

VOL VII

JANUARY, 1936

NO. 4

# 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.

***There is nothing "Just as Good"***

**as a LYNCH HI-FI ANTENNA or FILTERADIO**

for reducing noise on ALL waves and bringing in stations that otherwise could never be heard!

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**the hallicrafters say:**

"After having investigated the performance of most leading types of all-wave antenna systems, our engineering department has come to the conclusion that the LYNCH HI-FI Antenna System is the best, both electrically and mechanically. We are, therefore, recommending its use to all of our customers."

***Now!***

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**A Discount of 40% to ISWC members**

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**LYNCH HI-FI ASSEMBLED ANTENNA**

All ready to hang. Saves 90% of installation time. Any novice can install it—quickly, easily, correctly. Makes every set perform better on ALL waves. Results are amazing.....

**\$6.75**  
LIST

The above Kit with 50 feet of famous Lynch Giant-Killer Cable (instead of twisted pair).....

**\$8.50**  
LIST



**LYNCH FILTERADIO**

Cuts out objectionable noise from the light line, consumes no current. Makes interference from circuit breakers, motor generators, etc., practically negligible. Easy to install; simple to adjust. One type serves all purposes.....

**\$5.00**  
LIST

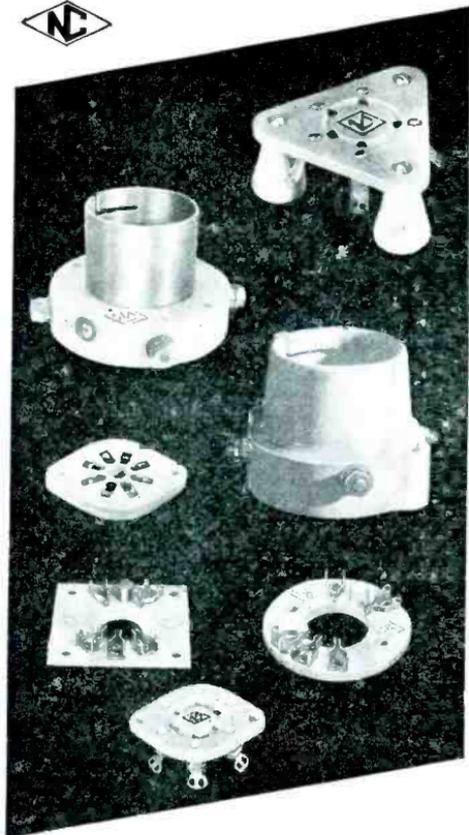


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**ORDER DIRECT**  
if your dealer cannot supply you.

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**ARTHUR H. LYNCH, Inc., Dept. S, 227 Fulton St., New York**  
**PIONEER OF NOISE-REDUCING AERIALS**



# SOCKETS

... for Short  
or Ultra Short-  
Wave Use

The National Group of High Frequency Sockets includes a type for nearly every tube and purpose. At the top right is the JX-100, a big wafer-type low loss socket for power pentodes such as the RK-28 and RCA-803. Below it are two fifty-watt sockets with sturdy sidewipe contacts. Type XC-50 is entirely of low-loss Stentite; while Type VM-50 employs the more conventional metal shell and is lower in price. To the left of the fifty-watters is the new Isolantite wafer-socket for octal metal tubes. Two sockets are available for the little acorn tube. One, for the acorn pentode, is assembled on a square aluminum base and has built-in by-pass condensers for the stable high-frequency operation. For the acorn triode, the socket is of Isolantite. Both sockets employ special constant impedance clips. At the lower left is the old favorite, the receiving tube socket. It is made in 4, 5, 6 and 7 prong types as well as a special 6-prong coil model.

The new National General Catalog No. 250, just off the press, describes these and many other quality components in detail. Send for your copy.

**National Company, Inc.,  
Malden, Mass.**

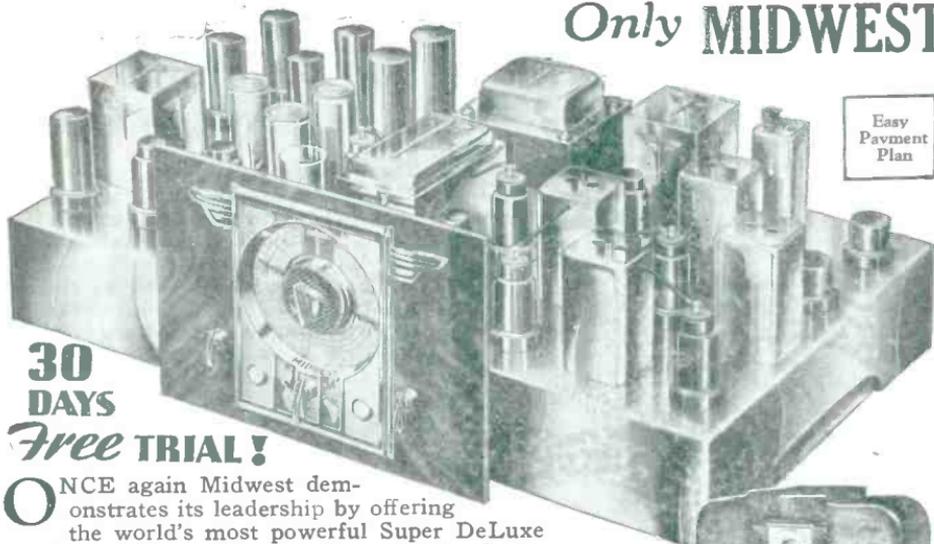
**GENTLEMEN:** Please send me your new General Catalog Number 250. I enclose 6c to cover mailing costs.

Name .....

Address ..... ISW-1

SAVE UP TO 50% by BUYING YOUR RADIO

Only MIDWEST



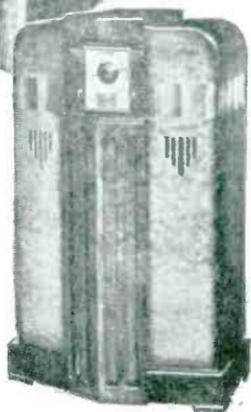
Easy  
Payment  
Plan

**30  
DAYS  
Free TRIAL!**

ONCE again Midwest demonstrates its leadership by offering the world's most powerful Super DeLuxe 18-METAL Tube 6-Tuning Range radio. It is a master achievement . . . today's most highly perfected, precisely built, laboratory adjusted set. It is a radio musical instrument that will thrill you with its marvellous super performance . . . glorious new acousti-tone . . . crystal-clear "concert" realism and magnificent foreign reception. Before you buy any radio, write for FREE 40-page 1936 catalog. Learn about the successful Midwest Laboratory-To-You policy that saves you 30% to 50% . . . that gives you 30 days FREE trial.

#### SIX TUNING RANGES

This exclusive engineering triumph puts Midwest radio years ahead of ordinary sets and makes them the "World's Greatest Radio Value." Now, it is easy to make the nations of the world parade before you. You can switch instantly from American programs to Canadian, police, amateur, commercial, "secret," experimental, airplane and ship broadcasts . . . to the finest and most fascinating programs from Europe, Asia, Australia, South America . . . 12,000 miles away.



TERMS AS LOW AS \$5.00 Down

**MIDWEST RADIO CORP.**

DEPT. 44-P CINCINNATI, OHIO U.S.A.

Established 1920

Cable Address MIRACO All Codes

# Direct from **MIDWEST LABORATORIES**

gives you  
an

## 18-Tube Radio

No middlemen's profits to pay. You buy at wholesale price, direct from Laboratories . . . saving 30% to 50% You can order your 1936 Midwest radio from the new 40-page catalog with as much certainty of satisfaction as if you were to come yourself to our great laboratories. You save 30% to 50% . . . you get 30 days free trial . . . as little as \$5.00 down puts a Midwest radio in your home. You are triply protected with a One-Year Guarantee, Foreign Reception Guarantee, and Money-Back Guarantee.

