

INTERNATIONAL



SHORT

WAVE

RADIO

- Short Wave News.
- Accurate Station List.
- Hourly Tuning Guide.
- Police Stations.
- Aircraft Stations.
- And Other Features.

THE VOICE OF THE
INTERNATIONAL SHORT WAVE CLUB

EAST LIVERPOOL, OHIO, U. S. A.

THIS IS YOUR CLUB, MAKE IT WHAT YOU WILL

I AM A MURDERER . . .

of NOISE. I can't stand disturbing clicks, buzzes and crashes. I kill noise before it enters the radio set I protect. I do, however, allow the full signal strength of all radio stations to enter. I am the new, patented and guaranteed

LYNCH
"HI-FI" SIMPLEX ANTENNA
SYSTEM

(where you have all the room you want) and the

"HI-FI" DUPLEX ANTENNA
COUPLING SYSTEM
(for limited space)

Both systems have noise-reducing properties on wave lengths from 3 to 600 meters impossible of attainment by other systems. No tricky spreading, cumbersome metal tubing or masts. Installation is simplicity itself. One system is a complete kit—the other can be used with any existing aerial. INVESTIGATE

At Leading Radio and Dept. Stores,
or Write Us for Full Details

ARTHUR H. LYNCH, INC.
227 Fulton St., New York, N. Y.

ANNOUNCEMENT

Sol Perlman, E. E., Technical Advisor, N. Y. Chapter, International Short Wave Club, has been made Manager of our Technical Correspondence Department. He will gladly advise you on the proper use of any Lynch Products.



NATIONAL



A Dependable
R.F. CHOKE



Be sure that you get
the genuine
NATIONAL
Type 100



DON'T sacrifice dependable day-in, day-out performance for a few pennies difference in R. F. Choke costs! Be sure you get the original and genuine NATIONAL Type 100 R. F. Choke. Designed for utmost convenience in installation, suitable for either grid-leak or pigtail mounting, small and compact, the Type 100 can be used close to tubes where longer leads would introduce operating difficulties. Its accurate and dependable rating adapts it to the majority of R. F. Choke requirements in modern Short Wave Receivers and Low Powered Transmitters. It is sturdy and reliable. Before you buy, look for the diamond NC trade-mark, proof of advanced research and manufacturing facilities behind every NATIONAL RADIO PRODUCT.

NATIONAL TYPE 100
R. F. CHOKE

NATIONAL COMPANY, Inc., Malden, Massachusetts.

Gentlemen: Please send me your new catalogue No. 220-A. I enclose 6c to cover mailing costs.

Name

Address..... ISW-10-34

THOUSANDS ARE *Enthusiasing* OVER THE



Amazing All-Wave Performance

Hollywood, Calif. — My Midwest is the best set I have ever tried. It gives me super foreign reception and new radio adventure. Its performance on all five wave bands amazes me!

RICHARD ARLEY
(Paramount Feature Player)



Unequaled Foreign Reception!

My Midwest brings in thrilling programs from England, Germany, Australia, Venezuela, Columbia, Argentina, etc. La Rue Thompson, Box 551, Johnstown, Pa.



Byrd Expedition Direct!

My Midwest is pulling stations I never get before. Foreign reception clear as locals. Secured Spain, England, South America, Cuba, etc. Also get Byrd Expedition, J. H. Hudson London, Tenn.

Guaranteed WORLD-WIDE RECEPTION!

Thrill to Unequaled

We will send you copies of letters like those shown at top of page. They'll convince you that Midwest radios are sensational values! Try the Midwest for 30 days before you decide. Midwest gives you triple protection with: A one-year guarantee, foreign reception guarantee, money-back guarantee.

BEFORE you buy any radio, write for a FREE copy of the new 1935 Midwest "Fifteenth Anniversary" catalog. See for yourself the many reasons why over 110,000 satisfied customers have bought their radios direct from Midwest Laboratories . . . and saved from $\frac{1}{3}$ to $\frac{1}{2}$. Learn why Midwest radios out-perform sets costing up to \$200 and more. You, too, can make a positive saving of from 30% to 50% by buying your radio this more economical way. Why be content with ordinary so-called "All-Wave," "Dual Wave" or "Tri-Wave" Receivers when Midwest gives

you more wave lengths in today's most perfectly developed 16-tube Super de luxe ALL WAVE radios that are proven by four years of success . . . that carry an iron-clad guarantee of foreign reception!

These bigger, better, more powerful, clearer-toned, super selective radios have FIVE distinct wave bands; ultra short, short, medium, broadcast, and long. Their greater all-wave tuning of 9 to 2400 meters (33 meg, to 125 KC.) enables you to tune in stations up to 12,000 miles away with clear loud speaker reception.

**30
DAYS
FREE
TRIAL**

**TERMS
AS LOW AS
\$5.00
DOWN**

50 ADVANCED 1935 FEATURES

Here are a few of Midwest's superior features: Controllable Expansion of Volume-Selectivity-Sensitivity (Miero-Tenuator) . . . Fidel-A-Trol . . . Triple Calibration Plus . . . Pure Silver Wire . . . Ceramic Coil Forms . . . Separate Audio Generator . . . Simplified Tuning Guide Lights . . . Compact Synchronized Band Switch . . . Amplified Automatic Volume Control . . . 7 KC Selectivity . . . Power Driver Stage . . . 16 Latest Type Tubes . . . etc. Read about these and 38 other features in the new FREE Midwest catalog. Never before so much radio for so little money. Write for FREE catalog.

DEAL DIRECT WITH LABORATORIES

Increasing costs are sure to result in higher radio prices soon. Buy before the big advance . . . NOW! . . . while you can take advantage of Midwest's sensational values . . . No middlemen's profits to pay. You can order your radio from the new Midwest catalog with as much certainty of satisfaction as if you were to select it in our great radio laboratories. You save 30% to 50% when you buy direct this popular way . . . you get 30 days FREE trial . . . as little as \$5.00 down puts a Midwest radio in your home. Satisfaction guaranteed or money back. Write for FREE catalog.



Sign and mail coupon . . . or, send name and address on postal card . . . NOW!



NEW STYLE CONSOLES

The new, big, Midwest 36-page 1935 catalog pictures a complete line of beautiful, artistic de luxe consoles and chassis . . . in four colors . . . a model for every purse. Hand made by master craftsmen, they harmonize beautifully with any furniture arrangement. Write for new FREE catalog today!

**SAVE
UP TO 50%**

MIDWEST RADIO CORP.

DEPT. 177 - CINCINNATI, OHIO, U. S. A.

Established 1920

Cable Address Miraco. . . . All Codes

NEW 16-TUBE 1935 MIDWEST RADIO!



Thrilling Foreign Reception
 Hollywood, Calif. "Not until I tried out my Midwest 16 did I really appreciate what radio reception was. It thrills me to bring in distant foreign stations as clearly as local programs!"
(Paramount Star) Clara Cates



Better Foreign Reception
 Hollywood, Calif. "I am quite enthused with my Midwest. Many friends who have heard it are delighted with its performance. It brings in, without a doubt, the finest all-wave reception I have ever heard!"
J. H. Harrison



World-Wide Entertainment
 Hollywood, Calif. "Until I received my new Midwest radio, I had never thought it possible to bring an entertainment from half way around the world so clearly!"
Jean Harlan
(Metro-Goldwyn-Mayer Star)

World-Wide Performance with this.

Amazing NEW 1935 16-TUBE

SUPER Deluxe ALL-WAVE Radio



9 to 2400 METERS (12,000 MILE TUNING RANGE)

Send for Your FREE 1935 4-Color CATALOG

Now you can enjoy super American, Canadian, police, amateur, commercial, airplane and ship broadcasts . . . and derive new delight and new excitement from unequalled world wide performance. Now, you can enjoy the DX-ing hobby and secure verifications from more of the world's most distant stations. Listen to the call of the Kookoburra bird from VK2ME, Sidney, Aus. . . Tune in on the "Marseillaise" from FYA, Poin-tis, France. . . hear sparkling music from EAQ, Madrid, Spain . . . delight in lively tangos from YV2RC.



MAIL COUPON TODAY! FOR AMAZING 30-DAY FREE TRIAL OFFER AND NEW 1935 CATALOG

MIDWEST RADIO CORP.,
 Dept. 717
 Cincinnati, Ohio.

Without obligation on my part send me your new FREE 1935 catalog, and complete details of your liberal 30-day FREE trial offer. This is NOT an order.

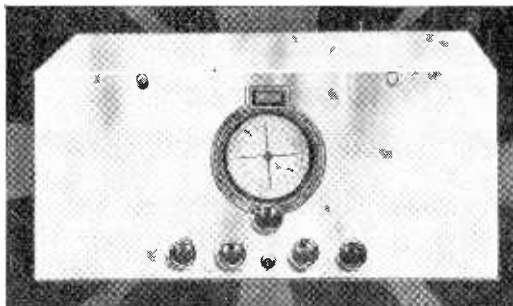
User-Agents
 Make Easy Extra Money
 Check Here for Details

Name

Address

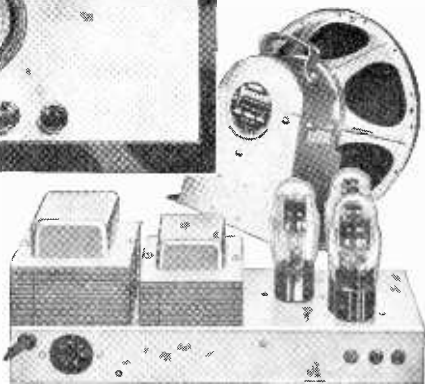
Town State

If You Really Want **DX** try **MASTERPIECE III** for 10 Days



Choice of Bing Crosby and Richard Arlen in Hollywood DX Contest

Masterpiece III, by any standard of measurement, by any kind of competitive tests, and in the opinion of everyone who has seen it in action, we believe, is the most complete, the most capable, the most outstanding all-wave radio receiver ever engineered. It will not only out-perform anything else, in laboratory demonstrations, but is positively and unconditionally guaranteed to out-perform any other radio receiver in existence.... right in your own home!



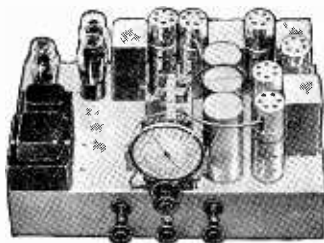
Greatest Foreign Reception Ever Heard

Masterpiece III yields a volume and a quality of tone on transoceanic reception under average conditions, unbelievable excepting to those who have heard it. It brings in with unmistakable identity those small, low powered foreigners that you have always worked so hard to get, but never did hear.

Band Spread Tuning with New Watch Dial

Simply pull out the tuning knob and the second dial pointer spreads out the crowded short wave band over the full 180 degree scale! Masterpiece III provides actual band-spread tuning over all four wave bands. Try it 10 full days in any kind of competitive test. Write for details of offer.

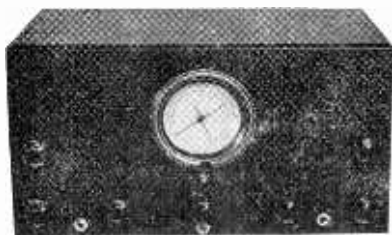
McMURDO



The WORLD WIDE NINE

.... most radio ever built
for the money

The World Wide Nine is the first really custom-built all-wave receiver offered at a low price. It is the first precision instrument ever made available at no greater cost than factory production jobs. Every World Wide Nine produced in my laboratory is built to actual laboratory standards and checked on transoceanic reception by myself, prior to shipment. If you want volume to fill a cathedral... if you want a hundred stations on the broadcast band... if you want solid enjoyment of foreign short wave stations, minus the usual sputter and noise... at a very low price... send for full particulars of 10 day trial.



The New 5-C Professional Single Signal Superheterodyne

The 5C is the 1935 improved model of the now famous 5B—choice of W9USA of the World's Fair and amateurs the world over in preference to all available competition. For work between 13 and 200 meters, the new 5C has won a preponderance of acclaim with knowing professionals and amateurs who have tried them all. Complete specifications furnished on request.

*Whether your interest is in all-wave receivers
or short wave receiving and transmitting equip-
ment, write at once!*

SILVER, INC.

**3351 N. Paulina Street
Chicago, Ill., U.S.A.**

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

Note:—Readers who may find it more convenient may send their subscriptions to Arthur Bear, 10 St. Mary's Place, Rotherhithe, London, S. E. 16, England.

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

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This Beautiful Globe for only \$3.25



Here is a rare bargain for the short wave fan. Imagine a 12-inch globe, printed in many colors and up-to-date in every detail, delivered to your door for only \$3.25, if you live in the U. S. A., or for \$3.50 if you live elsewhere.

Here is another pleased customer. He has purchased three for himself and friends. On June 29th, Dr. Gilbert S. Bovard, of Sierrre Madre, California, wrote us saying:

"My doctor friend is exceedingly pleased with his globe and now his secretary asks me to get one for her. Hoping that another is available, I am enclosing a check for \$3.25."

Why not get a globe to mark the places where you have tuned-in stations, measure distances to these stations, follow the expeditions and add to the beauty of your radio set as well as add to your pleasure in tuning? Just send \$3.25 (for U.S.A. members), or \$3.50 (for foreign members) and this globe will be shipped. (We do not pay customs tax to foreign countries.)

Address your letters to the—
International Short Wave Club
East Liverpool, Ohio

New Type HAMMARLUND

Padding and I. F. Tuning

CONDENSERS

and a Low-Priced

Low-Loss COIL FORM

NO part of a modern receiver requires more painstaking care than the selection of small variable capacities for trimming, balancing, padding and transformer-tuning.

Several new Hammarlund compact condensers are now available for this purpose. Designed to mount inside of coil forms or transformer shields. Isolantite or Bakelite bases, with mica or air dielectric. They are accurately rated and constant under the most severe conditions.

Other recent Hammarlund developments are S-W Coil Forms and Coils, using the remarkable efficient new "XP-53" Low-Loss dielectric. And they are surprisingly low-priced.



New Hammarlund XP-53 Low-loss Coil Forms, 4 or 5 prongs, 35c each, list. 6 prongs, 40c each, list.



"IBT" Mica-Dielectric Trimming or Padding Condenser



"APC" Air-Dielectric Trimming or Padding Condenser

*Mail Coupon for Catalog
and Special Data*

For Better Radio
Hammarlund
PRECISION
PRODUCTS

HAMMARLUND MANUFACTURING CO.

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

—Check here and attach 10c for 16-page Hammarlund 1935 Short-Wave Manual, illustrating and describing most popular S-W circuits of past year, with schematic and picture diagrams and parts lists.

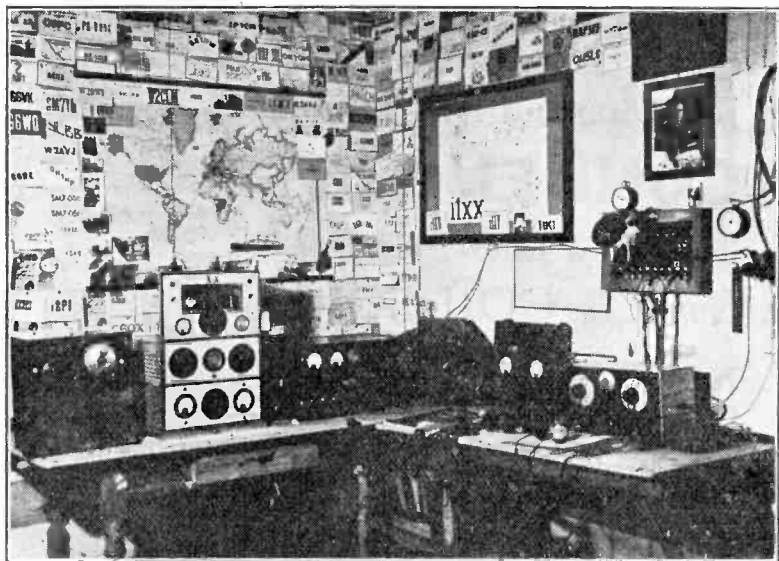
—Check here for FREE information on XP-53 Coil Forms and Coils.

—Check here for FREE General Catalog.

Name

Address

.....IC-10



STATION IIXX, Owned by Member L. Gamerra

Here is a picture of the receiving and transmitting station owned by Club-member Avv. Leonetto Gamerra of Livorno, Italy. Mr. Gamerra operates on the 21 meter amateur band, and has been heard all over the world. On September 16th he broadcast a program to members of this organization in America.

Mr. Gamerra joined us in June, 1932, and has always been a booster for the organization. He was our first member from Italy. Quite a few other Italian memberships have been received through the kindness of Mr. Gamerra and we thank him for this, as well as for the broadcasts. We hope to arrange more programs with him for our members.

