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NO. 8

INTERNATIONAL



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

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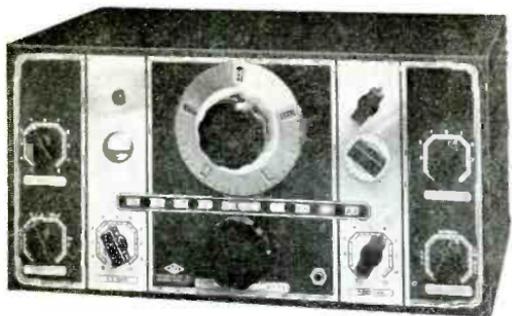
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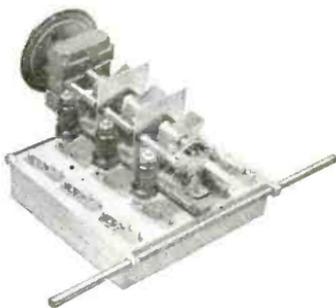
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Readers are asked to be careful not to mistake this organization for others which may have a similar name. This is the original International Short Wave Club and all mail should be addressed to International Short Wave Club, East Liverpool, Ohio.

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ARTHUR J. GREEN, Editor.

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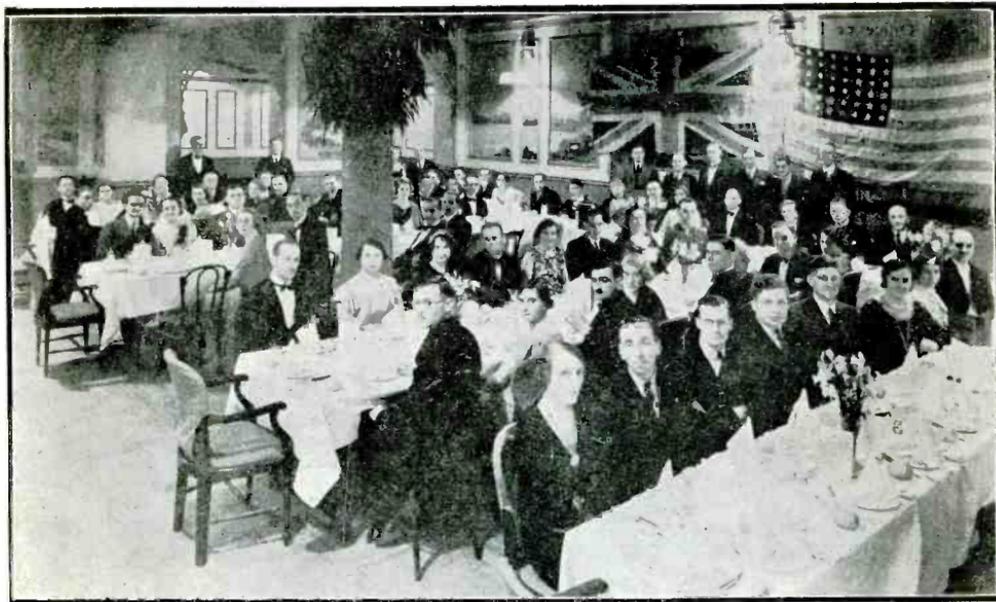
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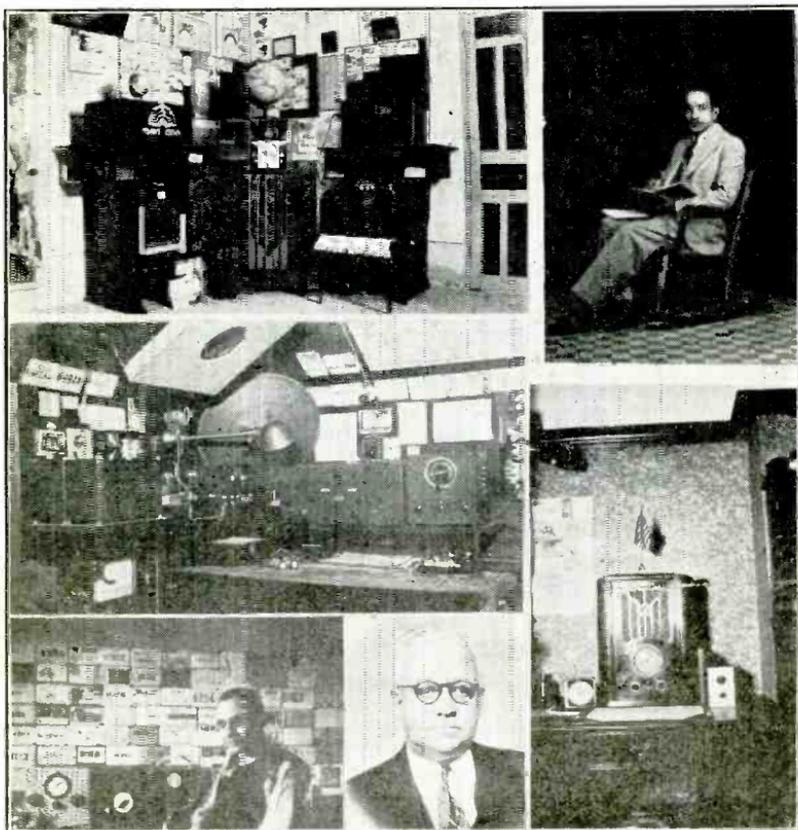


FOURTH ANNUAL DINNER DANCE

On April 3rd, the combined British and Colonial Chapters held their fourth annual dinner dance at First Avenue Hotel, Holburn, London, England. Above is a photograph made at the dinner. Seated in front of the flags in the rear of the photo, from left to right, are the following people: F. S. Le Pavoux, Secretary Guernsey Chapter; J. Dowding, President Guernsey Chapter; Mrs. Hunter; Mr. J. E. Hunter; Miss Redpath; E. Lynch Oldhams, Editor of World Radio; E. Redpath, Chairman; Mrs. Redpath; Harry E. Carlson, American Consul; Mrs. Carlson; Arthur E. Bear; Secretary London Chapter; John Bennett, Secretary Brighton Chapter.

Again we greet you. The first thing we do this month is remind you that Daylight Saving, or Greenwich Summertime has gone into effect in many countries and many stations will operate one hour earlier. In the United States, all programs will be heard one hour earlier than they were.

In our photograph this month we show the following: Top, left-hand corner is the radio den of Mr. E. G. Neve, the excellent reporter of Torreon, Coah, Mexico. Mr. Neve has sent us several "scoops" in the way of new stations. In the other top corner is Mr. Neve himself. In the center picture is the radio room of Mr. Wallace W. Smith, the Louisville, Kentucky,



DXer. In the bottom left-hand corner is Mr. D. C. Chamberlain of London, England, and his short wave listening den. Mr. Chamberlain is a real booster for the club. The bottom center picture is that of Mr. George Travers of Jersey City, New Jersey, and the radio with the flag on it is the one operated by Mr. Travers.

The following short wave fans would like to correspond with others:
 W. A. Seyd, 563 Argyle Ave., Orange, New Jersey (overseas).
 L. E. Hansen, Waverly Tyre Shop, Durban, Natal, Africa.
 William Buchanan, 189 Park St., Sydney, N. S., Canada (overseas).
 M. L. Grigsby, Granger, Iowa (ACR-175 owners only).

The contest for the Hallierafter Sky-Buddy, announced last month,

brought only two replies, believe it or not. All a person has to do is write a letter telling us how to improve short wave radio. It may be come plan to organize station owners, a gadget to work on the receiver, a plan to identify different countries, a plan to separate code and broadcast stations, or some such thing. Hand-writing, spelling clever phrasing and such things are not considered. Only the plan will be considered. In the two letters we received, neither offered a plan of any sort. This is NOT what the contest is for. We know what is wrong with short waves. What we want to know is how to improve things. Some person can win a beautiful radio receiver by simply writing a letter and telling us how short wave radio can be improved upon. Even the rankest beginner may be able to send in the letter that will win this receiver. Because all it requires is a good, workable plan to make short wave reception better. All letters must reach us by August 31st, 1937. All letters should be addressed to the Contest Editor, International Short Wave Club, East Liverpool, Ohio.

CHAPTER NEWS

The New York Chapter meets on the third Friday of each month at Stuyvesant High School, East Fifteenth Street, between First and Second Avenues. Code lessons start at 7:30 P.M. and the regular meetings at 8:00 P.M. Movies of different countries heard on short waves are shown each meeting. Sets are demonstrated and good speakers are heard. For details write to J. N. Kleiman, 2610 Glenwood Road, Brooklyn, N. Y.

The London Chapter meets every Friday evening at 80 Theobalds Road, Holborn, W. C. 1. Lectures and demonstrations are given by the leading radio authorities and there is a monthly demonstration of Television. All those in and around London are asked to attend the meetings at which there is usually some special attraction. The London Chapter also has a clubroom equipped with a receiver and library and where a transmitter will soon be installed (sometime in May). The clubroom is open at all times. The Chapter issues a monthly News Letter, full of interest. A copy will be sent to anyone enclosing postage, or reply coupon. The contest held recently was won by Ernest Orchard of Weymouth. He won a trophy donated by the editors of "World Radio." J. E. Organ of Bristol was second, and W. J. Wilson of London third.

The Brighton Chapter meets each Wednesday evening at 100 Cromwell Road, Hove, where there is a spacious clubroom fully equipped. Many special features have been arranged, together with field days. Full details will be obtained from the secretary, John Bennett, 205 Braeside Avenue, Brighton.

The Guernsey Chapter meets each Tuesday at 5, Well Road, St. Peter Port. This chapter has arranged a series of lectures and there is to be several practical short wave experiments carried out. For full details members should write to the secretary, F. S. LePavoux, Upper Canichers, St. Peter Port, Guernsey.

Will Sacrifice—Brand new Masterpiece V, purchased March 1st for \$145.00 cash. Details on request. Triflers need not write. Robert Rossi, 2815 South 11th St., Philadelphia, Pa.

SHORT WAVE NEWS

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

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

AUSTRALIA

VK6ME, Perth, West Australia, is on the air at last. It is on 9.597 mc. weekdays 6:00 to 8:00 A.M. (Walcott, Herzog, Roberts, Oxrieder).

ZMBJ, on the ship "Awatea" is on 8.84 mc. broadcasting when at sea. They usually phone Australia and New Zealand between 11:00 P.M. and 6:00 A.M. and broadcast between 1:00 and 3:00 A.M. A verie says they will be laid up for repairs from May 22nd to July 30th and will then be heard six nights a week thereafter. (DeMent, Texas.) Heard on 13.30 mc. now instead of 8.84 from 1:00 to 3:00 A.M. (Walcott, Calif.) Address is L. H. Jones, Operator, Awatea, Union Steamship Lines, Auckland, New Zealand.

FO8AA, Radio Oceanic, Tahiti, on 7.10 mc. is supposed to broadcast from 11:00 P.M. to midnight on Tuesdays and Fridays but many times they stay on the air until 12:45 A.M. (Myers, Walcott, Riggle.)

VK9MI on the ship "Kanimbla" is broadcasting on about 6.02 mc. between 5:00 and 7:30 A.M. Send reports to 95 William St., Melbourne, Cl, Australia. (Myers, Walcott, Eder.)

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

AFRICA

CR7AA on 6.13 mc. and CR7BH on 11.718 mc. broadcast on the following schedule now. Weekdays 11:45 P.M. to 12:30 A.M.; 9:30 A.M. to 11:00 A.M. and 12:45 P.M. to 3:45 P.M. Sundays 5:30 to 7:00 A.M.; 10:30 A.M. to 12:30 P.M. and 1:30 P.M. to 3:30 P.M. CR7BH is heard in America between 8:30 A.M. and 11:00 A.M. This schedule is from Mr. L. E. Hansen, Durban, Natal, Africa. Mr. Burdett of North Rhodesia, Africa, says they are on from 4:30 to 6:30 A.M. also. CR7BH reported by (Smith, Ky.; Gallagher, Calif.; Chavez, Calif.; Walcott, Calif.; Kolibonso, Java). Heard 6:00 to 10:00 A.M. daily and best between 7:30 to 8:00 A.M., Dr. Kash of New York reports. This conflicts with the schedule. Sundays 7:45 A.M. (Miller, Ky.) Address is Box 594, Lourenco, Marques, Portuguese East Africa.

FIQA, Tananarive, Madagascar, is trying two or three new wavelengths and roams around a lot. One frequency is near 6.01 mc. Another is near 31 meters, where they have roamed from 9:50 to 9.58 mc. and one near 25 meters where they roam from 11.80 to 11.88 mc. They broadcast from midnight to 12:30 A.M. and 9:45 and 10:30 A.M. (Walcott, Calif. and Hansen, Africa). French speaking stations that may be FIQA are reported as follows: One on 7.48 mc. heard 6:00 to 9:30 A.M. signs off with "Marseilles" (Walcott, Calif.) One on 11.86 till 9:30 A.M. (Cheavez, Calif.) One on 6.00 mc. 10 to 11 A.M. (Kennan, Australia). One on 40.17 meters comes on at 6:00 A.M. and one on 31.7 meters that closes at 11:00 A.M. playing "Marseillaise" (Keenan, Australia).

Capetown. The African broadcasting Corp. is now testing a transmitter at Capetown on 6.02 mc., irregularly, (Hansen, Durban).

Radio Guardia Civil, at Tetuan, Spanish Morocco, is on about 6.53 mc. between 5:00 and 11:00 P.M. irregularly with war news. Heard 7:00 to 8:15 P.M. quite regularly, (Kash, N. Y.; Rossi, Pa. and Oxreider, Pa.) On 6.59 mc. at 4:00 P.M. (Hammand, England).

EAJ43, Santa Cruz de Tenerife, Canary Islands, on 10.37 mc. now broadcasts 3:00 to 4:00 P.M. and 6:00 to 10:00 P.M. Many veries have been received, but Mr. Flagg says that the station now used is EHZ, Radio Tablero en Servicio and they announce this in five languages. Member Rossi says they have 20,000 watts power now.

VQ7LO, Nariobi, Kenya, Africa, sends out another new schedule. It is now weekdays 6:00 to 6:30 A.M. and daily 11:15 to 2:15 P.M. and Tuesdays and Thursdays only from 8:45 to 9:45 A.M. (Stevens, England).

ZTJ, Johannesburg, on 6.09 mc. is on a new schedule. It is weekdays 11:45 P.M. to 12:45 A.M. next day, 3:15 A.M. to 7:30 A.M. and 10:00 A.M. to 3:55 P.M., Saturdays till 4:45 P.M. Sundays 4:00 to 5:15 A.M., 8:00 A.M. to noon and 12:15 to 3:15 P.M. (Hansen).

ZUD, Pretoria (new) in 43.50 meters or 8.73 mc. is testing 7:00 to 8:00 A.M., E.S.T. or 1200 to 1300 G.M.T. Reports should be sent to Radio Engineer, care of Postmaster, G. P. O., Pretoria, (Hansen, Durban, Natal). Is also on 60 meters or 5.00 mc. according to newspaper.—Editor.

