa Marta, Colombia, on 49.85 meters, 6.025 mc.; is broadcasting between 6:30 and 10:30 P.M. They moved from 6.01 mc. They sent a special program to I.S.W.C. members at 11:30 P.M. on May 9th. (Kash, Tenn.; De Sauza, Venezuela; Orchard, England; Oxrieder, Pa.; and Sparks, California.)

HJ1ABP, Cartagena, on 31.25 meters, 9.61 mc., broadcasts now from 11:00 A.M. to 1:00 P.M. and 5:00 to 11:00 P.M. weekdays and 10:00 to 1:00 A.M. and 3:00 to 6:00 P.M. Sundays. The address is Box 37. (Walcott, Oxrieder and Sparks).

HJ3ABX, Bogota, on 49.00 meters, 6.122 mc., "La voz de Colombia" is heard between 7:00 and 11:30 P.M. by hundreds now. Their address is Calle 14, No. 738. Mr. De Sauza of Venezuela, tells us this is old station HJ5ABC which was at Cali. This may be true, as they use the same signature and are on a nearby wave. The only difference is that HJ5ABC is at Cali and HJ3ABX is at Bogota. They may have moved the transmitter.

HJ5ABD, Cali, "La Voz del Valle," has moved to 49.30 meters, 6.085 mc., according to Capt. Oxrieder. It was on 46.30 meters, 6.48 mc.: for years.

HJ4ABE, Medellin, has moved to 6.093 mc. (Walcott) or to 6.097 mc. (Oxrieder). This station was on 50.60 meters, 5.93 mc., broadcasting from 11:00 A.M. to Noon and 6:00 to 10:30 P.M.

LRU, Buenos Aires, Argentina, on 19.62 meters, 15.29 mc.; has been broadcasting between 9:00 and 9:30 A.M. and 5:00 and 5:30 P.M. LRX on 31.25 meters, 9.59 mc., has been heard between 6:00 and 11:00 P.M. It was on 9.66 mc. (Balbi, Calif.) Card says 9.58 mc. (Atherton, Vt.) On 31.50 meters, 9.53 mc., on top of W2XAF (Studholme, England). LSX, on 28.98 meters, 10.35 mc., is heard between 6:30 and 11:00 P.M. irregularly. They have no schedule (Reese, N. Y.; Eggenweiler, Calif.; Hersowitz, Md.; Wooten, Ala.; and Frederick, Ohio).

OAX4G, Lima, Peru, on 48.00 meters, 6.25 mc.; broadcasts daily 7:00 to 10:00 P.M. Comes in on top of HRD (Sparks, Calif.) It is above HRD in wavelength. (Oxrieder, Pa.) OAX4D, Lima, on 51.90 meters, 5.78

mc., broadcasts Wednesdays and Saturdays 8:00 to 11:30 P.M. OAX4J will be on the air soon on 6.00 mc. with a 2000 watt transmitter. It will be ready around August first. (Bradley, N. Y.)

CENTRAL AMERICANS

Guatemala. Station TGW was heard for some time on Sunday mornings between Midnight and 6:00 A.M. on two frequencies, 31.75 meters, 9.45 mc., and 50.51 meters, 5.94 mc. But these programs have not been heard for several Sundays now. They said they would send sample coffee on request and did send samples to members Atherton and Sparks. The station on 5.94 mc. was really TG2X, which is heard most every night from about 7:00 to 11:30 P.M. Letters from TGW say they broadcast daily Noon to 2:00 P.M.; 8:00 to 9:00 P.M., and 10:00 P.M. to Midnight; Saturdays 10:00 P.M. to Sunday 6:00 A.M. (Bradley and Kash). But we believe this is just the long wave station schedule.

TGS, Guatemala City, say they are on 52.50 meters, 5.714 mc., Sundays, Wednesdays and Thursdays from 6:00 to 8:00 P.M. (Kash, Tenn., and Siddle, Alabama).

XEWI, Mexico City, say now they are on 50.20 meters, 5.975 mc., and Tuesdays and Thursdays 7:30 to 8:45 P.M. and 10:00 P.M. to Midnight; Fridays 3:00 to 4:00 P.M. and 9:00 P.M. to Midnight; Saturdays 9:00 to 10:00 P.M.; Sundays 1:00 to 2:15 P.M. (Kash, Tenn.; Erwin, Illinois; Siddle, Ala.) Heard on 11.90 mc. until 7:00 P.M. and on 5.975 after that (Herzog, N.Y.) Heard on 11.90 mc. (Eggenweiler and Gallagher, Calif.)

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

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

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, Costa Rica, broadcasts on 45.81 meters, 6.55 mc., Noon to 2:00 P.M. and 6:00 to 7:00 P.M. daily; Thursdays and Sundays 6:00 to about 11:00 P.M., and Sundays at 11:00 A.M. (Erwin, Ill.) TIPG, San Jose, on 46.86 meters, 6.41 mc., "La Voz del Victor," broadcasts Noon to 2:00 P.M. and 6:00 to 11:30 P.M. Moved to 6.38 mc. (Erwin, Ill.)

R. De Souza, Venezuela, sends us word that a station TI4WX in Heredia, Costa Rica, is on 8.00 mc. relaying station TIWX, "La Voz de la Patria," daily 8:30 to 11:00 A.M. and 2:30 to 10:00 P.M. He has a verification that gives the power as 50 watts. A station TIMC, San Jose, is on 57.40 meters, 5.225 mc., broadcasting daily 7:00 to 8:00 P.M. The signature is "Radiodifusora Cultura" and they verified, the verification being signed by M. L. Coronado. A station TIOW, Puerto Limon, on 43.75 meters, 6.85 mc., Box 45, signature "Ondas del Caribe," sometimes announces the call TI6RW is heard around Midnight Saturday up to 1:30 A.M. Sundays. R. Rossi, Pa., says a TIEF on 14.55 mc. was heard relaying Germany one day. W. Siddle also reports this TIRW or TI6OW around Midnight. They do not agree on these calls.

YNLF, Managua, Nicaragua, "La Voz del Nicaragua," has been moving around all last month, testing on 5.95 mc., 6.00 mc., 6.451 mc., and 9.68 mc. When last heard they were on about 30.99 meters, 9.68 mc. Cards from the station say 8:00 to 9:00 A.M.; 12:30 to 2:30 P.M. and 6:30 to 10:00 P.M., but they usually sign off around 7:40 P.M. (Flagg, Mass.) Also reported near 9.68 mc. (De Souza, Ven.; Bradley, N. Y.; Oxrieder, Pa.)

YNVA, Managua, broadcasts between 7:00 and 9:30 P.M. They were on 8.64 mc. but moved to 34.92 meters, 8.59 mc. (Flagg, Mass.) Heard on 8.57 mc. (Oxrieder, Pa.)

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. (De Souza, Ven.) A station HP5Z, Panama City, will be on 49.00 meters, 6.12 mc., soon it is rumored.

YSJ, San Salvador, Salvador, is a new phone. It is supposed to work WNC, Florida, on 20.71 meters, 14.485 mc. It was reported on 13.40 mc. and 14.39 mc. at 11:45 P.M. (Eggenweiler, Calif.) and was on 13.41 mc. (announced) at 11:00 P.M. once. (Legge, Pa.)

WEST INDIES

We believe everyone knows the schedules of such stations as HIT, HIZ, HIG, HIX, HIL, HIH, H14V, H14D, HI5M, HI1A, HI9B, HI1S and HI1J as they have been published month after month and are shown in our station list.

H18Q, Trujillo, D. R., on 48.08 meters, 6.24 mc., is a new station. They have been heard broadcasting between 6:00 and 10:45 P.M. It is known as "Emisora Real." Heard at 11:45 P.M. once. (Mitchell, W. Va.; Soneira, N. Y.; Rossi, Pa.; Oxrieder, Pa.; Bradley, N. Y.; Kash, Tenn.; Legge, N. Y.; Hersowitz, Md., and Childs, Pa.)

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

HI3U, Santiago, D. R., "Estacion Perifonica" and "La Voz del Comercio" that was once on 47.02 meters, 6.383 mc., is now on 49.90 meters, 6.014 mc., according to Capt. Oxrieder. They broadcast from 10:40 A.M. to 1:40 P.M. and 4:40 to 9:40 P.M.

HI3C, La Romano, D. R., "La Voz de la Feria," say they are now on 49.14 meters, 6.105 mc., and the schedule is 12:30 to 2:00 P.M. and 5:00 to 6:30 P.M. This comes from cards they sent (Flagg, Mass; Kash, Tenn.)

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

CMB, Havana, Cuba, a phone on about 25.86 meters, 11.60 mc., sent music at 5:40 P.M. CMA3, Havana, on about 19.35 meters, 15.50 mc., sent music from 4:50 to 5:00 P.M. once (Childs, Pa.) CMA3 at 4:00 P.M. worked WQP, New York. (Wooten, Ala.) A station CO9FG at Matanzas, Cuba, was heard on 48.08 meters, 6.24 mc., relaying CMGF one Wednesday from 9:00 to 10:00 P.M. (Flagg, Mass.)

THE EUROPEANS

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

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

The new super-ship "Queen Mary," using the call GBTT has been heard on 8.83 mc. between 9:15 and 9:50 A.M. (Studholme, England).

We can not resist the temptation to compliment the officers in charge of the short wave broadcasting from Germany. Each month they send out a bulletin telling just what programs will be heard the following

month and they stick right to the schedule they give. You can depend on the schedules and wavelengths they send you.