HOW TO GET VERIFICATIONS

Verifications are letters or cards from a station that state that the person who reported the reception had actually heard their broadcast. To get them, a person should be very careful to follow out certain rules. Here they are:

1. Address the envelope carefully. Print or typewrite the address.
2. Put enough postage on it. Here are the postage rates:

LETTERS, 3c each ounce or fraction; CARDS 2c, to: Argentina, Balcric Islands, Bolivia, Brazil, Canary Islands, Chile, Colombia, Costa Rica,



D. R. D. WADIA, OF BOMBAY, INDIA

Club-Member D. R. D. Wadia was our first Indian member, joining the club nearly three years ago. He holds a certificate in the Heard-All-Continents Club. He has tried quite a number of receivers, including the Hammarlund, Silver, Lincoln, Scott, Pilot, RCA, National, Super Wasp and Philco. Mr. Wadia's interest runs to many things, including big-game hunting, auto sales, radio sales, Bar-at-Law and writing. How he finds time for so many things is a mystery to most people who know him. According to the latest record, Mr. Wadia has brought in over twenty new members from India. So that indicates how hard he is working for the organization.

Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Morocco (Spanish) Nicaragua, Panama, Paraguay, Peru, Salvador, Spain and its Colonies, Uruguay, and Venezuela.

Letters 3c each ounce or fraction to Canada, Labrador, and Newfoundland. Letters 5c each ounce or fraction to Great Britain (England, Scotland, Wales), Northern Ireland, and Irish Free State.

Letters 5c first ounce and 3c for each additional ounce or fraction to all other countries not in the above lists.

Cards 1c each in United States and Possessions, and 2c to countries taking 3c letter rate.

Cards 2c each to Canada, Labrador, and Newfoundland.

Cards 3c each to Great Britain (England, Scotland, Wales), Northern Ireland, and Irish Free State.

Cards 3c each to all other foreign countries.

3. Be sure to print your name and full address plainly on the letter and envelope. Do not use stationery that has a lot of other names and addresses on it, or chances are the station will not be able to pick out the right one. It is a good idea to use our Club stationery, for the Club is known to most all short wave stations and if they can not get your address right, the verification will probably be sent to us.

4. Give the exact details of what you heard and when you heard it. If you do not know the names of the selections heard, describe them as orchestra music, piano music, violin, lady singing, man singing, dance music, marimba, waltz, fox-trot, etc. And if it is speaking, tell if it is a lady or a gentleman doing the speaking.

5. Write plainly Try to remember that English is not a universal language and what a hard time you would have reading a poorly-written letter in some language other than your own. Use a typewriter, if possible.

6. Give the exact time of reception along with what you hear. Use Greenwich Mean Time if possible, or Eastern Standard. G.M.T. is five hours ahead of E.S.T. Use a form something like this:

G.M.T.	E.S.T.
0813	5:13 A. M.—Lady singing.
0817	5:17 A. M.—Announcement.
0823	5:23 A. M.—Orchestra playing dance music.

7. Put an International Postal Reply Coupon in each letter. These are secured from your post office for nine cents each and may be used by the station to pay the postage on your verification. If your post office does not have them, tell the postmaster to look it up in his Postal Guide, as this will give him information as to where he can get them.

8. Request your reply politely. Remember that it takes money to send out these verifications and many stations do not have revenue from broadcasting programs like they do here in the United States and the expense of sending verifications simply adds to the upkeep of the station.

And here are the addresses of most of the short wave stations of the world that operate on voice.

EUROPE

IAC, Coltano Radio, Piza, Italy.

DAF, Hauptfunkstelle Nordeich, Norden-Land, Germany.

ORG, ORK, Director de Communications, Bruxelles, Belgium.

GSA, GSB, etc., Broadcast House, London W1, England.

Pontoise, Minister Des Postes, 103 Rue de Grenelle, Paris, France.

German Broadcast 11-15 Schonebergersta, Berlin-Templehof, Germany.

HVJ, Station HVJ, Castine Pio IV, Vatican City.

2RO, Via Asiago N 10, Rome, Italy.

PHI, N. V. Phillips Radio, Huizen, Holland.
 EAQ, Apartado 951, Madrid, Spain.
 CT1AA, Antonio Augusto d'Aguiar 144, Lisbon, Portugal.
 HBL, HBP, Information Section League of Nations, Geneva, Switzerland.
 OXY, Stateradiofonien, Heibersgade 7, Copenhagen, Denmark.
 RV59, Solianka 12, Moscow, U. S. S. R.
 English Phones, Radio Section, G. P. O., 89 Wood St., London EC2.
 French Phones, 166 Rue de Montmartre, Paris, France.
 Dutch Phones, Parkstaat 29, S'Gravenhage, Holland.
 HAS, Gyali St. 22, Budapest, Hungary.
 CT1CT, Rua Gomez Friere 79, 2-d, Lisbon, Portugal.
 G6RX, Rugby Radio Station, Hillmorton, Warwickshire, England.
 EHY, Piy Margall 2, Madrid, Spain.
 LCL, Ministere du Commerce, du Voyaunne de Norwege, Oslo, Norway.

ASIA

Javanese Phones, Government Post and Telegraph, Bandoeng, Java.
 J1AA, Kemikawa-Cho, Chiba-Ken, Japan.
 FZS, Postale Boite 238, Siagon, Indo-China.
 ZLW-ZLT, Supt. of Post and Tel., G. O. P., Wellington, ^{CA}New Zealand.
 RV15, Far East Radio Station, Khabarovsk, U. S. S. R.
 VUC, Indian State Broadcasting Service Calcutta, India.
 JVM, etc., Japan International Telephones, Nazaki, Japan.
 XGW, Radio Administration, Sassoon House, Shanghai, China.
 YBG, Radio Service, Serdangweg 2, Sumatra, D.E.I.
 VUB, Irwin House, Sprout Road, Ballard Estate, Bombay, India.
 CQN, Post Office Building, Macao, South China.
 HSJ, Government Post and Telegraph, Bangkok, Siam.
 PKIWK, J. F. W. de Kort, Bandoeng, D. E. I.

SHIPS

English Ships, International Marine, 63 Aldwych, London WC2.
 German Ships, Pier 4, 58th Street, New York City, N. Y.
 Italian Ships, Pier 86, 46th Street, New York City, N. Y.
 Other Ships, in care of chief operator at docks.

NORTH-AMERICA

WKW, etc., RCA, Rocky Point, L. I., N. Y. (Will not verify).
 Hawaii Phones (do not verify), Kaukuku, Hawaii.
 WNC, WND, (do not verify), Hialeah, Florida.
 KWO, etc., 140 New Montgomery St., San Francisco, Calif.
 VRT, ZFA, (does not verify), Hamilton, Bermuda.
 W8XK, William Penn Hotel, Pittsburgh, Pa.
 W3XAL, 30 Rockefeller Plaza, New York, N. Y.
 W2XAD, W2XAF, General Electric Co., Schenectady, N. Y.
 CJRX, Royal Alexander Hotel, Winnipeg, Man., Canada.
 W1XAZ, Hotel Statler, Boston, Mass.
 W2XE, 485 Madison Avenue, New York, N. Y.
 W9XF, 20 North Wacker Drive, Chicago, Illinois.
 VE9BJ, Capitol Theatre, St. Johns, N. B., Canada.



EDWARD LIPS

Edward Lips is the short wave commentator on the KDKA DX Club programs which are heard over short wave station W8XK at Pittsburgh. Mr. Lips lives in Pittsburgh and has been on these programs since January.

Mr. Lips is about twenty years of age, and has been "short waving" about four years. In that time he has made an enviable record. He is a member of the Heard-All-Continents Club Class AA. His H-A-C certificate can be seen right above his head in the picture. It has only one seal, but he has added another since the picture was taken.

Two of his prized verifications are from G5SW and NRH. Mr. Lips uses a five-tube home-made receiver of the TRF design. He has been an I.S.W.C. member almost since he started in short waves and is not backward in boosting this organization.

VE9GW, Rural Route 4, Bowmanville, Ontario, Canada.

W9XAA, Navy Pier, Chicago, Illinois.

VE9CS, 743 Davie Street, Vancouver, B. C., Canada.

W8XAL, Crosley Radio Corp., Cincinnati, Ohio.

W1XAL, 70 Brookline Avenue, Boston, Mass.

VE9DR, Canadian Marconi Co., Box 1690, Montreal, Quebec, Canada.

American Phones, (Will not verify).

CGA, Canadian Marconi, Box 1690, Montreal, Quebec, Canada.

KNRA, 30 Rockefeller Plaza, New York City, N. Y.

VE9DN, Canadian Marconi Co., Box 1690, Montreal, Quebec, Canada.

CIA RADIO TELEGRÁFICA BRASILEIRA

CAIXA POSTAL

SOUTH AMERICA

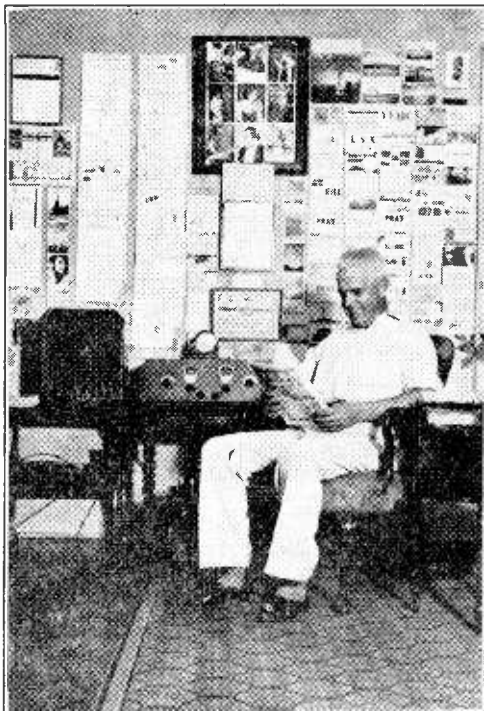
PPU, PPQ, Carre 500, Rio de Janeiro, Brazil.

HJY, All-American Cables, Bogota, Colombia.

H. C. ARMSTRONG

Mr. Armstrong lives at 896 Drewry St. N. E., Atlanta, Georgia, and he won third place in the Denton Trophy Contest, getting one of the plaques awarded. Mr. Armstrong started in short waves several years back, using an adapter. He has since had a converter, an all-wave set and now has a Lincoln R9 short wave receiver. He is also a member of the Heard-All-Continents Club, Class A. His membership in the I.S.W.C. dates so far back that his record seems to be lost.

Writing to us on September 1st, he asks us to print the following along with his photo, and we can only abide by his request. Here is what he says: "It seems like a pipe dream and it is hard to realize that I had the good fortune to win the third prize in the Denton Trophy Contest. It is not due to my ability of



tuning, but to the reliable information furnished by the I.S.W.C. magazine I congratulate you, Mr. Green, as editor, and all members of the Club who made it possible for me to win this honor." So there you are, members, a pat on the back for you from Mr. Armstrong.

HJB, Marconi Telegraph Co., Bogota, Colombia.

HJ2ABA, La Voz del Paiz, Tunja, Boyaca, Colombia.

YVQ, Servicio Radiotelegraphico, Maracay, Venezuela.

HCJB, Casilla 691, Quito, Ecuador.

HJ4ABB, Apartado 175, Manizales, Colombia.

HJ3ABF, Apartado 317, Bogota, Colombia.

HJ1ABB, Apartado 715, Barranquilla, Colombia.

HJ4ABE, Radiodifuson de Medellin, Medellin, Colombia.

PRADO, Apartado Postale 98, Riobamba, Ecuador.

YV2RC, Apartado 290, Caracas, Venezuela.

LSN, LSL, LSM, Compania Internacional, 143 Defensa, Buenos Aires.

LSX, LSG, Transradio Internacional, San Martin 329, Buenos Aires.
 HJ1ABD, Franco, Cove and Company, Cartagena, Colombia.
 HJ1ABE, Apartado 31, Cartagena, Colombia, S. A.
 CP5, Cassilla Correo No. 637, La Paz, Bolivia, S. A.
 HC2RL, Apartado 795, Guayquil, Ecuador, S. A.
 YV5BMO, Box 214, Maracaibo, Venezuela, S. A.
 PRA3, Radio Club de Brazil, Rio de Janeiro, Brazil.
 HJ5ABD, La Vos Del Valle, Cali, Colombia, S. A.
 HKE, Observatorio Nacional de San Bartolome, Bogota, Colombia.
 HJ3ABD, Apartado Correo 509, Bogota, Colombia, S. A.
 HJ2ABC, Pompilio Sanchez, Cucuta, Colombia, S. A.
 HJ5ABG, Apartado Correo 200, Cali, Colombia, S. A.
 YV3RC, Radiodifusora YV3RC, Caracas, Venezuela.
 HJ1ABG, Apartado 816, Barranquilla, Colombia.
 HJ1ABE, Apartado 31, Cartagena, Colombia.
 YV4RC, Estacion SAR, Este 10, Bis 71, Caracas, Venezuela.

CENTRAL AMERICA

YNA, Tropical Radio Telegraph, Managua, Nicaragua.
 XAM, Telegraphes Nacionales, Merida, Yucatan, Mexico.
 TIEP, Eduardo Pinto H., Apartado 257, San Jose, Costa Rica.
 XETE, Pan-American Radio Co., Mexico City, Mexico.
 XEBT, El Bueno Tono, Mexico City, Mexico.

AFRICA

SUV, SUZ, P. O. Box 795, Cairo, Egypt.
 OPL, OPM, Radio Leopoldsville, Congo Belge, Africa.
 Rabat, Director General des Postes, Rabat, Morocco.
 VQ7LO, P. O. Box 777, Nairobi, Kenya Colony, Africa.
 ZSS, Overseas Communications, Kodak House, Shortmarket St., Cape Town

WEST INDIES

VPN, Nassahu, Bahamas Islands.
 WTDV, H. M. McKenzie, St. Thomas, Virgin Islands.
 WTDW, S. I. Winde, Christiansted, Virgin Islands.
 HI1A, Rafael Western, Santiago de Los Caballeros, Dominican Republic.
 HIZ, Calle Duarte 68, Santo Domingo, Republic of Dominicana.
 COC, P. O. Box 98, Havana, Cuba.
 HIL, Apartado 623, Santo Domingo, Republic of Dominicana.

AUSTRALIA

VK2ME, VLK, 47 York Street, Sydney, N. S. W., Australia.
 VK3ME, G. P. O. Box 1271L, Melbourne, Australia.
 VK3LR, Wireless Branch, Treasury Gardens, Melbourne C2, Australia.

SILENT LISTENERS

We regret to announce the death of the following Club-members:
 A. B. Bayless, Washington, D. C.
 Frank C. Gardinier, Amsterdam, New York.
 Kirk L. Russell, Scarsdale, N. Y.
 C. C. Meade, Hotel Graymont, Chicago, Illinois.

TO ALL NEW SHORT WAVE LISTENERS

What one gets from short waves depends entirely upon himself. That is, it depends on just how much effort is put forth in learning to operate the receiver properly. A great many short wave listeners have tuned-in a few of the largest and best-known stations, and believe that they have exhausted the pleasure to be had from a short wave receiver. But this is far from the facts. On short waves we have many different kinds of stations, and each of these have some distinct fascination when the listener learns about them.

A person who has tuned in Daventry and Zeesen may think that this is all there is to short waves. But, thousands of people, from all parts of the world, have been getting pleasure out of short waves for the past six years and are still as enthusiastic as ever before. For example, some people never try for the police stations, thinking there is nothing of interest there. But just spend an evening with these stations and you will get a "kick" out of them. Some see no fun in tuning for the aircraft stations, until some day they tune in one in difficulty, then all the hours they have spent in short waves is repaid in a few short minutes. Then, there are stations like that one down in Little America, or on the "Seth Parker," and the one which was used in the stratosphere flight. Many readers will remember when these brave men in the stratosphere balloon stated their balloon had ripped open and they were falling and how they announced they would have to jump to save their lives. That thrill will be remembered forever.

Tuning in some distant broadcast station with loads of power is one thing, but tuning-in one which few others are able to hear is something else. Like hooking the largest fish, it is a thrill. Then, when you write the station and the postman brings you a nice letter or card stating your report is correct, well, that is a real thrill. So, all you people who have tuned in a few stations overseas and think tuning is too hard to go after the hard ones, just take the time to learn to tune and see if your opinion of short waves does not change. Start tuning for the hard-to-get stations and start collecting verifications.

To learn to tune properly, of course, one must have a good station list. This list of ours is no doubt the most complete, accurate and up-to-date published each month. The stations are marked in both meters and megacycles, and kept in their order. That is, the station next to a certain station in the list will appear on the dials in that way. Always remember that. After you have tuned in a few stations, the easy ones, and know where they come in on the dials, then you will know where the hard-to-get stations come in also. Be sure you have a good antenna system, and have a pencil handy so you can mark down what is heard and then start collecting verifications. Then, and only then, can you enjoy the full benefits of short wave radio.

AMATEURS ATTENTION

It has been suggested that all members of the club who operate transmitting stations on voice, communicate with headquarters at once, giving their call-sign, location, address, power and wavelength used.

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 average short wave station list contains hundreds of stations that have closed down, changed wavelengths or schedules, or have never really operated. The only reliable and helpful information comes direct from listeners, and even this must be published quickly in order to be of help. The information in this magazine is gathered by members of the club living in practically all parts of the world. Without this information, hundreds, or even thousands, of programs would be missed by readers. And without it, we would not be able to produce such a magazine. So, we say to all, "Thank You." This information is corrected up to within three days of the date of mailing. Other magazines usually make up copy from two to four months in advance of publishing.