EA8AT, Canary Islands, on 14.12 mc. is an amateur giving war news at 4:40 P.M. (Kash, N. Y.) EAK, San Lorenzo, Canary Islands, on 30.55 meters or 9.82 mc. with 10 kw. power was heard relaying DJB, Germany, 4:00 to 5:00 P.M. one Saturday, (Flagg, Mass.) Algeria on 12.12 mc. is broadcasting Tuesdays and Wednesdays from 3.35 to 4:40 P.M. and may be on other days, (Rossi, Pa.) ZNB, Mafeking, on 5.90 mc. is broadcasting now from 1:00 to 2:30 P.M. daily, (Hansen, Durban, Natal).

EA9AH, Tetuan, Spanish Morocco, operated by General Franco's army is on the air more often and longer now. Known as "Radio Nacional" and "The Voice of the Trenches," this station is heard on about 14.03 mc. almost every day from 2:00 to 9:00 P.M., and on 7.00 mc. around 11:00 P.M. working amateurs. The station is not exactly on these frequencies, sometimes being as high as 14.10 mc. and 6.90 mc. The address is Apartado 124.

A station called "Poste Prive Experimental" at Tunis, North Africa, is on 48.72 meters or 6.157 mc. testing in French between 12:30 and 2:30 P.M.

Is FT4AJ, owned by M. de Matteis, 20 Ts Sadikia, Tunis. (Orchard, Eng.) A station in Asmara on 8.06 mc. is broadcasting daily 10:00 to 11 00 A.M. (Gullberg, Sweden.) On 33.70 meters, 10:30 A.M. to noon. (Cooke, India). The phone ZSR, on 9.18 mc. phones London regularly at 6:00 P.M. (Myers, California. Heard 3:30 to 5:30 A.M. (Rossi, Pa.) ITK, the phone on 16.38 mc. and LUG on 15.45 mc. heard as early as 5:00 A.M. (Dean, Australia). SUV on 10.05 mc. and SUZ on 13.83 relayed a special program to England April 11th, 6:05 to 6:30 P.M. (Many reports).

ASIA

Mysore. A card from the chief operator says a station in the palace at Mysore, India, has a power of 40 to 45 watts and operates whenever his Highness orders and they really have no schedule. They are usually on 49.30 meters, 6.085 mc. Saturdays 9:30 to 10:30 A.M., E.S.T. and Wednesdays 7:00 to 8:00 A.M. This unique station has been reported only by Norman Baynes, of Bangalore, India.

Rangoon, Burma. A government station on 49.30 meters or 6.085 mc. is broadcasting daily 9:00 to 9:40 A.M. and sometimes 8:45 to 9:00 A.M. instead, (Walcott, Calif.)

VUB, Bombay, India, on 31.36 meters or 9.59 mc. has been off the air since January, (Cooke, India). A new phone VTV at Victoria Point, Burma, on 7.645 mc. sometimes broadcasts 7:00 to 8:30 A.M. (Keenan, Australia). A letter from the officer in charge says VVS, Mingaladon, Burma, is on 23.37 meters or 12.84 mc. and they phone VVN, Madras Fort, India, which is on 22.62 meters or 13.26 mc. Heard 5:00 to 6:30 A.M. (Keenan).

Japan. Hundreds of members report verifications from Japan this month and very few of these veries give the same information regarding the schedule now being used. Reports indicate the following are being used now. For Hawaii, JZJ on 11.80 mc. from midnight to 1:00 A.M. For South Seas and Asia, JZJ on 11.80 and JZK on 15.16 mc. with perhaps JZI on 9.53 used in place of JZK, from 9:00 to 10:00 A.M. For Europe, JVM on 10.74 mc. and JZJ on 11.80 mc. from 2:30 to 3:30 P.M. For America, JVN on 10.66 mc. and JZJ on 11.80 mc. JVN is also heard broadcasting around midnight to 6:30 A.M. irregularly. JZK on 15.16 mc. was heard and reported by members Stark, Mo.; Fuller, Quebec, and Hetherington, Indiana.)

Japanese Phones. There are too many Japanese phones to mention them here, but they will be found in our list. Many new ones, not listed, are reported. These follow. One on 19.38 mc. 12:30 to 1:00 A.M. One on 9.24 mc. 2:30 to 4:00 A.M. On 9.69 2:30 to 4:00 A.M. On 4.67 mc. 5:00 to 7:00 A.M. On 6.00 mc. 5:00 to 7:00 A.M. phoning 4.67. On 2.74 mc. daily 6:00 to 9:00 A.M. On 2.85 mc. daily 6:00 to 9:00 A.M. On 3.05 mc. daily 6:00 to 9:00 A.M. On 15.74 mc. once 12:30 to 1:00 A.M. On 11.85 mc. once 2:45 to 3:00 A.M. All are unidentified stations, (Walcott, Calif.) One on 10.59 mc. and one on 5.85 mc., time not stated, (Gallagher, Calif.) Station JVK on 12.02 mc. heard phoning Argentina at 7:30 A.M. once (Cooke, India). Phoned Manila 5:00 A.M. once, (Dean, Conn.) JYT, Kem,

ikawa-Cho on 15.74 mc. once tested with KQZ (17.98 mc.) from 12:30 to 1:00 A.M. (Walcott).

Japanese airports are heard on about 6.48 mc. between 2:00 and 5:45 A.M. J2AA, Haneda Airport, J2IK, J3AI and J2AF are heard (Walcott, Calif.) J2AA on 6.48 mc. is station reported as JZAK before. Heard 1:30 to 2:15 P.M. now, (Gallagher, Calif.)

JFZC on the ship "Chichibu Maru" has been heard by dozens now. They operate on 17.70 mc. and 6.55 mc., phoning KWU, California, JVE Japan, JZG Japan and KBB Manila. Heard between 9:00 P.M. and 9:00 A.M. as a rule, being on 17.70 between 11:00 P.M. and midnight almost every day, (Walcott, Grey).

HS8PJ, Bangkok, Siam, announced last month they were discontinuing their broadcasts on 19.02 mc. Mondays and would be on 9.35 mc. Thursdays from 1:00 to 2:30 A.M. and 7:30 to 10:00 A.M. (Headley, Minn.)

CQN, Macao, Portuguese China, after a trial on 10.02 mc. has moved back to 9.94 mc. (where CSW comes in) and broadcast Mondays and Fridays 7:00 to 8:30 A.M. (Walcott, Calif.)

Chinese Phones. In our list are many Chinese phones. New stations reported show the following: XTB, Lung-hwa on 26.35 meters, 11.38 mc. calling Hankow at 5:00 A.M. and a Canton station on 31.70 meters, 9.46 mc. calls Swatow at 6:00 A.M. (Keenan, Australia.) XTZ on 5.48 mc. is heard 8:00 to 9:00 A.M. XBX on 6.98 mc. is heard 11:00 A.M. to noon and YTC, Canton on 9.49 mc. is heard 9:00 to 10:00 A.M. (Hodge, Calif.) XTV, Canton, using 9.30 mc. and 9.50 mc. is heard 7:00 to 10:00 A.M. and XPC on 9.29 mc. is heard at 7:00 A.M. and an XGU on 9.27 mc. (new frequency) is heard at 7:00 A.M. (Myers, Calif.) XTF, Swatow on 11.74 mc., XTG, Swatow on 9.36 mc. phone Shanghai daily 2:45 A.M. XTF also phoned XTV Canton at 8:40 A.M. once. XTK, Hankow, on 9.08 mc. was heard at 4:00 A.M., from 7:00 to 8:00 A.M. and also daily at 9:40 A.M. (Walcott, California). An XER or XCR, Satow, on 32.1 meters or 9.34 mc. phones XGT or XGC, Shanghai on 9.29 mc (Cooke, India). XTF on 11.74 mc., location not known, heard 5:00 to 6:30 A.M. (Karpen, Pa.) XGS, Shanghai, on 18.69 mc. heard 7:00 to 8:00 A.M. (new), (Miller, Ky.)

Java. Station YDB on 9.55 mc., PLP on 11.00 mc., PMN on 10.28 mc. and YDA on 15.15 mc. broadcast the same program daily from 5:30 to 10:00 A.M., and remain on the air till 11:00 or 11:30 A.M. on Saturdays and Sundays. These same stations are sometimes heard between 6:00 and 7:30 P.M. (evenings). PMH, Bandoeng, on 6.72 mc. also broadcasts between 5:30 and 10:30 A.M. and heard on the Pacific Coast. YDA, Tand-pongpriok, on about 3.04 mc. is heard on the Pacific Coast around 5:30 to 10:30 A.M., too. Special Note—YDB moved to 9.55 mc. from 9.65 mc., and is now between VPD2 and W1XK on the dial according to members Walcott and Oxrieder, but this may be just a temporary move.

Java Phones. We show many Javanese phones in our list. The latest news is a new phone at Palembang, Sumatra, has been heard phoning Bandoeng on 7.87 mc. between 5:30 and 6:30 A.M. and 7:30 and 9:40 A.M. (Walcott, Calif.) YCP, Balikpapan, Borneo, is another new one on 9.12 mc. heard between 5:45 and 6:15 A.M. (Walcott.) The phone YBG, Medan,

Sumatra, on 10.40 mc. was heard broadcasting NIROM programs at 6:00 A.M. (Cooke, India.)

ZGE, Kuala Lumpur, Federated Malay States, a little heard station, has moved to 6.21 mc. and is now heard Sundays, Tuesdays and Fridays 6:40 to 8:40 A.M. (Walcott, Calif.) ZHI, Singapore is now off the air (Dept. of Commerce report). ZHJ, owned by Penang Wireless Society, 40 Park Road, Penang, is on 6.08 mc. daily 12.40 to 14:00 G.M.T. or 7:40 to 9:40 A.M., E.S.T., according to letter. (Sparks, Calif.) A new phone at Kuala Lumpur is on 22.00 meters or 13.63 mc. using the call ZJD and on 33.50 meters, 8.95 mc. using the call ZJB. The Siamese station HS8PJ on 27.38 meters, 10.96 mc., once phoned ZJB at 5:30 A.M. (Cooke)

ZBW4, Hong Kong, on 15.19 mc. is now being used instead of ZBW2. The time is 5:00 A.M. to 10:00 A.M. (Wooten, Alabama.) ZBW3 on 9.53 mc. is also being used according to other reports. They use only one wavelength at a time.

Philippines. A new phone KBB, Manila, on 8.71 mc. phones ships 5:00 to 8:30 A.M. Another KTR on 10.91 mc. is heard around 10:15 A.M. A letter from station KZGG, Cebu, says they have 400 watts power on 7.83 mc., 6.98 mc., 5.21 mc. and 4.34 mc. but that 6.98 is used for regular work, which means calling Manila. The schedule is usually 6:30 to 11:15 P.M. and 1:00 A.M. to 4:15 A.M. KBB phoned China once 4:30 A.M. (Karpen, Pa.)

A station announcing "Ici Station Boy-Landry, rue Catinat, Saigon," at Saigon, Indo-China, was heard on 11.865 mc., then moved to 11.84 mc. and lately to 11.705 mc. is heard 5:00 to 9:30 A.M. broadcasting. (Walcott, Calif.) This is evidently the one called "Radio Philco," last summer. This station is oftimes heard on about 6.01 or 6.02 mc. (Walcott.) Station moved from 11.73 to 11.86. And another one is on 28.80 meters or 10.40 mc. heard for fifteen minutes only each day sending music and talks from 1:30 to 1:45 P.M. and is in Indo-China. (Cooke, India.) The phone FZS, Saigon, on 18.39 mc. is heard 5:20 to 6:00 A.M. almost daily. (Walcott)

Sibera, U.S.S.R. Station RV15 on 4.27 mc. has a powerful harmonic on 8.54 mc. and is heard also on 12.81 mc. (which is not a harmonic) from 1:00 to 6:00 A.M. (Walcott, Calif.) A station on 12.06 mc. using French heard 10:30 to 11:30 A.M. playing "Internationale" at 11:00 A.M. daily. One on 12.09 mc. from 4:35 to 6:00 P.M. uses German and French. (Oxrieder, Pa.) One on 11.71 mc. heard 1:00 to 5:30 A.M. one Friday and one Saturday broadcasting. (Karpen, Pa.) Some phone news follows: One on 16.39 mc. heard Midnight to 7:30 A.M. One on 15.00 mc. heard midnight to 2:00 A.M. (Karpen, Pa.) RIA, a new one on 11.70 mc. heard at 7:45 A.M. (Miller, Ky.) RWG on 14.72 mc. and RIB on 15.80 mc. broadcast speeches April 18th until noon. RCH at Kerbi on 15.01 mc. phones 4:00 to 9:00 A.M. RTD on 13.365 mc. and RAH on 14.945 mc., both at Alma-Ata heard near 11:00 P.M. ROU, Omsk, is on 14.96 mc. not 14.79. RXG on 15.045 mc. (location not mentioned) and RAH on 14.945 mc. and RVV, Vladivostok, on 10.33 mc. are all heard phoning around midnight. (Hetherington, Indiana.) ROU has been reported by hundreds on 14.79 mc.—Editor. RQT, Irkutsk, on 10.86 mc. heard calling Sredne-Kolysk at 3:00 A.M. (Walcott, Calif.)

SOUTH AMERICANS

Peru. The consul General of Peru sends us the following list of stations: OAX4D on 5.78 mc., 51.9 meters, 3,500 watts, "Radio Dusa," Owner is Difusora Universal, Camaba 372, Lima. (2) OAX5C, 6.00 mc., 50.00 meters, 100 watts, "Radio Universal," owner is J. Antonio Umberto F, Tacna 112, Ica. (3) OAX4Z on 6.09 mc., 49.24 meters, 15,000 watts, "Radio Nacional," owner is Peruvian Government, Av Petit Thouars, Lima. (4) OAX4P on 6.122 mc., 49.00 meters, 250 watts, "Radio Andina Junin," owner is J. Alberto Madueno, Cuzco 25, Huancayo. (5) OAX6A, 6.122 mc., 49.00 meters, 100 watts, "Radio Arequipa," owner is Eduardo L. Caceres, Munoa Najar 141, Arequipa. (6) OAX7A, 6.128 mc., 48.96 meters, 100 watts, "Radio Cuzo," owner is Carlos Lizarraga Fisher, Montero 43, Cuzco. (7) OAX1A, 6.15 mc., 48.78 meters, 200 watts, "La Voz de Chiclayo," owner is Carlos J. Montjoy, Elias Aguirre, 171, Chiclayo. (8) OAX4G, 6.23 mc., 48.15 meters, 400 watts, "Radio Grellaud," owner is Robert Grellaud y Cia, Albacay, 915, Lima. (9) OAX4K, 6.425 mc., 46.69 meters, 200 watts, "Radio Coicochea," owner is Ing Juan P. Goicochea, Ocona 158, Lima. (10) OAX4I, 9.52 mc., 31.51 meters, 200 watts, "Radio Internacional," owner is Radio Internacional, S. A., Ed. Minería 605, Lima. (11) OAX4T, 9.562 mc., 31.38 meters, 10,000 watts, "Radio Nacional," owner is Peruvian Government, Petiti Thouars, Lima. (12) OAX5A, 11.80 mc., 25.42 meters, 100 watts, "Radio Universal," owner is J. Antonio Umberto F., Tacna 112, Ica.