DJA on 31.38 meters, 9.56 mc., 12:30 to 3; 8 to 11 A.M.; 4:50 to 10:45 P.M.
 DJB on 19.74 meters, 15.20 mc., 3:50 A.M. to 11:00 A.M.
 DJC on 49.83 meters, 6.02 mc., 11:35 A.M. to 4:20 P.M.
 DJD on 25.49 meters, 11.77 mc., 11:35 to 4:20 P.M.; 4:50 to 10:45 P.M.
 DJE on 16.89 meters, 11.76 mc., 8:05 to 11:00 A.M.
 DJL on 19.85 meters, 15.11 mc., 5:45 to 7:30 A.M.
 DJM on 49.34 meters, 6.08 mc., 7:30 to 9:30 P.M.
 DJN on 31.45 meters, 9.54 mc., 12:30-3:50; 8:05-11 A.M.; 4:50-10:45 P.M.
 DJO on 25.43 meters, 11.79 mc., 3:00 to 4:20 P.M.
 DJP on 25.31 meters, 11.85 mc., Noon to 2:00 P.M.
 DJQ on 19.63 meters, 15.28 mc., 12:30 to 7:00 A.M.
 DJR on 19.56 meters, 15.34 mc., 1:30 to 3:30 A.M.

In addition to the above, they have been testing with these stations:
 DZA on 31.00 meters, 9.675 mc., from 5:00 to 7:00 P.M.
 DZB on 29.88 meters, 10.04 mc., from 7:00 to 9:00 P.M.
 DZC on 29.15 meters, 10.29 mc., from 3:00 to 10:45 P.M.
 DZE on 24.73 meters, 12.13 mc., from 7:00 to 9:00 A.M.; 5:00 to 7:00 P.M.
 DZH on 20.75 meters, 14.46 mc., from Noon to 2:00 P.M.

Station DZE was reported from 2:15 to 4:30 P.M. (Reese, N. Y.) DZB and DZE were both reported from 5:00 to 7:00 P.M. (Studholme, England) DJR was heard between 4:50 and 10:45 P.M. (Flagg, Mass.)

TFJ, Reykjavik, Iceland, on 24.52 meters, 12.24 mc., has been broadcasting again on Sundays from 1:40 to 2:00 P.M. (Mintzer, Kash, Dutrow, Parr, Rossi, D'Orsay, Greenland, Hayward, Gaug; Childs; Ebbecke). Heard phoning England at 10:15 A.M. (Barron, Scotland).

LZA, Sofia, Bulgaria, on 20.04 meters, 14.97 mc.; is not easy to log but it was heard broadcasting between 3:30 and 11:30 A.M. and 2:00 to 4:30 P.M. Sundays. Heard at Noon daily and not just Sundays (Gullberg, Sweden); at 8:30 A.M. (Kash, Tenn.) and between 3:25 and 4:30 P.M. on 20.40 meters, 14.70 mc., one Sunday. (Rossi, Pa.)

Belgrade, Jugoslavia, on 49.18 meters, 6.10 mc., was reported signing off with National Anthem at 4:30 P.M. (Sutton, England); signing off at 4:00 P.M. (Barron, Scotland); at 1:00 P.M. (Lindbergh, Sweden, who says it is at Praha, Czecho-slavakia.)

PHI, Huizen, Holland, on 16.88 meters, 17.77 mc., broadcasts daily excepting Tuesdays and Wednesdays between 8:00 and 10:30 A.M. They are sometimes heard on Sundays between 1:00 and 2:00 P.M. with a special program for Africa. P11J, Dordrecht, Holland, on 42.35 meters, 7.08 mc., broadcasts Saturdays 10:10 A.M. to 11:10 A.M. They have 50 watts power only (Barron, Scotland).

PCJ, Eindhoven, Holland, broadcasts on 31.28 meters, 9.59 mc., each Wednesday from 7:00 to 10:00 P.M. This is especially for America. They also broadcast Sundays 7:30 to 8:30 A.M. for Asia; 1:00 to 2:00 P.M. for Africa; and 7:00 to 8:00 P.M. for America. They also broadcast on 19.71 meters, 15.22 mc., Tuesdays 3:00 to 6:00 A.M.; Wednesdays 7:00 to 11:00 A.M.; and Sundays 8:30 to 10:30 A.M. We thank the following for report-

ing the new Wednesday broadcasts: Mintzer, Swope, Erwin; Bradley; Gaffney, Pedicora, Gaug, Flagg, Gilmour, Antognini; Oxrieder; Gallagher, Ebbecke, Sparks, Childs and Verbrughe.

France. G. Ebbecke, of Philadelphia says TPA2 on 19.68 meters, 15.15 mc., broadcasts from 5:00 to 10:00 A.M. TPA3 on 25.23 meters, 11.90 mc., broadcasts from 1:00 to 4:00 A.M. and 10:15 to 5:00 P.M. TPA4 on 25.63 meters, 11.71 mc., broadcasts from 5:15 to 9:15 P.M. and 9:45 P.M. to Midnight. Other reports show the schedule one hour later on all waves. TYA on 24.56 meters, 12.22 mc., sent a special program one Saturday at 2:30 P.M. (Studholme, England).

The Zeppelin Hindenberg. The great news of last month was the broadcasts from DEKKA on the super-dirigible Hindenberg. Last month this ship was heard on 51.72 meters, 5.80 mc., and 29.13 meters, 10.30 mc. They worked tests with stations WQP on 13.9 mc., WQO on 6.72 mc., WEM on 7.40 mc. and WEL on 8.95 mc. and a station on a plane on 2.76 mc., using the call WMFL was heard. They sent a special program once that was relayed over American stations and German stations and was heard on many short wave stations in these two countries. The station was reported by members Hofmaster, Ohio; Van Bergen, N.Y.; Erwin, Ill.; Wooten, Ala.; Williams, N. Y.; Rossi, Pa.; Gagnon; Canada; Reese, N. Y. C.; Flagg, Mass.; Vandecar, Mich.; Hersowitz, Md.; Childs, P.; Davison, P. R.; Hughes of England report it on 49.5 meters. Ebbecke Pa., reports it on 9.675 mc. Williams, N. Y., reports it on 68.3 meters. 4.4 mc. Flagg, Mass., reports it on 68.2 meters, 4.4 mc. J. Wooten says 5.80 and 5.352 mc. Dutrow, Washington, D. C., reports it working the S. S. Bremen on 11.71 mc. at 4:30 P.M., while Van Bergen of New York reports it on 11.80 or 11.90 mc. J. M. R. Studholme of England received a reply to his report from the following address: Deutsche Zeppelin-Riederei, G. M. B. H., Friedrickshafen, A. B., Germany.

2RO, Rome, Italy, is now broadcasting on 25.40 meters, 11.81 mc.; from 8:15 to 9:00 A.M.; 9:15 to 11:15 A.M. and 11:30 A.M. to 5:15 P.M. They go on 31.13 meters, 9.64 mc., at 6:00 P.M. daily excepting Sundays and stay until 7:45 P.M. Most members know the Italian phone list, which we show in our list. J. Keenan of Australia reports a new one on 23.3 meters relaying 2RO every day between 4:30 and 5:30 P.M., E.S.T. J. Studholme of England reports one on 35.23 meters, 8.51 mc., relaying a speech from 4:15 to 5:00 P.M. and several other times between 4:00 and 7:00 P.M.

Switzerland. HBH is on 16.22 meters, 18.48 mc. HBJ is on 20.64 meters, 14.54 mc. HBO is on 26.35 meters, 11.385 mc. HBL is on 31.27 meters, 9.595 mc. HBP is on 38.47 meters, 7.797 mc. HBL and HBP broadcast every Saturday from 5:30 to 6:15 P.M. They were also reported on the first Monday of each month from 4:00 to 7:00 P.M. (Oxrieder, Pa., and Childs, P.) HBO was heard at 1:55 A.M. the first Tuesday in May (Chambers, Okla.). HBO, HBH and HBJ are used often to relay special programs to America for rebroadcasting. The address of all these stations is Radio Suisse, S. A., 12 Quai de la Poste, Geneva. HB9B, Basle, Switzerland, on 20.83 meters (an amateur) broadcasts daily 5:00 to 6:00 A.M. (Stevens, England).

Russia. Russia now broadcasts on 25.00 meters, 12.00 mc., daily from 2:00 to 5:00 P.M.; Wednesdays 6:00 to 7:00 A.M.; Sundays 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M. They are also on 19.89 meters, 15.08 mc., on the Sunday programs. An RKK, Moscow, on 24.45 meters, 12.27 mc., from 3:30 to 4:30 P.M. broadcasting one Saturday is reported. (Studholme, England) An RFL at Feodosia on 13.195 mc. and an RCQ on 13.99 mc. to 14.40 mc. is reported phoning from 6:00 to 8:00 A.M. (Bradley, N. Y.) An RVU on 13.79 mc.; one on 14.40 mc., and one on 14.79 are all heard between 5:00 and 8:00 A.M. (Bradley, N. Y.) An RGG on 35.00 meters calling ships at 6:30 P.M. is reported. (Chambers, Okla.) RNE, RTZ and RKI sent a special May Day program from 11:15 P.M. to 12:30 A.M. once. (Balbi and Eggenweiler, California) RNE was heard from 11:15 to 12:15 A.M. (Herzog, N. Y.) A station on 44.66 meters, 6.72 mc., from 5:35 to 5:50 P.M. one Monday was heard. (Studholme, England). RKI verie says 19.98 meters. (Hofmaster, Ohio) RIM, Tashkent on 19.68 meters, 15.25 mc., is heard 5:00 to 9:00 A.M. and 11:00 P.M. to 4:00 A.M. RIO, Bakou, on 29.50 meters, 10.17 mc., is heard between 11:00 P.M. and 4:00 A.M. RIR, Tiflis, on 29.76 meters, 10.08 mc., is heard around 5:00 P.M. and 8:30 to 11:00 A.M. RRR, Khabarovsk, on 18.01 meters, 15.95 mc., is heard around 5:00 A.M. RSZ, Irkutsk, is on 34.02 meters, 8.82 mc., irregularly. ROU, Omsk, on 20.28 meters, 14.79 mc., was heard around Midnight and 6:00 A.M.

NORTH AMERICAN

VE9DR, Drummondville, Quebec, Canada, on 49.96 meters; 6.005 mc.; sends out two schedules: A card to W. D. Flagg says 8:00 A.M. to 11:15 P.M. weekdays and Sundays 9:00 A.M. to 11:15 P.M. The address is given as Canadian Marconi Company, Box 1690, Montreal. Another to Mr. Vance of England says 7:00 A.M. to Midnight Mondays to Fridays; Saturdays 7:00 A.M. to 10:45 P.M.; Sundays 8:00 A.M. to 11:15 P.M. VE9DN on the same wavelength is owned by the same people and has closed down for the summer.