### GUARANTEED FOREIGN RECEPTION

This super radio will out-perform \$200 and \$300 sets on a side by side test. It is so powerful, so amazingly selective, so delicately sensitive that it brings in distant foreign stations with full loud speaker volume, on channels adjacent to powerful locals. The 18 tubes permit of advanced circuits, make it possible to use the tremendous reserve power, and to exert the sustained maximum out-put of the powerful new tubes.

### 80 SENSATIONAL ADVANCEMENTS

Scores of marvelous Midwest features, many of them exclusive, explain Midwest glorious tone realism, super performance and thrilling world-wide 6-band reception. They prove why nationally known orchestra leaders like Fred Waring, George Olsen, Jack Denny, etc., use a Midwest in preference to more costly makes. Pages 12 to 21 in FREE catalog illustrate the new Midwest features. Study them before you make up your mind.

### ACOUSTI-TONE V-SPREAD DESIGN

The V-Front Dispersing Vanes establish a new radio style overnight. They spread the beautiful lace-work of the highs throughout the room in a scientific manner . . . directing the High Fidelity waves uniformly to the ear. Now, get complete range of audible frequencies from 30 to 16,000 cycles . . . achieving glorious new acoustitone assuring life-like crystal-clear reception . . . "concert" realism.

### Send for Catalog

Send for FREE 40-page four-color catalog. It pictures the complete line of beautiful 1936 Midwest Acousti-Tone V-Spread consoles . . . and chassis . . . in actual colors.



**MIDWEST RADIO CORP.**

DEPT 44-P CINCINNATI, OHIO U.S.A.  
Established 1920 Cable Address MIRACO All Codes

(For metal or glass tubes)

- ❖ 6 TUNING RANGES
- ❖ 4½ to 2,400 Meters
- ❖ Full Scope High Fidelity
- ❖ Push Button Tuning
- ❖ Robot Ear *and scores of other features for . . .*

**\$59.50** [LESS TUBES]  
with New

### Giant Theatre-Sonic SPEAKER

#### Robot Ear... Push Button Tuning

Simply pushing Silencer Button silences set between stations. Beautiful tuning lights automatically indicate when station is properly tuned. Release button . . . and station comes in perfectly. Pressing Station Finder Button (Midwest's exclusive ROBOT EAR) automatically determines proper dial position for bringing in extremely weak stations.

Ted Weems Enthusias Over Crystal-Clear World Reception Dearborn, Mich.—After comparing many radios, I can truthfully say my Midwest out-performs other sets costing almost twice as much. Only the new Midwest could satisfy my desire for crystal-clear, undistorted reception . . . from all over the world.

Ted Weems



### MAIL COUPON TODAY for

Free 30-DAY TRIAL OFFER  
and 40-PAGE FOUR-COLOR Free CATALOG

MIDWEST RADIO CORP.,  
Dept. 44-P, Cincinnati, Ohio

Without obligation on my part, send me your new FREE catalog, complete details of your liberal 30-day FREE trial offer, and FREE Miniature Rotating 18-tube Dial. This is NOT an order.

User-Agents  
Make Easy  
Extra Money  
Check Here  
for  
details

Name \_\_\_\_\_

Address \_\_\_\_\_

Town \_\_\_\_\_

State \_\_\_\_\_

Check  If interested in a Midwest All-Wave Battery Radio

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 5 shillings 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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ARTHUR J. GREEN, Editor.

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Radio W3ATR  
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## This Beautiful Globe for only \$2.75

F. O. B. Indianapolis, Indiana



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

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

A free globe hand-book included in each sale.

### PLEASE SEND POSTAGE

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

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

Address your letters to—

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

TRY EARPHONE LISTENING AT OUR EXPENSE—5-DAY TRIAL—MONEY-BACK GUARANTEE

# SPECIAL OFFER

LIMITED TIME ONLY!

**"THE MISSING LINK"**



**The AMPLIVOX**  
*double-purpose*  
**PHONE RECEPTOR**

FOR RECEIVERS  
NOT EQUIPPED FOR  
EARPHONE RECEPTION

A NECESSITY FOR  
EVERY RECEIVER



Listen at Any Time, Day or Night,  
Without Disturbing Family  
or Neighbors!

NO TAMPERING with wiring to install. • Installed in ONE MINUTE without tools • Inserting phone jack AUTOMATICALLY silences speaker • FIVE FOOT CABLE makes it a phone jack at your fingertips • Needs but a fraction of volume used for loudspeaker • Helps to identify stations heard faintly on the speaker. Ideal for the "HARD-OF-HEARING." Shipping weight, 1 lb.. List price \$6.75. **\$3.95**

YOUR PRICE.....  
Give make and model of receiver when ordering.



## LOCATE STATIONS

"On the Nose," No  
Skipping or Guess  
Work with New and  
Improved Beat  
Oscillator  
(Station Finder)

Our No. 756 is electron coupled, of same type as that used in most expensive Custom Built receivers. Snapping a toggle switch is the entire operation. Uses one tube powered from receiver. **WILL PICK UP FOR YOU EVERY STATION THAT YOUR RECEIVER IS CAPABLE OF BRINGING IN. NO MISSING OR SKIPPING.** Uses one 24A or 36 powered from receiver. (Mention receiver when ordering). Shipping wt. 2 lbs. List Price \$11.25. **\$6.75**

**SOL PERLMAN, E. E.**  
(W2JCU)

## COMBINATIONS

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

Special Offer Price..... **\$4.49**

(Regular value \$5.49)

(2) The "Missing Link" PHONE RECEPTOR, a pair of TRIMM FEATHERWEIGHT PHONES (4 oz.) and a special plug to take from 1 to 4 pairs of phones; shipping weight 2 lbs.

Special Offer Price..... **\$9.23**

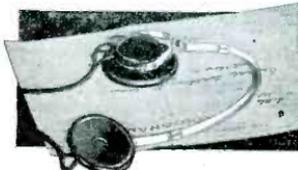
(Regular value \$10.73)

BE SURE to mention make and model of receiver.

## EARPHONES

I RECOMMEND

**TRIMM** Featherweight } 24,000 } EXTREMELY  
4 Ounce ohms } SENSITIVE



*The Lightest  
Weight  
Phones Made*

Ultra-sensitive,  
weights  
but four (4)  
oz. with head-  
band, 24,000  
ohm. imped-

ance. Can pick up signals so faint that they would not be heard on speaker. Shipping wt. 1 lb. List price \$10.00.

YOUR PRICE..... **\$6.49**

ACME PHONES, 2000 ohm, sturdily made, sensitive. Your Special Price, Net. **\$1.25**

PHONE PLUGS, for single pair phones..... **15c**

PHONE PLUGS, will take from one to four pairs of phones..... **29c**

Technical Advisor of the N. Y. Chapter of the Club,  
227 FULTON ST Phone, COrtland 7-7843 [NEW YORK

### MEMBERSHIP CONTEST

We are happy to announce another of those interesting membership contests. This contest offers short wave fans an opportunity of winning some very valuable prizes. All of our old-time members will remember other contests we have had of this nature, and how easy it is to win a valuable prize.

This time we offer a beautiful Hallicrafter's Super-seven Receiver, complete with speaker, tubes, power-supply and everything ready to operate as the first prize. Everyone knows how valuable this prize is, so we need not go into details. The second prize is a beautiful set of dishes made in East Liverpool, the home of the International Short Wave Club. These dishes were actually made within view of the offices of the club. A number of other prizes will also be offered, including globes, stationery and similar things.

The rules are very simple. 1. Any person, excepting officers of the club and relatives may take part. 2. The person sending in the greatest



This beautiful Hallicrafters' Super-Seven Receiver will be given to the person getting the most new members in this contest.

number of new members in the period of time designated will be given the first prize. Memberships may be sent in by the contestant, or the new member may send in his own membership and ask the officers to credit the membership to the contestant. 3. Memberships for one year will count as one point, memberships for 2 years will count as two points, etc. 4. Renewals less than three months old will not be counted. 5. The contest closes for readers in North America on August 1st, 1936. 6. The contest closes for readers in Central America and the West Indies on August 5th, 1936. 7. The contest closes for readers in Europe and South America on August 15th. 8. The contest closes for readers in Africa, Asia and Australia on August 31st. Memberships must be received (not just mailed) on or before these dates to count. 9. No special applications are necessary. The contestant can either send in the memberships or have the new member mention his or her name.

