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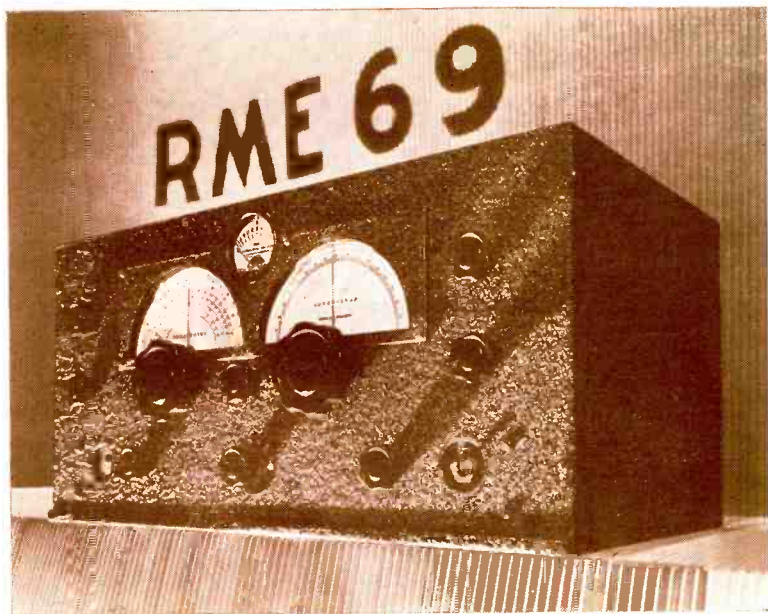


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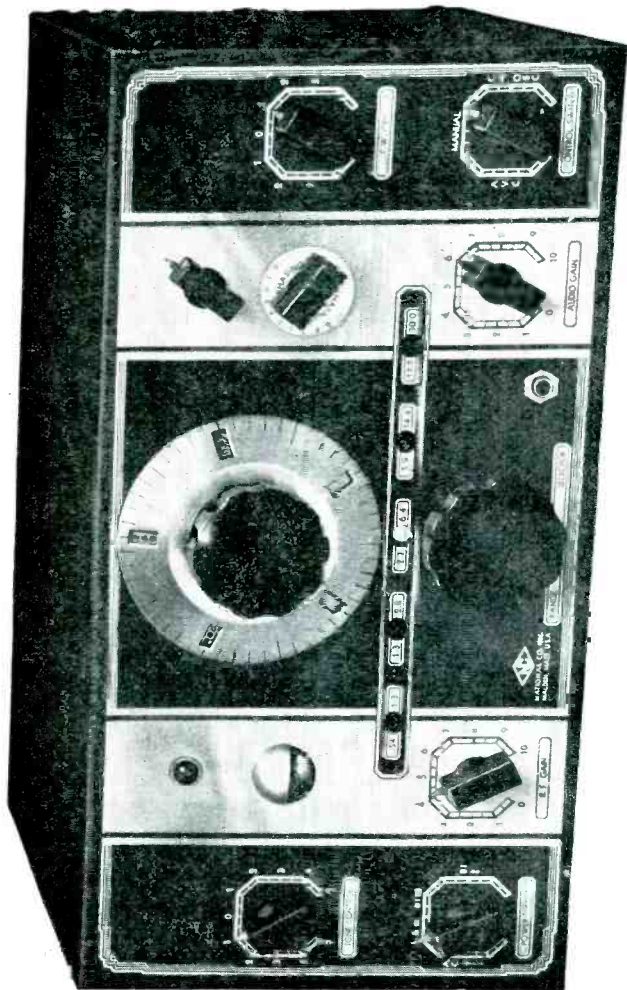
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Readers are asked to be careful not to mistake this organization for others which may have a similar name. This is the original International Short Wave Club and all mail should be addressed to International Short Wave Club, East Liverpool, Ohio.

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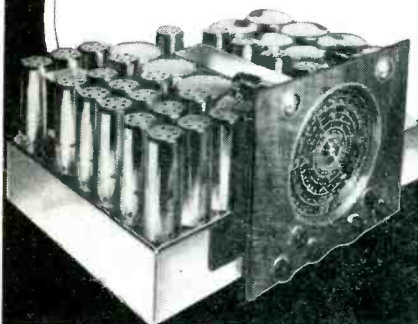
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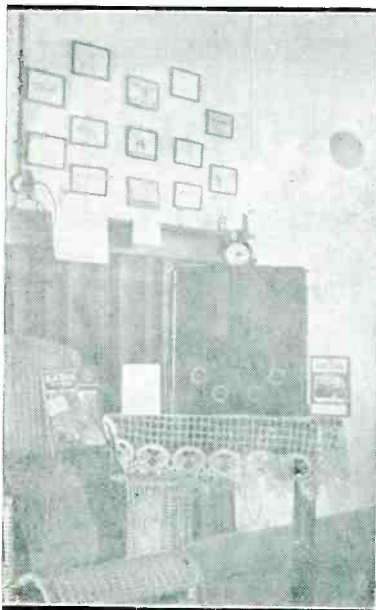
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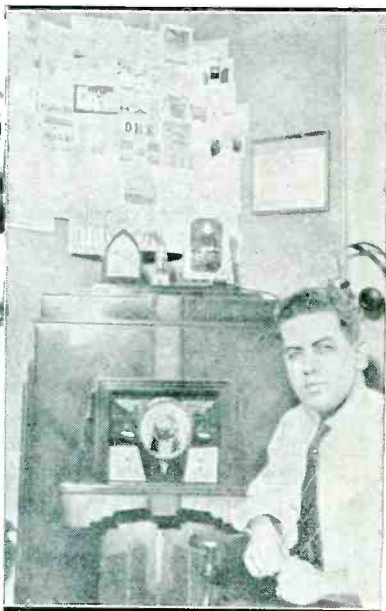
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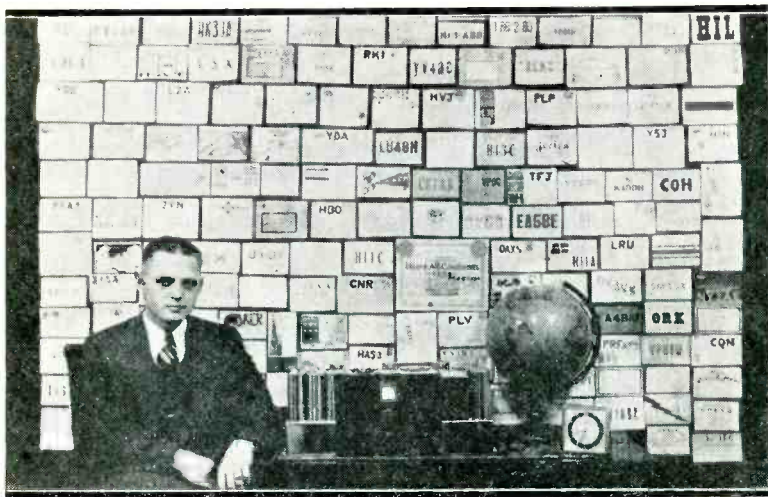


Rene Valdes

The radio on the left is owned by J. J. Kolibonso of Batavia-Centrum, Java. The man seated by the Midwest receiver in the right-hand photo is Rene Valdes of Brooklyn, New York.

MEMBERSHIP CONTEST

The membership contest came to a close on May 31st. The winner, who gets a new Sky-Chief receiver was Richardo F. Rubio, Calle 10 No. 4, Entre 17 y 19, Vedado, Habana, Cuba, with 61 subscribers. Our congratulations to Mr. Rubio and we hope he gets a lot of enjoyment out of his new receiver. Second place and a National SW-5 receiver goes to C. G. Hurtado, Prinsenstraat 91, Curacao, D. W. I., with 50 subscribers. Third place, and two world globes, was won by L. E. Hansen, Durban, Natal, South Africa, with 27 subscribers. Mr. Hansen always manages to come in third in these contests. Fourth place and a globe goes to Walter McMenamy, 749 South Burnside Street, Los Angeles, Calif., with 19 subscribers. Fifth place and another globe goes to Mario Bruscia, 18.75 West 13th Street, Brooklyn, N. Y. Sixth place goes to J. O. Girouard, Veliardsville, Sask., Canada, with 13 points and he gets a globe. Seventh place and another globe goes to Jorge Julia, Box 3695 Santurce, Puerto Rico, with eleven points. Joseph T. Lippincott, Box 2, Tufts College, Mass., has six points.



Dr. R. C. Kash of Staten Island, New York

This very beautiful display of verification cards and letters is owned by Dr. Kash, once of Tennessee, but now of New York.

Wm. Darby, 2 Brian Ave., Marino, Dublin, Ireland, has five points. W. G. Graham, 50 Ferreira St., Johannesburg, Africa, has five. Douglass Worcester, 2424 Ferdinand Ave., Honolulu, has five also. And H. Strick of 57 Harrison St., West Lynn, Mass., has five. Packages of club seals will be sent to all of these. The contest can be classed as a success. The whole thing brought in about three hundred new subscribers. We thank all of those that took part and hope that everyone who was fortunate enough to win a prize will enjoy their prize very much.

The Howard Radio Company of Belmont Avenue, Chicago, informs us that they have been considerably embarrassed by the publicity given the bankruptcy of the Howard Radio Company of New York City. The Howard Company of Chicago, makers of Howard Radios is in no way related to the bankrupt company they claim.

Special News Flash. A new Cuban, COGF, located at Matanzas, and giving address as Betancourt 51, Matanzas. Heard on 11.08 mc. from 12:05 A.M. to 1:30 A.M. Promised varies (Beck, Ill.) Heard at 12:15 noon, and at Matanos, on 11.80 mc. (Edwards, 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

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. Verie came from Wellington, not Auckland. (Chavez, Calif.)

VK9MI on the motor ship Kanimbla is heard on 6.01 mc. between 5:30 and 7:30 A.M. broadcasting programs. A verie from Miss Eileen Foley, announcer in charge, McIlwraith McEacharn, Ltd., Box 255C, Melbourne, Australia, says they have 500 watts power, can operate on 6.01 or 11.71 mc. (Walcott, Calif.)

FO8AA, Radio Oceanie, 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.)