Additions and corrections to this list follow: OAX4Z on 6.08 mc., not 6.09. (Stark, Oxrieder.) Heard at 7:00 P.M. (Mascarenhas.) OAX4J is still moving around, sticking close to 9.33 mc. all the while, however. Heard until 1:00 A.M. instead of just midnight. (Stark.) Heard until 12:35 A.M. (Beck.) Wave length variations reported by Studholme, Stark, Beck, Oxrieder. Veries say OAX1B on 6.15 mc. relays OAX1A, long wave station, daily 8:00 to 11:00 P.M. and address is Saenz Pena 109 or Casilla No. 9, Chiclayo, (Rossi, Pa.) Short wave call is OAX1A an really on 6.174 mc. (Oxrieder, Pa.)

Colombia. HJ1ABE, Cartagena, on 9.50 mc. has a harmonic on 18.95 mc. They are heard until 12:20 A.M. Mondays—Tuesdays. (Stark.) Heard until 1:00 A.M. often (Shaffer.) Until 11:45 P.M. (Pegge, Eng.) HJ1ABP, same city, on 9.62 mc. is heard as early as 4:30 P.M. instead of 5:00. (Kash, N.Y.) Signs off at 8:00 P.M., not 11:00 P.M. Sundays. (Atherton, Vt.) HJ3ABD on 6.05 mc. heard until midnight almost always instead of 10:30 P.M. (Pegge, Eng.) HJ1ABB, Barranquilla, has moved to 4.78 mc. from 6.11 mc. (Walcott, Calif.; Bell, Pa., and Flagg, Mass.) We do not expect them to stay there—Editor. HJ2ABC, Cucuta, has moved from 9.57 mc. to 4.79 mc. (Bell, Pa., and Oxrieder, Pa.) We somehow do not expect them to remain there with summer static almost on us.

Venezuela. A verie from YV1RL, "Radio Popular," on 5.93 mc. says the owner is Jose A. Higuera, P. O. Box 247, Maracaibo. (Rossi, Pa.) Schedule is 11:15 A.M. to 1:15 P.M. and 4:45 to 9:45 P.M. weekdays and 8:45 A.M. to 2:45 P.M. Sundays and is on 5.937. (Oxrieder, Pa.) YV2RA, Caracas, on 6.25 mc. heard relaying YV5RI 5:30 to 9:30 P.M. Called "La voz de la Esfera," and owned by Diaro de Esfera, a newspaper. (Rossi,

Pa.) YV5RP, "Radio Philco," Caracas, on 6.27 mc. veries say they relay YV5RQ and give address as apartado 508.

Ecuador. Arguments still go on about the station "La Voz de Alma" heard on 9.44 mc. Is HCODA, with no number used, ODA is initials of owner. (Rossi, Pa.) Is HC2OBA. (Beck, Ill.) Is HC2OBA. (Flagg, Mass.) HCK, Quito, is heard now on 7.52 mc. Saturdays around 10:00 P.M. (Rossi) HC2CW moved from 8.25 mc. to 8.40 mc. and heard 8:00 to 9:00 P.M. giving address as Box 1166 and slogan as "Ondos Del Pacifico." (Beck, Illinois.) Verie from HC1PM, "El Palomer," Quito, says on 5.725 mc. Saturdays only 9:00 to 11:00 P.M. (Bradley, N. Y.)

Brazil. Station PPQ, Rio de Janeiro, on 11.66 or 11.67 mc. is relaying station PRA2, "Radio Bras," from 7:00 to 8:00 P.M. often. (Rossi, Pa.) Is relaying PRD2 of the Green and Yellow network between 7:45 and 8:15 P.M. Reports should be addressed to PRD2, Rio Cruzeiro do Sul, 19 Praca Florianio, Rio de Janeiro. (Mascarenhas, Brazil.) Heard between 7:00 and 8:15 P.M. (Fuller, Quebec, and Oxrieder, Pa.)

Argentina. LSX on 10.35 mc. broadcasts Mondays and Fridays 5:00 to 6:00 P.M. LRU on 15.29 mc. is scheduled 7:00 A.M. to 6:00 P.M. and LRX, a sister station is scheduled from 6:00 P.M. to 1:00 A.M., but LRU is heard as early as 6:00 A.M. and LRX as early as 3:30 P.M. (Hansen, Africa, and Cooke, India.) A new phone LSI3 on 10.875 mc. heard 7:00 to 8:00 P.M. calling Rio once. (Karpen, Pa.)

Dutch Guiana. Station PZH, Paramaribo, has moved from 7:00 mc. to 6.788 mc. (Oxrieder, Pa.) This station operates between 3:00 and 8:00 P.M. and is very hard to land, so we do not suggest trying for it unless you have a good receiver.

Chile. A report sent to the station on 12.30 mc. heard announcing "Radio Service" between 5:00 and 11:00 P.M. and heard saying "C as in Chile, E as in England and B as in Boston." by some members and "Sej Aye Tres Ah Jay," (CE3AG) by others. Reported a reply from Desmaris & Cia, Casilla 761, Santiago, saying the call is CB615. (Dean, Conn.) CB615 is on 6.15 mc., just as the call signifies—Editor. Announces CB615. (Worcester, Hawaii.) Announces CEB. (McMenamy, Calif.) Also announced CE3AG. (Beck, Ill.)

THE EUROPEANS

Czechoslovakia. At last a regular program and schedule has been arranged. They are sending out printed bulletins now showing the monthly programs in advance. These are available to everyone. Will be sent for six months for three International Postal Reply Coupons (purchased at your local postoffice.) or for a year for six. Address is Vydavatel Radiojournal, Zodpovsduy Redakor Z, Vadsedalik, Polensky a Cowdebs, Praha XII-1334, Czechoslovakia. The schedule for May shows: OLR5A on 15.23 mc.—daily 8:00 to 10:00 A.M. and 2:00 to 2:15 P.M. OLR4A on 11.84 mc.—daily 2:30 to 4:00 P.M., Mondays and Thursdays 8:00 to 11:00 P.M. OLR3A on 9.55 mc.—Sat., Sun., Tues., and Thurs. 4:00 to 4:30 P.M.

OLR2A on 6.01 mc.—Mon., Wed., and Fri., 4:00 to 4:30 P.M. (Fuller, Beck, Oxrieder, McDermott.)

Yugoslavia. YTC, Belgrade, on 6.10 mc. sends us a bulletin saying that a new 10 kw. station is being built. Five millions dinars have been set aside for the work. Meanwhile PCJ, Holland, on 9.59 or 15.22 mc. and PHI, Holland, on 17.77 mc. or 11.73 mc. will broadcast twice monthly programs from Belgrade. The first of these broadcasts was March 31st at 7:00 to 8:15 P.M. and the second on April 14th same time and it looks like they will be heard on the first and third Wednesdays of the month, or perhaps it is the first and fifteenth of the month GMT or the last and 14th of the month in America from 7:00 to 8:15 P.M. (Smith, Boothroyd, Van Honk.) YTC itself is heard daily 1:00 to 3:00 A.M.; 6:30 to 8:25 A.M.; Noon to 6:25 P.M.; Sundays 6:15 A.M.; Thursdays and Saturdays, 8:45 to 9:00 A.M.

Holland. The programs scheduled are are follow: PHI on 17.77 mc. Sundays 7:00 to 10:00 or 11:00 A.M.; Mondays, Tuesdays, Thursdays, Fridays and Saturdays 8:00 to 9:30 or 10:00 A.M.; PCJ or 15.22 mc. Sundays 8:55 to 11:00 A.M.; Tuesdays 4:30 to 6:00 A.M., and Wednesdays 8:00 to 11:00 A.M.; PCJ on 9.59 mc. Sundays 2:00 to 3:00 P.M. and 7:00 to 8:00 P.M., Tuesdays 1:30 to 3:00 P.M., Wednesdays 7:00 to 10:00 P.M. As already stated above PCJ and PHI will relay special programs from Yugoslavia twice monthly. Look on 11.73 mc. for PHI on these programs. (Verbrughe, Jr., Mich.; Wooten, Ala.; Atherton, Vt.; French, Mich. and Flagg, Mass.) PCJ on 15.22 mc. and PHI on 11.73 mc. sent special to CBS April 15 from 2:15 to 2:45 P.M. (Flagg). Sent one Sunday, April 18th, till 9:40 P.M. (Shaffer).

SM5SX. Stockholm. Sweden, is heard between 1:30 and 2:05 A.M. now on 11.71 mc. almost daily. (Nelleman, Ill.; Chavez, Calif.) Heard after 1:30 P.M. on 6.07 mc. now. (Orchard, England.)

England. The frequencies used for the Coronation broadcast will not be announced until two days before the broadcast takes place according to the BBC, but this makes little difference since half of the radio stations of the world are expected to carry the ceremony. This will be perhaps the largest hook-up of stations ever attempted. Three new high-powered transmitters will be opened at Daventry.

The regular programs are scheduled as follows:

- 21.47 mc.—GSH, 6:00 A.M. to 8:45 A.M. and 9:00 A.M. to noon.
 - 17.79 mc.—GSG, 12:00 to 2:15 A.M. and 6:00 A.M. to noon; 4 to 5:45 P.M.
 - 15.31 mc.—GSP, 6:00 to 8:00 P.M.
 - 15.26 mc.—GSI, 12:15 to 3:45 P.M.
 - 15.18 mc.—GSO, midnight to 2:15 A.M.
 - 15.14 mc.—GSF, 6:00 A.M. to noon, 4:00 to 5:45 P.M., 6:00 to 8:00 P.M. and 9:00 to 11:00 P.M.,
 - 11.75 mc.—GSD, 12:15 to 5:45 P.M., 6:00 to 8:00 P.M., 9:00 to 11:00 P.M.
 - 9.58 mc.—GSC, 9:00 to 11:00 P.M.
 - 9.51 mc.—GSB, 12:00 to 2:15 A.M., 12:15 to 5:45 P.M.
- Last month GSG was heard between 8:00 and 9:00 P.M. when not scheduled, (Beck, Ill.) And 10:00 P.M. to midnight, (Karpen, Pa.)

Portugal. CSW, Lisbon, veries say they are on 11.04 mc. from 1700 to 3200 G.M.T. (noon to 6:00 P.M., E.S.T.) and 9.94 mc. from 2300 to 1:00 G. M. T. 6:00 P.M. to 8:00 P.M.), (Hansen, Africa). Heard now only 4:00 to 6:00 P.M. on 11.00 mc. and 6:00 to 8:00 P.M. on 9.94 mc. (Kash N. Y.) Signs off at 7:00 P.M. (Edwards, Pa.) CT1AA is on 9.65 mc. Tuesdays, Thursdays and Saturdays 4:00 to 7:00 P.M. and is also on 12.12 mc. very irregularly, most always around noon to 3:00 P.M. on Sundays.

France. Since France went on fast time it seems they are on 25.60 meters or 11.72 mc. from 6:15 to 8:00 P.M. and 10:00 P.M. to 1:00 A.M. The station on 9:04 mc. heard broadcasting around 1:00 to 2:30 A.M. is TYA2, a phone station according to a verie, (Gallagher, Calif.)

Communist Station. A station giving an address of 25 Liberte, Paris, France, is broadcasting on many waves and uses many languages, according to Robert Rossi of Philadelphia. From 4:00 to 4:55 P.M. they broadcast in German for German Communists on 10.07 mc. From 5:00 to 5:45 P.M. they broadcast for Italian Communists on 10.43 mc. and 10.62 mc. (both). From 7:05 to 8:00 P.M. they broadcast for French Communists on 10.30 mc., 9.84 mc., 9.45 mc. and 7.32 mc. (using three frequencies at one time.) The station has been heard on other frequencies and has moved several times to avoid interference which is purposely set up to spoil reception. It has been heard on 10.42 mc., 9.52 mc. and 10.40 mc. as well as those mentioned above. Heard on 9.52 at 11:40 P.M. also, (Stark, Mo.) Heard on 7.38 at 7:45 P.M. (Roberts, Indiana). Heard near 41 meters between 7:00 and 8:00 P.M. (McLaughlin, N. Y.) On 7.38, (Oxrieder, Pa.)

Germany. The programs for May are scheduled as follows:

- 17.76 mc.—DJE—12:05 to 5:15 A.M.; 5:55 to 11:00 A.M.; Sun. 11:10 to 12:25 P.M.
- 15.34 mc.—DJR—8:00 to 9:00 A.M. and 4:50 to 10:45 P.M.
- 15.28 mc.—DJQ—12:00 to 11:00 A.M., 4:50 to 10:45 P.M.; Sundays 11:10 to 12:25 P.M.
- 15.20 mc.—DJB—12.05 to 5:15 A.M., 5:55 A.M. to 11 A.M., 4:50 to 10:40 P. M., Sunday 11:10 A.M. to 12:25 P.M.
- 15.11 mc.—DJJ—12 to 2 A.M.; 8 to 9 A.M.; 11:35 to 4:30 P.M. Sundays 6:00 to 8:00 A.M.
- 11.77 mc.—DJD—11:35 A.M. to 4:30 P.M.; 4:50 to 10:45 P.M.
- 9.54 mc.—DJN—12:05 to 5:15 A.M.; 5:55 to 11 A.M.; 4:50 to 10:45 P.M.
- 9.56 mc.—DJA—12:05 to 5:15 A.M., 4:50 to 10:45 P.M.
- 6.02 mc.—DJC—11:35 A.M. to 4:30 P. M.

Germany also has experimental stations, DZA on 9.675 mc., DZB on 10.04 mc., DZC on 10.29 mc., DZE on 12.13 mc., DZG on 15.36 mc. and DZH on 14.46 mc. which may be used at times. DJP on 11.85 mc. is heard most every afternoon starting around 11:35 A.M. and lasting till 4:30 P.M. DZC, DZE and DZH heard every Wednesday from 1:00 to 3:30 P.M. with program, (Flagg, Mass.) DZH, almost every afternoon now (Herzog, N. Y.). DZC, at 6:00 P.M. and a phone DFL broadcasting 6:15 to 7:00 P.M. (Seymour, Ind.) DZC, DZE, DZG and DZH broadcast every Wednesday for the Penambuco Radio Club (PRA8), Brazil, between 2:00 and 3:00 P.M. (Mascarenhas, Brazil). Heard 5:00 to 5:30 P.M. with these programs, (Hansen, Africa). DJR on 15.34 mc. heard till 11:00 P.M. (Stark, Mo.)

DJP on 11.85 mc. sent special to U. S. A. 3:00 to 4:00 P.M. (McDermott, N.Y.) DJM on 6.08 mc. heard at 4:00 P.M. once, (Pegge, England). DJB and DJO sent special April 11th at 2:00 P.M. (Wooten, Ala.) A phone DFS on 9.29 or 9.30 mc. heard at 5:00 P.M. (Davenport, Vt.)