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

General Information

We are about to see a general change in reception conditions. This occurs at this time every year. Readers will find many of the stations which they have been hearing of late fading out. Many will get discouraged over this. But, there will be many other stations start coming in to take the place of these others which are now fading out. So, if your old reliable stations are leaving, then start searching for others to take their places.

Daylight Saving time has gone. Each time we alter our list to take care of such a change, we receive letters from members who have old cards or letters on their hands which give the schedule slightly different from that which we list. In writing about such stations, please note if the letter or card was sent before or after fast time was discontinued. This will save us time and trouble.

SOUTH AMERICANS

At this season of the year, the stations in South America begin to come in better. So, we have quite a bit of news on these stations. The first of importance, we understand, is the station at Rio de Janeiro, Brazil, on 31.56 meters or 9.50 mc. Several calls have been mentioned, but we learn that the proper one is PRF5. This was given in English many times. And it is not the Radio Club of Brazil that broadcasts these programs for they are announced as "The National Program of the Department of Publicity." Announcements are made now in English, German, French, Spanish and Portuguese. They are heard daily from

5:30 to 6:15 P.M. They broadcast Chimes at 6:00 P.M. A whole flock of members report this information, including Robert Rossi, Samuel Solito, C. D. Hall, T. Russell Fairfax, H. S. Bradley, H. G. Kcehnl, Thomas Van Auken, John Shanks, Albert Emerson, Charles Hoffman, Robert Zehner, W. A. Dean, Robert Stuart, J. A. Shanks, Al Leonhardt, Francis Worrel, Thomas Tupper, Robert Woods, L. A. Kippen, Frank Grey and Emmett Riggle.

Other Brazilians are mentioned as follows: A. D. Taylor of Heswall, England, and F. A. Beane of Ridgewell, England, ask about a station on 49.75 or 6.03 mc. broadcasting the programs of the Radio Club of Brazil. They say this is heard using a siren and three note chime, and has chimes each hour. This sounds much like XEBT and not a Brazilian. PSA, a phone on 14.23 meters or 21.08 mc., calling Paris is reported by Louis A. Baer, San Francisco, while others say PSA is near 21 meters. PSE on 20.7 meters, or 19.92 mc. is reported working Buenos Aires at 2:20 P. M. by Frank Grey, Berwin, Illinois, and at 2:50 P. M., calling New York, by Thomas Tupper, Lakewood, New Jersey.

Ecuador

Station HC2RL on 45 meters, 6.67 mc., is heard regularly each Tuesday from 9:15 to 11:45 P.M. and Sunday from 5:45 to 8:00 P.M. They are also heard working with other South and Central American stations late in the evenings, usually around Midnight. On such tests they broadcast music and call the other stations. Such information comes from John Shanks, Russellville, Tenn., and George Hinkley, Danbury, Conn.

A new station in Ecuador is reported. It is HC2B and it was heard on 55 meters, 5.45 mc., broadcasting between 10:30 and 11:20 P.M. one Thursday. Mr. Shanks reports this.

HCJB at Quito is really on 36.5 meters, 8.21 mc. according to August Balbi, San Francisco. But he is the only one to report it.

Prado at Rio Bamba is on 45.31 meters, 6.62 mc., on Thursdays from 9:00 to 11:00 P.M. and on 19.43 meters, 15.44 mc., each Sunday from 4:00 to 6:00 P.M. Many report these programs.

Peru

The new station at Lima, after making a big noise on two different waves, seems to have suddenly disappeared. Under the call OA4AC they came out on 38.36 meters or 7.82 mc. and was heard for several weeks. Then suddenly they moved to 51.9 meters, 5.78 mc. and announced as OA4AD. They said they were moving to 31 meters, but no one is reporting them there. P. F. Lorient of Halifax, Nova Scotia sends us some good dope on this station. It is owned by a new company called Difusura Universal South America, and uses the word DUSA in their announcements. It is owned by Sr. Carlos A. Franco, Dr. Renzo Riva and Dr. Jose Leon. Station and studios are located at Calle Plumereros No. 372, Lima, Peru. They use the call OA4K on long waves and the station owned by All-American Cables is used to relay the short wave programs. When on the air, this station was heard around 9:00 to 11:00 P.M. We wish to thank the following for help, also: W. D. Martin, Honolulu, Hawaii;

Glenn Watt, Chanute, Kansas; Louis A. Baer, San Francisco.

OCJ at Lima, a phone station, is opening a new circuit with about all the South American countries. This comes from Fred Karpen, Johnstown, Pa. Frank Grey, Berwyn, Illinois, says OCJ on 19.19 meters, 15.62 mc., and CEC, Chile, on 18.91 meters or 15.86 mc., work each other daily at 4:30 P.M. OCI on 27.35 meters, 10.97 mc., is heard nightly according to L. A. Baer, San Francisco.

The Colombians

HJ1ABE at Cartagena, is now on 49.05 meters, 6.12 mc., is owned by Antonio Fuentoes L, Apartado 31, and broadcasts Sundays from 8:00 to 11:00 A.M. (mornings); Mondays from 10:00 P.M. until Midnight and Wednesdays from 8:00 until 11:00 P.M.

HJ1ABG, Barranquilla, the latest Colombian find, is on 49.75 meters, 6.03 mc., each day from 6:15 to 10:00 P.M. They play a march number at the beginning and close of each program, and ask reports to be sent to P. O. Box 451, Barranquilla, according to John Shanks, Russellville, Tenn.

HJN, Bogota, on 49.5 meters, 6.06 mc., called Radiofusora Nacional, is reported from 8:00 to 11:00 P.M. by H. S. Bradley, Hamilton, N. Y.

HJ1ABF Barranquilla, 48.47 meters, 6.19 mc., is heard irregularly from 8:00 to 10:00 P.M. according to Charles Miller, Covington, Ky. No one else reports this one.

HJ3ABD on 40.5 meters, 7.40 mc., say their schedule is 12:00 Noon to 2:00 P.M. and 7:00 until 11:00 P.M. according to R. Lawton, Whitefield, England. HJ1ABD, Cartagena, on 49.2 meters or 6.09 mc., will be back on the air September 15, according to a letter received from them by Ed. Lips, Pittsburgh, Pa. A station in Cucuta on 48.70 meters is reported by John Shanks, Russellville, Tenn., who also tells of hearing a station on 16.30 meters, 18.40 mc., calling HJ4ABB, Colombia. HJY, owned by All-American Cable at Bogota on 16.25 meters, 18.446 mc., is heard at 10:30 A.M. by James Pickering, Highstown, N. J., while it is heard on 21.98 meters, 13.65 mc., working Bcenos Aires at 4:00 P.M. by Carroll Foltz, North Baltimore, Ohio.

OCJ on 19.19 meters is heard from 4:00 to 6:00 P.M. calling HJY, Bogota, and a station on 30.21 meters answers. So it must be HJY and not HKB there. Reported by Emmett Riggle, Massillon, Ohio.

Bolivia

A letter from C. Lopez Videla, Manager of the Illimani stations at La Paz, Bolivia, to Carroll C. Foltz of North Baltimore, Ohio, says CP5 on 49.34 meters, 6.08 mc., broadcasts daily from 8:00 to 9:00 P.M. and during the day very irregularly stations CP6 on 9.12 mc., or CP7 on 15.30 mc. may be used.

Venezuela

YV3RC at Caracas is moving around on the dials. Probably to avoid interference from CJRO and W8XK. They are usually on 48.78 meters, 6.20 mc. This comes from Fred Heller, Philadelphia. YVQ, a phone on 44.96 meters, or 6.67 mc. sent a program one Monday from 9:00 to 10:00 P.M. according to Nick Gaug, New York City.

Argentina

Station LSX, 28.98 meters, 10.35 mc., is still used to relay the programs from Little America each Wednesday. They are also broadcasting now daily from 6:15 to 7:15 P.M. according to reports received. They sign off at 7:15 with four chimes. This comes from Ed Lips, Pittsburgh, and Carroll Foltz, North Baltimore, Ohio. They also test with stations WET, WEL and WCG, Rocky Point, N. Y., in preparation for the Byrd program, and may be heard before and after the broadcast each Wednesday. They also were testing with W2XAF, New York, several times last month. This comes from R. Bartlett, St. Pierre Island; Wm. J. Mintz, Philadelphia, and F. A. Beane and R. Lawton, both of England, who also report that LSX was heard relaying IRM, Italy, one day between 5:30 and 6:00 P.M.

LSQ, 15.39 meters, 19.50 mc., was broadcasting again last month and asking for reports to be sent to 143 Defensa, Buenos Aires. Lewis R. Prettyman, Twin Lakes, Michigan, and James Jack, Jr., Tupelo, Miss., report them between 9:30 and 10:50 P.M. Louis A. Baer, San Francisco, California, reports them at 11:30 A.M. James Pickering, Highstown, New Jersey; G. S. Gallagher, San Francisco; H. J. Davison, Bayamon, P. R., and Frank Grey, Berwyn, Illinois, all report them near 12:30 Noon.

LSI on 30.47 meters, 9.80 mc., which was listed in this magazine about a year ago, but removed when it was not heard for over six months, suddenly reappeared this past month, relaying a program from the plane carrier "Ranger" to the NBC in U.S.A. The "Ranger" was in the harbor at Buenos Aires. The program took place at 6:15 P.M. and it is reported by Joseph B. Sessions, Bristol, Conn., and H. J. Davison, Bayamon, P. R. LSN on 30.3 meters, or 9.90 mc., relayed station LR3, September seventh and eighth at 7:00 to 8:00 P.M. according to Howard Eck, Lansing, Mich.; Dixon Russell, Baltimore, Maryland, and H. J. Davison, Bayamon, P. R. On September sixteenth LSX and another station on 9.82 mc. relayed a

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program from 6:20 to 6:40 P.M. according to Francis Worrel, Ann Arbor, Michigan, and Robert Woods, Sand Springs, Oklahoma. LSL on 7.90 mc. was also reported.

Special Tests

Just about every Saturday night, starting around 11:00 P.M., listeners will find a hook-up of stations in Central and South America around 40 and 45 meters. For instance on September 15, station YV5RMO, YV4RC, YV2RC, HJ1ABB, HC2RL, HJ4ABB, TIEP, HC1FG and (we understand) X1AA and H11A, all got together. This began about 8:00 P.M. and each station took about fifteen minutes time. This was reported by a number of members. Samuel Solito of Leetsdale, Pa., writes us another such hook-up is planned for December 7, when it will be relayed in the United States over a chain of stations. It will start at 4:30 P.M., and the stations taking part will be HJ3ABD on 40.55 meters, 7.40 mc.; Prado on 45.31 meters, 6.62 mc.; HJ4ABB on 42.00 meters, 7.14 mc.; YV5RMO on 49.39 meters, 6.07 mc. A station owned by Moises La France at Managua, Nicaragua, is next on 41.5 meters. Sixth is HJ1ABB on 46.51 meters, 6.45 mc. Seventh is TIEP on 44.71 meters or 6.71 mc. Eighth is YV3RC or YV2RC near 49 meters. We also thank James Pickering for his help in this.

CENTRAL AMERICANS

Costa Rica

A new Costa Rican station is reported. It is TIX, San Jose. It is announcing the wave as 52.00 meters or 5.88 mc., and that is pretty close although some say it is about 51.8 meters. Here is the dope. They use four gongs and a siren as an identification signal and announce as "La Reina del Aire" and give their address as Box 775, San Jose, according to Dr. Antonio M. Cancio of Sancti Spiritus, Cuba. Gordon Schumann of Appleton, Wisconsin, tells us they sign off with Ted Lewis' famous "Good Night" song. Dr. R. C. Kash, Seiverville, Tenn., gives the time as 9:00 to 11:30 P.M. nearly every night and Robert Woods of Sand Springs, Oklahoma, reports it from 6:30 until 10:00 P.M. Mr. Schumanns report says 10:15 P.M. and Dr. Cancio says 10 to 11 P.M.

TIEP, the station reported last month on 44.71 meters, 6.71 mc., owned by Edward Pinto and announcing as "La Voz del Tropica" is making a big noise these days. Most anyone in the United States should hear this one. Using the call TIEP when working amateurs, this station may be heard either broadcasting or talking to amateurs most every night from 5:00 P.M. until Midnight. Reports have come from Samuel Solito, Leetsdale, Pa.; F. B. Hetherington, Indianapolis, Indiana; John Shanks, Russellville, Tenn.; Louis A. Baer, San Francisco, California; Cyrus Will, Glencoe, Ill.; Howard Eck, Lansing, Mich.; Dixon Russell, Baltimore, Maryland; H. S. Campbell, Upland, California.

Mexico

A new station in Mexico City is under construction. It will relay

station XEYZ. This comes from R. W. Watts, Rocky River, Ohio, who wrote us from the studios of station XEYZ.

Station XETE is off the air. Newspapers all over the world carried the story of how the artists and staff of this station went on a strike for their pay and of the odd method by which they carried on the strike.

XEBT on 49.83 meters, 6.02 mc., hasn't settled down as yet and may be heard on more than one place on the dial in a single night. As a rule, however, they will be found around the above wavelength. They are heard from around 8:00 P.M. until as late (or early if you wish) as 3:00 A.M. in the morning. They now use cuckoo calls and a rooster crow as an identification. Helpful reports have come from O. L. Hay, Pittsburgh, Pa.; F. L. Stitzinger, Erie, Pa.; Frank Grey, Berwyn, Ill.; John A. Shanks, Russellville, Tenn.; Carl Forestieri, New York City; C. Lidstrom, Salt Lake City, Utah; Diron Russell, Baltimore, Maryland; Fred Karpen, Johnstown, Pa.; Francis Worrell, Ann Arbor, Michigan; James Pickering, Highstown, N. J., and Emmett Riggle, Massillon, Ohio.

XENT, a long wave station, has two powerful harmonics that may be mistaken for short wave stations. They are near 45 and 65 meters.

O. L. Hay, Pittsburgh, tells us XDE, Mexico City, is on 26.09 meters, 11.50 mc., near 1:00 and 7:00 P.M. often. Fred Karpen, Johnstown, Pa., and Joseph B. Sessions, Bristol, Conn., say this is XAM at Merida, Yucatan, and is heard between 5:00 and 6:00 P.M. also.

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Mixed News

A station owned by Moises Le France of Managua, Nicaragua, on 41.5 meters, or 7.23 mc., was heard talking to several stations from 11:00 to 2:00 P.M. by Samuel Solito, Leetsdale, Pa. A station WTR at Olbrook Field, Panama, Canal Zone, was heard talking to March Field, Riverside, California, between 12:00 Noon and 1:00 P.M. one Sunday on 47.10 meters or 6.37 mc. This was reported by O. L. Hay, Pittsburgh, Pa. TGX long a mystery station on 51.5 meters, 6.82 mc., is said by Ed Lips, Pittsburgh, Pa., to be broadcasting between 9:00 P.M. and 12:00 Midnight, and usually sign off with chimes and an English announcement.

THE EUROPEANS

Italy

Station 2RO at Rome is still off the air. According to the latest news this station will soon blossom out in a big way on several different waves and with directional antennas and a Lady announcer who will speak in several different languages including English. One program will be directed to North America, it is said. They have been assigned the new waves as follows: 49.46 meters (6.06 mc.), 54.01 (5.55), 52.4 (5.72), 42.98 (6.98), 31.13 (9.63) and 30.67 (9.78). F. A. Beane of Ridgewell, England, who sent us this news also adds that they have been heard testing on this last mentioned wave. E. Orchard of Weymouth, England, also reports them there. We also thank Hans Priwin, Copenhagen, Denmark.

IRM, 30.52 meters, 9.83 mc., was heard between 4:30 and 6:00 P.M. broadcasting by Al Leonhardt, Brooklyn, N. Y.; Fred Karpen, Johnstown, Pa., and Lewis R. Greenman, Conneaut, Ohio. IRM on 15.37 meters, 19.62 mc., was heard broadcasting music by R. D. Everard, Standon, England, between 3:45 and 4:00 P.M.

HVJ, Vatican City, on 19.84 meters, 15.12 mc., has again been heard Saturdays between 10:00 and 11:00 A.M. and also reported one Wednesday at 11:00 A.M. calling Madrid by Fred Karpen, Johnstown, Pa. Carroll Foltz, North Baltimore, Ohio, and Ed Lips, Pittsburgh, report them on Saturdays. Harris W. Dorr, Hartford, Conn., sends us the schedule he received from them, which is just as we have published it for years and it adds that they use English Tuesdays from 5:00 to 5:15 A.M. and the station may be identified by the ticking of a clock in the studios.