This month VK2ME on 9.59 mc. broadcasts from midnight Saturday night to 2:00 A.M., 5:00 to 9:00 A.M. and 11:30 A.M. to 1:30 P.M. Sunday. VK3ME on 9.50 mc. broadcasts weekdays 4:00 to 7:00 A.M. VK6ME on 9.59 mc. broadcasts weekdays 6:00 to 8:00 A.M. VK3LR veries say they broadcast on 9.58 mc., 3:00 to 8:00 A.M. Sunday to Friday, and 10:00 P.M. Friday to 8:30 A.M. Saturday.

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.

ZLT, Wellington, New Zealand, is heard phoning Australia between 11:00 P.M. and 6:00 A.M. on 11.05 mc. Australia has telephone stations at Sydney operating on 10.52 mc. and 9.76 mc. They are used to phone Java, New Zealand and England. When testing they use the call VK2ME. When working Java they use VLJ. When working England they use VLK. When working New Zealand the call VLZ is used. VLZ was heard on 13.34 mc. at 5:00 A.M. almost daily phoning ships, (Walcott, Calif.) VJI, "The Voice of the Flying Doctor," Box 103, Cloncurry, Queensland, was heard on 8.63 mc. around 5:30 A.M. daily, (Keenan, Australia.) Last month VK2ME

tested with W2XAF on the first Monday of the month. The time was between 6:00 and 7:00 A.M. Reported as VK2MA and on 9.585 mc. (Davenport, Vt.) Was VK2ME and on 10.52 mc. (Wooten, Ala.)

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.; 10:00 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. Address is Box 594, Lourenco, Marques, Portugese 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). They claim 11.95 mc. but heard nearer 11.85 mc. Heard midnight to 12:30 A.M. and 9:45 to 10:30 A.M. (Hansen). Heard on 31.6 meters and 25.4 meters, (Cooke, India).

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 6.48 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.) EA9AH, Tetuan, Spanish Morocco, operated by General Franco's army and known as "Radio Nacional" and "The Voice of the Trenches" is on 14.03 mc. and 7.00 mc., roaming around near these frequencies. They broadcast war news and talk to amateurs all over the world. Try between 2:00 and 9:00 P.M. on 14.03 mc. and between 7:00 and 11:00 P.M. on 7.00 mc. The address is Apartado 124, Tetuan. Verie from Radio Guardia Civil says 45.5 meters or 6.58 mc. (Kash, N. Y.) Heard on 6.48 (Oxrieder).

Canary Islands. EAJ43, Santa Cruz de Teneriffe, is the most powerful station in the Canary Islands. It is on 10.37 mc. between 3:00 and 4:00 P.M. and 6:00 and 10:00 P.M. Many have veries from this one. Amateurs in the Canary Islands are busy broadcasting war news. EA9BJ on 7.12 mc., EA8AS, Teneriffe, on 7.21 mc., EA8AK at Santa Cruz de las Palmas, on 7.12 mc. and EA8AE, las Palmas, on 7.02 mc. are all heard between 7:00 P.M. and midnight. (Legge, Pa.) EA8AE also on 14.07 mc. heard at 7:00 P.M. Is at Puerto de la Luz. (Rossi, Pa.) EA8AT on 14.12 mc. at 4:40 P.M. and EA2BH on 14.05 mc. at 7:00 P.M. were heard, (Kash, N. Y.)

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). Signed off at 9:20 A.M. one Tuesday, (Walcott, Calif.)

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. ZNB, Mafeking, on 5.90 mc. is broadcasting from 1:00 to 2:30 P.M. daily, (Hansen, Durban, Natal).

A verification now says that TPZ is the call of the station on 12.12 mc. at Alger, Algeria, and TPZ2 is the call on 8.96 mc. Both phone Paris irregularly and lately the one on 12.12 mc. has been broadcasting almost every afternoon between 3:30 and 4:30 P.M. (Rossi, Pa.; Legge, Pa.) Same only heard 4:30 to 5:30 P.M. (Armstrong, N. Y.) Verie the same (Studholme, Eng.; Stempel, Conn.) 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.) A new phone on 8.90 mc. relayed Cape Town broadcast between 9:00 and 10:45 A.M. and asked for reports to be mailed to Chief Engineer, P. O. Box 962, Cape Town. (Walcott, Calif.) Verie says call of station on 15.43 mc. is IUD. (Oxrider, Pa.) Others say IUG.

ASIA

Rangoon, Burma. A station operated by the Government was heard first on 6.085 mc., then on 6.14 mc. and lately on 6.005 mc. broadcasting between 9:00 and 9:35 A.M. daily, (Walcott, Calif.) A new phone 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 12.84 mc. and they phone VVN, Madras Fort, India, which is on 13.26 mc. Heard 5:00 to 6:30 A.M. (Keena, Australia). VVS heard on 12.87 mc., not 84, 6:00 to 7:30 A.M. (Walcott, Calif.) VVS heard on 12.84 Mondays and Saturdays 5:00 to 6:35 A.M. (Karpen, Pa.)

India. VUB, Bombay, on 9.59 mc. has been off the air since January. A station in the Palace at Mysore has 40 to 50 watts power and operate whenever His Highness orders according to a letter received by Norman Baynes of Bangalore, India, from the operator. It is on 49.30 meters or 6.085 mc. Now heard Monday, Wednesday and Friday 9:00 to 11:30 A.M. and other days except Sunday 8:00 to 10:30 A.M. (Cooke, India). Another station operated by a Dr. Gopalaney, location not given in report, is on 49.00 meters or 6.12 mc. and 42.00 meters (Cooke, India).

Japan. The latest schedule sent out by the Japanese follows: For West Coast of America from midnight to 1:00 A.M. over JZJ on 11.80 mc. For Asia all day over JVN on 10.66 mc., JVH on 14.60 mc., JVP on 7.51 mc. or JVT on 6.75 mc. For Europe daily 2:30 to 3:30 P.M. over JZJ on 11.80 and JVM on 10.74 mc. For North America daily 4:00 to 5:00 P.M.

over JZJ on 11.80 and JVN on 10.66 mc. For Hawaii, etc., daily 8:00 to 9:00 A.M. (This is a mistake on the part of the station as they are really on from 9:00 to 10:00 A.M.) over JZJ on 11:80 mc. and JZI on 9.53 mc. (Scala, Stockbridge, Fuller, Brantley and Arickx). Station JZK on 15.16 mc. is used many times from 9:00 to 10:00 A.M. in place of JZI. JZK was also heard at 8:00 P.M. once (Gallagher, Calif.) JVN also broadcasts baseball games several times weekly around 1:00 to 3:00 A.M. (Gallagher, Calif.) JZJ heard around 3:00 A.M. often. (Shaffer, Iowa.) Member Shokichi visited the studios of JZJ once during a broadcast. They print a monthly magazine with their daily programs printed in English and Japanese and one was sent to us.

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.) A phone at Taihoku, Taiwan, on 9.62 mc. phoned JYT, Kemikama-Cho, Japan (on 15.74 mc.) once, 4:30 to 9:30 A.M. (Walcott). JYT on 9.87 mc. phoned KQZ Bolinas, Calif. (17.94 mc.) at 6:10 P.M. once and stations JBO and JBB tested with WLL and WET New York at 2:00 P.M. once (Shaffer, Iowa). We believe he means JVO on 10.37 and JVB on 18.19 mc.

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). Is on 17.70 mc. with music evenings, (Riggle, Ohio).

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. YDB now between VPD2 and W1XK on 9.55 mc. (Walcott, Oxrieder, Chavez, Kindall). PMN on 10.26 mc., not 10.28 (Oxrieder).

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).

HS8PJ, Bangkok, Siam, announced last month they were not broadcasting on 19.02 mc. longer, and they were changing their schedule on 9:35 mc. But we have three different schedules now, all supposed to be correct. One is Thursdays 8:00 to 10:00 A.M. and 1:00 to 2:30 A.M. (Headley, Minn.) Another is Mondays 8:00 to 10:00 A.M. on 9.35 mc. and Fridays 1:00 to 2:30 P.M. afternoon, (Kindall, New Zealand). Still another is Mondays 8:00 to 10:00 A.M. and Saturdays 1:00 to 2:30 P.M. (Walcott, Calif.) Better get together boys. A Bangkok phone on 19.02 mc. was heard 11:15 to 4:30 A.M. calling JVE, (Walcott).

CQN, Macao, Portugese China, has moved again. This time it is 10.135 mc. and they broadcast Mondays and Fridays 7:00 to 8:30 A.M. (Walcott, Calif.) This station has been on 9.60 mc., 10.20 mc., 9.94 mc. and 10.135 mc. inside of two months time.

Chinese Phones. Here are some phones that were just added to our station list. XTU, Canton, on 12.07 mc. works 2:00 to 9:30 A.M. XTS, Swatow, on 11.47 mc. works 2:45 to 9:40 A.M. XTR, Swatow, on 9.36 mc. works 1:00 to 10:00 A.M. XTK, Hankow, on 9.08 mc. works 4:00 to 9:30 A.M. XGS, Shanghai, on 18.69 mc. heard once 7:00 to 8:00 A.M. XTV, Canton, on 9.30 and aslo 9.50 mc. heard 6:00 to 11:00 A.M. XTL, Hankow, on 5.48 mc. heard once 8:00 to 9:00 A.M. XTB, Shanghai, not Lunghwa, on 11.415 mc. heard daily 3:00 to 9:30 A.M. We thank Ashley Walcott for this list.

Hong Kong. Letters from ZBW say that the test period is over and they will no longer verify, (Atherton, Wayand, Baines, Teague). Now using ZBW3 on 9.53 mc. most of the time. ZBW4 on 15.19 mc. heard once, (Wooten, Ala. and Sokolovsky, Palestine). Heard between 5:00 and 10:00 A. M.

Saigon. The station announcing as "Radio Philco" at times and "Ici Station Boy Landry" is roaming around between 11.705 mc. and 11.75 mc. and between 6.055 mc. and 5.945 mc. Recently it settled down near 11.73 mc. and 5.985 mc. They use English at times now and broadcast between 4:30 A.M. and 9:30 A.M. coming on the air any time between 4:30 and 6:30 A.M. They announced address as P. O. Box 295, Saigon, Indo-China, (Walcott, Calif.) On 11.71 mc. and signs off at 8:30, (Purkey, Calif.) An Indo-China station on 7.48 mc. uses French daily 6:00 to 9:30 A.M. Plays Chinese music 6:00 to 7:30 A.M. and French afterward, (Walcott, Calif.)