Only once has such a contest been won by a listener in the United States. And strange enough, the large cities do not seem to be the best places to get new members. This new contest starts January 15th. So, get out your magazine and start showing it off to prospects right away.



### F. X. C. N. SEQUEIRA

One of the beautiful things about short wave radio is the contact it brings with people in distant lands. You could hardly put the tip of your finger on a world globe without covering up a place where some member of the International Short Wave Club makes his home. From Presidents and Sons of Presidents, throughout all the walks of life, the I. S. W. C. holds an interest. The school boy and the army officer share their tastes together in this magazine.

Here we have a photograph of Mr. F. X. C. N. Sequeira, who lives in Shanghai, China. Mr. Sequeira is an ardent short wave fan. He likes to listen to the world by short waves, just as does his American or European fellow-members. Mr. Sequeira is compiler and publisher of the Far Eastern Exchange Tables and The Universal Exchange Tables. His membership certificate does not show in this picture.

### NEWS BROADCASTS

The news of the day is broadcast by several short wave stations. To our many distant members, this list should be of great help.

VK3LR on 9.58 mc. at 4:50 A. M. Monday to Saturday.

DJC on 6.02 mc. and DJN on 9.54 daily at 8:15 P. M.

2RO on 9.64 mc. daily at 6:00 P. M.

EAQ on 9.87 mc. daily at 5:15 P. M.

Two English stations daily at the following times: 4:45 A. M., 8:00 A. M., 11:30 A. M., 1:00 P. M., 5:00 P. M., 7:45 P. M. and 10:45 P. M.

W8XXK, 6.14 mc. Monday to Friday 6:45 P. M. to 7:00 P. M. (L. Thomas).

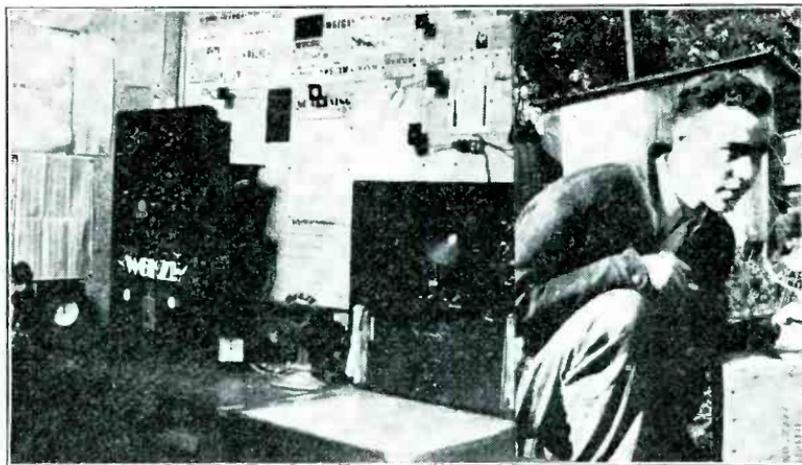
W3XAU on 6.06 mc. Monday to Friday 7:45 P. M. to 8 P. M. (B. Carter).

W2XE on 11.83 mc. Monday to Friday 7:45 to 8:00 P. M. (B. Carter).

Pontoise on 11.90, daily 2:30 to 2:45 P. M.

### W8XXK and W1XK WILL NOT VERIFY

A letter from the station manager states that hereafter stations W8XXK in Pittsburg and W1XK in Boston will not verify. They state as their reason that the programs of these stations are published in advance in many countries.



### W. J. RAY, OF OAKLAND, CALIFORNIA

This husky young fellow, although young in years, may be called an old-timer when you speak of short wave radio or of the I. S. W. C. He has logged a total of 227 stations on short waves, he says, and has been tuning for many years. He joined up with the I. S. W. C. "Gang" way back in 1930, when the club was enjoying the first growing pains. He now owns and operates his own amateur station, using the call W6KZF. He may be heard talking to other amateurs at most any time. He likes football and seldom misses any games, but short wave radio come first in his mind. And most every day he can be heard on about 160 meters telling the other boys how he worked a lot of DX stations on his home-made transmitter.

### CHAPTER NEWS

The London, England Chapter meets every Friday except the second in each month at the RACS Hall, Wandsworth Road, SW8. At a recent election, Mr. W. J. Nobbs was elected President, Ralph Stranger and Carleton L. Dyer were elected vice-presidents. This chapter offers a wide variety of entertainment at every meeting. Recently a midget plane was brought inside the chapter to illustrate a lecture. They are planing on having their own transmitter and receiver soon.

The Manchester, England, Chapter meets at British Legion Hall, Long Street, Middleton, on the first and third Tuesdays of the month. New officers were installed recently. They are J. Cooper, President; H. Wild, Secretary and Chairman and H. Clough, Treasurer.

The Leicester, England, Chapter meets at Foresters Institute, High Street, Leicester, on the first and third Wednesdays of the month.

The Philadelphia Chapter meets on the second and fourth Fridays of each month at 7:15 P.M. at 438 Market Street. Movies, demonstrations of receivers and code lessons are featured. A photograph of the chapter will be taken January 10th, and every member should try to be there.

The New York Chapter meets at the Plaza Bridge Club, 70 Eighth Ave., Brooklyn. For details of dates and times write to Jacob Kleimans, 2610 Glenwood Road, Brooklyn.

### LANGUAGE LESSON

The following list of pronunciations may be of help to many members in identifying the call-signs of short wave stations when they are announced in native language:

	French	Spanish	German	Portuguese
A	ah	ah	ah	ah
B	bay	bay	bay	bay
C	say	say-thay	say	say
D	day	day	day	day
E	ay	ay	ay	ay
F	ef	effay	ef	effay
G	zahy	hay	gay	hay
H	asch	ah-hay	bah	ah-hay
I	ee	ee	ee	ee
J	zheep	ho-tah	zhay	ho-tay
K	kah	kah	kah	kah
L	el	ellay	el	ellay
M	em	emmay	em	emmay
N	en	ennay	en	ennay
O	o	o	o	o
P	pav	pay	pay	pay
Q	coo	coo	coo	coo
R	air	erray	err	erray
S	ess	essay	ess	essay
T	tay	tay	tay	tay
U	eu	oo	oo	oo
V	vay	vay	fow	vay
W	doublevay	dooblvay	...	dooblvay
X	eeks	ekis	ecks	ekis
Y	egrek	egreyeyah	egrek	egreyah
Z	zed	zed	tset	zed
1	unh	uno	ine	um
2	dur	doce	zwi	dois
3	trwa	trace	dri	tres
4	katth	kuahtro	feur	quattro
5	sank	sinko	finf	sinko
6	seece	sase	sex	sase
7	saat	sate	sseben	sate
8	hweet	ocho	oct	oito
9	neri	un-avy	noin	nove
10	deece	de-uz	zane	duet

### SOME MORE ADDRESSES

Here are a few more addresses of stations. Such lists have been printed in the last two issues of this magazine. To those who wish a more complete list, we suggest that they send us 3c for the booklet "Helps and Hints," which tells how to make up a report, how to address your letters and gives the addresses of hundreds of stations.