OER2 Schedule

OER2 at Vienna, Austria, is really back on the air. They are supposed to be on 49.4 meters, 6.07 mc., although one member says they are nearer 49.3 meters. Hans Priwin of Copenhagen, Denmark, writes us that they announce their power as 2,000 watts and says they transmit regular programs each week day from 8:00 A.M. to Midnight, G.M.T., which is 3:00 A.M. to 7:00 P.M., E.S.T. An identification signal is a metronome (a ticking sound). We wonder if this doesn't help identify a station reported by several Pacific Coast fans heard in the early mornings. R. D. Everard, Standon, England, reports hearing them from 2:00 to 3:00 P.M.

The Russians

For those who would like to hear Russia, try this. Stations RNE on 25.00 meters, 12-00 mc., and RKI on 19.94 meters, 15.4 mc., are heard most every Saturday from 9:00 to around 11:00 A.M. (Mornings) testing with stations in Rocky Point, N. Y. They are also heard on Sundays around the same time. RNE broadcasts each Saturday from 10:00 to 11:00 P.M. and each Sunday from 6:00 to 7:00 A.M. and 10 to 11 A.M. Other notes are as follows: RNE was heard from 11:30 to 11:50 A.M. by C. Winslow Lewis, Wellesley Hills, Mass. It was heard one Wednesday at 11:15 A.M. by James Pickering, Highstown, N. J. At 10:30 A.M. by Tilgham McCabe, Ocean City, Maryland.

RIM on 19-68 meters or 15.25 mc., is heard at 5:00 A.M. daily by Louis A. Bear, San Francisco, while Emmett Riggle, Massillon, Ohio, and Frank Grey, Berwyn, Illinois, report RIM and an RKI on 19.94 meters, 15.04 mc., lining up a phone circuit at 7:00 A.M. daily. RV59, Moscow, on 50-00 meters, 6.00 mc., is coming back again after an absence of many months. They are usually heard between 4 and 5 P.M. Emmett Riggle and Fred Karpen, Johnstown, Pa., report this. RW72 on 45.38 meters, or 6.61 mc., and RNE is reported from 10:36 to 11:30 A.M. by Bob Everad, Standon, England, although we understand the call is REN and not RW72.

Switzerland

A new Swiss station is reported. It is HBO on 24-93 meters, or 12.03 mc., and it was reported testing with the U.S.A. Does anyone know anything about it? HBJ on 20.60 meters, 14.56 mc., is active again after many months of silence. It was used several times last month to relay programs for re-broadcasting in America. It was heard one Sunday with a program from 1:00 to 1:30 P.M. by Charles Hoffman, Terre Haute, Ind., and John Shanks, Russellville, Tenn. HBP on 38.47 meters, or 7.80 mc., and HBL on 31.27 meters or 9.59 mc., sent a special program to the U.S.A. last month also. This was at 3:30 P.M. and was reported by James Pickering, Highstown, N. J.

Belgium

ORK at Brusselle on 29.04 meters, 10.33 mc., is getting into the U.S.A. with their daily broadcasts from 1:45 to 3:15 P.M. This is reported by many now. A letter sent to Albert Emerson, Cleveland, Ohio, in reply to a report sent by him on a station ORP on 22.78 meters says they broadcast at this time, but we believe they intend to say that ORK may be heard at this time.

Portugal

Station CT1AA, Lisbon, on 31.25 meters, or 9.60 mc., is being heard well each Tuesday and Friday from 4:00 to 6:00 P.M. Olinda Ferreira of Acushnet, Mass., tells us that they moved to 31.17 meters this last week to avoid interference. And in reply to queries, this station sends the cuckoo calls.

England

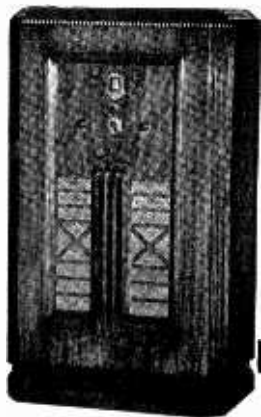
Arthur E. Baer of London, cables all the way from there to give us the latest schedule of the Daventry stations. The cable left much to guess-work, but here is the schedule we gathered from it.

GREATER THAN EVER

Chassis Refinements

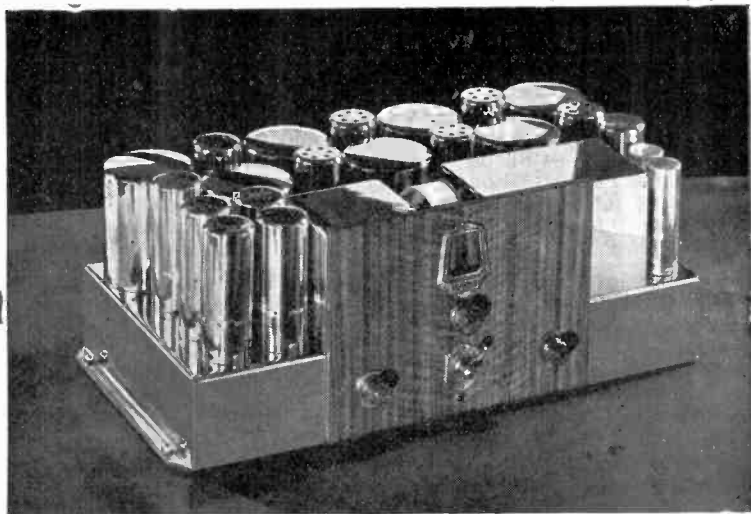
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 7:30 A.M. to 9:00 A.M.—GSF on 19.82 (15.13) and GSB on 31.55 (9.51).
 9:15 A.M. to 10:45 A.M.—GSF on 19.82 (15.13) and GSE on 25.29 (11.86).
 10:45 A.M. to 12:45 P.M.—GSE on 25.29 (11.86) and GSB on 31.55 (9.51).
 1:00 P.M. to 5:45 P.M.—GSC on 31.30 (9.58) and GSA on 49.59 (6.05).
 6:00 P.M. to 7:00 P.M.—GSD on 25.53 (11.71) and GSC on 31.30 (9.58).
 7:00 P.M. to 8:00 P.M.—GSC on 31.30 (9.58) and GSA on 49.59 (6.05).

GSA was used last month from 7:00 to 8:00 P.M. and reported by W. J. Mitzer, C. Miller, Robert Zecher, Fred Heller, James Pickering, Carl Forestiere, Donald Roebuck, F. A. Beane, and Roger Legge, all of whom we thank.

To settle an argument, H. S. Bradley of Hamilton, New York, has a reply from his report saying that the station on 22.37 meters, or 13.41 mc., heard working with the Japanese stations is GCJ and not GTJ. Others say it is GTJ, even Mr. Lawton of Whitefield, England, who should know. Can anyone help?

Spain

A chain of stations is understood to be under construction in Spain, and it will include a short wave station. This comes from a clipping sent us by Jack Jones, Jr., Tupelo, Mississippi. EAQ at Madrid on 30.40 meters 9.87 mc., is heard daily 5:15 to 7:00 P.M. and Tuesdays, Thursdays and Saturdays until 7:30 P.M. They are also on the air Saturdays from 1:00 to 3:00 P.M. EHY, the phone on 29.79 meters, or 10:07 mc., was reported one Monday and Tuesday relaying a program from station "Union Radio" and working Argentina by Fred Karpen of Johnstown, Pa., who says the time was 6:30 to 8:00 P.M.

Holland

The Dutch stations were active this month. A new one appears on the air also, or maybe two. First of all, about PHI. This station will move to 25.57 meters, 11.73 mc., on October 1. They are broadcasting daily excepting Tuesdays and Wednesdays from 7:30 until 10:00 A.M., and Sundays oftines staying on until 11:00 A.M.

Harris W. Dorr of Hartford, Conn., first reported a P?Z, Eindhoven, on 19.71 meters, or 15.23 mc., broadcasting between 6:00 and 6:30 A.M. Then Thomas Tupper of Lakewood, New Jersey, reported it as PCJ. Then on September 18, when the Queen of Holland opened the Parliament, stations PHI on 16.88 meters; PDV on 24.38 meters and this station were all heard broadcasting the services. This was at 7:00 A.M. It has not been reported since. Frank Grey, Berwyn, Illinois; Roger Legge, Jr., Binghamton, N. Y.; F. L. Stitzinger, Erie, Pa.; H. J. Davison, Bayamon, P. R., and Carroll C. Foltz of North Baltimore, Ohio, report this program. Mr. Foltz, by the way, reports a station on 19.71 meters that he believes is in Java, and he said they announced as PK2 (?) and was heard quite often between 8:00 and 8:40 A.M. and as late once as 11:45 A.M. This must be the same station. Mr. Davison also reports a PCX on 16.03 meters on this same program.

France

The latest schedule announce for the stations at Pontoise, to take effect at once is as follows: On 19.68 meters, 15.25 mc., from 7:30 to 11:00 A.M. On 25.20 meters, or 11.90 mc., from 11:15 to 2:15 P.M. and with another antenna from 2:15 P.M. until 6:00 P.M. On 25.63 meters, 11.90 mc., they broadcast from 6:15 until 9:00 and from 10:00 P.M. until Midnight. This comes from the station.

Germany

There may be a later schedule for the German stations but we do not know about it. Here is the latest one we have:

DJB on 19.73 meters (15.20)—12:15 to 2:00 A.M. and 8:00 to 11:30 A.M.

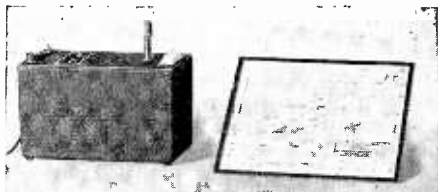
DJD on 25.51 meters (11.76)—Noon to 4:30 P.M. and 5:30 to 10:30 P.M.

DJA on 31.38 meters (9.57)—8:00 to 11:30 A.M. and 5:15 to 8:15 P.M.

DJC on 49.83 meters (6.02)—Noon to 4:30 P.M. and 5:30 to 10:30 P.M.

A special program is broadcast each Sunday by DJA for Australia from 4:00 to 5:30 A.M. The station DJO which was heard on 31.40 meters last month has not been reported lately. But, instead, a station has been on about 49.35 meters, or 6.08 mc., using the call DJM. This was reported by Hans Priwin, Copenhagen, Denmark. These stations relay the program of DJA and DJC.

The German stations have been assigned a whole new lot of frequencies and we expect to see a big change made soon in the schedules of



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these stations. These new stations and calls are as follows: DJR on 19.56 meters, or 15.34 mc.; DJQ on 19.63 meters, or 15.28 mc.; DJP on 25.31 meters, or 11.85 mc.; DJO on 25.43 meters, or 11.79 mc.; DJN on 31.45 meters, or 9.54 mc. So, watch out for these new stations.

Several phones were reported with music last month, including DIQ on 29.15 meters at 1:00 P.M. by Nick Gaug, New York City, and DJE on 16.89 meters or 17.76 mc.

THE ASIATICS

The Japanese

The main subject so far as Japanese reception is concerned is this: Station JVM on 27.93 meters, or 10.74 mc., is no longer broadcasting those morning programs. Instead station JVT on 44.44 meters, or 6.75 mc., is heard. They relay JOAK nearly every day now. They come on the air around 1:30 A.M. and stay until about 7:40 A.M. At about 5:00 A.M. they have a new bulletin in English. Reports on this have come from Myron Reamy, Yonkers, N. Y.; Robert Woods, Sand Springs, Okla.; Harris W. Dorr, Hartford, Conn.; Jerry Debenport, Childress, Texas; H. C. Campbell, Upland, California; Walter Jasiorkowski, Milwaukee, Wisconsin, and Albert Emerson, Cleveland, Ohio.

This does not mean that JVM is not heard at all. They are used quite a bit. They come on the air around 1:30 A.M. and may be heard as late as 8:00 A.M. One member reported them at 11:00 P.M. also. Reports have come from W. H. Pepin, Maylands, Australia; Frank Grey, Berwyn, Illinois; Louis A. Baer, San Francisco, California; Albert Leonhardt, Brooklyn, N. Y.; G. C. Gallagher, San Francisco, Calif.; Glenn Watt, Chanute, Kansas, Fred Karpen, Johnstown, Pa., and Messrs. Campbell, Dorr and Reamy.

JYT at Kemikawa-Cho, on 19.03 meters, or 15.76 mc., is reported at 4:30 P.M. and 7:00 until 9:00 P.M. by H. S. Campbell, Upland, California.

JVE on 19.15 meters, or 15.66 mc., was heard by Fred Karpen, Johnstown, Pa., between 5:30 and 7:00 P.M. JVH on 20.55 meters, 14.60 mc., was working GBJ, Engalnd, at 4:45 A.M. and Berlin at 5:50 until 6:00 A.M. according to R. D. Everard, Standon, England, and was heard at 6:30 A.M. by Thomas Tupper, Lakewood, N. J. JVF on 19.20 meters, Ohio, and 4:30 to 7:00 P.M. by Fred Karpen. JVQ on 40.16 meters, 7.47 15.61 mc., from 6:15 to 7:00 P.M. is reported by Emmett Riggle, Massillon, mc., is reported at 11:00 P.M. with music by Louis A. Baer, San Francisco. JVN on 28.14 meters, 10.66 mc., is reported heard almost every morning relaying JOAK by G. C. Gallagher, San Francisco, while it is reported at 3:00 A.M. by Glenn Watt, Chanute, Kansas, at 7:00 A.M. by Emmett Riggle, Massillon, Ohio, and at 5:30 A.M. by W. D. Martin, Honolulu.

JYS at Kemikawa-Cho is reported on 30.49 meters, 9.84 mc., by both Louis A Baer and H. S. Campbell of California. It is heard from **Midnight** until early morning and was heard once at 11:00 P.M. Mr. Baer also reports station JVS on 6.99 mc. and a JVO on 10.37 mc. at 11:00 P.M. and Mr. Gallagher reports a JVL on 27 meters and a JVO on 28.90 meters.

Does anyone know anything about these? And Mr. Baer also reports JYR on 38.07 meters, 7.88 mc., back on the air at 11:30 P.M. until 2:15 A.M., irregularly. All stations with the JY call are located at Kemikawa-Cho, Chiba-Ken, Japan. The others are located at Nazaki, we believe. However, it has been reported as Nagoya and Nagasaki, and all the maps we have shows both of these and no Nazaki. The only word we have of proof that it is Nazaki, comes from the engineer at Kemikawa-Cho, who tells us these stations are owned by the Japanese International Telephone Company at Nazaki.

Japanese

F. A. Beane of Ridgewell, England, tells us that the N. V. Nederlandse Indische Radio Omroep Mij of Batavia, Dutch East Indies is operating a station on 49.02 meters, 6.12 mc., broadcasting daily from about 9:00 to 9:45 A.M., 1:30 to 4:30 P.M. and 8:30 P.M. to about 1:00 A.M. On Saturdays and Sundays they broadcast until 2:30 A.M. We wonder if this isn't the station reported by quite a number who thought it was PK1WK.

PLE on 15.93 meters or 18.83 mc., at Bandoeng phones KWU at 6:45 P.M. daily and Tokio from 7:00 to 9:00 P.M., according to H. S. Campbell, Upland, California. PLV on 31.86 meters, 9.42 mc., works San Francisco at 9:55 A.M. daily according to A. R. Baadsgaard, Ponoka, Alberta.

Australia

Australia is not considered Asiatic, but here is the news from there VK2ME, Sydney, on 31.28 meters, 9.59 mc. will operate as follows each Sunday in October. 12:30 A.M. to 2:30 A.M., 4:30 A.M. to 8:30 A.M. In November it will be 1:00 to 3:00 A.M. in the first period. This comes from B. R. Kanao, Karanja, Ahola, India, and W. H. Rowley, Plymouth, England. VK3ME, 31.55 meters, 9.51 mc retains their schedule which is Wednesdays 5:00 to 6:30 A.M. and Saturdays 5:30 to 7:00 A.M. VK3LR at Lyndhurst (Melbourne) 31.31 meters, 9.58 mc. is broadcasting daily excepting Sunday 3:00 to 8:00 A.M.

VK2ME on 28.52, or 10.52 mc., which goes by the call VLK in regular phone work, was heard many times last month testing with W2XAF, New York, in preparation for a special broadcast to take place during the Yacht Cup races and later on when the London-to-Melbourne plane race takes place. These tests usually took place around 6:45 to 7:30 A.M. This information came from Frank Grey, Berwyn, Illinois; Dixon Russell, Baltimore, Md.; Fred Karpen, Johnstown, Pa; Thomas Tupper, Lakewood, New Jersey; H. J. Davison, Bayamon, P. R., and J. B. Sessions, Bristol, Connecticut.

In late August, station VLJ, 37.59 meters or 7.98 mc., relayed a program of a cricket match between Australia and New Zealand, from 12:40 A.M. to 2:50 A.M., according to W. H. Pepin, Maylands, Australia. A station VK3XX on the same wave as VK3LR is reported by W. D. Martin, Honolulu, Hawaii.

India

We are disappointed in station VUB, Bombay, for we haven't a single authentic report on this station from a listener in the United States. The

reason, of course, is that station W1XAZ, Boston, is right on top of this station and on the air at exactly the same time. Anyhow, VUB is on 31.36 meters, 6:57 mc. Mondays, Wednesdays, Thursdays and Saturdays now, from 11:30 A.M. till 12:30 noon. They have a nice QSL card showing the "Gateway to India" between two antenna towers. Shokihi Yoshimura, Moji, Japan and F. A. Beane, Ridgewell, England, help us with this.