CJRX and CJRO, Winnipeg, Canada. CJRX is on 25.60 meters, 11.72 mc., and they are supposed to broadcast from 4:00 to 10:00 P.M. CJRO on 48.83 meters, 6.15 mc., relays the same programs. But Erwin of Illinois says they don't come on until 6:00 P.M. CJRX was heard at 12:15 to 1:17 A.M. one Friday. (Reese, N. Y. C.)

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

W2XGB, Press Wireless, Hicksville, L. I., New York, on 46.70 meters 6.425 mc., tested from 8:00 to 10:00 P.M. between April 20 and 25. But they have not been heard in May. Several persons have cards. The address is P. O. Box 296.

Alaska. There are a number of stations in Alaska heard on what most DX fans consider higher waves, or above 50 meters. Listeners on the



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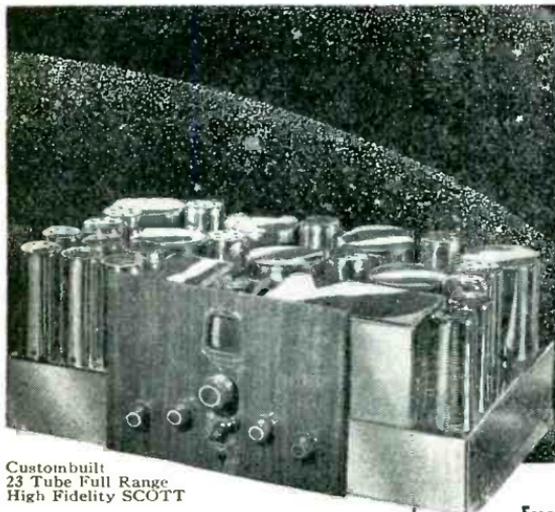


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SEND COUPON



West Coast heard them well. Bob Morrison, Vancouver, reports these. KGYI on 88.00 meters, 3.41 mc., at 10:00 P.M.; KLA on 119.00 meters, 2.52 mc., at 12:15 A.M.; WYB, KVK, KIJB, on 119.00 meters at 1:45 A.M. KAEB and KAED on 113.2 meters, 2.65 mc., at 2:00 A.M. A. Walcott and W. Sparks of California, report these: KLA, Waterfall; KLD, Hidden Inlet; KFF, Union Bay, on 2.566 mc. at Midnight; WXA, Juneau, on 2.604 mc.; KAED, Angoon, on 3.093 mc. at Midnight; KAED, Angoon, on 2.612 and KAEP, Tenahee, on 2.612 mc. at 1:30 A.M.; KDK, Wrangall; KIJB, Cape Pole, on 2.994 mc. at 1:30 A.M.; KIJK, Kodiak, and KIJW, Shearwater Bay, on 2.91 mc., at 1:00 A.M.; KKE, Hawk Inlet, on 2.63 at 1 A.M.

FNSK on the ship Normandie was heard from 4:00 to 4:30 P.M. broadcasting a program of the ship orchestra (no wave stated). Reply came from this address: French Line, 610 Fifth Ave., New York City. (Atherton)

WITH THE REPORTERS

This section is the first to be made up each month. Members should send in their reports as early as possible, if they wish to see their reports mentioned here. The stations shown are not a list of all the stations heard by the reporter, but are simply the call-signs of stations which the reporter has helped us with information.

R. E. De Souza, Maracaibo, Venezuela, reports YV11RB, YV12RM, YV7RMO, Espana, HJ1ABJ, HJ3ABX, TI4WX, TIMC; TIOW; YNLF and HP5K. Flavio Mascarenhas, Rio de Janeiro, Brazil, reports PCJ, LRU, GSO and DJA. Bengt Lindbergh, Pitea, Sweden, reports LZA and Praha.

L. Smith, London, England reports HJ1ABP, TIEP, HJ1ABJ and COKG. Ernest Orchard, Weymouth, England, reports HJ1ABP, HJ1ABJ, YV4AC, HIIS, HJ3ABX, HRD and XEXA. H. L. Nixon, London, reports ETB. S. W. Parr, London, reports HJ1ABP, JVP, HJ3ABX, VP3MR, SPW, EA8AB, WVD, W2XGB, TIPG, TFJ, EA8AB. R. H. Greenland, Barnsley, England, reports VE9HX, LRU and TFJ. E. Stevens, Romford, England, reports VQ7LO, ETB, VWY, PMN, SPW, TFJ; PHI and HB9B.

John Barron, Aberdeen, Scotland, reports RKI, SUZ, DJB, TFJ, VWY, PI1J, VOG, VP3BG, PHI, PCJ, YV2RC. James Gallagher, Magherafelt, North Ireland, reports XBJQ, XEUW, YV6RV, PRF5, LSX; LSQ; DZB, JVM, JVP, VQ7LO and amateurs.

Bob Morrison, Vancouver, B. C., Canada, reports JVI, TPA4 and National Park Stations. Lawrence Gagnon, Quebec, Canada, reports LRX, IAC, PPO, LSX, DZB, TFJ, ETB, KKZ and DEKKA. Warren D'Orsay, Sydney Mines, Nova Scotia, reports TFJ, JVN, JVP, VPD, LSX, ORK, RNE, LRX and VP3MR. Cyril Gilmour, Kingston, Ontario, reports PCJ, JVN and HP5J.

J. L. Davison, Oakland, California, reports JVH, HJ1ABP, HJ1ABE and HJU. A. B. McKeen, Pasadena, California, reports PPQ, PCJ, HBH and GSP. A. Antognini, Greenfield, California reports JVD, JVM, JVF, JVH, JVN, JVO, PLV, JLJ, JMN, ZBW, XEWI; KIO, PCJ, RIM, RKI, RNE and XAM. August Balbi, Los Angeles, California, reports RTZ, RKI, RNE, JVG, JVL, LRX, LRU, DZB; TPA3 and TPA2. Charles Eggenweiler,

West Los Angeles, reports XEWI, LSX, W2XGB, XOJ, JVD, YSJ, RNE, JVG, HS8PJ, SPW, France and amateurs. L. S. Tear, Dallas, Texas, reports KZRM.

Alan Teague, Millington, Michigan, reports England. W. D. Vandecar, Grand Rapids, Michigan, reports the Hindenberg, VHE, HS8PJ, VPD and HH3W. Fred Atherton, Rutland, Vermont, reports TGW, TIGPH, VP3BG HIZ, HI1S, VE9HS, KKQ, KEJ, FNSK, HJU, LRU and LRX. O. Hersowitz of Baltimore, Maryland, reports HI2Q, HI7P, YV9RC, the Hindenberg and LSX. Ed. Davenport, Pittsford, Vermont, reports W9XAA. Richard Bradley, Baltimore, Maryland reports PCJ, HJ1ABP, HI8Q, KKQ and PCJ.

George Diamond, Jamaica, New York, reports DJM, VE9DR and GSP. H. S. Bradley, Hamilton, New York, reports YNLF, JZE, RFL, XBC, RCQ and XBA. Charles Pedicora, Brooklyn, N. Y., reports PCJ. Mills Van Bergen, Syracuse, N. Y., reports WQO, WQP, Hindenberg. Ralph B. Williams, Garden City, N. Y., reports WQO, WQP and the Hindenberg. Thomas Tynon, Flushing, N. Y., reports ZBW. W. F. Herzog, Center Moriches, N. Y., reports RNE, HJ3ABD, XEWI, Amateurs and Hindenberg.

Nick Gaug, New York City, reports PCJ. Ramon Soneira, New York City, reports HI8Q and YV9RC. Jimmie Reese, New Yrk City, reports CQN, YDB, PLM, VPD, JVE, JVM, JVI, HI3C, HKV, LKJ1, KIO, LSQ, LSL, LSX, SPW, YNLF, XEWI, PSH, Germany and the Hindenberg.

Wm. Palmer, Parma, Ohio, reports YVR, SUZ, IDU, FVA, HP5K, RKI, W2XGB, CB960, YNLF and HI7P. George Frederick, Cleveland, Ohio, reports KKZ, WET, LSX, CSW, XAM, PLP and W2XGB. Eileen Hofmaster of Sandusky, Ohio, reports RKI and the Hindenberg. R. V. Mens, Toledo, Ohio, reports HJ1ABP, HJU, TG2X and JVM. Art Mitchell, Hollidays Cove, W. Va., reports HJ1ABP and HI8Q.

W. D. Flagg, Holyoke, Mass., reports W2XGB, the Hindenberg, WQO, WQP, VE9DR, PCJ, DJO, DJR, DZB, HP5F, YNLF and YNVA. W. A. Dean, Hartford, Conn., reports XOJ. J. B. Wooten, Mobile, Alabama, reports KKZ, JVM, JVH, DFR, YDB, PLP, PMN and the Hindenberg. Sam Swope, Rockville, Indiana, reports PCJ. Charles Dutrow, Washington, D. C., reports TFJ and the Hindenberg.

Capt. R. B. Oxrieder, State College, Pa., reports HBL, HBP, HP5J, TIPG, HIH and HI8Q. Wm. Mintzer, Philadelphia, Pa., reports TFJ and PCJ. Robert Rossi, Philadelphia, Pa., reports HI8Q, YV9RC, LZA, JVH, TIEF, EA8AL, EA8AH, VQG, HCBT, TFJ, XBA, amateurs and Hindenberg.

A. J. Hayward, Trowbridge, England, reports ETB, VQ7LO, WQP, WMN, HPF, LRU, JVM, JVP, TFFJ and amateurs. Robert Hughes, Trowbridge, England, reports W2XAD, ETB, DZA, EAQ, VWY2, amateurs and the Hindenberg. J. M. R. Studholme, London, England, reports DZB, DZE, the Hindenberg, VK2ME, a Russian on 44.65 meters, an Italian on 35.23 meters and Radio Tibuti on 35.01 meters. Dr. E. S. G. K. Vance, Huthwaite, England, reports YV2RC, YV6RV, HIT, HJ5ABC, COKG, TFJ, VE9DR, RV15.