Siberia, U. S. S. R. Station RV15 has harmonics heard better than the original wave on about 8.54 mc. and 12.81 mc. They are heard between 1:00 and 6:00 A.M. The original wave is 4.27 mc. (Walcott, Calif.) Harmonic of 12.75 heard, (Kindall, New Zealand). Some Siberian phones reported are RCH Kerbi, on 15.01 mc. midnight to around 3:00 A.M. and RFM Khabarovsk, on 11.82 mc., 8:00 to 10:00 A.M. Also the following, whose locations we do not know. RIA on 11.70 mc. at 7:45 A.M., RWG on 14.72 mc. mornings, RIB on 15.80 mc. mornings. RTD on 13.365 mc. near 11:00 P.M. RAH on 14.945 mc. mornings and RXG on 15.045 mc. mornings. One on 16.39 mc. broadcasting music three days between 10:00 P.M. and 7:00 A.M. (Karpen, Pa.) RFM on 11.82 mc. relayed RV15 program one day 8:00 to 10:00 A.M. and next day a station on 12.365 mc. was heard at the same time, (Walcott, Calif.)

VPB, Colombo, Ceylon, has moved again, this time to 6.115 mc. where they broadcast daily 7:00 to 9:30 A.M. (Walcott, Calif.)

ZGE, Kuala Lumpur, Federated Malay States, has moved from 6.21 to 6.23 mc. and is heard Sundays, Tuesdays and Fridays 6:40 to 8:40 A.M. (Walcott, Calif.) ZHJ, Penang, operated by Penang Wireless Society, 40 Park Road, moved to 6.055 mc., almost on top of W8XAL and is heard weekdays 6:40 to 8:40 A.M. (Walcott, Calif.) Is on the air 7:40 to 9:40 A.M., not 6:40 to 8:40, (Purkey, Calif.) ZHI, Singapore is off the air. A phone, ZJD on 13.63 mc. called Siam 5:00 to 6:00 A.M. one Tuesday, Karpen, Pa.) Call is ZGB, not ZJD and on 13.643 not 13.63. Heard at 9:00 A.M. (Walcott, Calif.) On 13.63 mc., call is ZJD and also on 8.95 mc with call ZJB, (Cooks, India).

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 Umbert 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 Cuzco," 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 International, 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 Umbert F., Tacna 112, Ica.

Additions and corrections to the above follow: A letter from OAX4I says their short wave call is OAX4J on 9.52 mc. and the schedule is daily noon to 3:00 P.M. and 5:00 P.M. to 1:00 AM., signed by Antonio P. Vazquez, Casilla 1166, Lima. However, the station is on 9.33 or 9.34 mc. (Shaffer, Iowa; Legge, Pa.; Pegge, England; Oxrieder, Pa.) OAX4Z is on 6.08 not 6.09 mc. (Oxrieder). Heard till 11:30 P.M. (Kindall, New Zealand). OAX1A on 6.16 mc. closes down at midnight (Kindall). One verie said OAX1A was on 6.15 mc. and another said OAX1B was, but station is heard on 6.175 mc. (Rossi, Pa.) A new station OAX4P is on 5.975 mc. daily 8:00 to 11:00 P.M. The slogan is "La Voz de Huancayo" and "Radio Andina Junin" and address is Apartado 187, Huancayo, Peru (Rossi. Pa.; Oxrieder, Pa.) An amateur was heard to say that OCK an airway station on 8.55 mc.

and an OCL work 1:00 to 2:00 P.M. and 7:30 to 8:00 P.M. and sometimes 9:00 to 10:00 A.M. (Walcott, Calif.)

Colombia. HJN will be closed down until a new transmitter is completed according to letter from Ministerio de Educacion Nacional (Beck, Ill.) HJ1ABB, Brranquilla moved to 4.78 mc. and HJ2ABC moved to 4.79 mc. (Bell, Walcott, Flag and Oxrieder). We do not expect them to remain there with summer static coming on—Editor. HJ1ABP on 9.62 mc. sends special "American Hour" Saturdays 10:00 to 11:00 P.M. (Fortune, Pa.) HJ1ABE on 9.50 mc. sends one to radio clubs Mondays from 11:00 P.M. on. HJ4ABD, on 5.97 mc. was heard at 6:27 P.M. when schedules says 8:00 to 11:30 P.M. (Sokolovsky, Palestine). HJ4ABP on 6.03 mc. uses a new slogan "Estacion Claridad" now instead of "Emisora Philco." Gives English program Saturdays 11:00 P.M. to midnight, (Pegge, England).

Venezuela. New station YV6RC, Ciudad, Bolivar, on an announced frequency of 6.42 mc. heard several times around 8:00 P.M. testing, (Rossi, Pa.; Oxrieder, Pa.) YV5RJ, Caracas, called "La Voz de la Esfera" and owned by newspaper called "Diaro de Esfera" is on 6.255 mc. relaying YV5RI between 5:30 and 11:00 P.M. (Rossi, Pa.; Bradley, Md.; Atherton, Vt.; Pegge, England; Gallagher, Calif.) YV1RL, "Radio Popular," on 5.93 mc. is owned by Jose A. Higuera, Apartado 247, Maracaibc, and broadcast weekdays 11:15 A.M. to 1:15 P.M. and 4:45 P.M. to 9:45 P.M. and Sundays 8:45 to 2:45 P.M. YV5RP, "Radio Philco," Caracas, on 6.27 says they relay YV5RQ and address is Apartado 508. Heard until 11:00 P.M. when schedule says 9:30 P.M. (Walmsley, Calif.)

ZP10, Asuncion, Paraguay, which was supposed to have been closed down by the government long ago was heard on 8.10 mc. calling PSK Brazil, April 27th, at 11:50 P.M. (Beck, Ill.) Was originally on 6.65 mc.—Editor.

Chile. This station on 12.30 mc. is odd. They have announced, and we feel sure of it as "C in Chile, E as in England and B as in Boston," and also as "CE3AG" and as "CB615." According to the rules set down, CB615 should be on 6.15 mc., just as the call signifies. Now they send veries saying their call is CB615, their address is Casilla 761, Santiago, Chile, (Arickx, Belgium and Dean, Conn.)

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 Floriano, Rio de Janeiro. (Mascarenhas, Brazil.) Heard between 7:00 and 8:15 P.M. (Fuller, Quebec; Oxrieder, Pa.; Studholme, England).

Ecuador. The call of the station on 9.44 mc. announcing "La Voz de Alma" is HCODA, (Karpen and Rossi). Is HC2OBA, (Flagg). A new station, HC1EC, Quito, heard on 8.60 mc. testing and said would broadcast regularly soon, (Rossi, Pa.) Verie from HC2JSB on 7.85 mc. says 11:00 A.M. to 2:00 P.M. and 4:00 to 11:00 P.M. daily. Previous veries said 9:00 A.M. to 2:00 P.M. (Studholme, England). HCK, Quito, is on 7.52 mc. Saturdays around 10:00 P.M. now, (Rossi, Pa.) HC2CW is moving around between 8.25 and 8.40 mc.

British Guiana. VP3MR, Georgetown, moved to 6.05 mc. (Studholme, England). Heard on 6.064 mc. once, (Oxrieder, Pa.) Veries say 49.42 meters or 6.07 mc. now, and schedule is weekdays 5:30 to 9:30 P.M., B.G.T., or 4:15 to 8:15 P.M., E.S.T., and Sundays 9:00 A.M. to 12:00 B.G.T., or 8:45 to 10:45 A.M., E.S.T. (Stockbridge, Mass.)

Dutch Guiana. Station PZH, Paramaribo, has moved from 7:00 mc. to 6.788 mc. (Oxrieder, Pa.) This station operates between 3:00 and 8:45 P.M. and is very hard to land, so we do not suggest trying for it unless you have a good receiver.

THE EUROPEANS

England. For the coronation, Daventry used six short wave transmitters. The program started at 4:15 A.M. coronation day and lasted till Thursday at 2:30 A.M. A list of these stations would be of little help now since they have a new schedule. They now use four transmitters instead of two at Daventry for their regular daily broadcasts. At the time of the coronation, dozens of Rugby telephone stations carried the ceremony to different parts of the world. Many American, Australian and European short wave stations also carried the program, resulting in many reports. For the actual Daventry stations used, we thank member McLaughlin of New York, and Wooten of Alabama. A letter to us says that a statement appearing in Short Wave and Television saying that a verification from GSC had been received, is not correct. The B. B. C. steadfastly refuses to verify. (Cavileer, N. J.) Three new frequencies were used during the coronation. They were GST on 21.55 mc., GSJ on 21.53 mc. and GSP on 15.31 mc. The schedule now in use follows:

21.53 mc.—GSJ, 6:00 to 8:45 A.M. and 9:00 to noon.

21.47 mc.—GSH, 6:00 to 8:45 A.M. and 9:00 to noon.

17.79 mc.—GSG, 12:00 to 2:15 A.M., 6:00 A.M. to noon, 12:40 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. and 9:00 to 11:00 P.M.

15.18 mc.—GSO, 12:00 to 2:15 A.M., 12:15 to 3:45 P.M., 6:00 to 8:00 P.M., 9:00 to 11:00 P.M.

15.14 mc.—9:00 A.M. to noon, 4:00 to 5:45 P.M. 9:00 to 11:00 P.M.

11.75 mc.—GSD, 12:00 to 2:15 A.M., 12:15 to 3:45 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., 6:00 to 8:00 P.M.