The Communist Party of Germany has a secret station on 29.79 meters or 10.07 mc., broadcasting daily from 1600 to 1700 G.M.T. or 11:00 A.M. to noon, E.S.T. They announce "Transmitter of the German Communist Party talking on 29.8 meters." They want reports sent to any Communist Party headquarters throughout the world, but do not say where the station is located, (Niederle, Czechoslovakia). 4:00 to 5:00 P.M. daily (Studholme, England; Karpen, Pa.; Hansen, Africa.) Is same station that is mentioned previously under the title "Communist Station." (Rossi, Pa.)

Hungary. Budapest has added time to their schedule and now operate HAS3 on 15.37 mc. Sundays 9:00 to 10:00 A.M. and HAT4 on 9.125 mc. Sundays 7:00 to 8:00 P.M., Wednesdays 7:00 to 8:00 P.M. and Saturdays 6:00 to 7:00 P.M. This comes direct from the station. Reports are wanted and should be sent to Radiolabor Gyali-ut 22, Budapest.

The U. S. S. R. has altered their schedule. They are now on 25.00 meters, 12.00 mc. over RNE from 6:00 to 7:00 A.M. and 10:00 to 11:00 A.M. on Sundays, 6 to 7 A.M. Wed., and 2 to 5 or 6 P.M. almost every day; on 31.25 meters or 9.60 mc., over RAN, daily 7:00 to 9:15 P.M. They send out a free bulletin showing the English-speaking program and many members seem to believe this is their complete schedule, but they also use German, French, Ppanish and other languages and have programs scheduled for these languages as well as English. News on Soviet phones follows: RKI on 15.08 mc. was heard broadcasting at 2:00 P.M. April 4th, (Atherton, Vt.) A Moscow phone on 12.06 was heard broadcasting French daily 10:15 to 11:15 P.M. (Walcott, Calif.) RTW a new phone at Moscow on 16.35 mc. heard midnight to 9:00 A.M. and an RTV, Moscow, on 14.577 mc. phones RCH at 7:00 A.M. often, (Hetherington, Indiana).

Spain. Since the war began, many new and strange stations have been reported, none of which could be checked up because of the mail being held up. Some of these have changed calls, moved to new locations and altered schedules, so we can not list them. Here is what we know about them now. EAJ8, Bilboa, is on 7.26 mc. with a lady announcing. Heard 7:00 to 7:20 P.M. with English. Is not EAJ, San Sabastian, as this one is on the government side, (Studholme). EAJ(8), San Sabastian is an insurgent station called "Radio Raquette" (sounds like racketay). It is on 7.20 mc. and was heard at 8:15 A.M., 3:30 to 4:00 A.M., 8:30 to 10:00 A.M., noon to 4:00 P.M. and 5:00 to 7:00 P.M. Gave address as Avenida 27, (Flagg, Mass.; Studholme, England, and Curiel, Curacao). EDR4, at Palma de Mallorca, Island of Majorca (English spelling) is on 46.30 meters or 6.48 mc., and heard afternoons 4:30 to 5:15 P.M. Plays Spanish marches and says "Viva Espana." Calls itself Radio Poste Nacional en Servica Nacionalistas a Palma de Mallorca." Also heard 7:00 to 8:00 P.M. calling: "Atencion Americas Latina" (Flagg, Mass.) Moves from 6.53 to 6.58 mc. (Oxrieder, Pa.) EAH, Union Workers station at Valleras on 9.48 mc. seems to have disappeared. It was heard 4:00 to 5:00 P.M. daily. EAJ1, Barcelona, on 41.70 meters, 7.194 mc., is heard daily 4:00 to 5:00

P.M. Nationalist troops also have a station near 7.00 mc. and 14.00 mc. broadcasting on both frequencies at 2:45 P.M. daily. Announce "Radio Nacional A Z," (Boothroyd, England). Others reported are ENC1, Barcelona, on 6.99 mc., ECP2 on 7.143 mc. PSU1, Barcelona, on 7.18 mc. and EAP1 on 7.08 mc. all heard irregularly. A station on 12.60 mc. heard at 4:30 A.M. announcing Barcelona, (Davenport, Vt.) PSUI on 7.13 mc. at 3:50 P.M. gave address as Post Office Box 5264, Barcelona. ENC1 on 6.99 mc. at Barcelona, heard at 5:40 P.M.; FFE1, Valladvid on 7.025 mc. heard at 1:30 P.M., and a San Sabastian station on 7.203 mc. heard at 8:15 A.M. and 1:45 P.M. (Hammond, England).

EAQ and EAQ2. For years EAQ was heard on 9.86 mc. on a regular schedule. Last month they moved to 9.48 or 9.49 mc. and started broadcasting on this frequency as well as on 9.86, changing from one to the other. At present they are on 9.86 mc. from noon to 7:00 P.M. and on 9.48 mc. from 7:00 P.M. till as late as 11:45 P.M., although sometimes signing off at 9:30 P.M. They have not kept this schedule always. They give war news in English, Tuesdays and Fridays, at 2:30 P.M., 6:30 P.M. and 7:30 P.M. The station is so powerful that we received a report on it from practically everyone mentioned in our reporter's list. Call on 9.48 mc. now EAR instead of EAQ2, (Nichols, Pa.)

Switzerland. We were mistaken last month. Geneva did not change their schedule as they announced. They still use HBL on 9.595 mc. and HBP on 7.717 mc. Saturdays 5:30 to 6:15 P.M. and not 7:30 to 8:30 P.M. (Stockbridge, Davenport.) HBP heard until 8:00 P.M. once. A station HP9BG, at Lucerne, Switzerland, is on 41.11 meters or 7.30 mc. broadcasting every Friday 4:00 to 5:00 P.M. Letter says they will stop broadcasting April 20th till November, (King, England). On 7.298 mc. 3:00 to 5:00 P.M., address is Moostasse 26, Lucerne, (Pegge, England). Phones. A verie says HBH is on 16.23 meters, 18.48 mc., HBF on 16.26 meters, 18.45 mc.; HBJ on 20.64 meters, 14.535 mc.; HBO on 26.31 meters, 11.403 mc.; HBL on 31.28 meters, 9.595 mc. and also on 32.10 meters, 9.345 mc.; HBP on 38.48 meters, 7.717 mc., and HBO on 44.14 meters, 6.675 mc. HBJ and HBF sent program April 4th at 2:00 P.M. (Atherton, Vt.) HBJ and HBO heard at 7:00 P.M. Saturdays, (Kash, N.Y.) HBO and HBJ, Saturday, April 10th, 6:45 to 8:20 P.M. (Gallagher, Calif.) HBO and HBJ sent special to CBS 4:00 to 4:15 P.M., April 16th, (Flagg, Mass.)

LZA, Sophia, Bulgaria, veries say 20.04 mc. but they are on 14.92 mc. Heard from 11:35 P.M. to 12:45 A.M. when they signed off, (Beck, Ill.) Heard 12:30 A.M. to 2:00 A.M. Sundays, (Gallagher, Calif.) At 1:30 A.M. Sundays. (Kash, N.Y.) At 12:30 A.M. Sundays, (Miller, Ky.; Eder, Minn.) Uses both 14.92 mc. and 14.87 mc. changing one to the other. Heard 3:30 to 4:30 P.M. afternoon, one Sunday, (Rossi, Pa.)

2RO, Rome, Italy, is on 11.81 mc. from 6:43 A.M. to 12:30 P.M. and on 9.64 from 12:45 to 5:45 P.M. daily and every day except Sunday they are on 9.64 mc. from 6:00 to 7:45 P.M. Heard on both waves at one time at 7:30 P.M. (Diamond, N.Y.) Italian phone on 6.539 mc. called Tripoli one night (Oxrieder, Pa.) IRY on 16.11 or 16.12 mc., sent special 1:45 P.M. April 4th. (Fuller). Same station 12:00 to 12:30 P.M., April 18th, (Karpen). Same April 19th, 1:00 to 1:30 P.M. (Wooten).

CENTRAL AMERICANS

Panama. A letter from Lieut. George Williams of HP5J states that a new station HP5A, "La Voice of the Ismo," would open in March on 49 meters and will have three times the power of HP5J. (Studholme, Eng.) A letter from Leo Marchosky, Cia Chiricana Radiodifusora y Television, Apartado 129, David, Chicigui, Panama, says a station HP5L will be on 11.74 mc. The slogan is "La voz de Interior." (Oxrieder, Pa.) HP5I, Aguadulce, verie says 25.22 meters, 11.895 mc. 7:30 to 9:30 P.M. daily, (Ather-ton, Vt.) HP5K verie says 6.005 mc. 7:00 to 9:00 A.M., 11:30 to 1:00 P.M. and 6:00 to 11:00 P.M. now, (Legge, Pa.) HP5B verie says 49.75 meters or 6.03 mc., 5:00 to 10:00 P.M. Heard 6:00 to 9:00 P.M. Address is Apartado 910 Panama City. (Scala, N. Y.) Heard till 12:45 A.M. (Stark, Mo.) Slogan of HP5I is "La Voz del Interior," not that of HP5L, uses three strokes of gong as signal. (Quayle, Canal Zone, and Beck, Ill.) HP5H "Radiodifusora Panama-American," is a new one on 49.00 meters or 8.018 mc. no schedule given, (Quayle, Canal Zone).

Nicaragua. Verie from YNLF says 7.60 mc. noon to 1:00 P.M. and 6:00 to 9:00 P.M. (Fuller, Quebec). Is heard on 7.56 mc. most always and as late as midnight. Station YNPR or YN1PR is on 8.65 mc. between 8:15 P.M. and 10:35 P.M. (Stark, Mo.) On 8.60, not 8.70 weekdays. not Sundays, 8:00 to 10:00 or 10:30 P.M. (Flagg, Mass.) Uses 8.58 mc. and 8.67 mc., changing from one to the other, (Rossi, Pa.) Moves 8.60 to 8.67 mc. (Oxrieder, Pa.) Uses slogan "La voz del Pilot."—Editor. YNOP, Managua, "Radiodifusora Bayer," is on 5.758 mc. weekdays 8:30 to 10:30 P.M. with 1 kw. power International coupons no good and three cent stamp requested, (Beck, Ill.)

Costa Rica. New station TI2H in San Jose is on 5.78 mc. between 7:00 and 11:00 P.M. weekdays (Stark, Mo.) Another new one, TIR2S "Radio-misora Athenea," San Jose, is on 6.88 mc., announcing 6.90 mc. between 10:00 and 11:30 P.M. (Rossi, Pa.) TILS, Radiomisora Para (means For You), verie says 5.80 mc. but heard on 5.90 mc. and owner is Luis Saenz, P. O. Box 3, San Jose. (Atherton, Vt., and Rossi, Pa.) TI5HH, San Roman, which we took off our list last month when it went unreported for many months, is reported on 5.52 mc. and was heard 2:30 to 3:00 P.M. (Beck, Ill.) Send reports to S. R. Herrera D, San Roman.

Guatemala. A verie from TGWA says 9.45 mc. noon to 2:00 P.M. and 8:00 P.M. to midnight, E.S.T. Also broadcasts Saturday nights at 8:00 P.M. to 6:00 A.M. Sunday mornings. Two new experimental stations, TG1 and TG2 have been heard. TG2 is Guatemala City, heard on 6,215 mc. and asked reports to be sent to Director General of Electical Com-munications, (Oxrieder, Pa.) On 6.35 mc. calling New York 12:12 to 12:30 A.M. one Saturday (Fuller, Quebec). TG2 alone on 6.30 mc. at 11:00 P.M. and once at 8:45 P.M. (Oxrieder, Pa.) On 6.30 mc. and also on 3.30 mc. testing, (Gallagher, Calif.)

XEBR. A letter from XEBR says they are on 11.82 mc. relaying XEBH from 1:00 P.M. to 4:00 P.M. and 9:00 P.M. to midnight, E.S.T. Address is Apartado 68, Hermosillo, Son, Mexico, (Beck, Rossi, Flagg, Field).

XEYU, The National University of Mexico Station at Mexico City, is on

about 9.60 or 9.61 mc. and gives address as Napoles 60, Mexico City. It is heard as late as 2:30 A.M. and signs off any time from midnight to that time, (Beck, Oxrieder, Stark, Field, Chavez, Gallagher, Shaffer).

XEUZ, National Broadcasting Company of Mexico, "Radio Nacional," is on 6.11 mc. broadcasting between 9:00 P.M. and signing off at any time between 1:00 and 3:00 A.M. They relay XEFO and XEFA and give address as Apartado 2641, Mexico City, (Eder, Beck, Hodge, Pegge, and Worcester).

XEPW, Mexico City, is also near 6.12 mc. Verie says they relay XEJW and the address is Apartado 8403 and the owners are Jose Luis Garza G and Fox E. Hijo. Use slogans like "American Buick" and "La Voz del Aguila Azteca Desde Mexico" (Swope, Calif.; Beck, Ill., and Oxrieder, Pa.)

XEBM, Mazatlan, Sinaloa, on 15.44 mc., not 15.30 mc., gave address as Avenüe Angel Flores, 156, Altos. (Beck, Ill.) This one is called "El Pregonero del Pacifico," says 15.30 mc., has 50 watts power and gives address as P. O. Box 501 (Purkey, Calif.; Wade, Texas.) Is usually heard 8:00 to 10:00 P.M. weekdays and all day Sundays.