- CO9JQ—General Gomez, No. 4, Camaguey, Cuba.  
 CO9GC—Apartado 137, Santiago de Cuba, Cuba.  
 COCD—Calle 25 y G, Vedado, Havana, Cuba.  
 COCO—P. O. Box 98, Havana, Cuba.  
 TIGP—P. O. Box 225, San Jose, Costa Rica, C. A.  
 TIRCC—Apartado 1064, San Jose, Costa Rica, C. A.  
 TG2X—Secretary of la Policia Nacional, Guatemala City, Guatemala.  
 CRCX—Rural Route 4, Bowmanville, Ontario, Canada.  
 PRA8—Avenida Cruz Cabaga 394, Recife, Pernambuco, Brazil.  
 HJ5ABC—Calle 12, No. 235, Cali, Valle, Colombia.  
 FNSK—French Line Pier, 88 North River, New York City.  
 HP5J—Apartado 867, Panama City, Panama.  
 HJ5B—Apartado 910, Panama City, Panama.  
 HP5F—Carlton Hotel, Colon, Panama.  
 HIZ—Calle 19 de Marzo, Santo Domingo, Dominican Republic, W. I.  
 HI1J—Box 204, San Pedro de Macoris, Dominican Republic, W. I.  
 HI3C—Robert Palli Bernado, La Romano, Dominican Republic, W. I.  
 VP3MR—1 Wellington St., Georgetown, British Guiana, S. A.  
 HC2JSB—Juan S. Behr, Guayaquil, Ecuador, S. A.  
 YV4RC—Apartado 983, Caracas, Venezuela.  
 ZSS—P. O. Box 962, Johannesburg, South Africa.  
 HI4D—La Voz de Quisqueya, Santo Domingo, Dominican Republic.  
 YV6RV—La Voz de Carabobo, Valencia, Venezuela.  
 W9XBS—National Broadcasting Company, Chicago, Illinois.  
 CP5—CP7, etc.—Casilla 367, La Paz, Bolivia.  
 YV5RMO—Apartado de Carreos 214, Maracaibo, Venezuela.  
 HB9B—Radio Club Basle, Postpack 1, Basle, Switzerland.  
 HKV—Ministry of War, Bogota, Colombia.  
 WVD—517 Federal Office Building, Seattle, Washington.  
 HC2CW—Casilla de Correos 1167, Guayaquil, Ecuador.  
 HCJB—Casilla 691, Quito, Ecuador.  
 HC2RL—P. O. Box 759, Guayaquil, Ecuador.  
 HJ4ABA—Ecos de la Montana, Medellin, Colombia.  
 2RO—Via Montella 5, Rome, Italy.

### BOOSTERS

The following people secured new members for us during December and we are deeply indebted to them for their help: Ernest Eckel, Port-of-Spain, Trinidad; Ernest Tander, Toronto, Canada; J. M. Encalada, Jr., Havana, Cuba; T. R. McNamee, Detroit, Michigan; Mrs. Kate Randall, Balston Spa, N. Y.; C. E. Whall, San Juan, Puerto Rico; Ralph Brady, Brooklyn, N. Y.; H. Wild, Manchester, England; T. Evans, Witenhage, South Africa; T. M. Lenington, Chicago, Illinois; George Laroche, Cap-

Haitian, Haiti; J. R. Bournigal, Santiago de los Caballeros, D. R.; E. J. Toomey, Dallas, Texas; J. Smith Lanier, West Point, Ga.; R. N. Shaw, Wauchope, Australia; C. D. Scheska, Marietta, Ohio; Louis Salazar, New York City; L. D. Brewer, Phoenix, Ariz.; R. A. Goss, Louisville, Ky.; Dr. G. M. Cancio, Havana, Cuba; G. H. Himmelheber, Pekin, Illinois; F. L. Stitzinger, Erie, Pa.; Thomas McGinley, Sewickley, Pa.; E. J. Parrish, Huntington, W. Va.; H. Weston Taylor, Philadelphia, Pa.; Maynard Wetherall, Troy, N. Y.; Mrs. Shepard, Andover, Mass.; A. W. Preedy, London, England; Philco Radio, London, England; Ralph Minnis, Clarkston, Mich.; G. Len de Cou, Bartlesville, Okla.; Gerald W. Shields, Stamford, Conn.; Charlie Nabours, Cameron, Texas; Edward A. Niel, Rochester, N. Y.; Dr. E. F. Good, Gaffney, South Carolina; J. M. Aaron, Manila, Philippine Islands; Thomas Grey, Berwyn, Illinois; Jas. B. Wooten, Mobile, Alabama; R. B. Williams, Garden City, N. Y.; T. W. Moss, Exeter, England; Manton Townend, Mangos Baragua, Cuba; William Beal, Revere, Mass., Stuart B. Fuller, Providence, R. I.; W. C. Gangloff, Cincinnati, Ohio; Capt. C. Seigmund, Santurce, Puerto Rico; U. Darwin Webber, Charlotte, N. C.; E. R. Coulter, Buffalo, N. Y.; E. T. Gilbert, Gatun, Canal Zone; L. V. Cassidy, Long Beach, California; F. A. Beane, Ridgewell, England; H. J. Davison, Bayamon, P. R.; W. L. Baxter, Philadelphia, Pa.; Ned Conwell, Chester, Pa.; Julio Olaguenaga, Havana, Cuba; Oliver Seibert, Flushing, N. Y.; Alberto Broch, Havana, Cuba; W. T. R. Morris, Jr., Richmond, Va.; Rev. W. C. Carson, McDonald, Pa.; A. Antognini, Greenfield, Calif.; L. E. Hansen, Esplanada, Durban, S. Africa; Arthur Napier, Philadelphia, Pa.;

### BIRTHDAY DX CONTEST NEWS

Due to the vast amount of work involved in reading and judging the reports received on the Birthday DX Contest, it was physically impossible for us to announce the winners of the many valuable prizes in this issue as we first promised. We had no idea that there would be so much work attached to the contest, or we would not have made such a promise. We realize that many people are anxiously awaiting the announcement of the winners, but at the same time we believe that it would be unfair and unjust to run over the reports quickly and not give each the ample time required for correct judgement.

The judges have been busy working on these reports since December 10th, sometimes working until the small hours of the morning. They are doing everything possible to speed up the work, at the same time taking good care that no mistakes are made. Pounds and pounds of reports were received. They came from all parts of the world. Each one of these reports have have to be read and judged. It takes much time. The editor has "sat in" on just about every short wave contest ever conducted, and he must say that this one has brought the greatest number of reports and created the greatest amount of interest of all the contests.

Several members sent in letters with ninety or more pages of type-written material. Several hundred people have sent in reports, so it should not be hard to picture the vast amount of work involved. Just as soon as the judges arrive at a decision, the winners will be notified by mail and the list will be published in the next issue of this magazine.

## 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.

### AFRICA

Addis Ababba, Ethiopia. Set your dials every Wednesday at 4:50 P.M. for 25.10 meters or 11.95 mc. and listen to Ethiopia direct. A special program is sent at this time each week. Mr. F. Hammer, Chief operator says they have ETA on 16.42 meters, 18.27 mc.; ETB on 25.10 meters, 11.95 mc.; ETD on 39.37 meters or 7.62 mc. and ETG on 51.02 meters or 5.88 mc. ETA works from 1:00 A.M. to 1:00 P.M. and ETB from 1:00 P.M. to 5:00 P.M., usually using code. The address is Ministere des PTT, Service Radio Telegraphique, Empire de Ethiopia. Such letters have been received by H. S. Bradley, W. D. Flagg, Wm. C. Palmer, and W. A. Wright. Those special programs have been mentioned by many. One member also reported them at 6:15 to 7:00 P.M. (J. Reese) and one from 10:00 to 11:00 A.M. one Sunday (E. Orchard). One member also reported an ETY on 29 meters sending a program at 7:30 P.M. (W. C. Gangloff).

CNR, Rabat, Morocco, is still used to telephone Paris on 23.38 meters, 12.82 mc. Heard at 7:00 A.M. (F. Karpen). OPM, Leopoldville, Belgian Congo, on 29.58 meters, 10.14 mc. phones Belgium. Reported at 3:00 A.M.; 8:30 A.M., 9:00 A.M. and 11:00 A.M., by K. Moots and L. D. Brewer. OPL on 14.97 meters, 20.04 mc. also heard at 3:00 A.M. by L. D. Brewer. SUV, Cairo, Egypt, on 29.83 meters or 10.05 mc. reported phoning between 3:00 and 5:00 P.M. by Charles Miller; between 5:00 and 6:00 P.M. by L. D. Brewer and 4:25 and 4:50 P.M. by Sam Solito. SUX, Cairo, on 38.06 meters or 7.86 mc. phoned England at 1:00 P.M. SUZ was calling Rome on 21.7 meters or 13.83 mc. when logged by L. D. Brewer. SUZ at 11:25 to 12:03 P.M., reported by S. Solito.