Wade Chambers, Tulsa, Oklahoma, reports JFZCGDD, RGG, DHO, OPL, HJ1ABP, LSX, PSH, HBO. G. C. Gallagher, San Francisco, Calif., reports JVD, JVH, JVM, JVN, JVE, JIB, PMY, PLP, PLV, YDB, KZBM.

KTO, KAZ, KKF, XEWI, CB960, W2XBG and PCJ. Captain Oxrieder, State College, Pa., adds HI3C, PCJ, HJ1ABP, HI8Q.

Tom Erwin, Herrin, Illinois, reports PCJ, PRF5, TIPG, CEC, W2XGB, TIRCC, COKG, TGW, XEWI, W9XAA, TPA3, TPA4, VK3LR, ZBW and the Hindenberg. H. J. Gaffney, Chicago, Illinois, reports PCJ. Dr. Kash, Sevierville, Tennessee, reports CO9JQ, HJU, XEWI, TFJ, TIGPH, CQN, TGW, HISQ, TGW, HJ1ABJ, LZA, TGS, PRA8, HBO, YV1ORSC.

F. W. Hennig, Worthing, England, reports LZA, LRU, GBJJ, amateurs. John B. Keenan, Sydney, Australia, reports VJZ, RVU, RTD, HSSPJ, ETB and Italy on 23.3 meters. Ashley Walcott, San Francisco, California, reports France, HJ1ABP, HJ4ABE, JFZC, JVG, JVM, JVD, JVH, JIB, TDE, XGW, XOJ, KAX, KTR, KTP, KLH, Army and National Park stations. William Sparks, San Francisco, reports Australia, Java, ZBW, JIB, XOJ, JVD, JVE, JVG, JVH, JVN, JVM, JFZC, RIR, PCJ, France, Germany, England, Colombia, XEWI, COCH, COCO, Alaskans, Army and Forestry stations. Roger Legge, Jr., Philadelphia, reports YSJ, YV9RC, HI8Q and amateurs.

Joe Childs, Philadelphia, Pa., reports PCJ, HBP, CMA3CMB, HI8Q, TFJ and the Hindenberg. Walter Brown, Malden, Mass., reports the Hindenberg. Wilfred Siddle, Birmingham, Alabama, reports XBA, XBC, XEWI, HP5F, TGS, TIRW, CEC, VE9HX, W2XGB and HI1S. George Frederick, Cleveland, Ohio, adds LSX, TPA4, XEME, KKQ and others.

H. J. Davison, Bayamon, Puerto Rico, reports the Hindenberg, DZB, HBO, PHI, PCJ, TPA2, LSY, LRU, HH3Y, HI8A, HI5M, RKI, PLP and PMN. George Ebbecke, Philadelphia, reports LSX, VK3LR, VLK, TFJ, TYA2, TPA2, IQA, 2RO, PCJ, HBP, PLP, JVD and the Hindenberg. J. B. Wooten, Mobile, Alabama, reports PCJ, WQP and CMA3.

Late Reports. The following reports were received late in the month: J. R. Garrett Pegge of Chesham, England, reports the schedules of LRU, VE9HX, VQ7LO, PMN, TFJ, JVN and JVM. Alan Teague, Millinton, Michigan, reports CMA3. E. Scala, Jr., Bronx, N. Y., reports Germany, Rome and the Zep. W. H. Howe, Tucson, Arizona, reports W2XBG, GSI, GSP, GSN, XEWI, KIO, JVM, DZB, PPQ, PLP, PMN, VPD, COKG; GSH. Hyman Cohen, New York City, reports XDB, LSI, TGW, LSD, WEL, WAE, andLCP. S. W. Parr, London, England, reports HJ3ABX, HI4V, JVM, VE9DN, XEME, HJ1ABP, HJ5J, TFJ and amateurs. Peter Shenton of Graveley, England, reports TFJ. S. H. Lewis, London and T. J. MacTear, Belfast, report the Hindenberg.

Charles Miller, Covington, Ky., reports LRU, RKI, SUZ, LZA and a station in Algiers on 8.96 mc. mornings. Dr. Kash, Severeville, Tenn., reports HIX testing on 12.28 mc., at 7:30 P.M. and YNLF on 9.66 mc.

FOR SALE—Janette Rotary Converter Type CB12. Requires 6 amperes at 115 volts delivers A. C. Side .5KVA at 60 cycles, 110 volts, sell for \$50.00 F. O. B., Minneapolis. Also Janette Rotary Converter Type C13 delivering on A. C. side .3kva at 60 cycles for 35.00, F. O. B., Minneapolis. Both are good as new. Write Stanley Partridge, 1201 Metropolitan Life Bldg., Minneapolis, Minnesota.

AMATEURS

The 20 meters, 14 mc. band is full of foreign amateurs these days. One member reported logging 42 countries in one month here. We suggest that everyone interested in distance regardless of whether it is musical programs they hear, tune for these amateurs. Many people have asked us why members like Sgt. Dent can have 23 stations on each of the six continents. The answer to that is amateurs. Sgt. Dent has seven broadcasting stations in Australia on his list now and 23 amateurs. We suggest that members who wish to increase their list of stations tune for these amateurs, send us \$1.25 for a book that lists the address and calls of over 60,000 stations all over the world and then send for verifications.

FOR SALE—Jewell Radio Set Analyzer, Pattern No. 444. Completely overhauled by Jewell-Weston Instrument Co. Analyzer is in perfect condition, will test all glass tubes. Will accept best offer. G. C. Gallagher, 18 Delano Avenue, San Francisco, California.

REAL BARGAINS—Eight tube Midwest Allwave; R. F. Sky-rider receivers; Peak Pre-selector; Webster Amplifier. Want Scott or similar receiver. Trip-lett Test Equipment. Glenn Watt, Chanute, Kansas.

FOR SALE—McMurdo Silver IV complete with tubes, speakers, amplifier. Also Peak pre-selector and Lamb silencer. All for \$120.00. Wm. Auer, 134 E. 17 Street, c/o Earl, New York City.

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"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 **relying** 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, Rugby, England. Phones LSL and PPU near 8:00 A.M.	
T-14.97	20.04	OPL, Leopoldville, Belgian Congo. Phones ORG, mornings.	
T-14.99	20.02	DHO, Nauen, Germany. Phones PPU and LSM mornings.	
T-15.14	19.18	WKN, Lawrenceville, N. J. Phones GAU, daytime.	
T-15.24	19.69	CEC, Santiago, Chile. Phones LSR, HJY near 11 A.M. and 4 P.M.	
T-15.28	19.62	VQG, Nairobi, Kenya, Africa. Phones London, 7:30 to 8:00 A. M.	
T-15.39	19.50	LSQ, Buenos Aires, Argentina. Heard testing near 2:00 P.M.	
T-15.50	19.35	FTM, Assise, France. 10:00 A.M. to 2:00 P.M. LSG.	
T-15.50	19.35	PMA, Bandoeng, Java. Phones Holland, mornings.	
T-15.57	19.27	PPU, Rio de Janeiro, Brazil. Phones FTM, 10:30 A.M. to 3:00 P.M.	
T-15.58	19.25	DFA, Nauen, Germany. Phones 10:00 A.M. to 2:00 P.M. irregularly.	
T-15.62	19.21	ORG, Brussels, Belgium. Phones OPL, mornings.	
T-15.68	19.13	LSM, Buenos Aires, Argentina. Phones EAQ, DHO, GAA, mornings.	
T-15.88	18.89	ZSS, Klipkeval, S. Africa. Phones LSN, 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, ex. Tues. and Fri. 7:30 to 10:30 A.M.	
B-16.89	17.86	W2XE, Wayne, N. J. Relays WABC 10:00 A.M. to Noon.	
T-16.89	17.76	IAC, Piza, Italy. Phones ships early mornings.	
B-16.89	17.76	DJE, Nauen, Germany. 7:00 to 11:30 A.M., irregular.	
T-16.85	18.27	17.80—Ships. Heard in daytime.	
T-16.92	17.75	HSP, Bangkok, Siam. Works Germany, 4:30 to 6:30 A.M.	
T-17.00	17.64	XGN, Shanghai, China, phones London 7 to 9 A.M., Mon. Wed. Sat.	
T-17.10	17.54	VWY, Poona, India. Phones GBU, 2:00 to 8:00 A.M.	
T-17.12	17.52	DFB, Nauen, Germany. Phones LSM and YVQ near 9:00 A.M.	