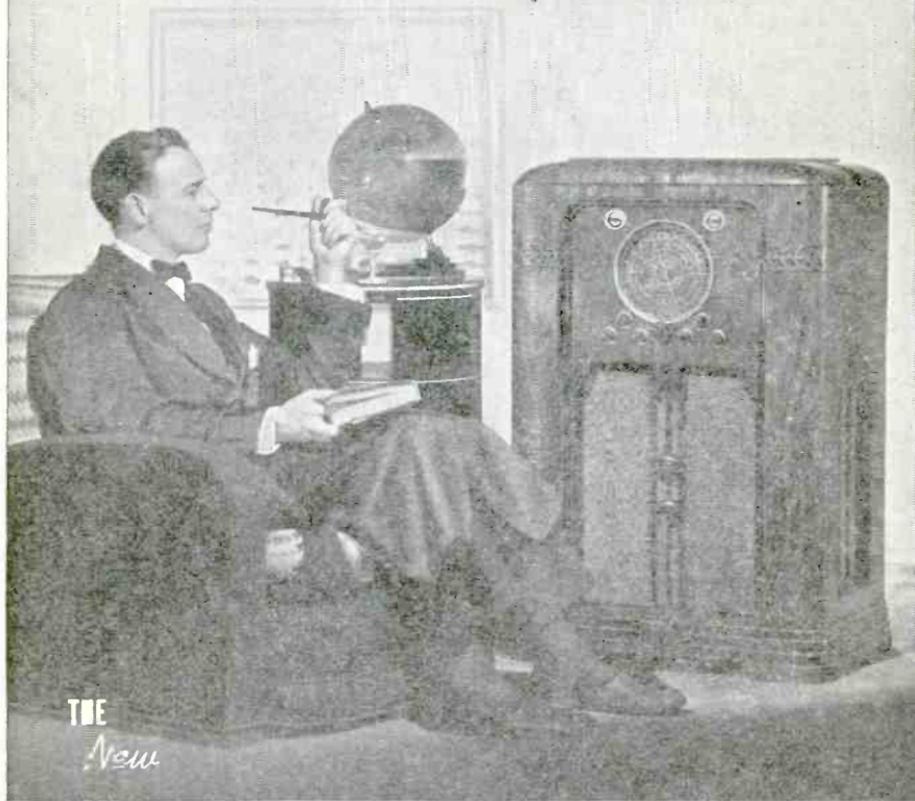
Station XEDQ, Guadalajara, Jalisco, is on about 9.48 mc. and roams around quite a lot. They relay XED, have 500 watts power and broadcast 8:00 P.M. to midnight. The address is Apartado 197. It is on 9.52 mc. using chimes, Cuckoos, siren, etc. Heard 2:00 to 3:00 P.M. (Beck, Ill.) It is on 9.45 mc. now. (Oxrieder, Pa.) XEFT is heard on 9.50 mc. and not 9.48 mc. and heard until 12:07 A.M. (Stark, Mo.) An XERV or XERB "Allente de Bravo," heard on 5.90 mc. one night at midnight. (Beck, Ill.) A Mexican on 11.52 mc. heard 9:30 to 10:00 P.M. (Oxrieder, Pa.) A letter from XET, "El Pregonero del Norte" in Monterrey, says they have a short wave station on 11.75 mc. (Walcott, Calif.) XEUW, which was not reported for months and was taken off our list month, was heard on schedule March 31st. (Stark, Mo.) Was on 6.02 mc. between 6:00 and 11:30 P.M. Two new phones, XEM1 on 6.55 mc. and XEM2 at Guanacebi, Durango, on 6.74 mc. is heard often. Heard at 8:50 P.M. (Stark, Mo.) On 6.72 mc. (Flagg, Mass.) A station CLR5 on 14.75 mc. was heard at 5:30 P.M. once saying it was an experimental station in Mexico City. (Shaffer, Iowa.) A CLR9 heard. (Roberts, Indiana.)

A new phone called HRL9, El Centro, Honduras, on 14.93 mc. was heard phoning WNC, Florida, around 7:48 P.M. (Robert, Indiana.)

WEST INDIES

Curacao. Station CUROM, owned by the Curacao Radio Omroep (Curacao Radio Club) is on 50.60 meters or 5.93 mc. with 750 watts power broadcasting daily 6:36 to 8:36 P.M., the call sign is PJC1 and address is Breedstraat No. 181, Otrabanda, Curacao, according to veries. (Rossi, Pa., and Hurtado, Curacao.) Veries also say they are on 9.46 mc. at times and they are awaiting a new crystal then they will go on the 31 meter band. Heard on 9.46 mc. once calling "Radio Taandam," Holland, from 6:00 to 6:20 P.M. one Thursday. (Flagg, Mass.) Is on 5.95 mc. but says 5.93. (Oxrieder.) Heard until 8:40 P.M. (Stark, Mo.)

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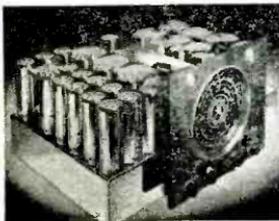
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Martinique. "Radio Fort de France," veries say they are on 9.36 mc. from 11:30 A.M. to 12:30 P.M. and 6:15 to 7:15 P.M. and 8:00 to 9:00 P.M. However, the station has been missing for some time. Now it is reported once on 12.50 mc. signing off at 6:30 P.M. (Rossi, Pa.) Verie said 9.45 mc. (Chavez, Calif.)

Cuba. COCO, Havana, on 6.00 mc. has a strong harmonic on 12.00 mc. (Many report.) COCD sends special DX programs Sundays 1:00 to 3:00 A.M. (Shenton, Eng.) COCX on 11.49 mc. moved to 10.66 mc. (Herzog, N.Y.) COCQ on 9.75 mc. also heard on 8.82 mc. at the same time and heard at 7:50 A.M. (Herzog.) A Cuban is heard on 15.044 mc. around 7:00 P.M. (Wooten, Ala.) COCH, Havana, on 9.43 mc. signs off at midnight now, not 1:00 A.M. (Stark, Mo., and Beck, Ill.) Schedule of CO9JQ on 8.66 mc. is 5:30 to 6:30 P.M. and 8:00 to 9:00 P.M. Heard signing off at midnight one Thursday and said would be back at 2:00 P.M. next day. (Stark, Mo.) A station CMB2 on 5.70 mc. heard testing with XAM, Mexico, from 6:00 to 7:00 P.M. Gave address as apartado 65. (Beck, Ill.)

New Bermuda phones are reported. ZBB is on 5.025 mc. and ZBT is on 10.335 mc. and they tested around 11:00 P.M. several times. (Rossi, Pa.) A station WCU in Puerto Rico, is on 9.94 mc. irregularly. (Spuhler, Walcott.) Is WKU and on 9.90 mc. (Gallagher) Heard around 7:00 to 9:00 P.M. HH3W, Port-Au-Prince, Haiti, is supposed to close down at 8:00 P.M. but was heard until 8:23 P.M. once on 9.64 mc. (Studholme, England).

HIX, Trujillo, on 6.34 mc., has changed call to HI1X, and a station HI2X is now on 11.96 mc. and an HI3X is on 15.26 mc. HI1X and HI2X broadcast Tuesdays and Fridays 8:10 to 10:10 P.M. Many disagree with this schedule, showing them signing off as early as 9:00 P.M. and some disagree on the exact frequencies. HI3X is heard Sunday mornings between 7:00 A.M. and noon, irregularly. HI3X is on 15.27. (Oxrieder, Pa.) It is on 15.28. (Flagg, Mass.) On 15.19 mc. (must mean 15.29.) (Stark, Mo.) Heard on 15.28 mc. at 6:00 P.M. (evening) (Flagg, Mass.) Verie says HI2X and HI3X has 300 watts power and HI1X has 900 watts (Rossi, Pa.)

HI5G, Concepcion de La Vega, is a new station on 31.58 meters or 9.50 mc., heard between 5:45 P.M. when PRF5 signs off and 5:55 P.M. when GSB comes on. (Flagg, Mass.)

HIG on 6.28 mc. schedule shows 7:10 to 9:30 P.M., but heard 5:50 to 6:10 P.M. (Smith, England.) and signing off at 8:50 P.M. (Stark, Mo.) HI5N on 6.16 mc. has moved to Moca City and says "La Voz de Moca." Heard 5:30 to 9:00 P.M. (Flagg, Mass.) Sent special DX program until 1:15 A.M. one Saturday night and Sunday morning. (Stockbridge, Mass., and Shaffer, Iowa.) HIN verie says 6.24 mc. but heard on 12.56 mc., harmonic of 6.24 mc. (Fuller, Quebec.) On 12.50. (Gallagher, Calif.) On 12.40. (Van Bergen, N.Y.) On 12.48. (Beck, Ill.) Schedule says 7:20 to 9:20 P.M., but heard between 5:00 and 7:00 P.M. by above mentioned people. HI4D on 6.55 mc. heard until 10:40 P.M. when schedule says 4:45 to 7:40 P.M. (Stark, Mo.) HI1S on 6.42 mc. is at Santiago, not Puerto Plata. Sent special program until 1:30 A.M. March 28th. (Chavez, Calif.) HI7P, verie says 7.80 mc. daily 12:40 to 1:40 P.M. and 6:40 to 8:40 P.M.

weekdays and 9:40 to 10:40 A.M. Sundays. Owned by Dari de Comercio, a newspaper. Address is Calle Jose Reyes No. 35, Ciudad, Trujillo. (Orchard, England.) Jose Reyes is director. (Kash, N.Y.) Director is Jose M. Roques R. (Bradley, N. Y.) Moved to 6.78 mc. (Oxrieder, Pa.)

NORTH AMERICA

A letter from the Canadian Marconi Company says CFCX and VE9DN are not the same although both are on 6.005 mc. CFCX is located on the Mount Royal Hotel and relays CFCF programs. VE9DN is a high powered transmitter located at Drummondville and is used Saturdays 11:30 P.M. to about 12:30 A.M. to send messages to Far North listeners. VE9BM, mentioned in December, is operated by the Northern Electric Company, 121 Shearer Street, Montreal. CGS is owned by General Airways at Ronyn Quebec. It can operate on 3.43 mc., 4.755 mc., 5.63 mc. (Fuller, Quebec.) VE9DN was heard at 5:50 A.M. one Saturday testing. (Spuhler, Ohio.) Was heard one Sunday at 2:30 A.M. (Shaffar, Iowa.)

CRCX, Bowmanville, Ontario, is on a new schedule. They are on 6.09 mc. daily except Saturday and Sunday noon to 8:00 P.M.; Saturdays noon to 8:00 P.M. and 11:00 P.M. to midnight and Sundays 11:00 A.M. to 8:00 P.M. This is direct from W. A. Shane, station manager. A station VE9HP, a portable station in Toronto was heard on 10.23 mc. at 4:30 P.M. once and verified. (Dean, Conn.) A station CHV, Canyon Creek, B. C., was heard on 5.70 mc. at 10:45 P.M. calling VDX and CFN of the Consolidated Mining and Smelting Company. (Morrison, B. C.)

Although the stations will not all advance their time on the air, all programs will advance one full hour at most all North American stations. For example, W2XAD and W2XAF wires us that they will be on the air at the same hours, but that all programs will be heard one hour earlier. W2XAD is on the air from 10:00 A.M. to 6:00 P.M. and W2XAF from 4:00 P.M. to midnight. Both stations sometimes operate off schedule for special programs, too. W2XAD was heard until 9:00 P.M. and W2XAF came on at 9:05 P.M. April 14th. (Stark, Mo.) W2XAD heard at 8:00 A.M. April 17th. (Beck, Ill.)

W3XAU verie says they are on the air noon to 8:00 P.M. on 9.59 mc. and 8:00 P.M. to 11:00 P.M. on 6.06 but are silent 7:00 to 8:00 P.M. on Sundays and Wednesdays and from 10:00 to 11:00 P.M. Thursdays. (Stockbridge, Mass.)

W2XGB, Press Wireless, Hicksville, N. Y., was heard on 17.31 mc. relaying the programs of WOR 2:45 P.M. (Shaffar, Iowa.) On 12.86 mc. noon to 1:00 P.M. (Beck, Ill.)

A plane KAHZT out over the Pacific on 12.86 mc. phoned KEI. (9.49 mc.) from 2:00 to 3:00 P.M. once. (Walcott, Calif.) A station NC3A5M was heard on 9.30 mc. at 7:45 P.M. testing. (Dean, Conn.) Must have been an army station—Editor. JL2 at Selfridge Field was on 5.70 mc. calling WVJ at 8:10 P.M. April 16th. (Beck, Ill.) Heard on 5.74 calling WTR. Canal Zone, at 10:10 P.M. (Child, Pa.) WOX, Staten Island, on 2.29 mc. and WHEB on the ship, Frances E. Denny, were heard at 1:00

A.M. (Wilbur, N. J.) There are around ninety telephone stations at Lawrenceville, N. J.; Rocky Point, N. Y.; Hileah, Florida; Dixon, Calif., and Bolinas, Calif., and we can not mention reports on these stations because they are too numerous.

EXPERIMENTAL

EL1A, Williams Hunting Expedition at Liberia, West Africa, is a 50 watt station on 14.275 mc. heard phoning U.S.A. amateurs using an aerial nearly 1000 feet long. Heard Sunday evenings as late as 11:30 P.M. (Dean, Ill., and Hofmaster, Ohio.) IBEJ on the S.S. Conte Rosso uses 8.78 and 8.80 mc. phoning KBB, Mantla, around 5:30 to 6:00 A.M. GMBJ on the Empress of Britain heard on 13.22 mc. daily except Sundays 10:10 to 10:30 A.M. (Walcott, Calif.) Many yachts on 2.738 mc. are heard phoning each other around 11:00 P.M. (Espoy, Calif.) WQA on 21.22 mc. and WQD on 18.96 mc. relay the opera program Saturdays 2:00 to 5:00 or 5:30 P.M. (Karpen and Harrison.) A station W10XGY on the Yaht, "Elano," at Pearl Harbor, Hawaii. on 12.90 mc. heard. (Herzog, N. Y.) Heard at 4:00 P.M. daily on 12.86 mc., also uses 12.26 mc. and 6.425 mc. around 10:00 to 11:00 P.M. (Rossi, Pa.)

ULTRA-SHORT WAVES

A few members have written to us regarding stations heard on the ultra-high frequencies. Below we list what information we have on these stations. The figures given are megacycles.

- 25.95—W6XKG, Los Angeles, Calif. Broadcasts 24 hours daily.
- 26.40—W9XAZ, Milwaukee, Wisconsin. Relays WTMJ 1 P.M. to midnite.
- 30.61—W2XEN, Roselle Park, New Jersey. Police.
- 31.60—W8XKA, Pittsburgh, Pa. Relays KDKA 3:00 to 11:00 P.M.
- 31.60—W3XKA, Philadelphia, Pa. Relays KYW noon to 10:00 P.M.
- 31.60—W1XKA, Millis, Mass. Relays W1XK 9:00 A.M. to noon.
- 31.60—W3XEY, Baltimore, Md. Relays NBC 6 P.M. to midnite.
- 31.60—W8XAL, Rochester, N. Y. Relays WHAM.
- 31.60—W8XWJ, Detroit, Mich. 6:15-12:30 P.M., 2-5 P.M., 7-10 P.M.
- 31.60—W2XDV, Wayne, New Jersey. Relays WABC.
- 31.60—W9XHW, Minneapolis, Minn. 9:00 A.M. to 5:00 P.M.
- 31.60—W9XPD, St. Louis, Md. Relays KSD 9:00 A.M. to midnite.
- 31.60—W9X??, Superior, Wisc. Relays WEBC around 11:00 A.M.
- 33.33—W2XEM, Newark, N. J., Police. City Hall.
- 33.33—W2XAF, Jersey City, N. J. City Hall.
- 35.60—W1XAO, Boston, Mass., Police. City Hall.
- 35.60—W2XMS, Police station, location not known.
- 35.60—W3XFK, Police station, location unknown.
- 35.60—W3XES, Baltimore, Md. Relays WCAO, 9:00 A.M. to 5:00 P.M.
- 35.60—W2XDV, Wayne, N. J. Owned by CBS, 9-11 A. M.
- 37.50—W2XHP, Kingston, N. Y. Police. City Hall.
- 37.50—W3XES, Baltimore, Md. Broadcasts 5 to 11 P. M.
- 38.60—W2XDV, Wayne, N. J. Relays WABC.
- 41.00—W2XDV, Wayne, N. J. Relays WABC.

WITH THE REPORTERS

The following people sent us letters and cards last month with information regarding stations. We are grateful to them for this information.