EA8AB, Radio Club Tenerife, Canary Islands, sent word out that they would be on 41.60 meters, 7.21 mc., December 21st at 3:15 P.M., 7:30 P.M., 9:45 P.M. and at midnight with special programs. This was received from members T. W. Moss and Joe Miller.

IDU, Asmara, Eritrea on 22.40 meters or 13.38 mc. is playing an important part in the war. They phone Italy around 7:00 to 10:00 A.M. This is heard by many.

ISV, Bandar, Kassin, Italian Samaliland on 23 meters, or 13.04 mc. was heard one Sunday at 11:00 A.M. according to W. J. Woodall, Birmingham, England. VQ7LO Kenya Colony, is on 49.31 meters or 6.08 mc. The schedule is Sundays 11:00 A.M. to 2:00 P.M.; Mondays and Fridays 5:45 A.M. to 6:15 A.M. and 11:30 A.M. to 2:30 P.M.; Saturdays 11:00 A.M. to 3:00 P.M. and other days 11:00 A.M. to 2:00 P.M. It is a very poor station for distant reception. We thank A. J. Hayward, A. F. Larkman and C. J. W. Bird.

### SOUTH AMERICANS

, PRAS, Pernambuco, Brazil, on 49.67 meters or 6.04 mc. broadcasts 2:30 to 8:30 P.M. It is seldom heard at any distance. Heard once at midnight testing, according to E. Riggle, Massillon, Ohio. After months of silence, the phone PSZ on 38.50 meters, 7.78 mc. was phoning at 10:00 to 11:00 P.M. according to W. D. Flagg.

ZP10, Asuncion, Paraguay. Heard on 45.00 meters, 6.66 mc. one Monday from 10:00 to 11:45 P.M.—Dr. Saylor, Altoona, Penna.

LSX, Buenos Aires, Argentina, on 28.98 meters or 10.35 mc. Reported working with W2XAF on Monday, Tuesday and one Friday by members. Heard at 5:10 P.M., 6:00 P.M., 7:00 P.M., 9:30 P.M. and at 12:10 A.M. once. Reported by S. Solito, J. Reese, J. Wooten, N. Gaug and XDX.

CP6, La Paz, Bolivia, on 32.88 meters or 9.12 mc. Sent special program December 1st from 2:00 to 2:30 A.M. Reported by Luiz Salazar, New York City, and G. C. Gallagher, San Francisco. CP7 on 19.63 meters say they did broadcast a special program for the I.S.W.C. in October. Many members have verifications on this now. CP5 on 49.34 meters or 6:08 mc. say they have been off the air for several months—Lee Williams, Clarksburg, W. Va.

CEC, Santiago, Chile, on 28.12 meters, 10.67 mc. They say they broadcast daily 7:00 to 8:00 P.M. and Thursdays and Sundays 8:30 to 9:00 P.M. Reported at 4:45 P.M., 5:30 P.M. and 7:15 P.M. by F. Baxter. Heard only 7:00 to 7:15 P.M. now—XDX. Heard 5:30 to 7:00 P.M.—S. Solito. Heard 5:00 to 8:00 P.M. one Monday—W. D. Flagg.

VP3MR, Georgetown, British Guiana, on 42.35 meters or 7.08 mc., is reported now by several members. Give their address as British Guiana Broadcasting Company. Here are the reports. 4:45 to 9:00 P.M. by E. Riggle, Massillon, Ohio; 8:00 to 8:23 P.M. sign off by Sturat Fuller, Providence, R. I.; 4:30 to 7:30 P.M. once and 7:20 to 8:23 another time by W. D. Flagg, Holyoke, Mass.; 8:20 P.M. by A. L. Williams, Kingston, N. Y.; from 7:00 to 8:00 P.M. by L. D. Brewer, Phoenix, Ariz.; 7:00 to 8:45 P.M. by W. A. Dean, Hartford, Conn.; from 7:00 to 9:13 P.M. by R. J. Russell,

Baton Rouge, La.; at 9:00 P.M. by Ed Houlgate, London, Ont.; 7:30 to 8:00 P.M. by R. K. Peck, Silver Springs, Md.; at 7:00 P.M. by E. Orchard, Weymouth, England; at 8:00 by Ed Lips, Pittsburgh, Pa. A station VP3BG Georgetown on 7.225 mc. also broadcasts every night 7:30 to 8:30 P.M. according to Mr. Lips.

PZH, Paramaribo, Dutch Guiana, on 42.88 meters or 6.996 mc. A letter from the General Manager asks us to publish the following: PZH is a crystal controlled 30 watt broadcast station operated by the Algemeene Vereeniging Radio Omroep, P. O. Box 54, Paramaribo. They broadcast Mondays, Wednesdays and Fridays from 5:40 to 9:40 P.M. on Tuesdays, Thursdays and Saturdays from 2:40 to 4:40 P.M., Tuesdays and Thursdays 8:40 to 10:40 P.M., Wednesdays from 3:40 to 4:40 P.M. and Sundays 9:40 to 11:40 A.M., E.S.T. They are one hour and twenty minutes ahead of E.S.T., but we show the schedule in Eastern Standard Time.

OAX4G, Lima, Peru, on 48.00 meters or 6.25 mc. Card says 48.11 meters or 6.235 mc. and schedule daily 7:00 to 10:00 P.M. Lee Williams and Dr. Pugh have such cards. Reported at 11:30 P.M. by Wm. Sparks. OCJ-2, a phone heard broadcasting last month sends word that the call OCJ2 is experimental, the real call is OCJ. G. Van Honk sends this news.

HC2RL, Guayaquil, Ecuador, on 45.00 meters or 6.67 mc. Card says Sundays 5:45 to 7:45 P.M. and Tuesdays 9:15 to 11:15 P.M. G. Saindon sends this. Heard now on 6.63 mc. according to W. D. Flagg.

HCJB, Quito, Ecuador, was on 35.42 meters or 8.47 mc. Broadcasts daily excepting Mondays 7:30 to 11:30 P.M. although sometimes signing off at 9:30 P.M. On 8.76 mc. according to Chas. Miller; on 8.333 mc. according to R. E. de Souza; on 8.77 mc. according to S. Solito; and at 5:00 P.M. according to H. Rappaport.

HC2CW, Guayaquil, Ecuador, on 35.69 meters or 8.41 mc. W. A. Dean, Hartford, Conn., says HC2AT sold their transmitter to HC2CW and they work now 8:00 to 10:30 P.M. daily. A new HC2AT is under construction. HC2CW is known as "Ondas del Pacifico" and the address is Apartado 2009. This from R. E. de Souza, Maracaibo, Venezuela. A station HC1PM on 50.45 meters or 5.95 mc. known as "La Voz del Palomar" at Quito is heard from Midnight to 2:00 A.M. by Mr. de Souza.

YVQ, Maracay, Venezuela, on 44.96 meters or 6.62 mc. broadcasts on Saturdays from 8:00 to 9:00 P.M.

YV2RC, Caracas, Venezuela, on 51.72 meters or 5.80 mc. broadcasts daily 5:15 to 10:00 P.M. May test later than this.

YV3RC, Caracas, on 48.78 meters or 6.15 mc. sends a card giving the schedule 10:30 A.M. to 1:30 P.M. and 3:30 to 10:00 P.M. This is one-half hour ahead of E.S.T. John Cook, Stratford-on-Castle, England, sends this.

YV4RC, Caracas, on 47.10 meters, 6.37 mc. "La Voz del Aquila" broadcasts from 6:00 to 9:30 P.M. daily.

YV5RMO, Maracaibo, on 51.28 meters or 5.85 mc. gives their schedule as 11:00 A.M. to 12:30 P.M. and 5:00 to 9:00 P.M. but may test as late as Midnight. YV5AM, an amateur on 42.55 meters or 7.05 mc. has 200 watts now instead of just 15. A card says they are on 7.105 mc. not 7.05 mc. and they broadcast irregularly. J. Wojtkeiwic sends this.