Communist Stations. Within recent months a station, or stations, has been heard broadcasting for Communist listeners. Because they change wavelengths from time to time in order to avoid interference from what appears to be purposely-made signals, we do not list these stations. At the present time here is the schedule and waves. From 4:00 to 4:55 P.M. they are on 10.07 mc. for Germans, and sometimes on 9.84 mc. From 5:00 to 5:45 P.M. they are on two waves, 10.43 mc. and 10.62 mc. for Italians. From 6:00 to 6:55 P.M. they are on 9.53 mc. From 7:00 to 8:00 P.M. they are on three waves, using some of the following: 10.30 mc., 9.45 mc., 7.32 mc., 9.52 mc or 7.40 mc. This one is in French. One report says the

address is 25 Liberte, Paris, France, (Rossi, Pa.) Another is State Aperaio 25, Rue d'Alsace, Paris, 10, France (Studholme, England). Another is 25 Rue de Ansaca, Paris. (Scala, N. Y.) The station is also reported by McLaughlin of New York, and Seymour of Maryland.

France. A new phone TYE2 on 18.09 mc. phones U.S.A. daily between 7:00 A.M. and 3:00 P.M. and sent special programs May 16th at 2:00 P.M. and May 19th at 3:00 P.M. (Karpen, Pa.)

Portugal. CSW, Lisbon, veries say they broadcast on 11.04 mc. from noon to 6:00 P.M. and on 9.94 mc. from 6:00 to 8:00 P.M., but recently they have been on 11.04 from 4:00 to 7:00 P.M. and on 9.94 from 7:00 to 8:00 P.M. (Atherton and Oxrieder). CT1AA, since they tested on 12.12 mc. has had trouble locating 9.65 mc. and are many times as high as 9.67 mc. and as low as 9.63. They broadcast Tuesdays, Thursdays and Saturdays 4:00 to 7:00 P.M. and some Sundays around noon to 3:00 P.M. on 12.12 mc.

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, Zdpovsdny 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.

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. These take place from 7:00 to 8:15 P.M. on the 14th and last day of the month. 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. PDK, a phone at Kootwijk, on 10.42 mc. was heard sending music 1:30 to 1:45 A.M. almost every day, (Cooke, India). PCJ is heard till 11:16 P.M. Wednesdays, (Eder, Minn.

Sweden. SM5SX has been replaced by a new station at Motala using the call SBG and they operate on 11.70 mc. from 1:20 A.M. to 11:00 A.M. at intervals, from 11:00 A.M. to 1:30 P.M. regularly and then go to 6.06 mc.

from 1:30 to 5:00 P.M. It has 1 kw. power, (Studholm, England). Verifications sent to SM5SX brought replies from Motala saying they had 500 watts power and were on 25.63 meters and 49.46 meters relaying almost all the Swedish programs, (Nelleman, Ill.; Trisdorfer, N. Y.; Stark, Mo.; Chavez, Calif.; Walmsley, Calif). Americans should try on 11.70 mc. around 1:20 and 2:00 A.M.

Denmark. OXY is now on 11.805 mc. and 6.06 mc. testing irregularly from 1:30 P.M. on, (Studholme, England). Is on 25.5 meters and 31.5 meters between 2:00 P.M. and 4:00 P.M. and on 49.5 meters from 3:00 to 6:30 P.M. (Lindbergh, Sweden). Heard on 11.72, (Mascarenhas, Brazil).

Iceland. TFJ on 12.24 mc. broadcast a Denmark celebration at 4:30 P.M., May 15th and another station on 12.40 mc. was heard with the same program. Later on, at 5:00 P.M. and again at 8:40 P.M. they phoned each

Norway. Verifications from LKJ1, Jeloy says they are on 6.13 mc. 11:00 A.M. to 6:00 P.M. but member Orchard of England insists they are on about 6.08 mc.

Germany. The programs scheduled for June follow:

- 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.—DJI—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, 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). Heard at 2:00 P.M. (Studholme, England). A phone, DAF on 8.765 mc. phoned the ship "Cap Ancona" 6:00 to 8:17 A.M. once (Studholme). Station DJT on 15.36 mc. heard at 7:40 P.M. DJO on 11.79 mc. heard at 6:50 P.M. and one near 14.30 mc., below DZH, heard between 9:00 and 10:45 P.M. signing off with German National Anthem. (Eder, Minn.)

The U. S. S. R. RNE on 12.00 mc. broadcasts daily 2:00 to 5:00 or 6:00 P.M., Sundays 6:00 to 7:00 A.M. and 10:00 to 11:00 P.M. and Wednesdays 6:00 to 7:00 A.M. RAN on 9.60 mc. broadcasts daily 7:00 to 9:15 P.M. They send out a free bulletin showing the English speaking programs and many believe this is their complete schedule, but it is not. They also have

programs in German, French and other languages. RAN returned International Postage coupon (Verbrughe, Mich). RKI, a phone on 15.08 mc. broadcasted 3:00 to 3:40 P.M. once and 4:10 to 4:40 P.M. once. A new phone called "Radio Staritia" heard on 14.63 mc. heard once 8:30 A.M. to noon, once 1:00 to 1:30 P. M. and once 4:10 to 4:40 P.M. broadcasting. Another on 14.68 mc. and one on 11.88 mc heard along with RNE one Monday 7:30 to 8:10 A.M. One on 17.95 broadcasting 6:55 to 7:35 A.M. One on 9.06 at 5:00 P.M. and one on 9.19 mc. at 3:00 P.M. all reported by Studholme, England. RNE and RKI sent special to U.S.A. May 12th noon to 12:30 P.M. (Karpen, Pa.)

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 Nacionalistes 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.) PSU1 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.; FE1, 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) Radio AZ on 7.00 and 14.00 mc is operated by General Franco's troops surrounding Madrid, (Field, England). EAP1 on 7.08 mc. hard at 12:23 A.M. (Seymour, Md). EA2CE, Civil War Station at Aragon, near Bilboa heard 1:30 to 2:30 P.M. (Studholme, England). The announcer at EAQ said that many stations claiming to be Spanish stations are really in Italy, (Hofmaster, Ohio). EAQ and EAQ2 on 9.86 and 9.49 mc. broadcast from noon to 9:30 P.M. and as late as 11:45 P.M. at times. Both are powerful stations and if one is not heard, you can surely hear the other. They have used the calls EAQ2, EAR and EAF on 9.49 mc. Every short wave listener has heard these stations.

Switzerland. A letter says that every Saturday HBL and HBP broad-

cast from 5:30 to 6:00 P.M. HBJ and HBO broadcast 6:45 to 8:00 P.M. (Roberts, Ind.) 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 HBO heard Saturdays 6:45 to 8:00 P.M. (Walmsley, Calif.) Heard till 8:45 P.M. (Purkey, Calif.)

Poland. A station SPAO, announcing "Post Telegraph Radiofonie, Warsaw, was heard on 13.50 mc. one Thursday 5:15 to 6:20 A.M. A verie from SPICC confirms reception of SPF, Glynia, and said they were on 8.235 mc. at 11:30 A.M. (Studholme, England).

LZA, Sofia, Bulgaria, verie says 14.97 mc. weekdays 6:00 A.M. to 7:30 A.M. and 1:00 P.M. to 3:45 P.M., Sundays and Holidays 1:00 A.M. to 5:30 P.M. (Stark, Mo.; Oxrieder, Pa.; Field, England, and Beck, Ill.) Many Americans have heard this one Sundays between 12:30 A.M. and 1:30 A.M.

Italy. 2RO, Rome, will be replaced in 1938 by a new 100 kw. transmitter, (Aricx, Belgium). A bulletin from 2RO says they are on 11.81 mc. from 6:43 A.M. to 12:30 P.M. and on 9.64 mc. from 12:45 to 5:45 P.M. daily and every day except Sunday on 9.64 mc. from 6:00 to 7:45 P.M. However, they say they may be on 11.81 mc. instead of 9.64 when scheduled. So, if you miss 2RO on 9.64 mc. always tune to 11.81. On May 9th they broadcast a special program on 11.81 mc. between 4:45 and 7:00 A.M. (Studholme).

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.

CENTRAL AMERICANS

Guatemala. TG2, Guatemala City, on 6.31 mc. is a station that tests irregularly between 5:00 and 12:00 P.M. relaying a station TG1. As a rule they are heard around midnight, but have been heard at 5:00 P.M. Send reports to Director General Electrical Communications. (Gallagher, Rossi, Roberts, Chavez.) Heard with special program 11:00 A.M. to 1:00 P.M. once. (Davenport)

Nicaragua. A verie from "La Voz de la Pilot" gives call as YN1PR and frequency as 8.65 mc. but heard on 8.60. (Rossi, Pa.) Uses call YNPR, heard on 8.58. (Roberts, Ind.) Call YNPR on 8.65. (Purkey, California.) Moves between 8:60 and 8.67—Editor. YNOP, Managua, "Radiodifusora Bayer," is on 5.758 mc. weekdays 8:30 to 10:30 P.M. with 1 kw. power. International postage coupons no good and three cent stamp should be sent. (Beck, Ill.) Is really on 5.76—Editor.

Costa Rica. A new station at San Jose is on 5.795 mc. with call like TI2H, goes off 10:00 P.M. (Oxrieder, Pa.) TI2RS, "Radiomisorora Athenea" San Jose, verie says 6.90 mc., signed by Rozelio Sotela, proprietor, but

gives no schedule. (Quayle, Canal Zone.) Reads reports Saturdays at 10:30 P.M., heard on 6.88 mc. (Rossi, Pa.) Is on 6.88 mc., 7.00 and 7.10 mc. at different times. (Rossi.) TILS, Box 3, is "Radio Parati," verie says 5.80 mc. (Quayle, Canal Zone.) A TIVL or TIVLA, San Jose, on 6.80 mc. heard at 12:15 A.M. (Beck, Ill.) TI4NRH, Heredia, tested on 9.66 mc. and the 9.69 mc. once 12:25 to 1:05 A.M. (Shaffar, Iowa.)

Panama. A new station on 6.05 mc. heard often 7:00 to 10:00 P.M., going off the air at 10:00 P.M. (Oxrieder, Pa.) A letter from Leo Marcosky Cia Chiricana Radiodifusora y Television, Apartado 129, David, Chicigui, Panama, says HP5L would open up on 11.74 mc. in March. Is anyone hearing it? HP5I, Aguadulce, verie says they are on 11.895 mc. 7:30 to 9:30 P.M. daily.

XETM, apartado 74, Villa Hermosa, Tabasco, on 11.52 mc. is a brand new station heard between 7:00 and 11:00 P.M. (Rossi and Oxrieder, Pa.) Is XETN, apartado 24 and heard until Midnight. (Verbrughe, Jr., Mich.) Remember a letter from XET at Monterrey saying they would be on 11.75 mc. reported last month by Member Walcott?