VWY, the phone at Poona, is reported by L. A. Baer, San Francisco, on both 33.41 meters, 8.98 mc. and 17.10 meters, or 17.54 mc. The first at 1:20 P.M. and the later at 8:00 A. M. They phone GAU England from 6:30 to 6:45 A.M., according to a letter received by Guy R. Bigbee, Fort Benning, Georgia.

Mixed Asiatic News

KBO Manila, on 21 meters, 14.00 mc. approximately, is reported testing mornings around 11:00 A.M. by Fred Corey, San Jose, Cal. A KPJ Manila on 13.22 or 22.70 meters works PLV Java at 3:30 A.M. according to W. D. Martin, Honolulu, Hawaii. KAZ Manila, 30.09 meters, 9.97 mc. generally works KWX California at 10:00 P.M., according to A. B. Baadsgaard, Ponoka, Alta. and works KWV Dixon around 10:45 A.M., according to James Pickering, Hightstown, N. J.

Louis A. Baer, San Francisco, tells us that he heard ZHI Singapore, S. S., on 49.92 meters, 6.01 mc. one Monday from 7:34 to 8:00 A.M.

FZR on 18.51 meters or 16.21 mc. at Saigon, Indo-China, does work phone, for Fred Karpen, Johnstown, Pa., reports them working Paris from 7:00 to 8:00 A. M. one Wednesday last month. FZS on 16.35 meters, or 18.35 mc. is reported at 10:00 to 11:00 A. M. working Paris and using a three-tones note, by Nick Gaug, New York City.

ZLT, New Zealand, 27.3 meters, 10.99 mc. phones London daily from 2:30 to 3:00 A.M. according to R. Lawton, Whitefield, England. HSJ, Bangkok, Siam, on 37.60 meters or 7.98 mc. works DGU Berlin, at 10:00 A.M. according to Louis A. Baer, San Francisco.

A station in Medan, Sumatra on 41.49 meters, or 7.23 mc., was heard broadcasting a musical program one Saturday from 6:20 to 6:26 A.M. and one Tuesday on 17.10 meters from 9:50 to 10:18 A.M. according to a report from Shokichi Yoshimura, Moji, Japan.

R. Lawton, Whitefield, England, tells us CQN sends a nice QSL card showing the post office at Macao and gives details of their station as follows: Wavelength, 49.8 meters; Power, 500 watts; Schedule, 7:00 to 9:00 A.M. on Mondays and Fridays only and address is Government Broadcast Station, Post Office Bldg., Macao, South China.

We have a letter which H. S. Bradley of Hamilton, N. Y., received from station ZGE. It is signed by the secretary of the Malayan Amateur Radio Society and says the station is on 48.92 meters, 6.13 mc., and has 180 watts power. It uses the call ZGE and broadcasts Sundays, Tuesdays and Fridays from 6:40 to 8:40 A.M. Here is the interesting part of the letter. It says "I have not yet had a claim from America which I have been able to verify. They have all been very poor." We bet a certain sailor will have a red face when he reads this.

THE AFRICANS

A new station is reported at Tripolis, Italian North Africa. This station is owned by the Reale Automobile Club, D'Italia, Sede Coloniale de Tripoli, and was heard on 31.61 meters, 9.46 mc., testing with stations at Monte Celio, Rome, Italy, from 11:00 A.M. to 1:00 P.M. It was reported by Hans W. Priwin, Copenhagen, Denmark, and F. A. Beane, Ridgewell, England.

We are not sure if the Azores are considered African or not, but here is the news anyhow. A station CT2AJ, Electro-Auto, Ponta Pelgada, Sao Miquel, Azores Islands, is on 83.3 meters, 3.6 mc., and is heard in England around 6:00 P.M., E.S.T. This comes from Arthur E. Baer, London.

OPM, Leopoldville, Belgian Congo, has been on the air between 4:00 and 5:00 P.M. phoning on 29.5 meters, or 10.14 mc., according to Lewis Greenman, Conneaut, Ohio.

A letter from the Overseas Communication Company, Kodak House, Shortmarket Street, Cape Town, South Africa, says ZSS at Klipheuvell is on 18.89 mc. and not 18.83 mc. as we list it. They say they work phone daily with ZSS and a ZSR on 9.18 mc. is seldom used. This comes from E. A. Hardwick, Misterdon, Somerset, England.

The schedule of VQ7LO at Nariobi, Kenya Colony, is as follows: Daily from 11:00 A.M. to 2:00 P.M.; Saturdays and Sundays until 3:00 P.M.; Mondays, Wednesdays and Fridays from 5:45 to 6:15 A.M.; Tuesdays 3:00 to 4:00 A.M. and Thursdays from 8:30 to 9:30 A.M. F. A. Beane of Ridgewell, England, claims this station is not on 49.5 meters, 6.06 mc., at all, but on 49.3 meters, or 6.09 mc.

THE WEST INDIANS

Station COC at Havana, Cuba, is back on the air and very welcome. It is on 49.96 meters, or 6.01 mc., and is broadcasting daily from 4:00 to 6:00 P.M. and 9:30 to 11:00 A.M. and on Saturday nights broadcast until as late as Midnight. Reports have come from the following, all of whom we thank: Thomas Van Auken, Livingston, Texas; Tilgham McCabe, Ocean City, Maryland; Frank Grey, Berwyn, Illinois; Pedro Quintaria Cabot, Cifuentes, Cuba; John Shanks, Russellville, Tenn.; Ed Lips, Pittsburgh, Pa.; Fred B. Heller, Jr., Philadelphia, Pa.; Cyrus Will, Glencoe, Illinois; G. C. Gallagher, San Francisco, California; Robert Base, Baltimore, Maryland; Carl Forestieri, New York City; Emmett Riggle, Massillon, Ohio; Charles Hoffman, Terre Haute, Ind.; Jerry Debenport, Childress, Texas; Dr. R. C. Kash, Sevierville, Tenn.; W. H. Lewis, Leavenworth, Kansas; Walter Jasiorkowski, Milwaukee, Wis.; Albert Emerson, Cleveland, Ohio; Louis A. Baer, San Francisco, California; Al. Leese, San Francisco, California, and Robert Rossi, Philadelphia, Pa.

CM6XS, an amateur station owned by Frank Jones of Tunicucu, Cuba, is on 36.28 meters, or 8.25 mc., broadcasting, according to reports. They are also on 21 meters working amateurs. Reports on the 36 meters broadcasts came from George Dursey, Philadelphia, Pa., who reported

them at 10:30 P.M.; Albert Emerson, Cleveland, Ohio, and H. S. Bradley, Hamilton, N. Y.

ZFB, Hamilton, Bermuda, on 29.83 meters, 10.05 mc., was calling VQJP on the Queen of Bermuda and VQJP answered on 4.41 mc. and worked WOO, New Jersey, according to a report from R. D. Everard, Standon, England. ZFB was heard from 7:30 to 7:55 P.M. and VQJP at 9:30 to 9:45 P.M.

The Dominican stations, HIX, HIZ and HI1A, all seem to be keeping their schedules as we list them, although John Shanks of Russellville, Tennessee, reports HI1A at 5:45 P.M. on 6.42 mc. one Saturday. H. J. Davison of Bayamon, Puerto Rico, reports them testing once with an amateur HI8X on 21 meters.

The latest Dominican station is HI4B or HI4D. Everyone excepting H. J. Davison says it is "B," but Mr. Davison said they announced it was "D, like in Dominicana." Fred B. Heller, Jr., of Philadelphia, tells us they announce their location as Santo Domingo and not Quisquilla but others say it is the later. H. S. Bradley tells us there are two new Dominicans, one on about 46.3 meters and the other on about 45.6 meters. John Shanks of Russellville, Tennessee, tells us they are on about 46.2 meters instead of 46.37 meters as they are on the one side of HJ5ABD and adds that they are heard nearly every day from 6:00 to 7:27 P.M. using English and playing a pipe organ selection at the close of the program.

THE EXPERIMENTAL STATIONS

KFZ, Little America

The programs from Little America will be one hour later hereafter, due to the change in time. This makes them now 10:15 P.M. instead of 9:15 P.M. During the past few weeks they have been using waves near 45.11 meters, 6.60 mc., and 22.66 meters, or 13.24 mc. Look for them there each Wednesday. F. L. Stitzinger of Erie, Pa., tells us the channel numbers have been changed again and 45.11 meters, or 6.06 mc., is called Number Three now. Albert Emerson of Cleveland, Ohio, tells of hearing them one Saturday at 7:10 P.M.

KFZ works on the following waves and frequencies: The first number designates the channel, the second is meters and the third is megacycles. 1—45.11 (6.65); 2—45.05 (6.60); 3—44.98 (6.67); 4—34.01 (8.82); 5—33.94 (8.84); 6—31.57 (9.52); 7—25.36 (11.83); 8—22.76 (13.18); 9—22.73 (13.20); 10—22.68 (13.2); 11—22.60 (13.24); 12—22.62 (13.26); 13—16.65 (15.27); 14—17.04 (17.60); 15—17.03 (17.62); 16—13.94 (21.52); 17—13.89 (21.60); 18—13.87 (21.63).

In addition to these, two others are reported now. They are No. 19 on 52.26 meters, or 5,740 kc., and No. 20 on 32.22 meters or 9,310 kc.

KNRA, The Seth Parker

The Seth Parker continues on her way around the world after all. This is the official news. Programs have been relayed recently on Thursdays at 8:30 P.M. but we are told they will be Mondays around

6:30 P.M. hereafter. Maybe this will be one hour later, now that daylight time is gone. One member tells us it will be 11:15 P.M. on Mondays now. Reports have come from Albert Emerson, Cleveland; A. B. Baadsgaard, Ponoka, Alberta; William Mitzner, Philadelphia; R. Bartlett, St. Pierre Island; Dr. R. C. Kash, Sevierville, Tenn.; Robert Woods, Sand Springs, Oklahoma; F. A. Beane, Ridgewell, England, and H. J. Davison, Bayamon, Puerto Rico.

Although KNRA signs off each time with a warning to listeners about the secrecy of such stations, Ed Lips of Pittsburgh, has received an actual verification from the National Broadcasting Company of Rockefeller Centre, New York City.

W10XDA

The station aboard the "Effie Morrisey" is still being heard. The latest news on it is that they are now nearing New York City and they will not be heard after their arrival there. They have been heard on 23.30 meters, or 12.83 mc., and 34.68 meters, or 8.65 mc., during the past month for the first time. They worked station W2XX, Wayne, New Jersey, on these frequencies, while W2XX used the one not occupied by W10XDA at the time. They were also heard on the 21 meter, 14 mc. band testing with amateurs most any time of the day. Reports on these new frequencies came from Marvin Sliker, Shaker Heights, Ohio; Raymond Mens, Toledo, Ohio; Fred Karpen, Johnstown, Pa.; William Fiedler, Milwaukee, Wis.; Hyman Cohen, New York City, and James Pickering, Highstown, New Jersey.

Mixed News

Although it is late to mention this, two members have received verifications on the stratosphere flight reception from the National Geographic Society, Washington, D. C. Others may want this information so they can write. These members are Ed Lips, Pittsburgh, Pa., and W. J. Watendorf, Jersey City, N. J. Members still agree with us that this magazine was the only one in the world to publish the advanced dope on this flight in time to permit listeners to tune the station in. And are they enthusiastic in their praise?

A Ship using the call JUSI on 36 meters, or 8.33 mc., calling JCM, Japan, from 6:00 to 6:30 P.M. is reported by Samuel Solito, Leetsdale, Pa. A letter from the Chief Wireless Officer, on the Ile de France verifies a report by Myron D. Reamy, Yonkers, New York, mentioning the time, wave and location of the ship at that time. The address was Dock at West 15th Street, New York City.

THE NORTH AMERICANS

The Canadians

There isn't much news about North American stations, excepting that all of the broadcasters changed their schedule one hour when daylight saving time went out of effect. We do have some news on the Canadians. CJRX at Winnipeg, Manitoba, has gone up to about 25.60 meters, 11.72

mc. They were down around 25.4 meters for a long time. They and CJRO on 48.85 meters, or 6.15 mc., are broadcasting daily 8:00 until 11:00 P.M. and 11:30 until Midnight. We thank the following for their reports: Thomas Van Auken, Livingston, Texas; John Shanks, Russellville, Tenn.; Ed Lips, Pittsburgh, Pa.; G. C. Gallagher, San Francisco; Wm. A. Baker, San Francisco; Fred Karpen, Johnstown, Pa.; F. L. Stitzinger, Erie, Pa., Lewis R. Greenman, Conneaut, Ohio, and Walter Jasiorkowski, Milwaukee, Wisconsin.

VE9GW at Bowmanville, Ontario, is on a new schedule according to W. J. Wattendorff, Jersey City, New Jersey. It is on 49.22 meters, 6.09 mc., on Monday, Tuesday and Wednesday from 3:00 P.M. to Midnight; Thursday, Friday and Saturday from 7:00 P.M. to Midnight, and Sunday from 1:00 to 9:00 P.M.

Raymond Bell of Carlisle, Pa., sends a list of the Canadian stations licensed for phone work, but it does not quite clear the situation. We have just about concluded that the Canadian Marconi, who own the stations, are using different calls. Here is the best we can make out of all the dope sent in. CGA is on 16.50 meters, 18.18 mc., working England, in daytime. CGA2 is on 21.83 meters, 13.74 mc., working ships irregularly. CGA3 is on 22.58 meters, 13.28 mc., irregularly working England and ships. CGA4 is on 32.14 meters, 9.33 mc., working England evenings. CFA2 is on 65.15 meters, 4.46 mc., working ships irregularly. Stations not heard but mentioned in the list are CFA4 on 28.52 meters. CGA6 on 44.84 meters; CGA7 on 43.60 meters; CGA9 on 68.96 meters; CJA on 24.79 meters; CJA3 on 16.49 meters; CJA5 on 44.58 meters; CGD on 89.80 meters and CZA on seven different waves. Albert Emerson says they verified CGA2 on 13.74 mc., and Fred Karpen, Johnstown, Pa., reports CGA phoning England daily 8:00 to 10:00 A.M.

Rocky Point Stations

At any hour of the day or night, one may tune in one of the 80 stations at Rocky Point on voice, as they are used experimentally. The latest news is that WEF is on 28.25 meters, or 10.62 mc.; WET is on 31.86 meters, or 9.47 mc.; WQW is on 28.20 meters, or 10.64; and KEI at Bolinas, California, is on 31.61 meters where WEF used to be. This news comes from Carroll C. Foltz, North Baltimore, Ohio; G. C. Gallagher, San Francisco, California; W. D. Martin, Honolulu, Hawaii; Lewis Prettyman, Twin Lakes, Michigan; WQV on 20.27 meters and several of the above are reported by R. Lawton of Whitefield, England, and Bob Everard, Standon, England, while R. Bartlett of Pierre Island, reports WQO on 44.54 meters working with KNRA near 9:00 P.M. C. D. Hall, Chillicothe, Ohio, sends us a list taken from the official government list showing WQO on 44.64 meters, WEJ on 44.51, WET on 31.68 WEF on 31.31 (?), WEA on 28.27, WEB on 43.29, WCG on 28.91, WEL on 33.32, WEM on 40.54, WQP on 21.58 and WQV on 20.27. These are on our list.

Hawaii

KIO, Hawaii, after many months of silence has broken out again. James Pickering, Highstown, New Jersey, tells us they send a program each Saturday from 6:30 to 7:00 P.M. on 25.63 meters, or 11.71 mc. They

also sent a special program of a volcano eruption once last month. Others who helped with their reports are Louis A. Baer and G. C. Gallagher of San Francisco, California; J. A. Shanks, Russellville, Tenn., and Robert Woods, Sand Springs, Oklahoma.

Mixed News

Charles Miller of Covington, Kentucky, tells us W1XAL, Boston, on 25.42 meters, 11.78 mc., announced their schedule as 4:45 to 7:00 P.M. Consistency has nothing to do with this station, however, they announce one schedule, write another and then go right ahead and work on a different one.

W3XL on 46.69 meters, or 6.42 mc., at Bound Brook, New Jersey, saw service last month. After the terrible disaster of the Morro Castle fire, portable stations were rushed to the scenes where survivors landed and these stations were kept in contact with W3XL. Albert Emerson, Cleveland, Ohio, and Samuel Solito of Leetsdale, Pa., report this. H. J. Davison, Bayamon, Puerto Rico, advises us that W3XAL, Bound Brook on 16.87 meters, 17.78 mc., was heard as late as 5:00 P.M. but we believe this was to cover the Yacht races for foreign listeners.

Wm. C. Vestal, Redlands, California, sends us a list of the Forestry stations heard by him. They are KNIA, Glacier National Park, Montana, on 2.60 mc.; KNJB on Yellowstone National Park, Wyoming, on 2.52 mc.; KNKP, Rocky Mountain National Park, Colorado, on 2.52 mc.; KNKS, Yosemite National Park, California, (also KNKU and KNKW at the same place on 2.64 mc.) KKNKY, Devil's Post-Pile National Monument, Calif.; and KNLO, Death Valley National Monument, California, both on 2.64 mc., or 113.6 meters.