YV8RB, Baraquismeto, on 51.60 meters or 5.88 mc. broadcasts from 6:00 to 10:00 P.M.

YV6RV, Valencia, on 46.01 meters or 6.52 mc. gives their schedule as 6:00 to 10:00 P.M. but it is heard getting ready at 5:30 P.M. by many.

YV12RM, Maracay, Venezuela, on 47.51 meters or 6.30 mc. is broadcasting just about every night from 8:00 to 10:30 P.M., but has been heard from 4:30 P.M. to 11:45 P.M. They call themselves "Emisora del 24th de Julio." The owner is Joze R. Gomez. They are located at Avedia, Bolivar 125 according to R. E. de Souza, while G. Van Honk says their box number is 125. The station is reported by many.

YV10RSC, San Cristobal, on 52.45 meters or 5.72 mc. is heard most every night between 8:00 and 11:00 P.M., but they announce no schedule. Has been heard as early as 6:00 P.M. and as late as 11:30 P.M. this month.

HJN, Bogota, Colombia, on 50.26 meters or 5.97 mc. known as "Radio-difussion Nacional" is broadcasting week-days from 6:00 to 11:00 P.M. but seems to be silent Sundays.

HKV, Bogota, the War Department Station on 34.10 meters or 8.79 mc. is back again on voice. Heard at 6:00 P.M. by E. Butcher; at 6:30 P.M. by W. D. Flagg; at 7:00 P.M. by L. D. Brewer; at 8:30 P.M. by K. Moots; from 7:30 to 10:00 P.M. by G. C. Gallagher and at 11:00 P.M. by Antognini.

HK1Z, an amateur on 13.995 mc. was broadcasting between 3:00 and 4:00 P.M. last month according to H.S. Bradley. A station HJ3AVK on 7.00 mc. was heard by W. D. Flagg. An HJ4ABP, Medellin, on 48.92 meters or 6.135 mc. known as "Radio Pincho" from 7:50 to 8:15 P.M. was reported by Sam Solito, Leetsdale, Pa., while Ed. Schmeichel, Chicago, reports it at 8:30 P.M.

HJ1ABB, Barranquilla, on 45.61 meters or 6.45 mc., is broadcasting daily from 4:30 to 10:00 P.M., but once last month they sent a 24-hour program commemorating their fifth year on the air. U. D. Webber, L. D. Brewer, Ed. Schmeichel, Lee Williams, S. Solito, F. Grey, H. J. Davison and R. Rappaport report this.

HJ1ABC, Quibdo, on 50.00 meters or 6.00 mc. A letter says they are broadcasting daily 5:00 to 6:00 P.M. Mondays and Saturdays from 10:00 to 11:00 A.M.; Wednesdays 9:00 to 11:00 P.M. and Sundays 3:00 to 5:00 and 9:00 to 11:00 P.M. They have 100 watts and the station is in charge of V. Barrios Ferrer, Director of Education. Sam Solito, Leetsdale, Pa., and H. S. Bradley, Hamilton, N. Y., have these.

HJ1ABE, Cartagena, on 49.05 meters, 6.11 mc., broadcasts daily 7:30 to 9:00 P.M. This station made up a beautiful verification card for the special program they sent out for the ISWC contest in October. It is one of the most beautiful QSL cards we have ever seen and we thank this station for their grand cooperation. Dr. J. S. Pugh, Dallas, Texas, reports this card.

HJ1ABJ, Santa Marta, on 49.95 meters or 6.01 mc. say they broadcast 6:30 to 10:30 P.M. irregularly. Heard once from 1:15 to 2:00 A.M. by Sam Solito, Frank Grey and from 11:15 to Midnight once by W. D. Flagg.

HJ2ABD, Bucaramanga, on 50.10 meters or 5.988 mc. A letter from Hector McCormick says they have 500 watts power and broadcast from 11:30 A.M. to 12:30 P.M.; 5:30 to 6:30 and 7:30 to 10:00 or 10:30 P.M.

Reports are requested and should be sent to Mr. McCormick, care of station HJ2ABD, Apartado 37, Bucaramanga. Heard once from 1:15 to 2:00 A.M. testing by Sam Solito.

HJ3ABH, Bogota, on 49.85 meters or 6.01 mc. known as "La Voz del Victor" has 1200 watts power and they are on 5.97 mc. (or 6.01 mc.) on week days from 11:30 A.M. to 2:00 P.M. and Sundays 12:00 to 2:00 P.M. and 4:00 to 9:00 P.M. George Zehner sends this.

HJ4ABA, Medellin, on 25.40 meters or 11.81 mc. They moved from 25.62 meters or 11.71 mc. to this wave last month. This is reported by Luis Salazar, XDX, W. D. Flagg, F. L. Stitzinger and H. J. Davison.

HJ4ABC, Ibaque, on 46.44 meters or 6.46 mc. broadcasts most every night from 8:00 until 11:00 P.M. The other HJ4ABC at Pereira, Caldos, is on 49.67 meters or 6.04 mc. according to some, while W. Siddle, Sam Solito and F. A. Beane say it is on about 49.40 meters or 6.07 mc. Mr. Beane had it at 11:45 P.M. once. They send out a card giving the schedule as 9:00 to 11:00 A.M., 6:00 to 9:00 P.M. and the owners are Cesar and Marid Arango M. These two stations use the same call-sign.

HJ4ABD, Medellin, is using two waves according to some, while others claim they are two different stations. They are reported on 52.17 meters or 5.75 mc. between 7:00 and 11:30 P.M., on 49.55 meters or 6.05 mc. about the same time, and W. Siddle says one is on 6.135 mc. The one on 5.75 mc. is known as "La Voz de Citia el Valle de Aburra" while the other is known as "Emisora Philco." R. E. de Souza, Maracaibo, Venezuela, also says "Emisora Philco" is on 6.135 mc. and it is owned by a Sr. Alberto Strada.

HJ4ABE, Medellin, on 50.60 meters or 5.93 mc. (they announce 5.89 mc.) say they broadcast 11:00 A.M. to Noon and 6:00 to 10:30 P.M. according to a card received by J. M. Cooke. They may stay on later.

HJ5ABC, Cali, 48.78 meters or 6.15 mc. A card says they have a new transmitter with 150 watts broadcasting daily 11:00 A.M. to Noon, Sundays Noon to 2:00 P.M. and daily excepting Saturdays and Sundays from 7:00 to 10:00 P.M. This comes from E. Orchard, Weymouth, England.

HJ5ABD, Cali, on 46.30 meters or 6.48 mc. broadcasts 7:00 to 10:00 P.M., but was logged once at 11:25 P.M. by S. Solito.

HJ5ABE, Cali, on 21.26 meters or 14.10 mc. is still using this wave in spite of announcements that they were going on long waves. Try between 7:00 and 10:00 P.M.

### CENTRAL AMERICANS

TI5HH, San Roman, Costa Rica, on 54.74 meters or 5.48 mc. broadcasts 3:30 to 4:00 P.M. and 8:00 to 9:00 P.M.

TI5P, San Jose, Costa Rica, on 44.71 meters or 6.71 mc. broadcasts 5:00 to 10:00 P.M., but was heard at 12:50 A.M. once by H. S. Campbell and between 6:00 and 7:00 A.M. one Sunday by G. Van Honk.

TIRCC, San Jose, on 45.81 meters or 6.55 mc. broadcasts daily Noon to 2:00 P.M., and 6:00 to 7:00 P.M., Thursdays 8:00 to 10:00 or 11:00 P.M. and Sundays at 11:00 A.M. and again at 8:00 P.M. A. F. Larkman, England, sends this.

TIGPH, San Jose, and TIX are the same stations on 51.50 meters or 5.82 mc., for Frank Grey had TIX at 12:45 A.M. Al Williams had TIGPH at 8:00 to 11:00 P.M., while W. D. Flagg had them from 9:30 to 10:00 P.M.