XEW or XEEO called "Radio Libertad" heard on 9.49 or 9.50 mc. daily 7:00 to 8:00 P.M. (Beck, Ill.) This sounds like the French communist station mentioned under European news—Editor. However, member Shaffar of Iowa also reports XEW carrying a program heard also on 8.65 mc. and 10.45 mc. announcing many calls till 12:30 A.M. XEDQ falls on 9.49 mc. also—Editor.

XEAW, new station heard on 8.63 mc. between 8:00 and 10:00 P.M. (Erwin, Ill.) Is at Vera Cruz, on 8.63, heard 9:00 P.M. to 12:50 A.M. using slogan "Auditorio del Continent." (Rossi, Pa.)

XEUW another new one is on 11.41 mc., but was on 11.33 mc. and 11.38 mc. testing around 10:00 P.M. and gave address as apartado 3808, Guadalajara, Jalisco, Mexico. (Rossi, Pa.) Heard on 11.33. (Oxrieder, Pa.)

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, Flag, Field).

KEYU, Mexico City. This one was on 9.60 mc. in April announcing the National University of Mexico, Napoles 60, Mexico City. It was heard between 9:00 P.M. and 2:30 A.M. Now a letter says the station is owned by Ramon de la Barrera and it is an amateur on 40 meters as XE1BU, but they experimented on 9.60 mc. with 500 watts and the University of Mexico was not mentioned in the letter (Chavez, Calif.) Heard till 2:47 A.M. (Kindell, New Zealand).

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). Verie says power increased April 10th, (Pegge, England).

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. verie says Aparatdo 78 (Chavez, Calif.) Usually heard 8:00 to 10:00 P.M. weekdays and all day Sunday.

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.)

WEST INDIES

Curacao. A verie from PJCI, Willemstad, Caracao, says they have 150 watts power, the station is owned by the government but under the supervision of the Curacao Radio Vereeniging, is on 50.60 meters or 5.93 mc. and the schedule is weekdays 7:00 to 9:00 P.M. local time which is 6:36 to 8:36 P.M., E.S.T. This came direct from the station. This station was also heard on 9.46 mc. for a time, and it is said they are waiting for a crystal and then they will be on this frequency often. Veries have been reported by members Flagg and Oxrieder. Is on 5.95 mc. (Oxrieder).

Martinique. What has happened to "Radio Fort de France?" They were on 9.36 mc. and veries said they were on from 11:30 A.M. to 12:30 P.M. and 6:15 to 7:15 and 8:00 to 9:00 P.M. They disappeared and then just as suddenly appeared again on 12.50 mc. just once. Who hears it now?

Cuba. Old CO9JQ has changed their call to COJK and it has been on 8.665 mc. testing, broadcasting and phoning amateurs under this call for the past month. It was heard between 7:00 and 10:00 P.M. (Roberts, Dean, Legge, Erwin, Gallagher, Teague, Rossi, Oxrieder). A station CO9XX, operated by that well-known amateur, Frank Jones, of Tuninucu, Cuba, was on 15.55 mc. testing last month several times between 5:00 and 8:00 P.M. (Roberts, Ind. Kash, N.Y.; Rossi, Pa.; Oxrieder, Pa.) On 15.50 from 7:00 to 9:00 P.M. (Teague, Mich.) on 15.50, (Kash, N.Y.) On 15.48, (Shaffer, Iowa). COCO, Havana, on 6.00 mc. has a strong harmonic on 12.00 mc. COCD sends a special DX program Sundays 1:00 to 3:00 A.M.

HH2T, Port-Au-Prince, after a year, was heard on 11.57 mc. again April 26th at 9:30 P.M. (Beck, Ill.)

Dominican Republic. Everyone should know that HI1X, on 6.34 mc., HI2X on 11.96 mc. both broadcast Tuesdays and Fridays 8:10 to 10:00 P.M. and HI3X on 15.27 mc. broadcasts Sundays 7:40 to 10:40 A.M. A verie says HI3X broadcasts Sundays 7:40 to 10:40 A.M. and the rest of the week between 12:10 and 1:10 P.M. (Legge, Pa.) HIN on 6.24 mc. causes some argument. Some say they have a harmonic on 12.48 mc. others that it is not a harmonic and it is on 12.56 and one says it is on 12.50 and not a harmonic. Those in favor of harmonic are Eder, Fuller, Beck and those against are Shaffer and Walmsley. Schedule is 7:20 to 9:20 P.M., but heard between 5:00 and 7:00 P.M. A station HI5G, Conception de la Vege, on 31.58 meters or 9.50 mc. was heard between 5:45 P.M. and 5:55 P.M., the only time it is free of interference, (Flagg, Mass.) HI3U on 6.02 mc. signed off four days, going at 7:50 P.M. and was not

on from 7:50 to 10:30 P.M. as they showed their schedule in veries, (Pegge, England).

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.) HI7P verie says 7.80 mc. daily 12:40 to 1:40 P.M. and 6:40 to 8:40 P.M. and Sundays 9:40 to 10:40 A.M., address Calle Jose Reyes No. 34, Ciudad, Trujillo, (Orchard, Kash, Bradley). Heard on 6.78 mc. till 9:50 P.M. (Purkey, Calif.)

NORTH AMERICA

From the National Broadcasting Company and the Columbia Broadcasting System we have received the new schedules for all short wave stations used by these chains. Our station list has been changed to conform with these schedules, so we will not take time to show them here. One outstanding thing is that W2XAD has increased their power to 180 kw. and W2XAF to 250 kw. Which should make W2XAF about the most powerful station in the world on short waves. We have also received the schedules of stations W1XAL, Boston; CRCX, Toronto; CFCX, Montreal, and have made changes. This makes our North American list quite up-to-date and correct. We believe that VE9DN on 6.00 mc. will be off the air till fall, since they usually close down for the summer. VE9HX, Halifax, on 6.13 mc. was heard at 7:30 A. M. when schedule says 9:30 A.M. (Davenport, Vermont). CFRX on 6.07 mc. was heard at 7:30 A.M. when the schedule says 10:00 A.M. to 11:00 P.M. (Davenport). CFRX heard signing off at midnight, not 11:00 P.M. (Pegge, England).

Phones and experimental stations. W2XGB, Press Wireless, Hicksville, New York, on 17.31 mc. was heard relaying WOR many afternoons, (Shaffer, Iowa). Was heard at 9:00 P.M. (Gallagher, Calif.) NZW, a U. S. naval station at Norfolk, Virginia, on 6.63 mc. was heard testing with stations 52A and 53A giving weather reports at 6:50 P.M. (Seymour, Md.) KMBS or KFBS on the yacht "Mascot" near 8.00 mc. was heard phoning WOO, (8.55) at 7:25 P.M. (Atherton, Vt.) A plane KAHZT on 12.86 mc. was heard phoning KBL, (9.49 mc.), 2:00 to 3:00 P.M. (Walcott, Calif.) Army stations are heard near 5.72 and 5.74 mc. phoning almost any time. They use odd calls like JL2, etc. A new phone KWN, Dixon, Calif., was heard on 21.06 mc. at 8:15 P.M. once, (Walcott).

EXPERIMENTAL

A station W10XGY is on the yacht "Elano" at Pearl Harbor, Hawaii, and is on 12.90 mc. (Herzog, N. Y.) Is heard at 4:00 P.M. almost daily on 12.86 mc. and also uses 12.26 mc. and 6.425 mc. around 10:00 to 11:00 P.M. (Rossi, Pa.) WMEF on the yacht "Avocet" off Canton Island, Phoenix Island, Pacific Ocean, on 17.31 mc. sent special program via KKW, California, 11:15 to 11:30 P.M. once, (Walcott, Calif.) W10XGY is on the yacht "Torano" (Walcott). Member McLaughlin of New York insists the ship "Conte Rosso" is not on voice, although it was reported to us.

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—W8XAI, 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.
- 41.00—W2XGH, Schenectady, N. Y., daily 8:00 A.M. to 11:00 P.M.
- 55.50—W8XK, Pittsburgh, Pa., daily 1:00 to 9:00 P.M.
- 55.50—W1XKA, Boston, Mass., daily 6:00 A.M. to midnight, Sundays starts at 8:00 A.M.

Most of this information comes from member Studholme of England. A station KBCH, U. S. Forestry Service, 4 miles north of Pasadena, Calif., is on 30.57 mc. and appeared May 20th, (Lane, Calif.) W3XEY schedule is noon to 5:00 P.M. and W3XES keeps no schedule, (Base, Md.) W3XEY relays WEBR and address is 7 St. Paul St., Baltimore. W9XJL verie says they relay WEBC. Address is Heard of the Lakes Bcd. Co., Superior, Wisc. (Studholme). A station W4XCA relays WMC daily 7:30 A.M. to 11:00 P.M. WMC is at Memphis, Tennessee.

BOOSTERS

We are grateful to the following people for having secured new members for the club since our last issue was published: Mrs. Oram Sheperd, Andover, Mass.; Miss Eileen Hofmaster, Sandusky, Ohio; W. R. Squires, Brooklyn, N. Y.; Dixon Russell, Baltimore, Md.; Carl and Anne Eder, Willmar, Minn.; DX Radio Sales, Beverly Hills, Calif.; John W. Hancock, Jr., New York City; Nick Gaug, New York City.

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, 8UIG, 8U1T, 8U1RK, 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.

THE RCA SPIDER-WEB ANTENNA

Many readers may wonder why the Spider-web antenna is recommended so highly by short wave fans. It is quite easy to understand. Every antenna has a natural wavelength response, of you might say, every antenna picks up a signal on a certain wavelength better than it does signals on other waves. For instance, many manufacturers recommend an aerial so many feet long. The reason is that it will pick up a signal on a certain wavelength better if made that long. To get a doublet antenna to pick up the 31 meter stations best, you should make your aerial 1.56 times 31 meters in length, or 48 feet and four inches long. To get the 25 meter band stations best, make your doublet 1.56 times 25 meters or 39 feet. In order to "peak" all popular bands, you would have to put up something like six or seven aerials of different lengths.