James Pickering of Highstown, New Jersey, reports several stations near 34.5 meters, or 8.70 mc., using the calls FD93, M37, and F36 near 10:30 A.M. and mentioning the Blue Ridge Mountains and Fire Patrols.

NELB on the plane carrier "Saratoga," NIKM on the "Lexington" and NABD on the "Indianapolis" may all be heard at times giving directions for formations to planes connected with these ships. No definite time can be given for they may be heard at any time of the day or night. They are usually around 48.5 meters, or 6.18 mc., or else around 142.2 meters, or 2.19 mc. Samuel Solito, Leetsdale, Pa.; Al Hague, New York City, and James Pickering, Highstown, New Jersey send reports.

The army fields, like Langley Field, Virginia, using the call FG-7 may be heard directing planes also. Myron D. Reamy, Yonkers, New York, has a letter from Langley Field saying their call is now FG-7 and not PT-2. Tilgham McCabe of Ocean City, Maryland, reports a station VK1 on 46.55 meters calling a squadron. Never mind, these stations all use the queerest calls.

Fred Corey, San Jose, California, reports that a station KIR on 43.60 meters, or 6.86 mc., has been testing around 9:00 to 9:30 P.M. It is being groomed to transmit from a plane which will follow the flyers in the great London to Melbourne Air Race soon. The race is scheduled for October 20, by the way. W. H. Penny and A. J. Downes of Australia will use this station. They expect a world-wide hook-up.

Mtg. Meters	Station	Country	Day	A. M.							P. M.															
				1	2	3	4	5	6	7	8	9	10	11	N	1	2	3	4	5	6	7	8	9	10	11
9.51.	31.55—VK3ME	Australia.	Wed., Sat.					5	6	7																
9.51.	31.55—GSB	England.	Irreg.	2	3	4		1	8	9	10	11	N													
9.51.	31.55—	Brazil.	Daily																							
8.05.	37.33—CNR	Africa.	Sunday																							
7.80.	38.47—HBP	Switzerland.	Saturday																							
7.88.	38.07—J1AA	Japan.	Daily					5	6	s																
7.14.	42.00—HJ4ABB.	Colombia.	Daily																							
6.67.	45.00—HC2RL	Ecuador.	Sunday																							
6.62.	45.31—Prado	Ecuador.	Thur.																							
6.45.	46.50—HJ1ABB	Colombia.	Daily										N	s												
6.25.	48.00—HJ3ABF	Colombia.	Daily																							
6.15.	48.79—YV3RC	Venezuela.	Week days.										1	1	N	s										
6.15.	48.85—CJRO	Canada.	Daily																							
6.14.	48.86—W8XK	U.S.A.	Daily																							
6.12.	49.02—W2XE	U.S.A.	Daily																							
6.11.	49.08—YV2RC	Venezuela.	Daily																							
6.10.	49.18—W3XAL	U.S.A.	M., W., S.																							
6.09.	49.22—YV9GW	Canada.	See List																							
6.07.	49.39—YV5RMO	Venezuela.	Daily																							
6.06.	49.50—H1X	Rep. Dom.	See List																							
6.05.	49.59—GSA	England.	Daily																							
6.02.	49.80—XEBT	Mexico.	Irreg.																							
6.02.	49.83—DJC	Germany.	Daily																							
6.00.	50.00—RV59	U. S. S. R.	Daily																							
5.97.	50.26—HVJ	Vatican.	Daily																							
5.95.	51.20—HJ4ABE	Colombia.	Daily																							
5.88.	51.49—HJ2ABA	Colombia.	Daily																							
4.25.	70.65—RV15	U. S. S. R.	Daily																							
4.11.	73.00—HCJB	Ecuador.	Daily																							

(s) means that the station signs off at that hour. Stations marked $\frac{1}{2}$ means that they start or end their program on the half-hour. "See List" means to look in our station list, as the station does not operate regularly at the time stated. Please note—Time given is Eastern Standard. Write in local time in space provided underneath Eastern Standard Time.

"ON-THE-AIR"

Because of the world-wide membership of this organization and the speed in which this magazine is edited and published, this list is considered by most short wave fans, and manufacturers of short wave receivers, as the most complete, up-to-date and authentic in the world. No other publication has the world-wide circulation of this organization, and none are able to bring out such an accurate up-to-date list in such a short time.

The time given is in Eastern Standard. Add five hours for G. M. T. Mark down the dial readings of the stations heard on the margin of the paper and it will guide you to the location of other stations on your dials

B—Stands for Broadcast stations. These stations broadcast programs, usually relaying some long wave station.

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

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

Meter	Meg.	STATION	TIME
B-13.92	-21.54	-W8XK, Pittsburgh, Pa.	Relays KDKA, 7:00 A.M. to 2:00 P.M. daily.
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	-FSN, Rio de Janeiro, Brazil.	Phones WKK, WLK daytime.
T-14.27	-21.03	-LSN, Buenos Aires, Arg.	8:00 A.M. to 4:00 P.M. WKK and WLK.
T-14.38	-20.86	-EHY-EDM, Madrid, Spain.	Phones South America, mornings.
T-14.72	-20.38	-GAA, Rugby, England.	Phones LSL and PPU near 8:00 A.M.
T-14.97	-20.04	-OPL, Leopoldville, Belgian Congo.	Phones ORG mornings.
T-14.99	-20.02	-DHO, Nauen, Germany.	Phones PPU and LSM mornings.
T-15.14	-19.81	-WKN, Lawrenceville, N. J.	Phones GAU, daytime.
T-15.24	-19.69	-CEC, Santiago, Chile.	Phones LSR, HJY near 11 A.M. and 4 P.M.
T-15.31	-19.60	-LSF, Buenos Aires, Argentina.	Testing 7 to 9 A.M. irregularly.
T-15.37	-19.52	-IRW, Rome, Italy.	Phones Argentina mornings.
T-15.39	-19.50	-LSQ, Buenos Aires, Argentina.	Heard testing near 2:00 P.M.
T-15.50	-19.35	-FTM, St. 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.	Testing phone, 11:00 to 11:30 A.M.
T-15.68	-19.13	-LSM, Buenos Aires, Argentina.	Phones EAQ, DHO, GAA mornings.
E-15.77	-19.02	-WKW-W2XBJ, Rocky Point, N. Y.	Testing mornings.
T-15.88	-18.89	-ZSS, Klipkeuvall, S. Africa.	Phones GAS, 6:30 to 7; 10 to 10:45 A.M.
T-15.93	-18.83	-PLE, Bandoeng, Java.	Phones Holland 6 to 11 A.M. KWX irregularly.
T-16.06	-18.68	-OCI, Lima, Peru.	Testing with HJY near 2:00 P.M.
T-16.11	-18.62	-GAU, Rugby, England.	Phones New York mornings.
T-16.25	-18.46	-HJY, Bogota, Columbia.	Phones CEC, LSR, 11 A.M. and 4:00 P.M.
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-16.35	-18.35	-FZS, Saigon, Indo-China.	Phones Paris 5:09 A.M. irregularly.
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	-CGA, Drummondville, Canada.	Phones England daytime.
T-16.50	-18.18	-PMC, Bandoeng, Java.	Phones PCV, 3:10 to 9:20 A.M.
E-16.55	-18.12	-LSY, Buenos Aires, Argentina.	Irregular.
T-16.63	-18.04	-GAA, Ruby, England.	Phones Argentina, 10:00 A.M. to 2:00 P.M.

Meter	Meg.	STATION	TIME
T-16.65	-18.97	-GACV, Ruby, England.	Phones Cape Town near 8:00 A.M.
T-16.82	-18.05	-PAQ, Kootwijk, Holland.	6:00 to 9:00 A.M. Java.
B-16.86	-17.79	-GSG, Daventry, England.	6:00 to 7:40 A.M.
B-16.87	-17.78	-W3XAL, Bound Brook, N. J.	Daily 9:00 A.M. to 3:00 P.M.
T-16.89	-17.76	-IAC, Piza, Italy.	Phones ships early mornings.
E-16.89	-17.76	-DJE, Nauen, Germany.	Heard irregularly in the mornings.
T-16.85	to 18.27	-17.80 to 16.42	-ships. Heard in daytime.
T-16.92	-17.75	-HSP, Bangkok, Siam.	Works Germany, 4:30 to 6:30 A.M.
T-17.10	-17.54	-VWVY, Poona, India.	Phones GBU, 2:00 to 8:00 A.M.
T-17.12	-17.52	-DFB, Nauen, Germany.	Phones LSM and YVQ near 9:00 A.M.
T-17.34	-17.30	-Italian ships.	Phone WOO and IAC, daytime.
T-17.37	-17.27	-DAF, Norden, Germany.	Phones ships irregularly.
T-17.52	-17.12	-WOO, Ocean Gate, New Jersey.	Phones ships irregularly.
T-18.44	-16.30	-WLK, Lawrenceville, N. J.	Phones England.
T-18.56	-16.16	-GBX, Rugby, England.	4:00 to 11:00 A.M. VLK.
T-18.71	-16.04	-KKP, Kauhuku, Hawaii.	Phones KWU 1:00 to 7:00 P.M.
T-18.89	-15.88	-FTK, St. Assise, France.	Phones Saigon 8:30 to 11:00 A.M.
T-18.91	-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-19.03	-15.76	-JYT, Kemikawa-Cho, Japan.	Irregular.
T-19.15	-15.6	-JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A.M.
T-19.19	-15.62	-OCJ, Lima, Peru.	Phones CEC daytime.
T-19.20	-15.61	-JVF, Nasaki, Japan.	Phones U.S.A. near 5:00 A.M. and 8:00 P.M.
B-19.43	-15.44	-Prado, Rio Bamba, Ecuador.	Sundays 4:00 to 6:00 P.M.
T-19.47	-15.41	-KW0, Dixon, California.	Phones Hawaii in place of KWU.
T-19.54	-15.35	-KWU, Dixon, California.	Phones Hawaii 2:00 to 7:00 P.M.
B-19.56	-15.34	-W2XAD, Schenectady, N. Y.	Daily 3:00 to 4:00 P.M.
B-19.64	-15.27	-W2XE, Wayne, N. J.	Relays WABC 11:00 A.M. to 1:00 P.M.
T-19.68	-15.25	-RIM, Tashkent, U.S.S.R.	Phones RKI near 7:00 A.M.
B-19.68	-15.25	-Pontoise, France.	8:00 to 11:00 A.M.
B-19.72	-15.21	-W8XK, Pittsburgh, Pa.	Relays KDKA 10:00 A.M. to 4:00 P.M.
B-19.73	-15.20	-DJB, Germany.	12:15 to 2:00 A.M. and 8:00 to 11:30 A.M.
B-19.82	-15.13	-GSF, Daventry, England.	6:00 to 10:45 A.M.
B-19.84	-15.11	-HVJ, Vatican City.	Daily 5:00 to 5:15 A.M., Sat., 10:00 to 10:30 A.M.
T-19.91	-15.07	-WNC, Hialeah, Florida.	Phones HJB, RXC and YVQ, daytime.
T-19.94	-15.04	-RKI, Moscow, U.S.S.R.	Phones RIM near 7:00 A.M.
T-20.03	-14.98	-KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A., 7 to 8 P.M.
T-20.06	-14.96	-HJB, Bogota, Colombia.	Phones Hialeah daytime.
T-20.42	-14.69	-PSF, Rio de Janeiro, Brazil.	7 A.M. to 6 P.M. LSL, WLK, WOK.
T-20.55	-14.60	-JVH, Nazaki, Japan.	Phones Europe 4:00 to 8:00 A.M.
T-20.56	-14.59	-WMN, Lawrenceville, N. J.	Phones England daylight.
E-20.60	-14.56	-HBJ, Geneva, Switzerland.	Experimenting.
T-20.65	-14.53	-LSN, Buenos Aires, Argentina.	Phones New York daytime.
T-20.69	-14.50	-TIR and TIU, Cartago, Costa Rica.	Phones many stations daytime.
T-20.69	-14.50	-YNA, Managua, Nicaragua.	Phones Hialeah daytime.
T-20.69	-14.50	-HPF, Panama City.	Phones Florida daytime.
T-20.71	-14.48	-TGF, Guatemala City.	Phones Florida daytime irregularly.
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-20.97	to 21.26	-14.30 to 14.11	-Amateur phones heard in daytime.
E-21.18	-14.16	-W9USA, World's Fair, Chicago, Ill.	4:00 to 4:30 P.M.
E-21.58	-13.90	-WOP, 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-21.90	-13.70	-KKZ, Bolinas, California.	Testing irregularly.
T-21.98	-13.65	-HJY, Bogota, Colombia.	Phones irregularly.
T-22.06	-13.60	-JYK, Kemikawa-Cho, Japan.	Irregular.
T-22.09	-13.58	-GBB, Rugby, England.	Phones Canada and Egypt daytime.
E-22.22	-13.50	-WKU, Rocky Point, N. Y.	Irregular.
T-22.35	-13.42	-GCJ, Rugby, England.	Phones JVH 3:00 to 8:00 A.M.
T-22.40	-13.39	-WMA, Lawrenceville, N. J.	Phones England daytime.

Meter	Meg.	STATION	TIME
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.
E-22.65	-13.24	KILS, Alaska.	Irregular. Used in Byrd broadcast.
E-22.68	-13.23	KFZ, Little America and KNRA,	"Seth Parker."
T-23.00	-13.04	German ships.	1:15 A.M. and 1:30 P.M.
T-23.36	-12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	-12.83	HJA3, Barranquilla, Colombia.	Phones U.S.A. daytime.
T-23.38	-12.83	CNR, Rabat, Morocco.	Phones St. Assise 5:00 to 8:00 A.M.
B-23.38	-12.83	RABAT, Morocco.	Broadcasts Sunday 7:30 to 9:00 A.M.
T-23.45	-12.80	IAC, Piza, Italy.	Works ships mornings.
T-23.47	-12.78	KBC, Rugby, England.	Phones ships irregularly.
T-23.70	-13.22	GPI, Manila, P. I.	Heard 3:00 to 8:00 A.M. with Java.
T-24.20	-12.40	DAF, Norden, Germany.	Phones ships irregularly mornings.
T-24.40	-12.30	PLM, Bandoeng, Java.	Phones VK2ME near 6:30 A.M.
T-24.41	-12.29	GBU, Rugby, England.	Phones America evenings.
B-24.53	-12.23	CT1CT, Lisbon, Portugal.	Sun., 7 to 9 A.M.; Thurs., 4 to 6 P.M.
T-24.69	-12.15	GBS, Rugby, England.	Phones New York.
T-24.88	-12.06	PDV, Kootwijk, Holland.	Tests near 7:30 A.M.
B-25.00	-12.00	RNE, Moscow, U.S.S.R.	Sat. 10-11 P.M., Sun. 6-7 and 10-11 A.M.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
E-25.11	-11.97	KKQ, Bolinas, California.	Heard irregularly evenings.
T-25.12	-11.95	FTA, St. Assise, France.	Phones CNR 4 to 7 A.M.; LSM 10 to 12 P.M.
B-25.20	-11.90	Pontoise, France.	10:15 A.M. to 1:15 P.M. and 2:00 to 5:00 P.M.
B-25.27	-11.87	W8XK, Pittsburgh, Pa.	Relays KDKA 4:30 to 10:00 P.M. daily.
B-25.28	-11.86	GSE, Daventry, England.	9:15 A.M. to 12:45 Noon.
E-25.36	-11.83	KFZ, Little America.	Used irregularly.
B-25.36	-11.83	W2XE, Wayne, N. J.	Relays WABC 3:00 to 5:00 P.M.
B-25.42	-11.78	W1XAL, Boston, Mass.	Wed. 6 to 7 P.M.; Sun. 7:30 to 9:30 P.M.
B-25.51	-11.76	DJD, Zeesen, Germany.	Noon to 4:30 P.M. and 5:30 to 9:45 P.M.
B-25.53	-11.75	GSD, Daventry, England.	2:15 to 4:15 A.M. and 6:00 to 7:00 P.M.
B-25.57	-11.73	PHI, Huizen, Holland.	Daily except Tues. and Wed., 7:30 to 10 A.M.
B-25.60	-11.72	CJRX, Winnipeg, Canada.	8:00 to 11:00 P.M., 11:30 to Midnight.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
B-25.63	-11.71	Pontoise, France.	2:00 to 11:00 P.M.
E-25.73	-11.66	PPQ, Rio de Janeiro, Brazil.	Used irregularly in evenings.
E-26.09	-11.50	XAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P.M.
T-27.26	-11.00	PLP, Bandoeng, Java.	Phones PNI from 5:00 to 7:00 A.M.
T-27.30	-10.99	ZLT, Wellington, New Zealand.	5 to 7 A.M. irregularly. VLJ.
T-27.35	-10.97	OCI, Lima, Peru.	Phones HJY evenings.
E-27.65	-10.85	DFL, Nauen, Germany.	Irregular.
T-27.67	-10.84	KWV, Dixon, California.	Phones Hawaii daytime.
T-27.93	-10.74	JVM, Nazaki, Japan.	Heard 1:30 to 7:00 A.M. and 7 to 11 P.M.
T-28.04	-10.77	GBP, Rugby, England.	Midnight to 8:00 A.M. VLK.
T-28.09	-10.68	WNB, Lawrenceville, N. J.	Phones Bermuda daytime.
T-28.12	-10.67	CEC, Santiago, Chile.	Testing with HJY irregularly evenings.
T-28.14	-10.66	JVN, Nazaki, Japan.	Phones Europe 3:00 to 8:00 A.M.
E-28.28	-10.61	WEA, Rocky Point, N. Y.	Tests irregularly with Europe.
T-28.44	-10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentine irregularly.
T-28.51	-10.52	VK2ME-VLK, Sydney, Australia.	1:00 to 8:00 A.M. GBP.
E-28.79	-10.42	XGW, Shanghai, China.	Testing near 6:00 A.M.
T-28.80	-10.42	PKD, Kootwijk, Holland.	Phones Java, 7:30 to 9:40 A.M.
T-28.80	-10.40	YBG, Medan, Sumatra.	5:30-6:30, 12:30-1:30 A.M., 7:30-8:30 P.M.
E-28.85	-10.40	KEZ, Bolinas, California.	Used irregularly.
E-28.91	-10.38	WCG, Rocky Point, N. Y.	Tests irregularly.
B-28.98	-10.35	LXS, Buenos Aires, Argentina.	6:15 to 7:15 P.M. daily. Wed., 10 P.M.
E-29.03	-10.33	ZFD, St. Georges, Bermuda.	Heard afternoons irregularly.
B-29.04	-10.33	ORK, Brussels, Belgium.	Broadcasts, 1:45 to 3:15 P.M.
E-29.06	-10.32	PPM, Rio de Janeiro, Brazil.	Testing 6:00 to 11:00 P.M. irregularly.
E-29.15	-10.29	DIQ, Nauen, Germany.	Used irregularly.
T-29.25	-10.26	PMN, Bandoeng, Java.	Near 5:30 A.M. daily. VLK.