TI8WS, Puntarenas, known as "Ecos del Pacifico" say their address is Apartado 75 and the station is owned by Abel Salazar F according to R. E. de Souza, Maracaibo, Venezuela. It is reported on many waves, indicating that they roam between 7.47 mc. and 7.60 mc. And they were heard between 6:00 and 11:00 P.M. by members S. Solito, Eric Butcher, Chas. Miller and W. Siddle.

TI2M, San Jose, "La Voz Nicaraguense" is on 44.9 meters or 6.70 mc. around 10:30 to 11:15 P.M. according to W. Siddle. Also one TI2VN is heard between 6.80 and 6.92 mc. by H. S. Bradley. A. Pernet reports TI2M, Thursdays and Fridays from 9:00 to 11:00 P.M. Sam Solito reports them at 10:30 to 11:00 P.M. on 6.84 mc. Mr. Siddle also reports a station on 47.92 meters or 6.28 mc. between 6:00 and 8:30 P.M.

TIPG, San Jose, "La Voz de la Victor" owned by Perry Girton, who sent us a letter saying they are on 46.86 meters or 6.41 mc. daily Noon to 2:00 P.M., and 6:00 to 11:30 P.M., with special programs Wednesdays from 9:00 to 10:00 P.M.

YNLF, Managua, Nicaragua, on 50.30 meters or 5.96 mc. sends cards saying they are on 6:00 mc. daily from 1:00 to 2:00 P.M. and 7:00 to 9:00 P.M. E.S.T. But they are heard 6:00 to 8:00 P.M., so they must be using C.S.T. F. L. Stitzinger, Erie, Pa., has the card while W. D. Flagg, Holyoke, Mass., does the reporting.

YNVA, Managua, Nicaragua, on 34.92 meters or 8.59 mc. signs off at 9:00 P.M. according to Ed. Schmeichel. H. S. Bradley says they are owned by V. Anguello, and their identification is "Rueben Dario." Reported between 7:30 and 9:30 P.M. by W. Siddle, S. Solito, W. A. Dean, K. Moots.

YNE, Puento Cabazas, Nicaragua, on about 23 meters or 12.68 mc. was heard one Thursday testing at 8:00 P.M. The frequency 12.68 was announced. A station YNGU near 32 meters or 9.30 mc. signing off at 7:05 was reported by Dr. Kash. YNE was logged by J. F. Jelley, Jr., Norfolk, Virginia.

HP5F, Colon, Panama, "La Voz del Colon" on 49.34 meters or 6.08 mc. is heard. The schedule is 11:45 A.M. to 1:15 P.M. and 7:45 to 10:00 P.M. and the address is Box 405. Reported at 10:30 P.M. by Ed. Schmeichel; at 11:45 P.M. by W. Siddle, from 1:05 to 1:18 A.M. by S. Solito and from 11:00 P.M. to Midnight by H. Rappaport.

HP5J, Panama City, on 31.29 meters or 9.59 mc. is supposed to broadcast 7:30 to 10:00 P.M. daily but S. Solito, Leetsdale, Pa., reports them at 4:30 P.M. HP5B, Panama City, on 49.75 meters or 6.03 mc. is supposed to broadcast 7:00 to 10:30 P.M., but Thomas Grey, Lyons, Illinois, reports them at 2:30 A.M. testing several times.

HRN, Tegucigalpa, Honduras, on 51.11 meters or 5.87 mc. announces their broadcast schedule as 6:30 to 8:00 P.M. and 8:30 to 10:00 P.M., daily, with a special program Sundays at 10:30 P.M. when they acknowledge reports over the air. Miss Eileen Hofmaster reports these special programs.

HRY, Tegucigalpa, Honduras, on 47.24 meters or 6.35 mc. was reported

sending music for tests one Friday from 8:30 to 9:30 P.M. by W. D. Flagg. Also one Monday from 6:45 to 7:30 P.M. by S. Solito, Joe Childs and from 8:30 to 9:00 P.M. by G. C. Gallagher.

HRW, somewhere in Honduras, that sounds like La Sala or La Fala, on 27.17 meters or 11.04 mc. (announced) was heard between 3:30 and 4:00 P.M. by W. D. Flagg, Holyoke, Mass. They asked for reports to be sent to the Standard Steamship Company, Anura Park Bldg., New Orleans, Louisiana.

HRP1, San Pedro Sula, Honduras, on 47.39 meters or 6.35 mc. is reported on several wavelengths and at different times. It was reported between 6:30 P.M. and 10:00 P.M., although some heard them signing off at 9:00 P.M. and 9:30 P.M. We have reports from H. S. Bradley, F. Calvo, E. Reese, F. Grey, Ed. Schmeichel, Chas. Miller, W. Siddle, S. Solito, K. Moots and Wm. Sparks.

XEVI, Mexico City, Mexico, on 50.17 meters or 5.98 mc. broadcasts on Tuesdays from 7:00 to 8:00 P.M., Thursdays 7:00 to 8:00 and 9:00 to 10:00 P.M., Saturdays 8:00 to 9:00 P.M. and at other times earlier in the day. Their address is Box 2874. Eric Butcher reports a verification. Dr. Kash, S. Solito and K. Moots reports the station after the regular broadcast periods shown above.

XBJQ, Mexico City, on 27.26 meters or 11.00 mc. has gone commercial and no longer broadcast. They are heard testing with someone called "Ted" in Argentina and seem to have a schedule daily at 4:30 to 5:30 P.M. and 10:15 to 11:00 A.M. Also heard at Noon and 5:40 P.M., and once at 7:00 P.M. We thank members W. D. Flagg, S. Solito, Charlie Nabours, J. Reese and L. D. Brewer.

XECR, Mexico City on 40.65 meters or 7.38 mc. broadcasts Sundays only from 6:00 to 7:00 P.M. although XDX, Philadelphia, claims it is 7:00 to 8:00 P.M. XEBT, Mexico City, on 50.00 meters or 6.00 mc. broadcasts from 6:00 P.M. until Midnight daily and sometimes stays on until 3:00 A.M. Dr. Kash says they moved to 49.83 meters.

XEUW, Vera Cruz, Mexico, on 49.83 meters or 6.02 mc. has moved to 49.45 meters or 6.06 mc. according to some, while others say they are on 49.83 yet. They broadcast and the address is Independencia 98. They sent a special program twice last month at 2:00 A.M. and were heard by Messrs. Butcher, Mack, Solito, Salazar and Sparks.

XEFT, Vera Cruz, on 49.02 meters or 6.12 mc. say they broadcast from 11:30 A.M. to 4:00 P.M. and 7:30 P.M. to Midnight, but they were reported at 2:00 A.M. by S. Solito.

New Mexicans reported this month are numerous. An XFA2, Vera Cruz, on 6.55 mc. at 7:45 P.M. was heard by W. Siddle. Also an XEXA, Mexico City, on 6.17 mc. from 7:00 to 11:00 P.M. saying 6.13 mc. was heard. An XEAW on 6.73 mc. was logged by W. D. Flagg. XEXA, Department of Education, Mexico City, on 6.18 mc. at 11:00 P.M. is reported by S. Solito. XEXA on 6.20 mc. is also reported by E. Butcher at 9:30 P.M. An XERA, Raynosa, on 6.73 mc. relaying XEAW from 11:00 to 11:30 P.M. was reported by Mr. Flagg. XEXA on 6.18 mc. at 8:00 P.M. was also logged by Dr. Kash. XFA2, Vera Cruz, on 6.53 mc. from 8:00 to 8:10 P.M. is reported by S. Solito and XF2 on 6.60 mc. at 7:00 P.M., 9:00 P.M. and

10:00 P.M., is reported by Frank Grey. A station XEU, Vera Cruz, on 9.41 mc. was heard phoning Merida, Yucatan, between 5:00 and 8:00 P.M. by W. D. Flagg, Holyoke, Mass., and reported phoning in daytime by L. D. Brewer, Phoenix, Arizona.