The Spider-Web, by combining wires of different length, peaks the signals of all stations on all the popular bands, including the 4½, 9½, 17, 19-20, 24-26, 30-32 and 48-51 meter stations. The antenna is very compact, taking up only 37 feet of space, and only a 12 foot vertical clearance is needed. Which means it can be installed in almost any home in the world. Descriptive literature may be obtained by writing to club headquarters at East Liverpool or direct from the R.C.A., Camden, New Jersey.

WITH THE REPORTERS

Reports from each of the following people this month: We are grateful to each and every one for their help. Feliz Quayle, France Field, Canal Zone; R. E. Cooke, Champion Reef, Kolar Goldfields, India; Rd. Merleham, Dublin Irish Free State; Shokichi Yoshimura, Moji, Japan; Arthur Kindell, eWillingon, New Zealand; Rueven Sokolovsky, Tel-Aviv, Palestine; Aharles Hart, Curarao, D. W. I.; L. E. Hansen, Durban, Natal, Africa; Rene Arickx, Tntwerp, Belgium; B. Lindbergh, Ojibyn, Sweden; E. W. J. Field, Watford, Herts, England; J. M. R. Studholme, London, England; J. R. Garrett Pegge, Bucks, England; Dr. George Fuller, Cowansville, Quebec; Fred Baines, Sydney Mines, Nova Scotia.

Miss Eileen Hofmaster, Sandusky, Ohio; Emmett Riggle, Massillon, Ohio; Miss Ella Louise Fortune, York, Pa.; Robert Rossi, Philadelphia, Pa.; Captain R. B. Oxrieder, State College, Pa.; Roger Legge, Philadelphia, Pa.; Fred Karpen, Jorntown, Pa.

Ed Davenport, Pittsford, Vt.; Fred Atherton, Rutland, Vt.; Frank Stockbridge, Westboro, Mass.; W. D. Flagg, Holyoke, Mass.; J. Stempel, Bridgeport, Conn.; W. A. Dean, Hartford, Conn.; Richard Verbrughe, Jr., Detroit, Mich.; Carl and Anne Eder, Willmar, Minn.; O. E. Stark, Pierce City, Mo.; Earl R. Roberts, Indianapolis, Ind.; Tom Erwin, Herrin, Illinois; Grace M. Beck, Chicago, Illinois; Alan Teague, Millington, Mich.

John Wayand, New York City; George Trisdorfer, Brooklyn, N. Y.; William Lyon McLaughlin, New York City; J. Armstrong, Whitesboro, New York; E. Scala, Jr., Bronx, New York; Gus Adler, Little Neck, New York; Dr. R. C. Kash, Staten Island, N. Y.; Captain McDermott, New Brighton, N. Y.

G. C. Gallagher, San Francisco, Calif.; Ashley Walcott, San Francisco, Calif.; L. G. Chavez, Los Angeles, Calif.; E. D. Purkey, Los Angeles, Calif.; Stuart Walmsley, Los Angeles, Calif.; Robert Base, Baltimore, Md.; Richard Bradley, Baltimore, Md.; Neville Seymour, Baltimore, Md.; Louis A. Brantley, Savannah, Gorgia; James B. Wooten, Mobile, Alabama; Cavileer, Haddon Heights, New Jersey; Ray Shaffer, Waterloo, Iowa.

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 June). 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. Arthur E. Bear will speak at the meeting of this chapter on July ninth and a large turn-out is expected. This would fall on a Friday. Please note.

HAMMARLUND PRODUCES NEW TYPE IRON CORE TRANSFORMER

A new group of iron core I. F. transformers are now being made by the Hammarlund Manufacturing Company, Inc., 424 West 33rd St., New York City.

These new transformers provide extremely high gain per stage together with extremely sharp selectivity. Specially developed finely powdered high permeability magnesium alloy, rust proof and non-corrosive, is used for the core. This core affords a great increase in inductance, thus permitting a reduction in the number of winding turns and consequently greatly reducing eddy current losses.

These transformers may be used with all tubes normally used in I. F. amplifiers. A single stage amplifier employing iron core transformers will usually provide as great a sensitivity and selectivity as two stages employing ordinary type of transformers. An added advantage is that since less I. F. stages may be used, tube noises are greatly reduced.

Since the gain of these transformers is so high, special precautions must be taken when using them in two stage amplifiers. Therefore, five types are being made for single stage and two stage amplifier types. Their overall size is only $4\frac{1}{8}$ " high x $1\frac{3}{4}$ " square. They are all tuned to a 465 kc. frequency.

These transformers are illustrated and further described in the new Hammarlund catalog available free of charge.

We are sorry to say that the father of member James R. Maloney of Mechanicsville, New York, died recently.

For Sale—Scott Fifteen, Silver Masterpiece, both custom quality receivers, bargains. Glenn Watt, Chanute, Kan.

Wanted—Short wave receiver, analyzer, test equipment, all kinds. small air-cooled engine, Briggs, Maytag or similar. Glenn Watt, Chanute, Kansas.



SUPER SKY RIDER

FEATURES

5 to 550 Meters Coverage ● 6 Bands ● 11 Tubes
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THE HALLICRAFTERS' GREATEST ACHIEVEMENT

IMAGINE a receiver that gives you complete coverage from 5 to 550 meters, taking in everything from the 5 meter band to the top of the broadcast band—with wide range variable selectivity (single signal razor-sharpness to true high fidelity*)—with an ingenious, new, electrical band-spreading device** that provides 1000° of band spread—an "S" meter that works on weak signals—with improved image and signal-to-noise ratio, and a dozen other outstanding features. Now you can listen to two-way police communications on 7½ meters—to the interesting and active new 5 meter band—in fact to everything on short waves and the broadcast band as well.

Imagine all this on one receiver—there's not another feature the amateur or short wave listener could possibly desire. It's absolutely revolutionary in performance and scope. It's the New 1938 Super Sky Rider, now on display at your dealer's, at an amazingly low price for so much value. Available on Hallicrafters' liberal Time Payment Plan. See it today!

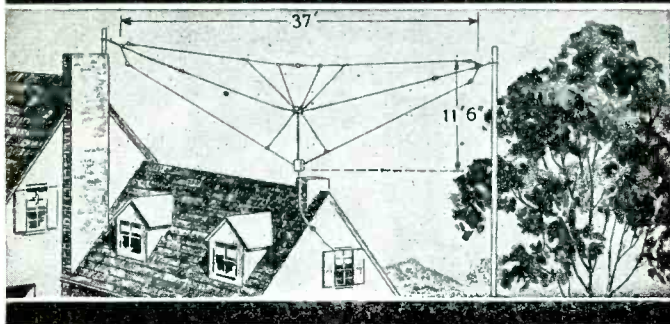
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The remarkable RCA Spiderweb Antenna System consists of a series of doublet antennas and an improved transmission line to the receiver.

It provides an extremely wide frequency range, and insures greater signal pickup on all bands, with minimum background noise. You will find it's easy to install, requires small space, and is sturdily constructed throughout.

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INTERNATIONAL DIVISION

CAMDEN

NEW JERSEY, U. S. A.



TELEPHONE STATIONS

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

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

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

Meters	Meg.	STATION	TIME
T-14.01	21.41	WKK, Lawrenceville, N. J.	Phones LSN, 8:00 A.M. to 4:00 P.M.
T-14.17	21.16	LSL, Buenos Aires, Arg.	8:00 A.M. to 1:00 P.M. GAA and PSF.
T-14.23	21.08	PSA, Rio de Janeiro, Brazil.	Phones WKK, WLK, daytime.
T-14.24	21.06	KWN, Dixon, Calif.	Phones irregularly.
T-14.27	21.03	LSN, Buenos Aires, Arg.	8:00 A.M. to 4:00 P.M. WKK and WLK.
T-14.72	20.38	GAA, Rugby, England.	Phones LSL and PPU near 8:00 A.M.
T-14.97	20.04	OPL, Leopoldville, Belgian Congo.	Phones ORG, mornings.
T-14.99	20.02	DHO, Nauen, Germany.	Phones PPU and LSM mornings.
T-15.14	19.78	WKN, Lawrenceville, N. J.	Phones GAU, daytime.
T-15.01	19.98	KAX, Manila, P. I.	Phones daytime.
T-15.24	19.69	CEC, Santiago, Chile.	Phones LSR, HJY near 11 A.M. and 4 P.M.
T-15.28	19.62	VOG, Nairobi, Kenya, Africa.	7:30 to 9:30 A. M., England.
F-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	LSS, Buenos Aires, Argentina.	Phones EAQ, DHO, GAA, mornings
T-15.88	18.89	ZSM, Klipheuvul, S. Africa.	Phones 6 A.M. to 2:30 P.M., England.
T-15.93	18.83	PLE, Bandoeng, Java.	Phones Holland 6 to 11 A.M. KWX irregularly.
T-16.05	18.69	XGS, Shanghai, China.	Heard 7:00 to 8:00 A. M., Irreg.
F-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.
F-16.30	18.40	PKK, Kootwijk, Holland.	Phones Java near 7:00 A.M.
F-16.35	18.35	WLA, Lawrenceville, N. J.	Phones England 8:00 A.M. to 4:00 P.M.
F-16.38	18.31	GAS, Rugby, England.	Phones New York mornings.
F-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.
F-16.50	18.18	PMC, Bandoeng, Java.	Phones PCV, 3:10 to 9:20 A.M.
E-16.55	18.12	LSY, Buenos Aires, Argentina.	Irregular.
T-16.58	18.09	TYE2, Pontoise, France.	Phones U.S.A. 7:00 A.M. to 3:00 P.M.
T-16.63	18.04	GAB, Rugby, England.	Phones Canada 10:00 A.M. to noon.
F-16.82	18.05	PCV, Kootwijk, Holland.	6:00 to 9:00 A.M. Java.
F-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.
E-17.33	17.31	W2XGB, Hicksville, N. Y.	Tests Irreg., relaying WOR.
T-17.12	17.52	DFB, Nauen, Germany.	Phones LSM and YVQ near 9:00 A.M.
T-17.16	17.48	VWY2, Poona, India,	phones England 7:00 to 10:00 A.M.
T-17.36	17.28	FZES, Djibouti, Fr. Somaliland.	Phones Paris 5 A.M.-2 P.M., Irreg.
F-17.52	17.12	WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.31	16.38	ITK, Mogadiscio, Italian Somaliland.	Phones Italy daytime.
T-18.34	16.35	RTW, Moscow, U.S.S.R.	Phones midnite to 9:00 A.M.
F-18.44	16.30	WLK, Lawrenceville, N. J.	Phones England.