R. C. Cooke, Champion Reefs, Kolar Goldfields, India; Norman Baynes, Bangalore, India; G. P. Burdett, Monse, North Rhodesia, Africa; L. E. Hansen, Durban, Natal, Africa; Reuven Sokolovsky, Tel-Aviv, Palestine; Flavio Mascarenhas, Rio de Janeiro, Brazil; John B. Keenan, Sydney, Australia; Douglass Worcester, Honolulu, Hawaii; J. J. Kolibonso, Batavia-Centrum, D. E. I.; Felix Quayle, France Field, Canal Zone.

George W. King, Liverpool, England; E. W. J. Field, Watford, Herts, England; L. Smith, London, England; Lionel H. Hammond, Hove, Sussex, England; S. Boothroyd, Uppermill, England; Ernest Orchard, Waymouth, England; J. R. Garrett Pegge, Chesham, Bucks, England; R. F. Stevens, Romford, Essex, England; Dr. George F. Fulker, Cowansville, Quebec, Canada; Bob Morrison, Vancouver, B. C.; William Buchanan, Sydney, N. S., Canada.

George Diamond, Jamaica, N. Y.; Wm. Lyon McLaughlin, New York City; Karl Schwartz, Syracuse, N. Y.; W. F. Herzog, Center Moriches, N. Y.; Mills VanBergen, Syracuse, N. Y.; Captain George McDermott, New Brighton, New York; Enrico Scala, Jr., Bronx, N. Y.; Fred Karpen, Johnstown, Pa.; Thomas Nichols, Philadelphia, Pa.; Robert Rossi, Philadelphia; George Van Honk, Erie, Pa.; John B. Morgan II, Philadelphia; Captain R. B. Oxrieder, State College, Pa.; Ford Edwards, Wilmerding, Pa.; Albert Spuhler, Cleveland, Ohio; W. A. Dean, Hartford, Conn.; Neville Seymour, Baltimore, Md.; Charles Burner, Millersville, Pa.; Frank Ballentine, Philadelphia, Pa.; Emmett Riggle, Massillon, Ohio; Charles Miller, Covington, Ky.

Jake Field, San Diego, Calif.; G. C. Gallagher, San Francisco, Calif.; Ashley Walcott, San Francisco; Sam Swope, Hollywood, Calif.; Roy A. DeMente, Plainview, Texas; L. G. Chavez, Los Angeles, Calif.

Henry Nelleman, Chicago; Grace M. Beck, Chicago; F. B. Hetherington, Indianapolis, Ind.; Earl Roberts, Indianapolis, Ind.; Jacob Zimpelman, Wabash, Ind.; Wallace Smith, Louisville, Ky.; Wm. A. Weiss, Louisville, Ky.; J. A. Julius, Nashville, Tenn.; Ray Shaffer, Waterloo, Iowa; James B. Wooten, Mobile, Alabama; W. D. Flagg, Holyoke, Mass.; Frank Stockbridge, Westboro, Mass.; Ed. Davenport, Pittsford, Vt.

Ivan French, Diamondville, Mich.; Richard Verbrughe, Jr., Detroit, Mich.; O. E. Stark, Pierce City, Mo.; Emil Anderson, Racine, Wisc.; Marton Headley, Northfield, Minn.; Fred Atherton, Rutland, Vermont.

FOR SALE—Scott Imperial 23 Tube All-wave with Volume Expander and High Frequency speakers. Also Scott Fifteen complete with Lido cabinet. Glenn Watt, Chanute, Kansas.

FOR SALE—Scott 23-tube receiver, one large speaker, seven extra tubes, Tasman console cabinet. \$125.00 cash. Reason for selling, wish to purchase new Scott. Bert Clemens, 2468 Seventh St., Cuyahoga Falls, Ohio.

AMATEURS

Every day there are hundreds of amateur stations heard near 20 meters between 14.11 and 14.30 mc. Many of these are overseas. None operate regularly. Here is a list of amateurs in Asia, Africa and Australia that actually have verified reports sent to them, and these veries have been seen by your editor. There are other stations on the air but we have not seen verifications from them. For addresses, we suggest that you buy a copy of Radio Amateur Call-Book which lists over 62,000 amateur stations, with the address of each one. These sell for \$1.25 a copy and we will accept your order for one. The list follows: Australia (all stations begin with call VK), VK2AZ, 2ABG, 2AP, 2AS, 2ABD, 2AT, 2OK, 2EX, 2EP, 2RB, 2LZ, 2UC, 2NO, 2HP, 2VA, 2TA, 2UJ, 2NY, 2IQ, 2TF, 2JZ, 2UD, 2SK, 2WJ, 2TF, 2JT, 2OO, 2TI, 2XM, 2XU, 3OC, 3KX, 3HL, 3ZL, 3WU, 3MR, 3GM, 3OC, 3WW, 4HR, 4BS, 4VD, 4BB, 4UU, 4JX, 4SX, 5JC, 5AI, 5FM, 5LR, 5WG, 5SU, 5MZ, 6MW, 7JB, 7KV. For Australia try around 6:00 P.M. to midnight in summer and 4:00 to 9:00 A.M. in winter. Africa: EA8AF, 8LW, 8AB, 8AT, 8AL, 8AN, 8BG, 8AO, 8AS, 8AH, 8LC, SU1GG, SU1T, SU1RK, 1SG, 1CH, 1KG, 5X, 8MA, VQ4CRL, VQ4CRO, ON4CSL, EA9AH, FM4AA, FT4AF, CN8MU, CN8AA, CN8MA, CN8AC, ZT1P, ZT2F, ZT1JR, ZT2B; ZT6Q, ZT6N, ZT6X, ZE1JF, ZE1JR, ZE1JS, ZS1JS, ZS1AH, ZS1C, ZS1B, ZS2N, ZS2X, ZS4J, ZS6AF, ZS6AM, ZS6A, ZS6T, ZS5Z. Asia: PK4DG, PK4AU, PK4VR, PK1MX, KA1KY, KA1AK, KA1AN, S6AQ, XU8MT, CR8AA, VS6AG, VS2AK, VS7RA, VS7GJ, VS7SF, and the following which begin with VU: VU2CQ, 2BY, 2JN, 2HQ, 2LS, 2EB, 2FY, 2CS, 2EB, 2LK, 3KF, 7KH, 7RA and 7RS. A member in Pittsburgh says he has received 165 Australian amateurs on voice and another in Chicago says he heard two stations on each Continent within two hours on the 20 meter amateur band. There must be at least 4000 amateurs now on the air between 14.11 and 14.30 mc.

YOUTH PROGRAMS

A program called YPS "from Youth, of Youth, to Youth, by Youth and for Youth" is broadcast every Saturday at 5:00 P.M., E.S.T. over W1XAL on 25.40 meters or 11.79 mc. Special cards are mailed out to all persons sending in a report. Several ISWC members take part in these programs.

NEW SUPER-PRO LITERATURE

Hammarlund has favored us with a pre-publication edition of a new broadside describing the new model Super-Pro receiver. It is a thing of beauty and it describes the new, as well as the regular features of the Super-pro for 1938. It contains many "close-up" pictures of the new receiver which, incidently, tunes from 7½ to 2000 meters. A copy may be had by writing to the Hamarlund Mfg. Company, 424 West 33rd St., New York City.

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

TELEPHONE STATIONS

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

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

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

| Meters | Meg. | STATION | TIME |
|---------|--------|---------------------------------------|--|
| T-14.01 | —21.41 | —WKK, Lawrenceville, N. J. | Phones LSN, 8:00 A.M. to 4:00 P.M. |
| T-14.17 | —21.16 | —LSL, Buenos Aires, Arg. | 8:00 A.M. to 1:00 P.M. GAA and PSF. |
| T-14.23 | —21.08 | —PSA, Rio de Janeiro, Brazil. | Phones WKK, WLK, daytime. |
| T-14.27 | —21.03 | —LSN, Buenos Aires, Arg. | 8:00 A.M. to 4:00 P.M. WKK and WLK |
| T-14.72 | —20.38 | —GAA, Rugby, England. | Phones LSL and PPU near 8:00 A.M. |
| T-14.97 | —20.04 | —OPL, Leopoldville, Belgian Congo. | Phones ORG, mornings. |
| T-14.99 | —20.02 | —DHO, Nauen, Germany. | Phones PPU and LSM mornings. |
| T-15.14 | —19.78 | —WKN, Lawrenceville, N. J. | Phones GAU, daytime. |
| T-15.01 | —19.98 | —KAX, Manila, P. I. | Phones daytime. |
| T-15.24 | —19.69 | —CEC, Santiago, Chile. | Phones LSR, HJY near 11 A.M. and 4 P.M. |
| T-15.28 | —19.62 | —VQG, Nairobi, Kenya, Africa. | 7:30 to 9:30 A. M., England. |
| T-15.39 | —19.50 | —LSQ, Buenos Aires, Argentina. | Heard testing near 2:00 P.M. |
| T-15.50 | —19.35 | —FTM, Assise, France. | 10:00 A.M. to 2:00 P.M. LSG. |
| T-15.50 | —19.35 | —PMA, Bandoeng, Java. | Phones Holland, mornings. |
| T-15.57 | —19.27 | —PPU, Rio de Janeiro, Brazil. | Phones FTM, 10:30 A.M. to 3:00 P.M. |
| T-15.58 | —19.25 | —DFA, Nauen, Germany. | Phones 10:00 A.M. to 2:00 P.M. irregularly. |
| T-15.62 | —19.21 | —ORG, Brussels, Belgium. | Phones OPL, mornings. |
| T-15.68 | —19.13 | —LSM, Buenos Aires, Argentina. | Phones EAQ, DHO, GAA, mornings. |
| T-15.88 | —18.89 | —ZSS, Kipheuvai, S. Africa. | Phones 6 A.M. to 2:30 P.M., England. |
| T-15.93 | —18.83 | —PLE, Bandoeng, Java. | Phones Holland 6 to 11 A.M. KWX irregularly. |
| T-16.06 | —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. |
| E-16.26 | —18.45 | —HBF, Geneva, Switzerland. | Used for special purposes. |
| T-16.30 | —18.40 | —PCK, Kootwijk, Holland. | Phones Java near 7:00 A.M. |
| T-16.35 | —18.35 | —WLA, Lawrenceville, N. J. | Phones England 8:00 A.M. to 4:00 P.M. |
| T-16.38 | —18.31 | —GAS, Rugby, England. | Phones New York mornings. |
| T-16.39 | —18.30 | —YVR, Maracay, Venezuela. | Phones Germany, 10:00 A.M. |
| T-16.44 | —18.25 | —FTE, St. Assise, France. | Phones LSM, PPU, mornings. |
| T-16.48 | —18.20 | —GAW, Rugby, England. | Phones New York mornings. |
| T-16.50 | —18.18 | —PMC, Bandoeng, Java. | Phones PCV, 3:10 to 9:20 A.M. |
| E-16.55 | —18.12 | —LSV, Buenos Aires, Argentina. | Irregular. |
| T-16.58 | —18.09 | —TYE2, Pontoise, France. | Phones Irregularly. |
| T-16.63 | —18.04 | —GAB, Rugby, England. | Phones Canada 10:00 A.M. to noon. |
| T-16.82 | —18.05 | —PCV, Kootwijk, Holland. | 6:00 to 9:00 A.M. Java. |
| T-16.85 | —18.27 | —17.80 to 16.42 | —Ships. Heard in daytime. |
| T-16.91 | —17.74 | —HSP, Bangkok, Siam. | Phones Japan, Germany and England. |
| T-16.94 | —17.70 | —IAC, Piza, Italy. | Phones Africa, 5:00 A.M. to noon. |
| T-17.00 | —17.64 | —XGN, Shanghai, China. | Phones London 7 to 9 A.M., Mon., Wed., Sat. |
| T-17.12 | —17.52 | —DFB, Nauen, Germany. | Phones LSM and YVQ near 9:00 A.M. |
| T-17.16 | —17.48 | —VWY2, Poona, India, | phones England 7:00 to 10:00 A.M. |
| T-17.36 | —17.28 | —FZE8, Djibouti, Fr. Somaliland. | Phones Paris 5 A.M.-2 P.M., Irreg. |
| T-17.52 | —17.12 | —WOO, Ocean City, New Jersey. | Phones ships, irregularly. |
| T-18.31 | —16.38 | —ITK, Mogadiscio, Italian Somaliland. | Phones Italy daytime. |
| T-18.44 | —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-18.59 | —16.14 | —GBA, Rugby, England. | Phones China-Japan 3:00 to 10:00 AM. |
| E-18.62 | —16.11 | —IRY, Rome, Italy. | Used irregularly for special broadcasts. |