Meter	Meg.	STATION	TIME
T-29.45	10.22	PSH, Rio de Janeiro, Brazil.	Sending music evenings.
T-29.50	10.17	RIO, Bakou, U.S.S.R.	Phones Moscow 8:00 to 10:00 A.M.
T-29.58	10.14	OPM, Leopoldville, Belgian Congo.	Phones ORK 9-11 A.M., 3-6 P.M.
T-29.79	10.07	EHY, Madrid, Spain.	Phones YVR near 4:00 P.M. irregularly.
T-29.83	10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships daytime.
T-29.83	10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
T-30.09	9.97	KAZ, Manila, P. I.	Phones PLV near 2:00 A.M.
T-30.15	9.95	GCU, Rugby, England.	Phones New York evenings.
T-30.21	9.93	HKB, Bogota, Colombia.	Phones PSK irregularly evenings.
T-30.30	9.90	LSN, Buenos Aires, Argentina.	6:00 P.M. to 6:00 A.M. WLO.
T-30.40	9.87	WON, Lawrenceville, N. J.	Phones England evenings.
B-30.40	9.87	EAQ, Madrid, Spain.	Daily 5:15 to 7:00 P.M., Sat. 1 to 3 P.M.
E-30.49	9.84	JYS, J1AA, Chiba-Ken, Japan.	Near 4:00 to 8:00 A.M. irregularly.
T-30.52	9.83	JRM, 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, Lawrenceville, N. J.	Phones England evenings.
T-30.90	9.71	GCA, Rugby, England.	Phones Argentina around 6:00 P.M.
T-31.08	9.67	DGU, Nauen, Germany.	Phones Egypt 11:00 A.M. to 5:00 P.M. irreg.
B-31.25	9.60	CT1AA, Lisbon, Portugal.	Tues. and Fri. 3:30 to 6:00 P.M.
B-31.25	9.60	XETE, Mexico City.	6:30 P.M. to 2:00 A.M. irregularly.
B-31.27	9.59	HBL, Geneva, Switzerland.	5:30 to 6:15 P.M.
B-31.28	9.59	VK2ME, Sydney, Australia.	Sun. 12-2; 4:30-8:30; 9:30-11:30 A.M.
B-31.28	9.59	W3XAU, Philadelphia, Pa.	Noon to 7:50 P.M.
B-31.30	9.58	GSC, Daventry, England.	1:00 to 5:45 and 6:00 to 8:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	3:00 to 8:00 A.M. except Sundays.
B-31.36	9.57	W1XAZ, Boston, Mass.	7:00 A.M. to 1:00 A.M.
B-31.36	9.57	VUY-VUB, Bombay, India.	Wed. and Sat., 11:00 A.M. to 12:30 Noon.
B-31.38	9.57	DJA, Zeesen, Germany.	4:00 to 5:30 and 5:15 to 8:15 P.M.
B-31.41	9.55	LCL, Jeloy, Norway.	Relays Oslo 11:00 A.M. to 6:30 P.M. irregularly.
E-31.45	9.54	DJO, Zeesen, Germany.	Experimental and irregular. Relays DJA.
B-31.48	9.53	W2XAF, Schenectady, N. Y.	Daily 7:00 to 11:00 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Wed. 5:00 to 6:30; Sat. 5 to 7 A.M.
B-31.55	9.51	GSB, Daventry, Eng.	2:15-4:15; 7:30-9:00 A.M.; 10:45-12:45 P.M.
B-31.56	9.50	PRF5, Rio de Janeiro, Brazil.	Daily 5:30 to 6:15 P.M.
T-31.63	9.48	PLW, Bandoeng, Java.	Phones Australia 3:00 to 8:00 A.M. irregularly.
E-31.67	9.47	WET, Rocky Point, N. Y.	Irregular.
T-31.86	9.42	PLV, Bandoeng, Java.	Phones 7:40 to 9:40 A.M.
T-32.15	9.33	CGA4, Drummondville, Canada.	Phones Ships and England irregularly.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregularly.
E-33.52	8.95	WEL-W2XBJ, Rocky Point, N. Y.	Testing irregularly evenings.
T-33.41	8.98	VWY, Poona, India.	Phones England near 8:30 A.M.
T-33.93 to 36.58	8.84 to 8.20	Ships.	Heard irregularly.
E-33.94	8.84	KFZ, Little America and KNRA,	"Seth Parker."
T-34.19	8.77	PNI, Makasser, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
T-34.56	8.68	GBC, Rugby, England.	Phones ships irregularly.
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.
B-36.50	8.21	HCJB, Quito, Ecuador.	7:30 to 9:45 P.M. except Mondays.
T-36.65	8.19	PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
B-37.33	8.05	CNR, Rabat, Morocco, Africa.	Sunday 2:30 to 5:00 P.M.
T-37.60	7.98	HSJ, Bangkok, Siam.	Phones Germany 4:30 to 6:00 A.M. irregularly.
T-38.06	7.86	SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.07	7.88	JYR, J1AA, Chiben-Ken, Japan.	Heard 4:50-7:50 A.M. relaying JOAK.
B-38.36	7.82	OA4AC, Lima, Peru.	Heard 9:00 to 11:30 P.M.

Meter	Meg.	STATION	TIME
B-38.47	7.80	HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
E-38.50	7.78	PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M. irreg.
T-39.34	7.63	RIM, Russia.	Phones RKI 6:00 to 8:15 A.M.
T-39.42	7.61	KWX, Dixon, California.	Phones Hawaii nights.
T-39.89	7.52	KKH, Kauhuku, Hawaii.	Phones KWO evenings.
T-39.97	7.50	RKI, Russia.	Phones RIM 6:00 to 8:15 A.M.
B-40.55	7.40	HJ3ABD, Bogota, Colombia.	7:30 to 11:00 P.M.
T-40.71	7.37	KEQ, Kauhuku, Hawaii.	Phones Dixon nights.
T-41.49	7.23	Medan, Sumatra.	7:00 to 10:00 A.M. often.
B-41.55	7.22	HKE, Bogota, Colombia.	Mon. 6 to 7 P.M.; Tues., Fri. 8 to 9 P.M.
B-42.00	7.14	HJ4ABB, Manizales, Colombia.	Daily 4-6; Tues., Fri. 7:30-10:00 P.M.
T-43.45	6.90	GDS, Rugby, England.	Phones New York nights.
E-43.86	6.84	HAS, Budapest, Hungary.	3:00 to 5:30 P.M. irregularly.
T-44.05	6.61	TGF, Guatemala City.	Phones evenings irregularly.
T-44.41	6.75	WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.73	JVT, Nazaki, Japan.	1:30 to 8:00 A. M. oftines with music.
E-44.54	6.74	WEJ-W2XBJ, Rocky Point, N. Y.	Testing irregularly evngs.
E-44.67	6.73	WQO, Rocky Point, N. Y.	Used irregularly.
B-44.71	6.71	TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M. irregularly.
T-44.96	6.67	YVQ, Maracay, Venezuela.	Testing near 10:00 P.M. irregularly.
B-45.00	6.67	HC2RL, Guayaquil, Ecuador.	Sun., 5:45-8:00; Tues., 9:15-11:45 P.M.
T-45.10	6.65	IAC, Piza, Italy.	Phones ships evenings.
E-45.11	6.65	KFZ, Little America and KNRA, "Seth Parker."	
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B-45.31	6.62	PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.38	6.61	REN, Moscow, U.S.S.R.	1:00 to 6:00 P.M.
B-46.30	6.48	HJ5ABD, Cali, Colombia.	7:00 to 10:00 P.M.
B-46.37	6.47	HI4B, Quisquilla, D. R.	Heard 1:00 to 6:00 P.M. irregularly.
B-46.51	6.45	HJ1ABB, Barranquilla, Colombia.	11:45-12:45 Noon; 7:00-9:30 P.M.
B-46.69	6.43	W3XL, Boundbrook, N. J.	
T-46.77	6.42	HJ3A, Barranquilla, Colombia.	Heard testing after 4:00 P.M.
B-47.50	6.32	HIZ, Santo Domingo, R. D.	Daily 4:40-5:40; Sat. 11:00-12:40 P.M.
B-47.80	6.23	HI1A, Dominican Republic.	12:10 to 1:40 and 7:40 to 9:40 P.M. daily, 1:40 to 4:40 and 7:40 to 9:40 P.M. Sundays.
E-48.00	6.25	Army aircraft heard in daytime.	
B-48.00	6.25	HJ3ABF, Bogota, Colombia.	7:00 to 11:00 P.M. daily.
B-48.78	6.15	YV3RC, Caracas, Venezuela.	10:30 to 1:30 and 4:30 to 9:30 P.M.
B-48.85	6.15	CJRO, Winnipeg, Canada.	8:00 to 11:00 P.M.; 11:30 to Midnight.
B-48.86	6.14	W8XK, Pittsburgh, Pa.	Relays KDKA 4:30 P.M. to about 2:00 A.M.
B-48.92	6.13	ZGE, Kuala Lumpur, Malaya States.	Sun., Tues., Fri. 6:40-8:40 A.M.
B-48.94	6.13	LCL, Jeloy, Norway.	Relays Oslo 11:00 A.M. to 6:00 P.M.
B-49.00	6.12	Johannesburg, Africa.	4 to 6; 8:00 to 10:30; 11 A.M. to 3:40 P.M.
B-49.02	6.12	W2XE, Wayne, N. J.	Relays WABC 6:00 to 11:00 P.M.
B-49.05	6.12	HJ1ABE, Cartagena, Colombia.	Mon., 10-12; Wed., 8-11 P.M.
B-49.08	6.11	YV2RC, Caracas, Venezuela.	10:30 to 1:00; 5:15 to 10:00 P.M.
B-49.10	6.11	VE9HX, Halifax, N. S.	8:30 to 11:30 A.M. and 5:00 to 10:00 P.M.
B-49.10	6.11	VUC, Calcutta, India.	9:30 A.M. to Noon, Sat., 11:45 P.M. to 3 A.M.
B-49.18	6.10	W3XAL, Bound Brook, N. J.	Mon., Wed., Sat. 5 P.M. to 1 A.M.
B-49.18	6.10	W9XF, Chicago, Illinois.	3:30 to 7:00, 8:30 P.M. to 1:00 A.M.
B-49.22	6.07	VE9GW, Bowmanville, Canada.	Mon., Tues., Wed., 3 to 12 P.M.; Thurs., Fri., Sat., 7 to 12 P.M.; Sun., 1 to 9 P.M.
B-49.29	6.09	VE9BJ, St. John's, N. B., Canada.	Near 5:00 and 11:00 P.M.
B-49.34	6.08	CP5, La Paz, Bolivia.	8:00 to 9:00 P.M. daily.
B-49.39	6.07	YV5MO, Maracaibo, Venezuela.	5:15 to 9:00 P.M.
B-49.40	6.07	ONY, Skamleback, Denmark.	2:00 to 6:30 P.M. irregularly.
B-49.42	6.07	VE9CS, Vancouver, B. C.	Fri. 12:30 to 1:45 A.M.; Sun. Noon to Mid.
B-49.42	6.07	OER2, Vienna, Austria.	3:00 A. M. to 7:00 P. M., irregularly.
B-49.50	6.06	HIX, Santo Domingo, R. D.	Tuesday and Friday 8:10 to 10:10 P.M.; Sunday 8:40 to 10:40 A.M. and 2:40 to 4:40 P.M.
B-49.50	6.06	W3NAU, Philadelphia, Pa.	Relays WCAU 8:00 to 11:00 P.M.
B-49.50	6.06	W8XAL, Cincinnati, Ohio.	6:30 A.M. to 7:00 P.M.; 10 P.M. to 2 A.M.

Meter	Meg.	STATION	TIME
B-49.50	6.06	VQ7LO, Nairobi, Kenya Colony.	11 A.M. to 2 P.M. daily.
B-49.59	6.05	GSA, Davenport, England.	1:00 to 5:45 and 7:00 to 8:00 P.M.
B-49.60	6.05	HJ3ABI, Bogota, Colombia.	8:00 to 10:00 P.M. irregularly.
B-49.75	6.03	HJ1ABG, Barranquilla, Colombia.	6:15 to 10:00 P.M.
B-49.83	6.02	DJC, Zeesen, Germany.	Noon to 4:30 P.M., 5:30 to 9:15 P.M.
B-49.83	6.02	CQN, Macao, China.	Monday and Friday, 7:00 to 9:00 A.M.
B-49.83	6.02	XEBT, Mexico City.	Relays XEB, 6:00 P.M. to 2:00 A.M. irregularly.
B-49.02	6.01	ZHI, Singapore, S. S. Mon., Wed., Thurs., 7-9; Sun.	11:40-2 A.M.
B-49.96	6.01	COC, Havana, Cuba.	4:00 to 6:00 and 9:30 to 11:00 P.M.
B-50.00	6.00	RV59, Moscow, U.S.S.R.	Daily, 2:00 to 6:00 P.M.
E-50.08	5.99	WVD, Seattle, Washington.	Calls Alaska evenings irregularly.
B-50.08	5.99	YV4RC, Caracas, Venezuela.	4:30 to 10:30 P.M.
B-50.25	5.97	HJ2ABC, Cucuta, Colombia.	11:00 A.M. to Noon; 6:00 to 9:00 P.M.
B-50.26	5.97	HVJ, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.42	5.93	HJ4ABE, Medellin, Colombia.	Mon. 7:00 to 11:00 P.M.; Tues., Thurs., Sat. 6:15 to 8:00 P.M.; Wed., Fri. 7:30 to 10:30 P.M.
B-50.50	5.95	TGX, Guatemala City.	Sundays 2 to 5 A.M. and also near Midnight.
T-51.26	5.85	WOB, Lawrenceville, N. J.	Phones Bermuda nights.
B-51.49	5.88	HJ2ABA, Tunja, Colombia.	1:00 to 2:00 and 7:30 to 10:00 P.M.
T-51.50	5.82	HJA2, Bogota, Colombia.	Phones HJA3 afternoons and evenings.
T-51.72	5.80	KZGF, Manila, P. I.	Phones from 5:00 to 8:00 A.M.
B-51.90	5.78	OA4AD, Lima, Peru.	Heard 9:00 to 11:00 P.M., irregularly.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M. irreg.
B-53.57	5.60	HJ5ABC, Cali, Colombia.	8:00 to 10:00 P.M.
T-58.30	5.15	PMY, Bandoeng, Java.	Phones Australia near 11:00 A.M.
T-59.08	5.08	WCN, Lawrenceville, N. J.	Phones England evenings.
T-59.76	5.02	ZFA, Hamilton, Bermuda.	Phones U.S.A. and Ships at night.
T-60.26	4.98	GBC, Rugby	Phones to ships irregularly.
E-60.30	4.97	G6RX, Rugby, England.	Experimenting near 9:00 P.M.
T-61.15	4.90	CGA5, Drummondville, Canada.	Phones ships and England evenings.
T-62.24	4.82	GDW, Rugby, England.	Phones New York evenings.
T-63.13	4.75	WOO, Ocean Gate, N. J.	Phones ships irregularly.
B-65.85	4.55	WDN, Rocky Point, N. Y.	Phones KSRA evenings.
T-66.50	4.51	VPN, ZFS, Nassau, Bahamas.	Phones WND and GYD 2 to 10 P.M.
T-67.87	to 73.17	4.42 to 4.10	Ships. Heard irregularly.
T-69.44	4.32	GDB-G6RX, Ruby, England.	Testing 7:00 to 10:00 P.M.
E-69.60	4.31	WTDV, WTDW, Virgin Islands.	2:00 to 3:00 P.M.; weather reports.
B-73.00	4.00	HCJB, Quito, Ecuador.	7:30 to 9:45 P.M. daily except Monday.
B-70.65	4.25	RV15, Khabarovsk, U.S.S.R.	1:00 to 9:00 A.M.
T-73.21	4.10	WND, Hialeah, Florida.	Phones irregularly with VPN.
E-75	to 75.8	4.00 to 3.96	Amateurs on voice.