Meters	Meg.	STATION	TIME
T-17.44	-17.20	FZE9, Djibouti, French Somaliland, testing	9:00 to 10:00 A.M.
T-17.52	-17.12	WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.20	-16.12	IRY, Rome, Italy, phoning	7:00 A.M. to 1:30 P.M.
T-18.44	-16.30	WLK, Lawrenceville, N. J.	Phones England.
T-18.47	-16.24	KTO, Manila, P. I.	Phones Japan 5:00 to 9:00 P.M., irregularly.
T-18.51	-16.20	FZR, Saigon, Indo-China.	Phones Paris mornings.
T-18.71	-16.04	KPK, 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 OJ 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	IVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A.M.
T-19.20	-15.61	JVF, Nazaki, Japan, phones U.S.A. near	5:00 A.M. and 8:00 P.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU.
E-19.50	-15.46	KKR, Bolinas, California.	Tests irregularly.
B-19.52	-15.37	HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A.M.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
B-19.56	-15.34	DJR, Zeesen, Germany, 1:30 to 3:30 A.M.	irregularly.
B-19.56	-15.33	W2XAD, Schenectady, New York, 10:00 A.M. to 2:00 P.M.	daily.
B-10.60	-15.31	GSP, Daventry, England.	6:00 to 8:00 P.M.
B-19.62	-15.29	LRU, Buenos Aires, Argentina.	Testing 3:00 to 9:30 P.M. irreg.
B-19.63	-15.28	DJO, Zeesen, Germany.	12:30 A.M. to 7:00 A.M.
B-19.64	-15.27	W2XE, Wayne, N. J.	Relays WABC noon to 5:00 P.M.
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 RK1 near 7:00 A.M.
B-19.68	-15.24	TPA2, Pontoise, France.	6:00 A.M. to 11:00 A.M.
B-19.71	-15.22	PCJ, Eindhoven, Holland.	7:00 A.M. to 11:00 A.M., irregular
B-19.71	-15.21	W8XK, Pittsburgh, Pa.	Relays KDKA 9:00 A.M. to 7:00 P.M.
B-19.74	-15.20	DIB, Zeesen, Germany.	3:45 to 11:30 A.M. daily.
B-19.82	-15.14	GSF, Daventry, England,	9:00 A.M. to Noon; 6:00 to 8:00 P.M.
B-19.84	-15.11	HVJ, Vatican City	10:30 to 10:45 A.M. daily.
B-19.76	-15.18	GSO, Daventry, England,	3:40 to 5:45 P.M.
B-19.85	-15.11	DJL, Zeesen, Germany.	5:45 to 7:30 A.M.
T-19.92	-15.06	WNC, Hialeah, Florida,	phones many stations in daytime.
T-19.94	-15.04	RK1, Moscow, U.S.S.R.	Phones RIM near 7:00 A.M.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
B-20.04	-14.97	LZA, Sofia, Bulgaria.	Sundays 3:30 to 11:30 A.M., 3:30 to 4:30 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.
T-20.19	-14.86	OJ2, Lima, Peru.	Phones HKB-HJY-LSN, daytime.
T-20.29	-14.79	ROU, Omsk, Siberia,	phones Moscow 7:00 to 9:00 A.M. irregularly.
T-20.37	-14.73	IOA, Rome, Italy,	phones 8:00 to 11:00 A.M. irregularly.
T-20.42	-14.69	PSF, Rio de Janeiro, Brazil.	7 A.M. to 6 P.M. LSL, WLK, WOK
T-20.45	-14.67	GBI, Rugby, England.	Phones JVH 1:00 to 7:00 A.M.
B-20.55	-14.60	JVH, Nazaki, Japan.	Phones Europe from 4:00 to 8:00 A.M.
T-20.56	-14.59	WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64	-14.54	HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65	-14.53	LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.71	-14.48	YSJ, San Salvador, Salvador.	Phones WNC afternoons.
T-20.71	-14.48	HR15, Nacaome, Honduras,	testing with WNC daytime.
T-20.71	-14.48	TIU, Cartago, Costa Rica,	phones WNC daytime.
T-20.71	-14.48	YNA, Managua, Nicaragua,	phones WNC daytime.
T-20.71	-14.48	HPF, Panama,	phones WNC daytime.
T-20.71	-14.48	HRF, Tegucigalpa, Honduras,	phones WNC daytime.
T-20.71	-14.48	TGF, Guatemala City,	phones WNC daytime.
T-20.73	-14.47	WMF, Lawrenceville, N. J.	Phones England daylight.
T-20.75	-14.46	GBW, Rugby, England.	Phones WNC 6:00 A.M. to 6:00 P.M.
B-20.75	-14.46	DZH, Zeesen, Germany,	Noon to 2:00 P.M.
E-20.97	-14.26	-14.30 to 14.11	Amateur phones heard in daytime.
T-21.19	-13.88	VJZ, Rabaul, New Guiana.	Testing at 5:00 P.M. and 5:00 A.M.
B-21.26	-14.10	HJ5ABE, Cali, Colombia.	2:00 P.M. to midnight, irregular.
E-21.58	-13.90	WQP, Rocky Point, N. Y.	Testing with RNE irregularly, mornings.

Meters	Meg.	STATION	TIME
T-21.70	13.83	SUZ, Cairo, Egypt.	Phones GAA 7:00 A.M. to 3:30 P.M.
E-21.91	13.69	KKZ, Bolinas, California.	Used irregularly.
T-21.98	13.65	HJY, Bogota, Colombia.	Phones irregularly.
B-22.00	13.63	SPW, Warsaw, Poland.	Mon., Wed. and Fri., 11:30 A.M. to 12:30 noon.
T-22.09	13.58	GBB, Rugby, England.	Phones Canada and Egypt, daytime.
T-22.35	13.42	GCG, Rugby, England.	Phones JVH 3:00 to 8:00 A.M.
T-22.40	13.38	IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:30 P.M. irregularly.
T-22.40	13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.
T-22.48	13.35	YVQ, Maracay, Venezuela.	Phones Florida, daytime.
T-22.50	to 24.3	13.34	Ships—Ships. Heard in daytime.
T-22.58	13.28	CGA3, Drummondville, Canada.	Phones ships and England daytime.
T-22.70	13.22	IRJ, Rome, Italy.	phones Japan irregularly 5:00 to 8:00 A.M.
E-22.76	13.18	DGG, Nauen, Germany.	Phones Asia mornings, irregularly.
B-22.95	13.07	VPD, Suva, Fiji Islands.	Daily, except Sun., 12:30 to 1:30 A.M.
T-23.00	13.04	German ships.	11:15 A.M. and 1:30 P.M.
T-23.36	12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	12.83	CNR, Rabat, Morocco.	Phones St. Assise 5:00 to 8:00 A.M.
T-23.45	12.80	IAC, Piza, Italy.	Works ships mornings.
T-23.47	12.78	GBC, Rugby, England.	Phones ships irregularly.
T-24.20	12.40	DAF, Norden, Germany.	Phones ships irregularly, mornings.
T-24.40	12.30	PLM, Bandoeng, Java.	Phones VK2ME near 6:30 A.M.
T-24.41	12.29	GBU, Rugby, England.	Phones America, evenings.
E-24.52	12.24	TFJ, Reykjavik, Iceland.	Phones GSC irregularly.
T-24.56	12.22	TYA, Pontoise, France.	Phones the Normandie, irregularly.
T-24.69	12.15	GBS, Rugby, England.	Phones New York.
E-24.73	12.13	DZE, Zeesen, Germany.	7:00-9:00 A.M., 5:00-9:00 P.M., irreg.
T-24.88	12.09	PDV, Kootwijk, Holland.	Tests near 7:30 A.M.
B-25.00	12.00	RNE, Moscow, U.S.S.R.	Bc'ds. daily 2:00 to 6:00 P.M., Weds. 6:00-7:00 A.M., Sundays 6:00-7:00 A.M., and 10:00-11:00 A.M.
T-25.02	11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
B-25.09	11.95	ETB, Addia Ababa, Ethiopia.	Sundays 5:30 to 4:50 P.M.
E-25.11	11.97	KKO, 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.	2:00-5:00 A.M., 11:15 A.M. to 6:00 P.M.
B-25.27	11.87	W8XK, Pittsburgh, Pa.,	relays KDKA 5:00 to 9:00 P.M.
B-25.31	11.85	DJP, Zeesen, Germany.	Noon to 2:00 P.M.
B-25.34	11.79	DJO, Zeesen, Germany.	3:00 to 4:55 P.M.
B-25.36	11.83	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	2RO, Rome, Italy,	8:15 A.M. to 12:15; 1:15 to 5:15 P.M.
B-25.40	11.81	HJ4ABA, Medellin, Colombia.	11:30 to 1:00 and 6:30 to 10:30 P.M.
B-25.42	11.79	W1XAL, Boston, Mass.,	Sun. 3:30 to 5:00; Mon., Fri., 5:30 to 7 P.M.
B-25.43	11.79	DJO, Zeesen, Germany.	3:00 to 4:20 P.M.
B-25.49	11.77	DJD, Zeesen, Germany.	11:35 A.M. to 4:25 P.M.; 4:50 to 10:45 P.M.
B-25.53	11.75	GSD, Daventry, Eng.,	12:15 to 3:40; 9 to 11; 11:30 P.M. to 1:30 A.M.
B-25.60	11.72	CJRX, Winnipeg, Canada.	4:00 P.M. to 11:00 P.M.
B-25.63	11.71	TPA4, Pontoise, France.	6:15 to 9:00 P.M., 10:00 P.M. to 1:00 A.M.
E-25.63	11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
E-25.73	11.66	PPQ, Rio de Janeiro, Brazil.	Used irregularly in evenings.
E-25.87	11.59	VRH4, Stony Hill, Jamaica.	Testing with WNC in daytime.
B-25.93	11.57	HHT2, Port-au-Prince, Haiti.	Heard irregularly, evenings.
E-26.09	11.50	VIZ3, Fiskville, Australia.	Phones CJA4 irregularly.
E-26.09	11.50	XAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P.M.
T-26.29	11.41	CJA-4, Drummondville, Ont.,	phones VIZ-3 6:00 to 11:00 P.M. Irreg.
T-26.35	11.39	HBO, Geneva, Switzerland.	Used irregularly.
T-27.15	11.05	ZLT, Wellington, New Zealand.	Phones VLK 1:00 to 7:00 A.M.
T-27.26	11.00	PLP, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10:10-30 A.M.
T-27.26	11.00	XBJQ, Mexico City.	Testing irregularly now.
B-27.30	10.99	HS8PJ, Bangkok, Siam,	Monday 8:00 to 10:00 A.M.
T-27.35	10.97	OCL, Lima, Peru.	Phones HJY, evenings.
E-27.65	10.85	DFL, Nauen, Germany.	Irregular.