Meters	Meg.	STATION	TIME
T-18.47	-16.24	KTO, Manila, P. I.	Phones Japan 5:00 to 9:00 P.M., irregularly.
T-18.51	-16.20	FZR, Saigon, Indo-China	Phones Paris mornings.
T-18.59	-16.14	GBA, Rugby, England.	Phones China-Japan 3:00 to 10:00 A.M.
E-18.62	-16.11	IRY, Rome, Italy.	Used irregularly for special broadcasts.
T-18.71	-16.04	KKP, Kahuku, 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	XOI, Shanghai, China	Phones Japan 5:00 P.M. to midnight.
T-18.91	-15.86	JVD, Nazaki, Japan.	Phones almost all day and night.
T-19.02	-15.81	LST, Santiago, Chile.	Phones OCJ 11 A.M., 1 and 4:40 P.M. irreg
T-19.15	-15.66	JVE, Buenos Aires, Arg.	Phones GAA 8 A.M. to 1 and FTM 1-2 P.M.
T-19.20	-15.61	JVF, Nazaki, Japan.	Phones almost any time.
T-19.31	-15.53	HSG2, Bangkok, Siam.	Tests Sunday 11 P.M., Fri. 4:00 A.M.
E-19.35	-15.50	CO9XX, Tuinuch, Cuba.	Testing irregularly 5:00 to 9:00 P.M.
T-19.42	-15.45	IUG, Addis Ababa, Ethiopia.	phones Italy 7:00 to 10:00 A.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU
E-19.53	-15.36	DZG, Zeesen, Germany.	Broadcasts irregularly.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
T-19.68	-15.25	RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
T-19.92	-15.06	WNC, Hialeah, Florida.	phones many stations in daytime.
T-19.95	-15.04	RKI, Moscow, U.S.S.R.	Phones almost any time.
T-19.99	-15.01	RCH, Kerbi, Siberia.	Phones midnight to 9:00 A.M.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
T-20.08	-14.94	HJB, Bogota, Colombia.	phones WNC daytime.
T-20.08	-14.94	HIT, Trujillo, Dominican Republic.	phones WNC daytime.
T-20.08	-14.94	HJA3, Barranquilla, Colombia.	phones WNC, Florida.
E-20.27	-14.80	WQV, Rocky Point, N. Y.	heard irregularly.
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-20.58	-14.58	RTV, Moscow, U.S.S.R.	Phones around 7:00 A.M.
T-20.64	-14.54	HBJ, Geneva, Switzerland.	Used irregularly.
T-20.65	-14.53	LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.71	-14.48	YSJ, San Salvador, Salvador.	Phones WNC afternoons.
T-20.71	-14.48	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	HPF, Panama.	phones WNC daytime.
T-20.71	-14.48	HRF, Tegucigalpa, Honduras.	phones WNC daytime.
T-20.71	-14.48	TGF, Guatemala City.	phones WNC daytime.
T-20.72	-14.48	IBS, Rome, Italy.	Phones Africa mornings.
T-20.73	-14.47	WMF, Lawrenceville, N. J.	Phones England daylight.
T-20.75	-14.46	GBW, Rugby, England.	Phones WNC 6:00 A.M. to 6:00 P.M.
E-20.75	-14.46	DZH, Zeesen, Germany.	Irregular.
E-20.97	to 21.26	-14.30 to 14.11	Amateur phones heard in daytime.
E-21.46	-13.98	PZ1AA, Paramaribo, Dutch Guiana.	in the evenings.
E-21.58	-13.90	WQP, Rocky Point, N. Y.	Testing with RNE irregularly, mornings.
T-21.70	-13.83	SUZ, Cairo, Egypt.	Phones GAA 7:00 A.M. to 3:30 P.M.
T-21.77	-13.76	TYE2, St. Assise, France.	Phones Africa daytime.
E-21.91	-13.69	KKZ, Bolinas, California.	Used irregularly.
T-21.98	-13.65	HJY, Bogota, Colombia.	Phones irregularly.
T-21.73	-13.79	RVU, 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	YSJ, Salvador, San Salvador.	phones WNC daytime.
T-22.40	-13.38	IDU, Asmara, Eritrea.	phones Italy 8:00 A.M. to 3:00 P.M. irregularly
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.
T-22.44	-13.37	JVU, Nazaki, Japan.	Around 6:00 to 10:00 A.M.
T-22.48	-13.35	YVQ, Maracay, Venezuela.	Phones Florida, daytime.
T-22.50	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.

Meters	Meg.	STATION	TIME
T-22.70	-13.22	IRJ, Rome, Italy, phones Japan irregularly	5:00 to 8:00 A. M.
T-22.74	-13.19	RFL, Khabavorsk, 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.
T-23.38	-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.
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.
T-24.49	-12.25	TYB, Pontoise, France.	Heard late afternoons, irregularly.
T-24.52	-12.24	TFJ, Reykjavik, Iceland.	Phones GCB and OXT 5:00 to 10:00 A.M.
T-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.
E-24.73	-12.13	DZE, Zeesen, Germany.	7:00-9:00 A.M., 5:00-9:00 P.M., irreg.
T-24.75	-12.12	TPZ, Aiger, Algeria.	Phones Paris midnight to noon, broadcasts 3:30 to 4:30 P. M., irregularly.
T-24.86	-12:07	XTU, Canton, China.	Phones China 2:00 to 9:30 A. M.
T-24.96	-12:02	JVK, Nazaki, Japan.	Phones 4:00 to 8:00 A.M., irreg.
T-25.00	-12:00	RNE, Moscow, U.S.S.R.	Almost any time. Try 11 P.M. to 10 A.M.
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.
f-25.12	-11:95	FTA, St. Assise, France.	Phones CNR 4 to 7 A.M., LSM 10 to 12 P.M.
T-25.38	-11:82	RFM, Khabarovsk, U.S.S.R.	Phones around 7:00 to 11:00 A.M.
E-25.63	-11:71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
T-25.73	-11:66	JVL, Nazaki, Japan.	Phones 6:00 P.M. to 11:00 A.M. irregularly.
T-25.73	-11:66	PPQ, Rio de Janeiro, Brazil.	Phones often and broadcasts, irreg.
E-25.87	-11:59	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.
T-26.16	-11:47	XTS, Swatow, China.	Phones around 2:45 to 9:00 A.M.
T-26.29	-11:41	XTB, Shanghai, China.	Phones around 3:00 to 9:30 A. M.
E-26.31	-11:40	HBO, Geneva, Switzerland.	Used for special broadcasts.
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.
T-27.50	-10:91	KTR, Manila, P. I.	Phones ships around 7:00 to 10:00 A.M.
f-27.62	-10:86	RQT, Irkutsk, U.S.S.R.	Phones around 3:00 to 5:00 A. M.
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.
f-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.
f-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.
f-28.80	-10:42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.M.
E-28:85	-10:40	KEZ, Bolinas, California.	Used irregularly.
E-28:91	-10:38	WCG, Rocky Point, N. Y.	Tests irregularly.
T-28.93	-10:37	JVO, Nazaki, Japan.	Phones 6:00 P.M. to 11:00 A.M. irregularly.
T-29.04	-10:33	RVV, Vladivostok, U.S.S.R.	Phones around midnight.
B-29.04	-10:33	ORK, Brussels, Belgium.	1:30 to 3:00 P.M., daily.
E-29.13	-10:30	LSQ, Buenos Aires, Argentina.	Used for special tests.
T-29.13	-10:30	PPM, Rio de Janeiro, Brazil.	Phones irregular.
E-29.15	-10:29	DZC, Zeesen, Germany.	3:00 to 9:00 P.M., Irregular.
E-29.27	-10:25	LSL, Buenos Aires, Argentina,	testing 5:30 to 7:00 P.M.
E-29.33	-10:23	CED, Antofagastan, Chile,	heard 7:00 to 9:30 P.M. irregularly.

Meters	Meg.	STATION	TIME
T-29.45	10.22	PSH, Rio de Janeiro, Brazil.	Sending music, evenings.
T-29.50	10.17	RIO, Baku, U. S. S. R.,	phones 10:00 P.M. to 10:00 A.M. irregularly.
T-29.58	10.14	OPM, 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.
f-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.
f-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.
f-30.30	9.90	LSN, Buenos Aires, Argentina.	6:00 P.M. to 6:00 A.M. W.L.O.
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.
E-30.60	9.80	GCW, Rugby, England.	Phones America, evenings.
E-30.61	9.80	LSI, Buenos Aires, Argentina.	Used irregularly, evenings.
f-30.75	9.76	VK2ME-VLK, Sydney, Australia.	Phones Java 4:00 to 8:00 A.M.
f-30.77	9.75	WOF, Lawrence, N. J.	Phones England, evenings.
E-31.00	9.67	DZA, Zeesen, Germany.	Broadcasts irregularly.
f-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.
f-31.71	9.46	TRIPOLI, Africa.	Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.
T-31.86	9.42	PLV, Bandoeng, Java.	9:00-11:00 A.M., 6:00-11:00 P.M. irreg.
T-32.02	9.37	PLC, Kootwijk, Holland.	Phones 3:00 to 10:00 A.M., irreg.
T-32.05	9.36	XTR, Swatow, China.	Phones around 4:00 to 9:30 A.M.
f-32.15	9.33	CGA-A, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.32	9.28	XTC, Shanghai, China.	Phones 2:00 to 11:00 A.M., irreg.
f-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.68	9.18	ZSR, Klipkeuval, So. Africa.	Phones England 1:00-7:00 P.M., irreg.
f-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
f-32.83	9.14	YVR, Maraca, Venezuela.	Phones Europe afternoons.
T-32.89	9.12	YCP, Balikpapan, Borneo.	5:00-7:00 A.M., phones East Indies.
T-33.04	9.08	XTK, Hankow, China.	Phones around 4:00 to 9:30 A.M.
T-33.19	9.03	TYA2, Paris, France.	Phones Algeria, 6 P. M. to midnight, irreg.
f-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
T-33.41	8.98	VWY, Poona, India.	Phones England 6:00-10:00 A.M., irreg.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.48	8.96	TPZ2, Alger, Algeria, Africa.	Phones Paris daytime.
f-33.93	to 36.58	-P88.2	8:20-Ships. Heard irregularly.
E-34.10	8.79	HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
f-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.
f-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.
f-35.02	8.57	WOO, Ocean Gate, N. J.	Phones ships irregularly.
f-35.42	8.47	DAF, Norden, Germany.	Phones ships irregularly.
f-35.80	8.38	IAC, Piza, Italy.	Works ships, irregularly.
f-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
T-36.95	8.12	KTF, Manila, P. I.	Phones KWX 10:30 to 11:00 A.M.
f-38.06	7.80	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
E-38.50	7.78	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M., irreg.
T-39.06	7.68	YBZ, Manado, Celebes, DEL.	Phones PNI 5:00-7:00 A.M.
T-39.32	7.63	RIM, Tashkent, U.S.S.R.	Heard 5:00 to 11:00 A.M. in winter.
f-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
f-40.60	7.39	ZLT2, Wellington, New Zealand.	Phones Sydney 3:00 to 7:00 A.M. irreg
E-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.