| Meters | Meg. | STATION | TIME |
|---------|----------|------------------------------------|---|
| T-18.71 | -16.04 | KKP, Kauhuku, Hawaii. | Phones KWU 1:00 to 7:00 P.M. |
| T-18.81 | -15.95 | RRR, Khabarovsk, U.S.S.R. | Phones 11:00 P.M. to 9:00 A.M. irreg. |
| T-18.89 | -15.88 | FTK, St. Assise, France. | Phones Saigon 8:30 to 11:00 A.M. |
| T-18.99 | -15.80 | XOJ, Shanghai, China. | Phones Japan 5:00 P.M. to midnight. |
| T-18.91 | -15.86 | JVD, Nazaki, Japan. | Phones almost all day and night. |
| f-18.91 | -15.86 | CEC, Santiago, Chile. | Phones OCJ 11 A.M., 1 and 4:40 P.M. irreg. |
| T-19.02 | -15.81 | LSL, Buenos Aires, Arg. | Phones GAA 8 A.M. to 1 and FTM 1-2 P.M. |
| T-19.15 | -15.66 | JVE, Nazaki, Japan. | Phones almost any time. |
| T-19.20 | -15.61 | JVF, Nazaki, Japan. | phones U.S.A. near 5:00 A.M. and 8:00 P.M. |
| T-19.31 | -15.53 | HSG2, Bangkok, Siam. | Tests Sunday 11 P.M., Fri. 4:00 A.M. |
| T-19.42 | -15.45 | IUG, Addis Ababa, Ethiopia. | phones Italy 7:00 to 10:00 A.M. |
| T-19.47 | -15.41 | KWO, Dixon, California. | Phones Hawaii in place of KWU. |
| E-19.53 | -15.36 | DZG, Zeesen, Germany. | Broadcasts irregularly. |
| T-19.54 | -15.35 | KWU, Dixon, California. | Phones Hawaii, 2:00 to 7:00 P.M. |
| T-19.95 | -15.04 | RKI, Moscow, U.S.S.R. | Phones almost any time. |
| f-19.68 | -15.25 | RIM, Tashkent, U.S.S.R. | Phones RKI near 7:00 A.M. |
| T-19.92 | -15.06 | WNC, Hialeah, Florida. | phones many stations in daytime. |
| T-20.03 | -14.98 | KAY, Manila, P. I. | Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M. |
| T-20.08 | -14.94 | HJB, Bogota, Colombia. | phones WNC daytime. |
| T-20.08 | -14.94 | HII, Trujillo, Dominican Republic. | phones WNC daytime. |
| T-20.08 | -14.94 | HJA3, Barranquilla, Colombia. | phones WNC, Florida. |
| E-20.27 | -14.80 | WVQ, Rocky Point, N. Y. | heard irregularly. |
| | | | Mon. and Thurs. 4:00 to 5:00 P.M.; Tues. and Fri. 2 to 3 P.M. |
| T-20.29 | -14.79 | ROU, Omsk, Siberia. | phones Moscow 7:00 to 9:00 A.M. irregularly. |
| T-20.37 | -14.73 | IQA, Rome, Italy. | phones 8:00 to 11:00 A.M. irregularly. |
| T-20.45 | -14.67 | GBL, Rugby, England. | Phones JVH 1:00 to 7:00 A.M. |
| T-20.55 | -14.60 | JVH, Nazaki, Japan. | Phones and also broadcasts at times. |
| T-20.56 | -14.59 | WMN, Lawrenceville, N. J. | Phones England daylight. |
| T-20.64 | -14.54 | HBJ, Geneva, Switzerland. | Used irregularly. |
| T-20.65 | -14.53 | LSN, Buenos Aires, Argentina. | Phones New York daytime. |
| T-20.71 | -14.48 | YSJ, San Salvador, Salvador. | Phones WNC afternoons. |
| T-20.71 | -14.48 | HRL5, Nacaome, Honduras. | testing with WNC daytime. |
| T-20.71 | -14.48 | TIU, Cartago, Costa Rica. | phones WNC daytime. |
| T-20.71 | -14.48 | YNA, Managua, Nicaragua. | phones WNC daytime. |
| T-20.71 | -14.48 | HPE, Panama. | phones WNC daytime. |
| T-20.71 | -14.48 | HRF, Tegucigalpa, Honduras. | phones WNC daytime. |
| T-20.71 | -14.48 | TGF, Guatemala City. | phones WNC daytime. |
| T-20.72 | -14.48 | IBS, Rome, Italy. | Phones Africa mornings. |
| f-20.73 | -14.47 | WMF, Lawrenceville, N. J. | Phones England daylight. |
| T-20.75 | -14.46 | GBW, Rugby, England. | Phones WNC 6:00 A.M. to 6:00 P.M. |
| E-20.75 | -14.46 | DZH, Zeesen, Germany. | Irregular. |
| E-20.97 | to 21.26 | -14.30 to 14.11 | Amateur phones heard in daytime. |
| E-21.46 | -13.98 | PZIAA, Paramaribo, Dutch Guiana. | in the evenings. |
| E-21.58 | -13.90 | WQP, Rocky Point, N. Y. | Testing with RNE irregularly, mornings |
| T-21.70 | -13.83 | SUZ, Cairo, Egypt. | Phones GAA 7:00 A.M. to 3:30 P.M. |
| T-21.77 | -13.76 | TYE2, St. Assise, France. | Phones Africa daytime. |
| E-21.91 | -13.69 | KKZ, Bolinas, California. | Used irregularly |
| T-21.98 | -13.65 | HJY, Bogota, Colombia. | Phones irregularly. |
| T-21.73 | -13.79 | RVU, Vladivostok, U.S.S.R. | 4:00 to 10:00 A.M., irreg. |
| T-22.09 | -13.58 | GBB, Rugby, England. | Phones Canada and Egypt, daytime. |
| T-22.37 | -13.41 | YSI, Salvador, San Salvador. | phones WNC daytime. |
| T-22.40 | -13.38 | IDU, Asmara, Eritrea. | phones Italy 8:00 A.M. to 3:00 P.M. irregularly |
| r-22.40 | -13.39 | WMA, Lawrenceville, N. J. | Phones England, daytime. |
| T-22.44 | -13.37 | JVU, Nazaki, Japan. | Around 6:00 to 10:00 A.M. |
| f-22.48 | -13.35 | YVQ, Maracay, Venezuela. | Phones Florida, daytime. |
| T-22.50 | to 24.3 | -13.34 to 12.35 | Ships. Heard in daytime. |
| T-22.58 | -13.28 | CGA3, Drummondville, Canada. | Phones ships and England daytime. |
| T-22.70 | -13.22 | IRI, Rome, Italy. | phones Japan irregularly 5:00 to 8:00 A.M. |
| T-22.74 | -13.19 | RFL, Khabarovsk, U.S.S.R. | Around 4:00 to 10:00 A.M. |
| T-23.08 | -13.00 | FYC, Paris, France. | Phones Ships, Irregularly. |
| T-23.29 | -12.88 | RTZ, Irkutsk, U.S.S.R. | 10:00 P.M. to 10:00 A.M., irreg. |
| T-23.31 | -12.87 | VVS, Mingaladon, India. | Phones 5:00-7:00 A.M., Irreg. |
| T-23.33 | -12.86 | IAC, Piza, Italy. | Phones Africa 8:00 A.M. to 1:00 P.M. |
| f-23.36 | -12.84 | WOO, Ocean Gate, N. J. | Phones ships irregularly. |

| Meters | Meg. | STATION | TIME |
|---------|--------|------------------------------------|---|
| T-32.38 | -12.83 | CNR, Rabat, Morocco. | 5:00-8:00 A.M., 2:00-4:00 P.M., irreg. |
| F-23.47 | -12.78 | GBC, Rugby, England. | Phones ships irregularly. |
| F-24.20 | -12.40 | DAF, Norden, Germany. | Phones ships irregularly, mornings. |
| F-24.40 | -12.30 | PLM, Bandoeng, Java. | Phones VK2ME near 6:30 A.M. |
| F-24.41 | -12.29 | GBU, Rugby, England. | Phones America, evenings. |
| T-24.49 | -12.25 | TYB, Pontoise, France. | Heard late afternoons, irregularly. |
| T-24.52 | -12.24 | TJF, Reykjavik, Iceland. | Phones GCB and OXT 5:00 to 10:00 A.M. |
| F-24.56 | -12.22 | TYA, Pontoise, France. | Phones the Normandie, irregularly. |
| T-24.63 | -12.18 | RWJ, Alma-Ata, U.S.S.R. | Phones 1:00 to 8:00 A.M. irregularly. |
| F-24.69 | -12.15 | GBS, Rugby, England. | Phones New York. |
| F-24.73 | -12.13 | DZE, Zeesen, Germany. | 7:00-9:00 A.M., 5:00-9:00 P.M., irreg. |
| T-24.75 | -12.12 | Alger, Algeria, Africa. | Mid-nite to noon, irreg. |
| T-24.96 | -12.02 | JVK, Nazaki, Japan. | Phones 4:00 to 8:00 A.M., irreg. |
| T-25.00 | -12.00 | RNE, Moscow, U.S.S.R. | Almost any time. Try 11 P.M. to 10 A.M. |
| F-25.02 | -11.99 | FZS, Saigon, Indo-China. | Phones Paris mornings. |
| T-25.09 | -11.95 | IUC, Addis Ababa, Ethiopia. | Phones Rome around noon and midnight. |
| E-25.11 | -11.97 | KKQ, Bolinas, California. | Heard irregularly, evenings. |
| T-25.12 | -11.95 | FTA, St. Assise, France. | Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M. |
| E-25.63 | -11.71 | KIO, Kauhuku, Hawaii. | Heard in the evenings testing. |
| T-25.73 | -11.66 | JVL, Nazaki, Japan. | Phones 6:00 P.M. to 11:00 A.M. irregularly. |
| T-25.73 | -11.66 | PPQ, Rio de Janeiro, Brazil. | Phones often and broadcasts, irreg. |
| E-25.87 | -11.59 | VRR4, Stony Hill, Jamaica. | Testing with WNC in daytime. |
| E-26.09 | -11.50 | XAM, Merida, Yucatan. | Irregularly 1:00, 6:00 and 7:00 P.M. |
| E-26.31 | -11.40 | HBO, Geneva, Switzerland. | Used for special broadcasts. |
| F-27.35 | -10.97 | OCI, Lima, Peru. | Phones HJY, evenings. |
| T-27.37 | -10.96 | ZLT2, Wellington, New Zealand. | 11:00 P.M. to 7:00 A.M., Australia. |
| F-27.67 | -10.84 | KWV, Dixon, California. | Phones Hawaii, daytime. |
| E-27.65 | -10.85 | DFL, Nauen, Germany. | Irregular. |
| F-27.86 | -10.77 | GBP, Rugby, England. | Phones VLK 11:00 P.M. to 8:00 A.M. |
| T-27.93 | -10.74 | JVM, Nazaki, Japan. | Phones 6:00 P.M. to 11:00 A.M. irregularly. |
| T-28.09 | -10.68 | PLQ, Bandoeng, Java. | PNT 8:00 to 10:00 A.M. |
| E-28.09 | -10.68 | WNB, Lawrenceville, N. J. | Phones Bermuda daytime. |
| T-28.14 | -10.66 | JVN, Nazaki, Japan. | Phones 6:00 P.M. to 11:00 A.M. irregularly. |
| E-28.28 | -10.61 | WEA, Rocky Point, N. J. | Tests irregularly with Europe. |
| E-28.44 | -10.55 | WOK, Lawrenceville, N. J. | Phones Brazil and Argentina irregularly |
| T-28.49 | -10.53 | JIB, Taiwan, Japan. | Phones Japan 10:00 P.M. to 10:00 A.M. |
| F-28.51 | -10.52 | VK2ME-VLK, Sydney, Australia. | 1:00 to 8:00 A.M. GBP. |
| T-28.76 | -10.43 | YBG, Medan, Sumatra. | Phones Java 5:00 to 8:30 A.M. |
| T-28.79 | -10.42 | TYE3, St. Assise, France. | Phones U.S.A. 3:30 to 7:00 P.M. |
| T-28.79 | -10.42 | XGW, Shanghai, China. | Phones almost any time. |
| E-28.80 | -10.42 | PDK, Kootwijk, Holland. | Phones Java. 7:30 to 9:40 A.M. |
| E-28.85 | -10.40 | KEZ, Bolinas, California. | Used irregularly. |
| F-28.91 | -10.38 | WCG, Rocky Point, N. Y. | Tests irregularly. |
| T-28.93 | -10.37 | JVO, Nazaki, Japan. | Phones 6:00 P.M. to 11:00 A.M. irregularly. |
| B-29.04 | -10.33 | ORK, Brussels, Belgium. | 1:30 to 3:00 P.M., daily. |
| F-29.13 | -10.30 | LSO, Buenos Aires, Argentina. | Used for special tests. |
| T-29.13 | -10.30 | PPM, Rio de Janeiro, Brazil. | Phones irregular. |
| E-29.15 | -10.29 | I7C, Zeesen, Germany. | 3:00 to 9:00 P.M., Irregular |
| E-29.27 | -10.25 | LSL, Buenos Aires, Argentina. | testing 5:30 to 7:00 P.M. |
| E-29.33 | -10.23 | CEB, Antofagastan, Chile. | heard 7:00 to 9:30 P.M. irregularly. |
| T-29.45 | -10.22 | PSH, Rio de Janeiro, Brazil. | Sending music, evenings. |
| T-29.50 | -10.17 | RIO, Baku, U. S. S. R., | phones 10:00 P.M. to 10:00 A.M. irregularly. |
| T-29.58 | -10.14 | OPM, Leopoldsville, Belgian Congo. | 12-2 A.M., noon-3:00 P.M., irreg. |
| T-29.76 | -10.08 | RIR, Tiflis, U. S. S. R. | Phones 10:00 P.M. to 10:00 A.M., irregularly. |
| T-29.79 | -10.07 | EHY, Madrid, Spain. | Phones YVR near 4:00 P.M. irregularly. |
| T-29.80 | -10.06 | TDE, Shinkio, Manchukuo, | phones Japan 1:00 to 9:00 A.M., irregularly. |
| T-29.83 | -10.05 | ZFB, Hamilton, Bermuda. | Phones U.S.A. and ships, daytime |
| T-29.83 | -10.05 | SUV, Cairo, Egypt. | Phones England around 1:00 to 5:00 P.M. |
| E-29.88 | -10.04 | DZB, Zeesen, Germany. | Irregular. |
| F-30.09 | -9.97 | KAZ, Manila, P. I. | Phones PLV near 2:00 A.M. |
| T-30.15 | -9.95 | GCU, Rugby, England. | Phones New York evenings. |
| T-30.21 | -9.93 | HKB, Bogota, Colombia. | Phones PSK irregularly, evenings. |
| T-30.23 | -9.92 | JDY, Dairen, Manchuguo. | Phones Japan 2-4 A.M., 8-10 P.M., irreg. |
| T-30.30 | -9.90 | LSN, Buenos Aires, Argentina. | 6:00 P.M. to 6:00 A.M. WLO. |
| T-30.40 | -9.87 | WON, Lawrenceville, N. J. | Phones England evenings. |