Meters	Meg.	STATION	TIME
T-27.67	10.84	KWV, Dixon, California.	Phones Hawaii, daytime.
T-27.86	10.77	GBP, Rugby, England.	Phones VLK 11:00 P.M. to 8:00 A.M.
E-27.93	10.74	JVM, Nazaki, Japan, Tues., Fri., 2 to 3 P.M.	Phone 1:30 to 7:40 A.M.
Γ-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.	Bc ds. 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.
Γ-28.44	10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentina, irregularly.
E-28.49	10.53	JIB, Tawian, Japan.	Heard irregularly.
Γ-28.51	10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A.M. GBP.
E-28.79	10.42	XGW, Shanghai, China.	Testing near 6:00 A.M.
Γ-28.80	10.42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.M.
Γ-28.80	10.40	YBG, Medan, Sumatra.	5:30-6:30, 12:30-1:30 A.M., 7:30-8:30 P.M.
E-28.85	10.40	KEZ, Bolinas, California.	Used irregularly.
E-28.91	10.38	WCG, Rocky Point, N. Y.	Tests irregularly.
B-28.98	10.35	LSX, Buenos Aires, Argentina.	Irregular
B-29.04	10.33	ORK, Brussels, Belgium.	1:30 to 3:00 P.M., daily.
E-29.13	10.30	LSQ, Buenos Aires, Argentina.	Used for special tests.
E-29.15	10.29	JZC, Zeesen, Germany.	3:00 to 9:00 P.M., Irregular.
T-29.25	10.26	PMN, Bandoeng, Java.	Near 5:30 A.M. daily. VLK.
E-29.27	10.25	LSL, Buenos Aires, Argentina,	testing 5:30 to 7:00 P.M.
T-29.45	10.22	PSH, Rio de Janeiro, Brazil.	Sending music, evenings.
T-29.50	10.17	RIO, Bakou, U.S.S.R.	Phones Moscow 8-10 A.M., 10 P.M. to 1 A.M
T-29.58	10.14	OPM, Leopoldville, Belgian Congo.	Phones ORK 9-11 A.M., 3-6 P.M
T-29.76	10.08	RIR, Tiflis, Siberia.	Phones Moscow 5:00 to 8:00 A.M., irregularly
T-29.79	10.07	EHY, Madrid, Spain.	Phones YVR near 4:00 P.M., irregularly.
T-29.80	10.06	JZB, Shinkyo, Manchukuo,	phones JVO 10:00 P.M. to 3:00 A.M
T-29.83	10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships, daytime.
T-29.83	10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
E-29.88	10.04	DZB, Zeesen, Germany.	7:00 to 9:00 P.M.
T-30.09	9.97	KAZ, Manila, P. I.	Phones PLV near 2:00 A.M.
T-30.15	9.95	GCU, Rugby, England.	Phones New York evenings.
T-30.21	9.93	HKB, Bogota, Colombia.	Phones PSK irregularly, evenings.
T-30.30	9.90	LSN, Buenos Aires, Argentina.	6:00 P.M. to 6:00 A.M. WLO.
T-30.40	9.87	WON, Lawrenceville, N. J.	Phones England evenings.
E-30.40	9.87	JYS, Kemikawa-Cho, Japan.	Relays JOAK Irreg., mornings.
T-30.52	9.83	IRM, Rome, Italy.	Phones Egypt afternoons.
B-30.43	9.86	EAQ, Madrid, Spain.	5:15 P.M. to 9:30 P.M. daily. Sat. 1-3 P.M.
T-30.60	9.80	GCW, Rugby, England.	Phones America, evenings.
E-30.61	9.80	LSI, Buenos Aires, Argentina.	Used irregularly, evenings.
T-30.75	9.76	VK2ME-VLK, Sydney, Australia.	Phones Java 4:00 to 8:00 A.M.
T-30.77	9.75	WOF, Lawrence, N. J.	Phones England, evenings.
T-30.90	9.71	GCA, Rugby, England.	Phones Argentina around 6:00 P.M.
B-30.99	9.68	YNLF, Managua, Nicaragua,	heard between 4:00 and 10:00 P.M.
B-31.00	9.67	DZA, Zeesen, Germany,	5:00 to 7:00 P.M.
B-31.00	9.66	CQN, Macao, China,	Monday and Friday 7:00 to 8:30 A.M.
T-31.08	9.65	DGU, Nauen, Germany.	Phones Egypt in daytime.
B-31.09	9.65	CT1AA, Lisbon, Portugal.	Tues., Thur. & Sat. 3:30 to 6:00 P.M.
B-31.10	9.65	YDB, Soerabaja, Java,	daily 4:30 to 10:00 A.M.; Sat. until 11:00.
B-31.13	9.64	2RO, Rome, Italy,	daily excepting Sunday 6:00 to 7:30 P.M.
B-31.22	9.61	IIIABP, Cartagena, Colombia,	11:00 A.M. to 1:00; 5 to 11 P.M.
B-31.22	9.61	HH3W, Port-Au-Prince, 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.
B-31.25	9.60	LRX, Buenos Aires, Argentina.	Testing near midnight now.
B-31.27	9.59	HBL, Geneva, Switzerland.	5.30 to 6.15 P. M., Saturday.
B-31.28	9.59	W3XAU, Philadelphia, Pa.	11:00 A.M. to 7:00 P.M.
B-31.28	9.59	FCJ, Eindhoven, Holland,	Wednesdays 7:00 to 10:00 P.M.; Sunlays 7:30 to 8:30 A.M.; 1:00 to 2:00; 7:00 to 8:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.
B-31.32	9.58	GSC, Daventry, England.	6:00-8:00 P.M. and 9:00-11:00 P.M.
B-31.36	9.57	W1XK, Boston (Millis), Mass.	5:00 A.M. to 11:00 P.M.

Meters	Meg.	STATION	TIME
B-31.36	9.57	VUB, Bombay, India, Wed., Thurs., and Sat.	11:00 A.M. to 12:30 P.M.
B-31.38	9.56	DJA, Zeesen, Germany.	12:30-3:50 A.M., 8-11 A.M., 5:00-10:45 A.M.
B-31.45	9.54	DJN, Zeesen, Germany.	12:30 A.M. to noon. 4:55 to 10:45 P.M.
B-31.45	9.54	XGOA, Nanking, China.	Daily 3:30 to 5:30 A.M.
B-31.48	9.53	LKJ1, Jeloy, Norway.	5:00-8:00 A.M., 11:00 A.M. to 6:00 P.M.
B-31.48	9.53	W2XAF, Schenectady, N. Y.,	daily 4:00 P.M. to Midnight.
B-31.55	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.
T-31.71	9.46	Tripoli, Africa. Phones IAC, Italy,	6:00 A.M. to 1:00 P.M., irreg.
B-31.75	9.45	TGW, Guatemala City.	9:00 P.M. Saturdays to 6:00 A.M. Sunday.
B-31.80	9.42	COCH, Havana, Cuba,	8:00 A.M. to 7:00 P.M.; 8:00 to 10:00 P.M.
T-31.86	9.42	PLV, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10:00-10:30 A.M.
B-31.98	9.38	CSW, Lisbon, Portugal,	between 5:00 and 7:00 P.M. irregularly.
T-32.15	9.33	CGA4, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.41	8.98	VWY, Poona, India.	Phones England near 8:30 A.M.
T-33.93 to 36.58	8.84 to 8.20	Ships.	Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.21	8.77	HCBJ, Quito, Ecuador,	Daily excepting Mondays 7:30 to 9:30 P.M.
B-34.29	8.75	ZBW, Hong Kong, China.	Daily 11:30 P.M. to 1:15 A.M., Mon. and Thurs. 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
E-34.35	8.74	WXV, Fairbanks, Alaska.	Works WXH between 10 P.M. and 4 A.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
B-34.62	8.66	CO9JQ, Camaguey, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68	8.65	VVD, Seattle, Wash.	Testing irregularly.
B-34.72	8.64	YNV, Managua, Nicaragua.	7:30 to 9:30 P.M., Irregular.
T-35.01	8.57	FZE9, Djibouti, French Somaliland,	testing 4:00 to 6:00 P.M. irreg.
T-35.02	8.57	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-35.42	8.47	DAF, Norden, Germany.	Phones ships irregularly.
B-35.69	8.41	HC2CW, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
T-35.80	8.38	IAC, Piza, Italy.	Works ships, irregularly.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
B-36.65	8.19	XEME, Merida, Mexico,	9:00 A.M. to Noon, 5:00 to 11:00 P.M.
B-36.95	8.12	KTP, Manila, P. I.	Phones KWX 10:30 to 11:00 A.M.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.19	7.85	HC2JSB, Guayaquil, Ecuador.	9:00 A.M. to 2:00 P.M.; 6 to 11 P.M.
B-38.47	7.80	HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
E-38.50	7.78	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M., irreg.
E-38.89	7.71	KEE, Bolinas, California.	Tests evenings irregularly.
T-39.34	7.63	RIM, Russia.	Phones RKI 6:00 to 8:15 A.M.
T-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
B-39.47	7.60	TI8WS, Puntarenas, Costa Rica,	heard 6:00 to 11:00 P.M. irregularly.
T-39.89	7.52	KKH, Kauhuku, Hawaii.	Phones KWO evenings.
E-39.95	7.51	JVP, Nazaki, Japan,	broadcasts Tues., Fri., 4 to 5 P.M. · phones 1 A.M.
T-39.97	7.50	RKI, Russia.	Phones RIM 6:00 to 8:15 A.M.
T-40.60	7.39	ZLT2, Wellington, New Zealand,	phones Sydney 3:00 to 7:00 A.M. irreg.
B-40.65	7.38	CECR, Mexico City,	broadcasts Sundays 6:00 to 8:00 P.M.
T-40.71	7.37	KEQ, Kauhuku, Hawaii.	Phones Dixon nights.
B-41.55	7.22	HKE, Bogota, Colombia.	Mon. 6 to 7 P.M.; Tues., Fri., 8 to 9 P.M.
B-41.55	7.22	VP3BG, Georgetown, B. G.,	between 3:00 and 8:45 P.M. irregularly.
B-41.60	7.21	EA8AB, Tenerife, Canary Islands.	Mon., Fri., 3:15 to 4:15 P.M.
B-41.80	7.17	CR6AA, Lobito, Angola, Africa,	Wed., and Sat., 2:30 to 4:30 P.M.
B-42.35	7.08	PI1J, Dordrecht, Holland,	Saturdays 10:10 to 11:10 A.M.
B-42.37	7.08	VP3MR, Georgetown, Sun.	7:45-10:15 A.M.; weekdays 4:45-8:45 P.M.
B-42.88	7.00	PZH, Paramaribo, Dutch Guiana,	2:40 to 9:40 P.M. irregularly.