Meters	Meg.	STATION	TIME
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	-KEO, Kauhuku, Hawaii	Phones Dixon nights
T-42.98	6.98	-KZGG, Cebu, P. I.	1:00 to 4:45 A.M. and 6:30 to noon.
E-43.00	6.98	-XBA, Tacubaya, Mexico.	9:30 A.M. to 1:00; 7:00 to 8:30 P.M.
T-43.45	6.90	-GDS, Rugby, England	Phones New York nights.
T-44.41	6.75	-WOA, Lawrenceville, N. I.	Phones England nights.
T-44.44	6.75	-IVT, Nazaki, Japan	1:30 to 8:00 A.M., offtimes with music
T-44.64	6.72	-NEM2, Guanacabi, Dur, Mexico.	Tests around 9:30 P.M., irreg.
T-44.94	6.67	-HBO, Geneva, Switzerland.	Used for special broadcasts.
T-44.96	6.67	-YVQ, Maracay, Venezuela.	Phones irreg.
T-45.10	6.65	-IAC, Piza, Italy	Phones ships evenings
T-45.11	6.65	-JFZC, Ship Chichibu Maru.	Phones irregularly.
T-45.80	6.55	-XEM1, Mexico.	Tests around 9:30 to midnight.
E-46.73	6.42	-W9XRS, Chicago, Illinois	Heard irregularly broadcasting
E-46.77	6.41	-HIA3, Barranquilla, Colombia	Phones HIA2, irregular
E-47.39	6.35	-IZG, heard relaying IVT	IOAK from 5:00 to 7:30 A.M. irregular
E-47.54	6.31	-TGZ, Guatemala City.	Relays TGI around 5:00 to 9:00 P.M., irreg.
50.00 to 60.00 meters or 6.00 to 5.00 Mc.—Aircraft stations.			
T-50.93	5.89	-JIC, Taiwan, Japan.	Phones Nazaki 5:00 to 10:00 A.M. winter.
T-51.26	5.85	-WOB, Lawrenceville, N. I.	Phones Bermuda nights
T-51.46	5.83	-TDD, Shinkio, Manchukuo.	Phones Japan 10:00 P.M. to 6:00 A.M.
T-51.50	5.82	-HIA2, Bogota, Colombia	Phones HIA3 afternoons and evenings
T-52.26	5.74	-XTD, Shanghai, China.	Phones Hankow 4:00 A.M. to noon.
E-52.97	5.66	-CFU, Rossland, Canada	Works CFC and CFN near 10 P.M. irreg
T-54.74	5.48	-XTZ, Hankow, China.	Phones Shanghai 4:00 A.M. to noon
T-54.74	5.48	-XTL, Hankow, China.	Heard around 5:00 to 7:00 A.M., phoning.
E-55.56	5.40	-HIA-7, Cucuta, Colombia	Mondays 4:30 to 7:30 P.M. irregularly
T-59.08	5.08	-WCN, Lawrenceville, N. I.	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	-CGAR, Drummondville, Canada.	Phones ships irregularly
T-61.98	4.84	-GDW, Rugby, England.	phones U.S.A. nights
T-63.13	4.75	-WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-66.50	4.51	-ZFS, Nassau, Bahamas	Works WND evenings
T-67.87 to 73.17	4.42 to 4.10	-Ships	Heard irregularly
T-73.21	4.10	-WND, Hialeah, Florida.	Phones irregularly with VPN.
E-75 to 75.8	4.00 to 3.96	-Amateurs	on voice

SHIP STATIONS

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

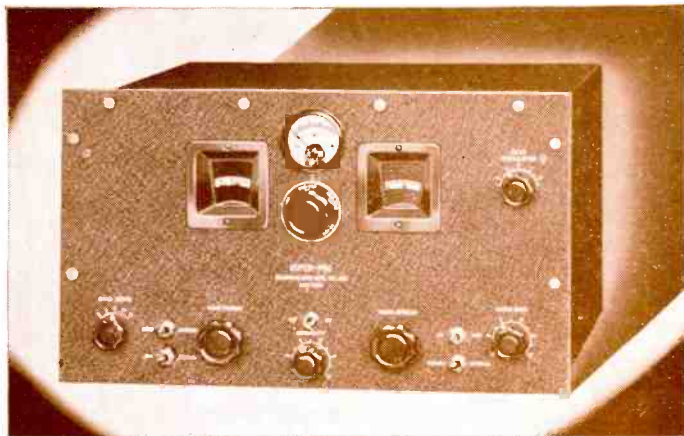
VOJM, Monarch of Bermuda; GLSO, Olympic; GFJY, Caledonia; GBTT, Queen Mary, Normandie; GMBI, Empress of Britain; DOAH, Bremen, DOAT, Europa; DHEY, Deutschland; DHIZ, Hamburg; DOAX, Columbus; DHAO, Hansa; DHRI, New York; ICEI, Rex; IBLI, Conte de Savonia; GBZW, Berengaria; DHDL, Cap Arcona; JFZC, Chichibu Maru; IBEL, Conte Rosso.

Will Sacrifice—New National NC-100XS receiver. \$80.00 cash, or will trade in as part payment on a recently purchased 23-tube Scott or Masterpiece V. Theo. Gohres, 492 West Street, Union City, New Jersey.

Wanted—National 110 or other good high frequency Receiver. Ballantine, Hunting Park Ave. and E Street, Philadelphia.

Wanted—AC-SW-3 Receiver complete with coils, pack. J. I. Milford, 220 S. Commonwealth Ave., Los Angeles, Calif.

For Sale—Silver Masterpiece V, perfect condition. Bargain. \$110.00 cash. A. Maitland, 130 West 44th St., New York City.



PERFECT FOR 10 METERS!

EXHAUSTIVE field and laboratory tests conducted by countless critical amateurs, engineers, and professional operators now using the new "Super-Pro" continue to conclusively prove that "Super-Pro" performance in 10 meters is truly outstanding!

One of the features responsible for this high efficiency is the two stage R.F. amplification system used on the 10 meter band as well as the four other bands in this receiver, affording a sensitivity of 0.8 microvolt (30% modulated) with a signal to noise ratio of 6 to 1 at 10 meters! This system also affords an image rejection ratio so high as to provide complete freedom from "two-spot" tuning, except in exceedingly rare instances, viz: at 10 meters the ratio is 150 to 1; at 20 meters—1900 to 1; etc.

The A.V.C. action of the new "Super-Pro" has been developed to an unusually high degree of efficiency—a change of 33,000 to 1 in signal input causing a change of only 2 to 1 in the output!

All "Super-Pro" receivers employ direct tuning with calibrations held to within a tolerance of $\frac{1}{2}\%$. The tuning range of the 10 meter model is from $7\frac{3}{4}$ to 240

meters in five bands. A model for 15 to 560 meters with identical features is also available.

There are a host of other outstanding features in the new "Super-Pro" models such as—calibrated band width, beat oscillator, audio and sensitivity controls; electrical band spread; 8 metal and 8 glass tubes; ear-phone—loud speaker switch; separate humless power supply, etc. Crystal or standard models are available for table mounting or rack mounting. Mail coupon below for illustrated folder.

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

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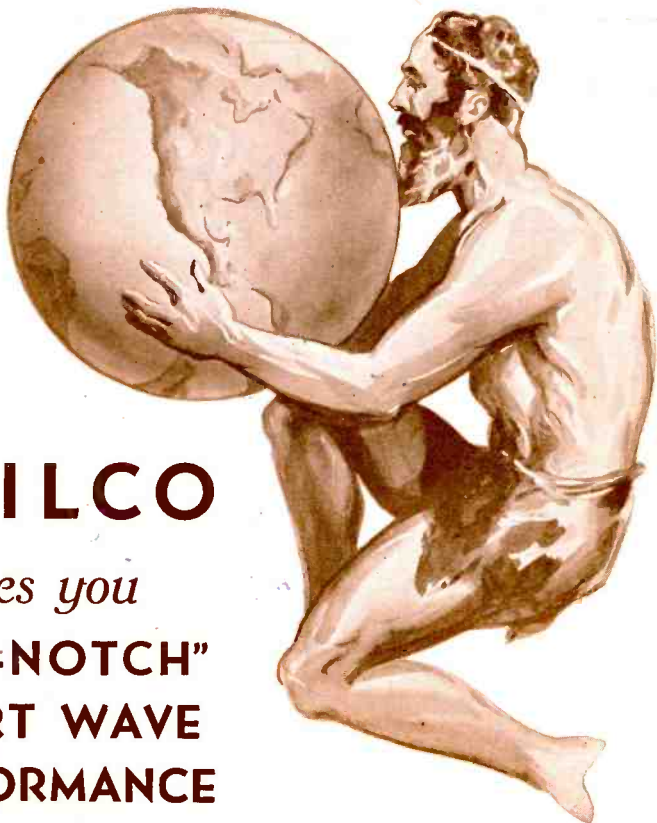
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Address.....

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



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