| Meters | Meg. | STATION | TIME |
|---------|----------|---|---|
| E-30.40 | 9.87 | JYS, Kemikawa-Cho, Japan. | Relays JOAK Irreg., mornings. |
| T-30.52 | 9.83 | IRM, Rome, Italy. | Phones Egypt afternoons. |
| T-30.60 | 9.80 | GCW, Rugby, England. | Phones America, evenings. |
| E-30.61 | 9.80 | LSI, Buenos Aires, Argentina. | Used irregularly, evenings. |
| T-30.75 | 9.76 | VK2ME-VLK, Sydney, Australia. | Phones Java 4:00 to 8:00 A.M. |
| T-30.77 | 9.75 | WOF, Lawrence, N. J. | Phones England, evenings. |
| E-31.00 | 9.67 | DZA, Zeesen, Germany. | Broadcasts irregularly. |
| T-31.08 | 9.65 | DGU, Nauen, Germany. | Phones Egypt in daytime. |
| T-31.58 | 9.50 | XTV, Canton, China. | Phones 2:00 to 11:00 A.M., irreg. |
| T-31.61 | 9.49 | KEI, Bolinas, Calif. | Used irregularly. |
| T-31.71 | 9.46 | Tripoli, Africa. | Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg. |
| T-31.86 | 9.42 | PLV, Bandoeng, Java. | 9:00-11:00 A.M., 6:00-11:00 P.M. irreg. |
| T-32.02 | 9.37 | PLC, Kootwijk, Holland. | Phones 3:00 to 10:00 A.M., irreg. |
| T-32.15 | 9.33 | CGA ⁴ , Drummondville, Canada. | Phones ships and England, irregularly. |
| T-32.32 | 9.28 | XTC, Shanghai, China. | Phones 2:00 to 11:00 A.M., irreg. |
| T-32.33 | 9.28 | GCB, Rugby, England. | Phones CGA and SUV afternoons. |
| T-32.68 | 9.18 | ZSR, Klipkeval, So. Africa. | Phones England 1:00-7:00 P.M., irreg. |
| T-32.72 | 9.17 | WNA, Lawrenceville, N. J. | Phones England evenings. |
| T-32.83 | 9.14 | YVR, Maracay, Venezuela. | Phones Europe afternoons. |
| T-32.89 | 9.12 | YCP, Balikpapan, Borneo. | 5:00-7:00 A.M., phones East Indies. |
| T-33.19 | 9.03 | TYA2, Paris, France. | Phones Algeria, 6 P. M. to midnite, irreg. |
| T-33.26 | 9.02 | GCS, Rugby, England. | Phones New York evenings. |
| E-33.29 | 9.01 | KEI, Bolinas, California. | Tests irregular. |
| T-33.41 | 8.98 | VWY, Poona, India. | Phones England 6:00-10:00 A.M., irreg. |
| T-33.48 | 8.96 | Algier, Algeria. | Phones Paris irregularly. |
| E-33.52 | 8.95 | WEL-W2XBJ, Rocky Point, N. Y. | Testing irregularly, evenings. |
| T-33.93 | to 36.58 | 8.84 to 8:20 | Ships. Heard irregularly. |
| E-34.10 | 8.79 | HKV, Bogota, Colombia. | Testing, 5:30 to 11:00 P.M., irregularly. |
| T-34.19 | 8.77 | PNI, Makassar, D. E. I. | Phones Java near 4:00 to 5:00 A.M. |
| T-34.44 | 8.71 | KBB, Manila, P. I. | Phones ships 5:00-9:00 A.M., irreg. |
| T-34.56 | 8.68 | GBC, Rugby, England. | Phones ships irregularly. |
| E-34.68 | 8.65 | WVD, Seattle, Wash. | Testing irregularly. |
| T-34.68 | 8.65 | VOWQ, North West River | Laborador. Phones irreg. |
| T-35.02 | 8.57 | WOO, Ocean Gate, N. J. | Phones ships irregularly. |
| T-35.42 | 8.47 | DAF, Norden, Germany. | Phones ships irregularly. |
| T-35.80 | 8.38 | IAC, Piza, Italy. | Works ships, irregularly. |
| T-36.65 | 8.19 | PSK, Rio de Janeiro, Brazil. | Sending music 6:00 to 7:30 P.M. |
| T-36.95 | 8.12 | KTP, Manila, P. I. | Phones KWX 10:30 to 11:00 A.M. |
| T-38.06 | 7.86 | SUX, Cairo, Egypt. | Phones Rome and London afternoons. |
| E-38.50 | 7.78 | PSZ, Rio de Janeiro, Brazil. | Heard between 6:00 and 11:00 P.M. irreg |
| T-39.06 | 7.68 | YBZ, Manado, Celebes, DEI. | Phones PNI 5:00-7:00 A.M. |
| T-39.32 | 7.63 | RIM, Tashkent, U.S.S.R. | Heard 5:00 to 11:00 A.M. in winter. |
| T-39.42 | 7.61 | KWX, Dixon, California. | Phones Hawaii nights. |
| T-40.60 | 7.39 | ZLT2, Wellington, New Zealand, | phones Sydney 3:00 to 7:00 A.M. irreg. |
| R-40.65 | 7.38 | XECR, Mexico City, | broadcasts Sundays 6:00 to 8:00 P.M. |
| T-39.68 | 7.56 | KWY, Dixon, Calif. | Phones weekdays 9:30 P.M. to midnight. |
| T-39.68 | 7.56 | FZE9, Djibouti, French Somaliland. | Phones Paris. |
| T-39.89 | 7.52 | KKH, Kauhuku, Hawaii. | Phones KWO evenings. |
| T-39.95 | 7.51 | RKI, Moscow, U.S.S.R. | Heard 5:00 to 11:00 A.M. in winter. |
| T-40.71 | 7.37 | KEQ, Kauhuku, Hawaii. | Phones Dixon nights. |
| E-43.00 | 6.98 | XBA, Tacubaya, Mexico, | 9:30 A.M. to 1:00; 7:00 to 8:30 P.M. |
| T-43.45 | 6.90 | GDS, Rugby, England. | Phones New York nights. |
| T-44.41 | 6.75 | WOA, Lawrenceville, N. J. | Phones England nights. |
| T-44.44 | 6.75 | JVT, Nazaki, Japan. | 1:30 to 8:00 A.M., oftines with music. |
| T-44.64 | 6.72 | XEM2, Guanacabi, Dur, Mexico. | Tests around 9:30 P.M., irreg. |
| T-44.94 | 6.67 | HBQ, Geneva, Switzerland. | Used for special broadcasts. |
| T-44.96 | 6.67 | YVQ, Maracay, Venezuela. | Phones irreg. |
| T-45.10 | 6.65 | IAC, Piza, Italy. | Phones ships evenings. |
| T-45.11 | 6.65 | JEZC, Ship Chichibu Maru. | Phones irregularly. |
| T-45.80 | 6.55 | XEM1, Mexico. | Tests around 9:30 to midnite. |
| E-46.73 | 6.42 | W9XBS, Chicago, Illinois. | Heard irregularly broadcasting. |
| E-46.77 | 6.41 | HJA3, Barranquilla, Colombia. | Phones HJA2, irregular. |
| E-47.39 | 6.35 | JZG, heard relaying JVT, | JOAK from 5:00 to 7:30 A.M., irregularly. |

(Continued on page 42)

| Meg. | Meters | Station | City | Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | M |
|------|--------|---------|----------------|---------|---|---|----|---|---|---|---|---|---|----|----|--------------------|
| 5.94 | 50.51 | TG2X | Guatemala | M T S | | | | | 4 | 5 | s | | | 10 | 11 | s |
| 5.93 | 50.59 | YV1RL | Maracaibo | Irreg. | | | 11 | N | 1 | | | | | 5 | 6 | 7 8 9 1/2 |
| 5.92 | 50.68 | HH2S | Pt.-Au-Prince | SMTWTFS | | | | | | | | | | 5 | 6 | 7 8 9 s |
| 5.92 | 50.68 | YV4RE | Valencia | Irreg. | 1 | s | | | | | | | | 5 | 6 | 7 8 9 10 11 M |
| 5.90 | 50.90 | YV3RA | Baraquismeto | SMTWTFS | | | | | N | s | | | | 6 | 7 | 8 9 s |
| 5.90 | 50.90 | TILS | San Jose | Irreg. | | | | | | | | | | 6 | 7 | 8 9 10 s |
| 5.88 | 51.02 | HI9B | Santiago City | Irreg. | | | | | | | | | | 6 | 7 | 8 9 10 s |
| 5.87 | 51.11 | HRN | Tegucigalpa | MTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 s |
| 5.86 | 51.15 | HI1J | SanPedrodeM | SMTWTFS | | | | | | | | | | 3 | 4 | 5 6 7 8 9 s |
| 5.85 | 51.28 | YV1RB | Maracaibo | SMTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 s |
| 5.82 | 51.50 | TIGPH | San Jose | SMTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 10 s |
| 5.80 | 51.72 | YV3RC | Caracas | SMTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 1/2 |
| 5.80 | 51.72 | ZEC | Salisbury | T F | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 1/2 |
| 5.78 | 51.90 | OAX4D | Lima | W S | | | | | | | | | | 8 | 9 | 10 1/2 |
| 5.76 | 52.08 | YNOP | Managua | Irreg. | | | | | | | | | | 6 | 7 | 8 s |
| 5.74 | 52.26 | TGS | Guatemala City | WT S | | | | | | | | | | 6 | 7 | 8 s |
| 5.73 | 52.36 | HC1PM | Quito | Irreg. | | | | | | | | | | 7 | 8 | 9 10 11 s |
| 5.72 | 52.45 | YV2RA | San Cristobal | Irreg. | | | | | | | | | | 7 | 8 | 9 10 1/2 |
| 5.15 | 58.30 | PMY | Bandoeng | SMTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 s |
| 4.78 | 62.76 | HJ1AB | Barranquilla | SMTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 s |
| 4.79 | 62.63 | HJ2ABC | Cucuta, Col | SMTWTFS | | | | | | | | | | 1 | 2 | 3 4 5 6 7 8 9 s |
| 4.60 | 65.22 | HC2ET | Guayaquil | W S | | | | | | | | | | 6 | 7 | 8 9 10 s |
| 4.25 | 70.65 | RV15 | Khabarovsk | SMTWTFS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | s | | |

NOTES: A—Also broadcasts Sundays 11:10 to 12:20 P.M. B—Sundays 7:00 to 8:00 A.M., Tuesdays 4:30 to 6:00 A.M. and Wednesdays 8:00 to 10:00 A.M. C—Mondays, Wednesdays, Fridays 3:00 to 4:00 P.M. and 9:00 to midnight, Tuesdays and Thursdays 7:30 P.M. to midnight, Saturdays 9:00 P.M. to midnight and Sundays 12:30 to 2:00 P.M. D—Some Saturdays 8:00 P.M. to 6:00 A.M. Sunday mornings. E—Saturdays 9:40 to 10:40 P.M. F—Also Sundays 7:45 to 10:45 A.M. G—Daily 2:00 to 2:15 P.M. and Sundays 5:00 to 5:30 A.M. H—Also Sundays 1:00 to 2:00 P.M. I—Both ZEC and ZFB broadcast Sundays 3:30 to 5:00 A.M., Mondays 11:00 A.M. to noon, Tues. and Fri. 1:15 to 3:15 P.M. and Thursdays 10:00 to 10:15 A.M. and 11:00 A.M. to noon.

(Continued from page 32)

| Meters | Meg. | STATION | TIME |
|----------------|----------|------------------------------|---|
| 50.00 to 60.00 | | | meters or 6 00 to 5 00 Mc.—Aircraft stations. |
| T-50.93 | 5.89 | JIC, Taiwan, Japan. | Phones Nazaki 5:00 to 10:00 A.M. winter. |
| F-51.26 | 5.85 | WOB, Lawrenceville, N. I. | Phones Bermuda nights |
| T-51.46 | 5.83 | TDD, Shinkio, Manchukuo. | Phones Japan 10:00 P.M. to 6:00 A.M. |
| F-51.50 | 5.82 | HIA2, Bogota, Colombia. | Phones HIA3 afternoons and evenings |
| T-52.26 | 5.74 | XTD, Shanghai, China. | Phones Hankow 4:00 A.M. to noon. |
| F-52.97 | 5.66 | CFU, Rossland, Canada. | Works CFO and CFN near 10 P.M., irreg. |
| T-54.74 | 5.48 | XTZ, Hankow, China. | Phones Shanghai 4:00 A.M. to noon |
| F-55.56 | 5.40 | HJA-7, Cucuta, Colombia. | Mondays 4:30 to 7:30 P.M., irregularly |
| T-59.08 | 5.08 | WCN, Lawrenceville, N. J. | Phones England evenings. |
| T-59.76 | 5.02 | ZFA, Hamilton, Bermuda. | Phones U.S.A. and ships at night. |
| F-60.26 | 4.98 | GBC, Rugby, England. | Phones to ships, irregularly. |
| T-61.15 | 4.90 | CGA8, Drummondville, Canada. | Phones ships irregularly |
| T-61.98 | 4.84 | GDW, Rugby, England. | phones U.S. A. nights. |
| T-63.13 | 4.75 | WOO, Ocean Gate, N. J. | Phones ships irregularly. |
| T-66.50 | 4.51 | ZFS, Nassau, Bahamas. | Works WND evenings. |
| F-67.87 | to 73.17 | 4.42 to 4.10 | Ships. Heard irregularly. |
| F-73.21 | 4.10 | WND, Hialeah, Florida. | Phones irregularly with VPN. |
| F-75 | to 75.8 | 4.00 to 3.96 | Amateurs on voice. |

SHIP STATIONS

These stations are telephone stations but are sometimes rented to broadcast a special program from a ship. They operate on four bands: 16.85 to 18.27 meters, 22.50 to 24.1 meters, 33.93 to 36.58 meters and 67.87 to 73.17 meters. In megacycles this is 17.80 to 16.42, 13.34 to 12.35, 8.84 to 8.20 and 4.42 to 4.10.

VQIM, Monarch of Bermuda; GLSQ, Olympic; GFJY, Caledonia; GBTT, Queen Mary, Normandie; GMBJ, Empress of Britain; DOAH, Bremen, DOAI, Europa; DHEY, Deutschland; DHIZ, Hamburg; DOAX, Columbus; DHAO, Hansa; DHRL, New York; ICEJ, Rex; IBLI, Conte de Savonia; GBZW, Berengaria; DHDL, Cap Arcona; JFZC, Chichibu Maru; IBEI, Conte Rosso.

A BOOST

From C. R. Brown, of Tazewell, Virginia, comes the following: "In your March issue I advertised a Scott Imperial receiver and a RCA 175 communications receiver. Within exactly one week from the day your March issue came out I had sold both of these sets at the prices quoted and had the money. I then bought a Hammarlund Super-Pro receiver and now have this. To say I am pleased with this set is putting it mildly."

SPECIAL PROGRAM

Station PCJ, Hilversum, Holland, on 31.28 meters or 9.59 mc. will dedicate their program of Wednesday, May 19th, from 7:00 to 10:00 P.M., E.S.T., to the International Short Wave Club and promise a treat to listeners. This was arranged by George W. King, Liverpool, England, with the co-operation of Edward Startz, the famous announcer of PCJ. Everyone should mark this date down.

BOOSTERS

The following people secured new members for the club last month and have earned our appreciation: John Bennett, Brighton, England; F. S. LePavoux, Guernsey, Channell Islands; T. Reed, Stoke-on-Trent, England; E. W. Vandin, Guernsey, Channell Islands; Lee Bregman, New York; Ralph Brewster Williams, Garden City, N. Y.; W. L. Burnham, New York City; H. S. Bradley, Hamilton, N.Y.; John Hager, Woodside, N.Y.



NOW...REAL PERFORMANCE ON 10 METERS!

THE new 10 meter "Super-Pro" introduced only last month has already been acclaimed by experienced amateurs, professional operators and advanced experimenters, as a truly superior ultra-high frequency receiver.

Such is the unanimous verdict because the new "Super-Pro," using two stages of R. F. on all bands, including the 10 meter band, affords a sensitivity of 0.8 micro-volt (30% modulated) with a signal to noise ratio of 6 to 1 on 10 meters! In addition "Super-Pro" image rejection is so high as to provide complete freedom from "two-spot" tuning except in exceedingly rare instances. To be specific, the image rejection ratio on 10 meters is 150 to 1!

The special design of the new "Super-Pro" electrical band spread system permits an exceptional degree of wide band spread on all the popular high frequency channels. "Super-Pro" selectivity is another outstanding feature. With the variable band-width control set at 3 (the most selective position), the band width at 100 times input is only 8.5 kc. With the control set at 15 (the least selective position) the band-width at 100 times input is 24 kc. Every "Super-Pro" is calibrated for direct tuning, on all bands, to

within an accuracy of $\frac{1}{2}\%$. The 10 meter model provides a tuning coverage of from $7\frac{1}{2}$ to 240 meters in five bands.

There are countless other unusual features in this new "Super-Pro," among which are—calibrated band-width, beat oscillator, audio and sensitivity controls; stand-by switch; AVC-Manual switch; CW-Mod. switch; phone-speaker switch; 8 metal and 8 glass tubes; separate humless power supply, etc.

Mail coupon below for illustrated folder!

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424-438 W. 33rd St., New York.

- Please send me new "Super-Pro" booklet.
 Please send me new "37" catalog.

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Address.....

City..... State.....

HAMMARLUND'S 25TH YEAR