Meters	Meg.	STATION	TIME
E-43.00	6.98	NBA, Tacubaya, Mexico,	9:30 A.M. to 1:00; 7:00 to 8:30 P.M.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
E-43.82	6.84	KEN, Bolinas, California.	Used irregularly.
B-44.12	6.80	HI7P, Trujillo, D. R.	Heard 7:30 to 9:00 P.M.
B-44.31	6.67	HIH, San Pedro De Macoris, D. R.	7:30 to 9:00 P.M. daily.
T-44.41	6.75	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.75	JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftines with music.
B-44.71	6.71	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M., irregularly.
B-44.90	6.70	TI2M, San Jose, Costa Rica,	heard 9:00 to 11:00 P.M. irregularly.
E-44.96	5.67	YVQ, Maracay, Venezuela.	Broadcasts 8:00 to 8:30 P.M. Saturday.
B-45.00	6.67	???	Madrid, Spain, testing around 5:00 to 9:45 P.M. irregularly.
B-45.00	6.66	GP10 Asuncion, Paraguay,	heard 10:00 to 11:45 P.M. irregularly.
B-45.00	6.67	HC2RL, Guayaquil, Ecuador.	Sun. 5:45-7:45, Tues. 9:15-11:15 P.M.
T-45.10	6.65	IAC, Piza, Italy.	Phones ships evenings.
B-45.18	6.40	YV9RC, Caracas, Venezuela,	7:00 to 11:00 P.M. irregularly.
B-45.31	6.62	PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.25	6.63	HIT, Trujillo, D. R.,	12:10 to 1:40; 5:40 to 8:40 P.M. weekdays.
B-45.52	6.60	XDC, Vera Cruz, Mexico,	heard between 7:00 and 11:00 P.M. irreg.
E-45.80	6.55	NBC, Vera Cruz, Mexico,	8:15; 9:00; 11:00 A.M.; 6:00; 8:00 P.M.
B-45.81	6.55	TIRCC, San Jose, Costa Rica,	daily 6 to 7; Thurs., Sun., 6 to 11 P.M.
B-45.81	6.55	HI4D, Trujillo, D. R.	11:55 to 1:40 P.M., 4:40 to 7:40 P.M.
B-46.01	6.52	YV6RV, Valencia, Venezuela.	12:00-2:00 P.M. and 6:00-10:00 P.M.
B-46.13	6.50	HIL, Trujillo, D. R.,	11:40 to 1:40; 5:40 to 7:40 P.M. daily.
B-46.30	6.48	HJ5ABD, Cali, Colombia.	7:00 to 10:00 P.M.
B-46.51	6.45	HJ4ABC, Ibague, Colombia,	11:00 A.M. to Noon; 8 to 11 P.M. daily.
B-46.51	6.45	HI4V, Trujillo, D. R.	11:40 A.M. to 1:40 P.M., 5 to 10 P.M., irreg.
B-46.51	6.45	HJ1AB, Barranquilla, Colombia.	4:30 to 10:00 P.M. daily.
B-46.73	6.42	HI1S, Puerto Plata, D. R.,	11:40-1:40; 5:40-7:40; 9:40 to 11:40 P.M.
E-46.73	6.42	W9XBS, Chicago, Illinois.	Heard irregularly broadcasting.
E-46.77	6.41	HJA3, Barranquilla, Colombia.	Phones HJA2, irregular.
B-46.86	6.41	TIPG, San Jose, Costa Rica.	Noon to 2:00 P.M., 6:00 to 11:30 P.M.
E-47.02	6.38	HI3U, Santiago, D. R.,	10:40 to 1:40; 4:40 to 9:40 P.M.
B-47.10	6.37	YV4RC, Caracas, Venezuela.	4:30 P.M. to 10:30 P.M.
B-47.24	6.35	HRV, Tegucigalpa, Honduras,	heard testing 6:45 to 9:30 P.M.
B-47.39	6.33	HRP1, San Pedro Sula, Honduras,	heard 6:30 to 10:00 P.M. irreg.
E-47.39	6.35	JZG, heard relaying JVT.	JOAK from 5:00 to 7:30 A.M. irregularly
B-47.50	6.31	HIZ, Trujillo, D. R.,	11:30 to 2:45; 5:30 to 9 P.M. daily; Sat. 10 P.M.
B-47.51	6.30	YV12RM, Maracay, Venezuela,	8:00-10:30 daily; 4:30-11:00 P.M. irreg.
B-47.77	6.28	CO9WR, Sancti Spiritus, Cuba.	9-10 AM, 12-1 P.M., 4-6 P.M., 9-11 P.M.
B-47.77	6.28	HIG, Trujillo, D. R.	7:10-8:40 A.M., 12:40-2:10 P.M., 8:10-9:40 P.M.
B-48.00	6.25	OAX4G, Lima, Peru, daily	7:00 to 10:30 P.M., Wed. at 6:00 P.M.
B-48.08	6.24	HI8Q, Trujillo, D. R.,	6:00 to 11:30 P.M. irregularly.
B-48.11	6.23	HRD, Le Ceiba, Honduras.	Daily 8:00 to 11:00 P.M.
B-48.50	6.19	HI1A, Santiago de los Cabaleros, D. R.,	11:40 to 1:40; 7:40-9:40 P.M.
B-48.55	6.18	XEXA, Mexico City, 8 to 11:30 A.M.	3 to 5 P.M.; 7 to 11 P.M.
B-48.60	6.17	HJ2ABA, Tunja, Colombia.	1:00-2:00 P.M. and 7:00 to 10:00 P.M.
B-48.62	6.17	HJ3ABF, Bogota, Colombia.	7:00 to 11:15 P.M.
B-48.70	6.16	YV3RC, Caracas, Ven.,	10 A.M. to 1:00 P.M.; 3:00 to 9:30 P.M.
B-48.78	6.15	HJ5ABC, Cali, Colombia,	7:00 to 10:00 P.M. except Sat. and Sun.
B-48.78	6.15	COKG, Santiago, Cuba.	8:30 A.M. to 11:00 P.M.
B-48.80	6.15	CJRO, Winnipeg, Canada.	5:00 P.M. to 11:00 P.M.
B-48.86	6.14	W8XK, Pittsburgh, Pa.	Relays KDKA 9:00 P.M. to 1:00 A.M.
B-48.90	6.13	HJ4BP, Medellin, Colombia,	6:00 to 11:00 P.M.
B-48.92	6.13	ZGE, Kuala Lumpur, S. S. Sun.,	Tues. and Fri., 6:40 to 8:40 A.M.
B-48.92	6.13	HI5M, Trujillo, D. R.,	6:40 to 9:10 P.M.
B-48.92	6.13	VE9HX, Halifax, Canada.	9:30-1:30 P.M.; 5:00 to 11:00 P.M.
B-48.92	6.13	COCD, Havana, Cuba.	Heard 5:00 P.M. to 1:00 A.M., irregularly.
B-49.00	6.12	HJ3ABX, Bogota, Colombia.	Heard 6:00 to 11:30 P.M., irreg.
B-49.02	6.12	XEFF, Vera Cruz, Mexico.	11:30 to 4:00 P.M., 7:30 P.M. to 12 M.
B-49.02	6.12	W2XE, Wayne, N.J.	Relays WABC 7:00 to 10:00 P.M.
B-49.05	6.11	HJ1ABE, Cartagena, Colombia.	Daily 7:30-9:00; Mon. 10:30 P.M.
B-49.10	6.11	GSL, Davenport, England,	2:30 to 4:00 P.M.
B-49.10	6.11	VUC, Calcutta, India.	9:30 A.M. to Noon. Sat. 11:45 P.M. to 3 A.M.
B-49.14	6.10	HI3C, La Romano, D. R.,	12:30 to 2:00; 5:00 to 6:30 P.M.