SHIP STATIONS

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

VQIM, Monarch of Bermuda: GLSQ, Olympic; GFJY, Caledonia; GMJO, Belandland: GFVV, Maestic; GDLJ, Homeric; GMBJ, Empress of Britain; DOAH, Bremen; DOAI, Europa; DHEY, Deutschland; DHJZ, Hamburg; DOBX, Columbus; DHAO, Albert Ballin; DHRL, New York; ICEJ, Rex; IBLI, Conte de Savoia; GBZW, Berengaria; FNSM, Ile de France; GLRZ, Aquitania; VQJP, Queen of Bermuda; DHTY, Resolute.

SPECIAL STATIONS

KFZ, Little America (South Pole) near 45, 34, 31.57, 25.36, 23, 19.64, 17 and 14 meters.
 KNRA, The Schooner "Seth Parker." 48.70, 24.30, 31.22 meters and same as KFZ.
 KILS, Alaska. Same as W10XDA in meg, 4.40, 8.81, 8.83, 13.21, 13.24, 17.62, 17.66.
 W10XDA, "The Morrissey." 74.90, 46.70, 34.68, 23.30, 17.03, 16.99.

No Matter How Good the Receiver

If You Want to BUILD YOUR OWN ANTENNA

For greatest amount of noise reduction and signal pick-up we recommend

LYNCH ANTENNA SUPPLIES

List Price	Net Price
\$2.75 Kit 10 Cage Spreaders.....	\$1.65
\$2.75 Kit 10 Transposition Blocks.....	1.65
\$2.00 Kit 8 Navy Type Insulators.....	1.20
\$1.25 Double Lightning Arrester.....	.75
\$1.50 New Universal Coupler.....	.90
\$1.00 Light Hi-Mho Wire, 100 feet...	.60

List Price	Net Price
\$1.50 Heavy Hi-Mho Wire, 100 feet...	.90
\$3.00 Giant Killer Cable, 50 ft.....	1.80
\$12.50 DeLuxe Kit, of 10 spreaders, 20 transposition blocks, 8 navy type insulators, 300 ft. Hi-Mo wire, double lightning arresters and Universal Coupler.	\$7.50

Your Receiver Needs These—

The Missing Link

The headphone jack that will enable you to listen to stations that broadcast when family or neighbors sleep.



With our **PHONE RECEPTOR**, installed in two minutes without using tools and without even touching wiring of receiver or breaking seals, you CAN LISTEN AT ANY TIME YOU PLEASE. Absolutely safe, cannot injure or unbalance receiver, fully guaranteed. Five-foot cable brings this phone jack to your fingertips. Ideal for receivers where phone jack is inaccessible.

Complete, as illustrated... **\$3.95**

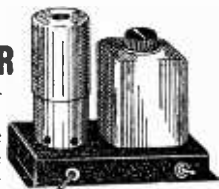
Baldwin Type C Phones, mica diaphragm, super-sensitive..... **\$4.75**

PHONE PLUGS, each..... **19c**

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BEAT-NOTE OSCILLATOR

(Ideal station locator). Electron coupled, same type as featured in the new 1935 allwave and short wave receivers. It will indicate every station that could be brought in when you are tuning your receiver. You cannot possibly miss a single station with this device. Beat Note Oscillators are standard equipment with latest custom built and commercial communication receivers. Install one on YOUR receiver without even touching wiring or breaking guarantee seals and bring in stations you never heard before. Operates as follows: Snap toggle switch ON, locate station by whistle, tune to peak, snap switch OFF, whistle disappears, station remains at its best. Uses one tube powered direct from your receiver. Ideal for CW reception. Mention type of receiver with order. No. 756 Beat Note Oscillator.



PRICE **\$8.95**

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SOL PERLMAN,

.... It's the Antenna That Counts

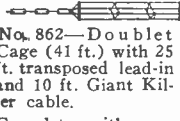
Our completely assembled (ready to attach to masts) **NOISE REDUCING, SIGNAL-BOOSTING ANTENNA SYSTEMS** are especially designed for uniform response **ON ALL WAVEBANDS**. LYNCH materials used exclusively.

HOW TO SELECT THE ANTENNA FOR YOUR LOCATION

Cage antenna (for greater volume) is used where space available for the flat top (horizontal part) of Antenna is less than 80 feet. Use No. 862 or No. 884 if you can take the lead-in off the center; where the lead-in must be taken off at one end, use No. 863 or 885. A Giant Killer cable lead-in for entire length (No. 385 and 885) is used where lead-in must run at an angle or around corners.

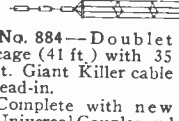
Single wire flat top may be used where space available is more than 80 feet. Use No. 872 or 894 if lead-in can be taken off in center, or No. 875 or 895 where lead-in must be taken off one end. Complete Giant Killer cable lead-in (No. 894 or 895) is used where the lead-in is taken off at an angle or run around corners.

All our systems use 10 ft. of Giant Killer cable to bring lead-in from window to receiver. **NOTE**—The transposed lead-in or Giant Killer cable lead-in (the part of system which provides for noise reduction) may be of ANY LENGTH.



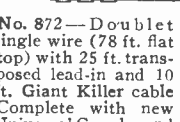
No. 862—Doublet Cage (41 ft.) with 25 ft. transposed lead-in and 10 ft. Giant Killer cable.
Complete with new Universal Coupler and

Double Lightning Arrester. List pr. \$24.25.
Your net price \$14.50
Kit Lynch materials to build 862. Your price, \$14.25.
Your net cost..\$8.45



No. 884—Doublet cage (41 ft.) with 35 ft. Giant Killer cable lead-in.
Complete with new Universal Coupler and

Double Lightning Arrester. List pr. \$18.50,
Your net cost \$10.95
Kit Lynch materials to build 884. List price \$12.25.
Your net cost..\$7.25



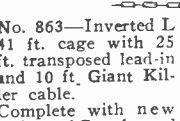
No. 872—Doublet single wire (78 ft. flat top) with 25 ft. transposed lead-in and 10 ft. Giant Killer cable
Complete with new Universal Coupler and

Double Lightning Arrester. List pr. \$15.00.
Your net cost \$8.95
Kit Lynch materials to build 872. List price \$11.75.
Your net cost..\$6.95



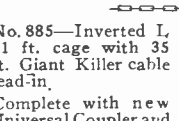
No. 894—Doublet single wire (78 ft. flat top) with 35 ft. Giant Killer cable lead-in.
Complete with new Universal Coupler and Double Lightning Ar-

rester. List pr. \$11.00,
Your net cost..\$6.50
Kit Lynch materials to build 894. List price \$8.00.
Your net cost..\$4.75



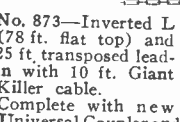
No. 863—Inverted L (41 ft. cage with 25 ft. transposed lead-in and 10 ft. Giant Killer cable.
Complete with new Universal Coupler and Double Lightning Ar-

rester. List pr. \$24.25.
Your net cost \$14.50
Kit Lynch materials to build 863. List price \$14.25.
Your net cost..\$8.45



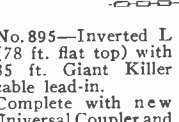
No. 885—Inverted L, 41 ft. cage with 35 ft. Giant Killer cable lead-in.
Complete with new Universal Coupler and Double Lightning Ar-

rester. List pr. \$18.50.
Your net cost \$10.95
Kit Lynch materials to build 885. List price \$12.25.
Your net cost..\$7.25



No. 873—Inverted L (78 ft. flat top) and 25 ft. transposed lead-in with 10 ft. Giant Killer cable.
Complete with new Universal Coupler and

Double Lightning Arrester. List pr. \$15.00
Your net cost \$8.95
Kit Lynch materials to build 873. List price \$11.75.
Your net cost \$6.95



No. 895—Inverted L (78 ft. flat top) with 35 ft. Giant Killer cable lead-in.
Complete with new Universal Coupler and Double Lightning Ar-

rester. List pr. \$11.00
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Other sizes of Antenna Systems built to order. For estimate, send sketch of location, showing space available, height and sources of interference. Mention make of receiver.

E. E. Consulting Engineer on Antenna Problems to Lynch

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Among the police station reports are these: Donald Gross, Asheville, North Carolina, reports this new one WPHC, Massillon, Ohio, on 1.68 mc. George Lowry, Brampton, Ontario, reports WPGY of Boston and KBZB, Houston, Texas, on 1.71 mc.; WPFS of Asheville, N. C., on 2.47 mc.; WNFP of Niagara Falls on 2.42; WPSP, Harrisburg, Pa., on 1.67 mc.; WPGT, New Castle, Pa., on 2.48 mc.; and KGZE on 2.48 mc. and not 1.65 mc. Al. Hague, New York City, adds WPHC, Massillon, Ohio, on 1.68 mc.; WPHF, Richmond, Va., on 2.45 mc.; WPHD, Steubenville, Ohio, on 2.45 mc. Wm Vestal, Redlands, California, reports KNFE, Duluth, Minn., on 2.38 mc.; WPFM, Birmingham, Alabama on 2.38 mc., and CGZ, Vancouver, B. C., on 2.45 mc.

The Amateurs

Amateur stations on the 21 meter band, or 14 mc., are plentiful these days. G5BJ, G5US, G5BY, G5CV, G6PY, G6LI; G2GF; G2MV; G2ML; G6IR and G6XR are the English stations reported in America. EA4AV, Spain; K4SA, Puerto Rico; K6BAZ, K6DWQ, and K6FJF are Hawaiians; ON4AU, ON4BZ, ON4MAD of Belgium; VP5MK of Jamaica; HC1FG, HC1JW of Ecuador; HI8X, HI6Z and HI6F of Dominican Republic are heard. F8CA, F8DR, F8UP, F8UT of France; LU8DR of Argentina; TI2RC, TI3LA, TI4AC, TI2AV, TI3AV, TI2EP of Costa Rica; HJ5ABG of Colombia; LU1PB, LU1DA of Argentina; PY2AK of Brazil; LAIG of Norway; CT1GU of Portugal; VP4JR of British Honduras and VP6MR are also reported. A whole flock of Cuban and Mexican amateurs are also heard. An exceptional one is FM4AA at Tunis.

All stations on the 41 meter, or 7 mc., band heard on voice are certain to be foreign to United States. Nearly every evening a dozen or so may be heard. Mexico, Cuba, Chile, Argentina, Ecuador and Costa Rica are heard nearly every night. H. S. Bradley of Hamilton, New York, tells us to tell our readers the schedules of some stations heard sending music on the 21 meters, 14 mc., band. TI3AV, Cartagi, Costa Rica, from 4:30 to 5:30 P.M. and FM4AA, Tunis, from 3:00 to 6:00 P.M. For this list of stations we thank the following kind-hearted members: Tilgham McCabe, H. S. Bradley, J. B. Sessions, Samuel Solito, Forrest Messel, O. L. Hay, John Shanks, Carroll Foltz, C. Lidstrom, Howard Eck, Al Hague, Emmett Riggle, Thomas Tupper, Bob Everard, Roger Legge, C. Cramp, W. Vendy.

SPECIAL BROADCAST

On Tuesday night November 13 from 11:00 P.M. to Midnight, which is the same as Wednesday, November 14 from 0400 to 0500 GMT, station CP5 at La Paz, Bolivia, will broadcast a special program for members of this organization, and we hope everyone will attempt to tune in this program. This station will be on 49.34 meters or 6.08 meg. The address to which reports should be sent is Ilimani Stations CP5 and CP4, Casilla 637, La Paz, Bolivia. We thank C. Lopez Videla, the manager, for his kindness.

FOR SALE—Custom Built Scott Deluxe, Silver Marshall 727 SW and AC National SW5. Want Band Spread all-wave or communication type. Trade new hand printing press with type for receiver or apparatus. Glen Watt, Chanute, Kansas.

D. R. D. Wadia, writing from Bombay, India, tells us he would like to get in touch with some radio service-man who would care to come to Bombay and work. Please write to Mr. Wadia, giving your experience, age, and approximate wages desired. His address is 7 Marine Lines, Bombay, India. Here's hoping someone gets a job out of this.

FOR SALE—Lincoln R-9 Receiver complete with power-pack, speaker and tubes. Range 9 to 215 meters, \$70.00 C.O.D. express. C. H. Armstrong, 896 Drewry Street, Atlanta, Ga.



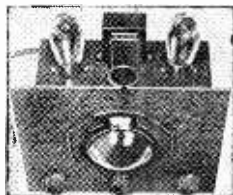
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APPRECIATION

During the past month the following members have secured new members for the Club. To them we say "Thanks." They are Phillip Cass, Philadelphia, Pa.; Hal Thompson, San Francisco, Calif.; G. O. Johnson, Port-of-Spain, Trinidad; A. B. Bayless, Neon, Ky.; Z. Hinojoza, Jr., Maracaibo, Venezuela; F. L. Stitzinger, Erie, Pa.; Pablo Pichardo, San Francisco de Maroris, Dominican Republic; E. F. Youngblood, East Cleveland, Ohio; Waldemar Hafemann, Cristobal, Canal Zone; H. W. Billings, Carbondale, Pa.; Fred B. Heller, Jr., Philadelphia, Pa.; Clement Van Velsor, Irvington, N. J.; E. A. Parry, Covington, Ky.; Sargent George Crouse, York, Pa.; Louis A. Gluck, Detroit, Michigan; Howard G. Droyer, Mt. Vernon, N. Y.; J. Smith Lanier, West Point, Ga.; E. F. Gerandt, Berkeley, California; Duncan T. Campbell, Scranton, Pa.; H. A. Belling, Port-Au-Prince, Trinidad; F. Ward, Plymouth, England; Eric Italianar, Stockholm, Sweden; A. E. Wybrow, London, England; Benoit C. Poux, Haiti; J. M. Vela, Bayamon, P. R.; O. K. Mitchell, Jr., Chicago, Illinois; W. C. Reichardt, Reading, Mass.; Ed. Parkes, Houston, Texas; Forrest Poole, Portsmouth, Ohio; S. Harden, Leicester, England; R. Lawton, Manchester, England; Harris W. Dorr, Hartford, Conn.; Mr. Hills, Bechenham, Kent, England.

CHAPTER NEWS

The London, England, Chapter meets each Tuesday excepting the second in each month at RACS Hall, Wandsworth Road. They are making great progress. On August 19, they held a Field Day, when members took their receivers out into the country. A contest was held which was won by F. Rand. One feature of the meet was a kite aerial. Another field day is scheduled as well as a visit to Croydon Airport and the Battersea Electric station. At the recent Olympic Show, the Chapter distributed thousands of leaflets regarding short wave reception and they were assisted in this by Philco Radio, Eastick and Sons, Stratton, Ltd., Radio Centre Ltd., and Selfridges Ltd., all of which deserve thanks. At a recent meeting over 70 members were present.

The Cleveland Chapter (Ohio) meets irregularly. On September 14 they met in the hangars of the American Airways, where members were shown and explained the operation of aircraft radio, as well as an examination of aircraft. For particulars of future meetings write Marvin Sliker, 13003 Woodland Avenue, Shaker Heights.

The New York Chapter is very busy with the Radio Show, which is going on as we print this issue of the magazine, and they have not mailed us any news. However, we do know that they made a trip to the RCA stations at Rocky Point, New York, on September 16 and were shown all about this wonderful plant which keeps the United States in contact with all the world. We also know that the Radio Manufacturers Association gave the Chapter a large booth at the show and a beautiful display has been made. The Denton Trophy and the verifications which won the trophy for Mr. Bradley of Hamilton are on display. We do not know when or where this Chapter will meet next but anyone writing them at 1622 44th Street, Brooklyn, will receive this information.

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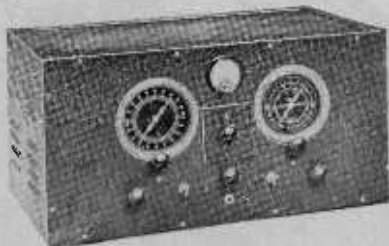
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