Meters	Meg.	STATION	TIME
B-49.15	6.10	HJ4AB, Manizales, Colombia.	8:00 to 11:30 P.M., irregularly.
B-49.18	6.10	Belgrade, Yugoslavia.	Heard 2:00 to 5:00 P.M., irreg.
B-49.18	6.10	W3XAL, Bound Brook, N.J.	Mon., Wed. & Sat. 4 P.M. to 1 A.M.
B-49.18	6.10	W9XF, Chicago, Ill.	Daily 12-1 A.M. Sun., Tue. & Thur. 8-1 A.M.
B-49.19	6.10	HJ4ABE, Medellin, Colombia,	11:00 A.M. to Noon; 6:00 to 10:30 P.M.
B-49.20	6.09	ZTJ, Johannesburg, Africa.	3:30 to 7:00 A.M.; 9:00 A.M. to 4:00 P.M.
B-49.22	6.09	CRCX, Bowmanville, Canada.	5:30 to 11:30 P.M. daily, 11:45 A.M. to 11:30 P.M. Sundays.
B-49.30	6.08	HJ5ABD, Cali, Colombia,	7:00 to 10:00 P.M.
B-49.31	6.08	VQ7LO, Nariobi, Africa.	11:00 A.M. to 3:30 P.M., 5:45 to 6:15 A.M.
B-49.34	6.08	HJ4ABC, Periera, Colombia,	9:00 to 11:00 A.M.; 7:00 to 8:00 P.M.
B-49.34	6.08	W9XAA, Chicago, Illinois.	No apparent regular schedule.
B-49.34	6.08	DJM, Zeesen, Germany,	7:30 to 9:30 P.M.
B-49.34	6.08	HP5F, Colon, Panama,	11:45 to 1:15 and 7:45 to 10:00 P.M.
B-49.34	6.08	ZHJ, Penang, S. S.	Daily 6:40 to 8:40 A.M.
B-49.40	6.07	VE9CS, Vancouver, B. C.	Daily 6-7 P.M., Sun. 1:45 P.M. to 1:00 A.M.
B-49.42	6.07	OER2, Vienna, Austria.	9:00 A.M. to 5:00 P.M., week-days.
B-49.45	6.06	HJ4ABL, Manizales, Col.	11:00-5:30-7:30 daily, Sat. 10:30 P.M.
B-49.50	6.06	OKY, Skamlebaek, Denmark.	Daily 1:00 to 6:00 P.M.
B-49.50	6.06	W8XAL, Cincinnati, Ohio.	5:30-7:00 P.M., 10 P.M. to 1:00 A.M.
B-49.50	6.06	W3XAU, Philadelphia, Pa.	7:00 to 10:00 P.M.
B-49.59	6.05	H19B, Santiago City, D. R.,	heard 6 to 10 P.M. 12:30 to 1:40 A.M.
B-49.55	6.05	HJ3ABD, Bogota, Colombia.	7:30 to 11:00 P.M.
B-49.65	6.04	HJ1ABG, Barranquilla, Colombia.	6:00 to 10:00 P.M.
B-49.67	6.04	HJ4ABC, Periera, Colombia.	9:30 to 11:00 A.M., 7:00 to 8:00 P.M.
B-49.67	6.04	W4XB, Miami Beach, Florida.	11 A.M. to 1 P.M., 7:30 to 10:30 P.M.
B-49.67	6.04	W1XAL, Boston, Mass.,	Mon., Tues., Thurs., 7 to 9; Sun. 5-7 P.M.
B-49.75	6.03	VE9CA, Calgary, Canada,	6 A.M. to noon; 7:00 P.M. to midnight Sun.
B-49.75	6.03	HP5B, Panama City,	12 Noon to 1 P.M.; 7:00 to 10:30 P.M.
B-49.80	6.02	HJ1ABJ, Santa Marta, Colombia,	6:00 to 11:30 P.M. irregularly.
B-49.83	6.02	XEUW, Vera Cruz, Mexico,	8:00 P.M. to 12:30 A.M. irregularly.
B-49.83	6.02	DJC, Zeesen, Germany.	11:35 A.M. to 4:00 P.M.
B-49.83	6.02	PRAS, Pernambuco, Brazil.	3:00 to 8:00 P.M., irreg.
B-49.85	6.01	HJ3ABH, Bogota, Colombia.	11:30 to 2, 6 to 11 P.M. Sun. 4-11 P.M.
B-49.90	6.01	COCO, Havana, Cuba.	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M.; Saturdays at 11:30 P.M.
B-49.92	6.01	ZHI, Singapore.	Mon., Wed., Thurs., 5:40-8:10; Sat. 10:40-1:10 A.M.
B-49.96	6.00	VE9DR, Drummondville, Canada.	5:00 P.M. to midnight, irreg.
B-49.96	6.00	HP5K, Colon, Panama.	7:30 to 9:00 A.M., 12-1 P.M., 6:00-9:00 P.M.
B-50.00	6.00	??? Goderich, Ont., Canada,	no regular schedule.
B-50.00	6.00	RW59, Moscow, U.S.S.R.,	2:30 to 5:00 or 6:00 P.M. daily.
B-50.00	6.00	HJ1ABC, Quibdo, Colombia	daily 5-6 P.M.; Wed. and Sun. 9-11 P.M.
B-50.10	5.99	HJ2ABD, Bucaramanga, Col.,	11:30-12:30; 5:30-6:30; 7:30-10:30 P.M.
B-50.17	5.98	XEWI, Mexico City.	Tues. and Fri. 6:30-7:45, 9 to 11 P.M., Sat 8-9 P.M.
B-50.17	5.98	HIX, Trujillo, D. R.,	daily 4:40 to 5:40 P.M.; Tuesday and Friday 8:10 to 10:10 P.M.; Sundays 7:40 to 10:40 A.M.
B-50.26	5.97	HVJ, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.26	5.97	HJN, Bogota, Colombia,	6:00 to 11:00 P.M. irregularly.
B-50.26	5.97	HJ2ABC, Cucuta, Colombia.	11:00 A.M. to Noon; 6:00 to 9:30 P.M.
B-50.51	5.94	TG2X, Guatemala City,	heard 4:00 P.M. to 2:00 A.M. irregularly.
B-50.60	5.93	HJ4ABE, Medellin, Colombia,	6:00 to 10:30 P.M.
B-50.85	5.91	HH2S, Port-Au-Prince, Haiti,	7:30 to 9:40 P.M. irregularly.
B-50.90	5.90	YV8RB, Baraquimeto, 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, Venezuela.	11:00 A.M. to 12:30 P.M., 5-9 P.M.
B-51.50	5.82	TIGPH, San Jose, Costa Rica	Noon-2:00 P.M., 7:00 to 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.

Meters	Meg.	STATION	TIME
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
B-52.17	5.75	HJ4ABD, Medellin, Colombia.	8:00 to 11:30 P.M.
B-52.26	5.74	TGS, Guatemala City, Wed., Thurs., and Sun.	6:00 to 9:00 P.M.
B-52.45	5.72	YVIORSC, San Cristobal, Venezuela.	7:00 to 11:30 P.M. irregularly.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M., irreg.
B-54.74	5.48	T15HH, San Roman, Costa Rica.	3:30 to 4:00; 8:00 to 11:30 P.M.
E-55.56	5.40	HJA-7, Cucuta, Colombia.	Mondays 4:30 to 7:30 P.M., irregularly.
B-58.30	5.15	PMY, Bandoeng, Java.	6:00 A.M. to Noon.
T-59.08	5.08	WCN, Lawrenceville, N. J.	Phones England evenings.
T-59.76	5.02	ZFA, Hamilton, Bermuda.	Phones U.S.A. and ships at night.
T-60.26	4.98	GBC, Rugby, England.	Phones to ships, irregularly.
T-61.15	4.90	CGA8, Drummondville, Canada.	Phones ships irregularly.
T-61.98	4.84	GDW, Rugby, England,	phones U.S. A. nights.
B-62.63	4.79	VE9BK, Vancouver, B. C.	2:00-4:00 P.M., 7-9 P.M., 11 PM.-1:00 AM.
T-63.13	4.75	WQO, Ocean Gate, N. J.	Phones ships irregularly.
B-65.22	4.60	HC2ET, Guayaquil, Ecuador.	Wed. and Sat. 9:00 to 11:00 P.M.
T-66.50	4.51	ZFS, Nassau, Bahamas.	Works WND evenings.
T-67.87	to 73.17	4.42 to 4.10	Ships. Heard irregularly.
B-70.65	4.25	RV15, Khabarovsk, U.S.S.R.	1:00 to 9:00 A.M.
T-73.21	4.10	WND, Hialeah, Florida.	Phones irregularly with VPN.
E-75 to 75.8	4.00 to 3.96	Amateurs on voice.	

BOOSTERS

It is with deep gratitude that we thank the following members for securing new members for us during the past month. They are earnest I.S.W.C. boosters. D. R. D. wadia, Bombay, India; W. F. Witherall, Troy, N. Y.; Robert Silber, Chicago, Illinois; Paul Oppenheimer, New York City; William Lutz, Lynbrook, N.Y.; C. Eggenweiler, Los Angeles, Calif.; J. B. Pujol, Havana, Cuba; Merwyn Sound and Vision Company, London, England; F. R. Scott, London; Philco Radio, London; J. C. Reyland, Somerset, England; E. G. Barbar, Tanjore, India; G. H. Smith, London, England; F. Postlewaite, London, Eng.; M. Beckett, Harrogate, Eng.; Henry Ward, Jr., Sherbrooke, Quebec; Leo Hirsch, N. Y. C.; Mr. Le Pavoux, Guernsey Island; Frank Ballantine, Philadelphia, Pa.; Carmel Crespo, Bronx, New York.

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- Eliminates Feedback in P.A. work.

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*Diagram shows angle of pickup without frequency discrimination of various types microphones.

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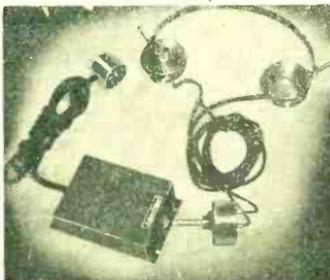
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\$3.95

(Ship. Weight 1 lb.)



ADVANTAGES

1. NO TAMPERING with wiring to install.
2. INSTALLED IN 1 MINUTE without tools.
3. Inserting phone jack AUTOMATICALLY silences speaker.
4. FIVE FT. CABLE makes it a phone jack at your fingertips.
5. Needs BUT A FRACTION OF VOLUME used for loud speaker.
6. HELPS IDENTIFY STATIONS heard faintly on the speaker.
7. CAN BE USED with METAL TUBE SETS.

IMPORTANT NOTE

About Amplification.

AMPLIVOX PHONE RECEPTOR

utilized the full amplification of the receiver. Ordinary devices lack one stage of amplification because the signal is tapped from the grid of the tube instead of the plate. With the Amplivox Phone Receptor the signal is tapped from the plate.

SPECIAL—COMBINATION—OFFERS

(1)—Amplivox PHONE RECEPTOR, a pair of ACME phones and a special plug to take from 1 to 4 pairs of phones; shipping weight, 2 lbs.

My Special Offer Price..... **\$4.49**
(Regular value, \$5.49)

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

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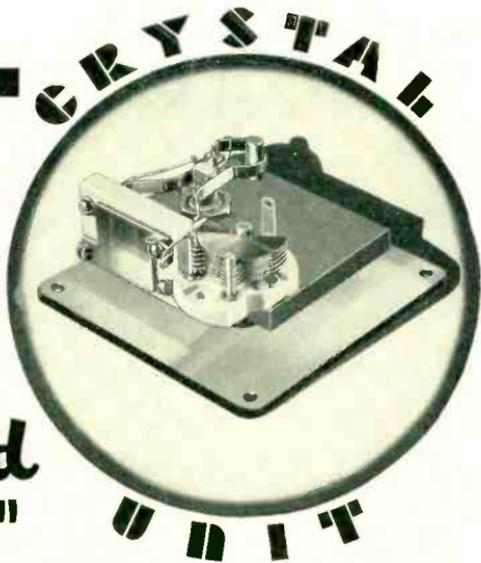
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