Guatemala. This country has us all mixed up. Robert Rossi, Philadelphia, says there is TGS, Casa Presidencial, on 5.74 mc.; TG2X, Secretaria de la polocia Nacional on 5.94 mc.; TGWA, Radiodifusora Nacional on 6.00 mc.; FG1A, Ministerio de Fomento on 9.45 mc., and TGXA, Giornal Liberal Progressista, on 6.13 mc. George Lowry, Brampton, Ontario, says TGXA is on 48.91 or 6.13 mc.; TG1X on 31.73 meters or 9.45 mc. with 200 watts; TG2X on 50.51 or 5.94 from 9:00 to 11:00 P.M.; TGWA on 50.00 meters or 6.00 mc. Noon to 1:00 P.M., 6:30 to 7:30 and 9:00 to 11:00 P.M.

We have a TGX reported on 5.74 and 5.73 mc. between 8:13 and 9:00 P.M. reported by F. L. Stitzinger and S. Solito. TG2X is reported by many and they are heard from 5:00 to 11:30 P.M. irregularly, sometimes until 1:00 A.M. H. S. Bradley reports TG2X, TGS or TGX roaming around from 6.71 to 5.76 mc. TG2X is broadcasting 4:00 to 6:00 P.M. and 9:00 to 11:00 P.M. according to a verification received by S. Solito. A TGF, TGM or TGS on about 52.45 meters or 5.72 mc. is reported heard between 7:15 and 8:15 P.M. by G. Van Honk; at 7:00 P.M. by Ed. Schmeichel; from 6:30 to 9:00 P.M. almost nightly by Charles Miller and on 6.73 mc. from 7:40 to 8:23 P.M. by Charles Nabours. A TGD or TGT phoning and working Panama between 13.42 mc. and 13.58 mc. from 11:00 A.M. to 2:30 P.M. is reported by F. Edward Fellows, New Jersey.

### ASIA

ZBW, Hong Kong, China, on 34.29 meters or 8.75 mc. is still broadcasting on this wavelength in spite of announcements of a change. They are heard between 5:00 and 6:00 A.M. in Eastern U.S.A. and until 11:00

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A.M. on the West coast. Members Hayward, Reese, Brewer, Moots, Sparks, Gallagher and Karpen report it.

VPD, Suva, Fiji Islands, on 22.95 meters, 13.07 mc. still broadcasts 12:30 to 1:30 A.M., but not every day.

RV15, Khabarovsk, U.S.S.R., on 70.65 meters or 4.25 mc., can be heard now that winter is here again. It is heard in Eastern U.S.A. between 3:00 and 7:00 A.M. and Western U.S.A. from 1:00 to 10:30 A.M.

A station called Radio Oceania at Papeete, Tahiti, broadcasts on 42.25 meters or 7.10 mc. in early mornings according to Eric Butcher and Wm. Palmer, Jr. This must be a amateur. We have asked Tahiti members to check up.

FZR, Saigon, Indo-china, on 18.51 meters or 16.20 mc. works Paris around 8:00 to 10:00 A.M. daily, but worked England at 6:15 A.M. once according to G. Van Honk.

VWY, Poona, India, on 17.10 meters or 17.54 mc. phones London at 7:30 to 8:10 A.M. according to S. Solito and T. W. Moss. Reported on 17.133 mc. and not 17.10 mc. from 8:00 to 8:30 P.M. by Charles Miller.

HSP, Bangkok, Siam, on 16.92 meters or 17.75 mc. Usually works Berlin between 4:30 and 9:00 A.M., but logged one Monday sending music from 7:00 to 7:45 A.M. by Fred Karpen. YBG, Medan, Sumatra, on 28.80 meters or 10.40 mc. was logged phoning Java from 1:30 to 1:45 A.M. by E. Riggle, Massillon, Ohio. PNI, Makasser, on 8.77 mc. was heard three days around 6:00 A.M. by Fred Karpen, Johnstown, Pa.

CQN, Macao, Portuguese Colony in China. Supposed to broadcast on 49.83 meters or 6.02 mc. on Mondays and Fridays from 3:00 to 5:00 A.M., but said by club-member Virgilia Lopez Correia of Macao to be now on or near 31 meters on Mondays and Fridays between 7:00 and 8:30 A.M.

Here is the log for Java this month. The special broadcasts seem to have been concluded although an officer said they would soon be made daily. PMA on 15.50 meters or 19.35 mc. phoning Holland at 8:30 A.M. PLE on 15.92 meters or 18.83 mc. phoning Japan around 1:00 A.M. and U.S.A. around 7:40 P.M. PLP on 27.26 meters or 11.00 mc. broadcasting Sunday 5:00 to 7:00 A.M. PMN on 29.25 meters or 10.25 mc. broadcasting Sunday 5:00 to 7:00 P.M. PLV on 31.85 meters or 9.42 mc. phoning at 10:30 A.M. and between 5:00 and 6:00 P.M. PMY on 58.30 meters or 5.15 mc. broadcasting 6:00 to 10:00 A.M.

There is also a station broadcasting near 31 meters. Reports differ. Here they are: G. Van Honk reports them on 31.48 meters on top of W2XAF between 5:00 and 6:30 A.M. J. B. Sessions had them on 30.95 meters. L. D. Brewer reports them on 9.65 mc. at 5:30 A.M. G. C. Gallagher had them on 31.56 meters or 9.50 mc. until 11:00 A.M. We have many reports on the other stations shown above.

JZB, Manchukuo, on 29.80 meters or 10.06 mc. was phoning JVO between 3:00 and 4:30 A.M. and JZC on 51.4 meters or 5.83 mc. was phoning JVU between 6:00 and 7:00 A.M. when logged by Sam Solito, Leetsdale, Pa.

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

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

Here are the reports on these stations. JVF phoned KWU around 4:00 P.M. JVN broadcasts from Midnight to 1:00 A.M. daily; from 4:00 to 5:00 P.M. on Mondays and Saturdays; from 2:00 to 3:00 P.M. on Tuesdays and Fridays and phoning 2:45 to 4:00 A.M., and once 9:30 to 10:30 P.M. JVM broadcasts from 4:00 to 5:00 P.M. on Mondays and Saturdays; Fridays 4:00 to 5:00 P.M.; Thursdays 4:00 to 5:00 P.M.; Tuesdays and Fridays 2:00 to 3:00 P.M. and around 4:00 to 7:40 A.M.

JVE phoned KWU 4:00 to 6:00 P.M. and phoned PLE at 7:30 P.M. JVH was reported at 2:00 to 3:00 P.M. JVH has been replaced by JVP according to a letter received by W. A. Wright. JVT was logged from 1:30 to 7:40 A.M., sometimes broadcasting music and talks. JVP was logged broadcasting Mondays 4:00 to 5:00 P.M. and Tuesdays and Fridays 2:00 to 3:00 P.M. and several times between 4:00 and 7:40 A.M. JVO was phoning JZB from 3:00 to 4:30 A.M. JVU was phoning JZC from 6:00 to 7:00 A.M. JVV was phoning JIC from 6:00 to 7:45 A.M. JYS on 30.40 meters or 9.87 mc. was broadcasting at 10:20 P.M. once and between 3:00 and 3:45 P.M. These reports came from many.

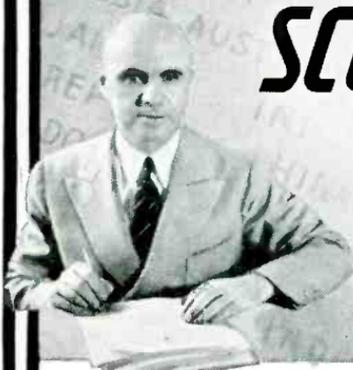
JIC, Tawian, on 50.93 meters or 5.89 mc. phoned JVV at 7:45 A.M. and JIB on 28.49 meters or 10:53 mc. phoned JVN from 2:45 to 4:00 P.M. according to Mr. Solito. JIB was logged at 5:10 to 5:40 A.M. by J. Reese and at 11:00 P.M. by Fred Karpen.

## WEST INDIES

HH2S, Port-Au-Prince, Haiti, which was listed on 49.5 meters has been heard this month on 50.85 meters or 5.91 mc. They have been heard between 7:30 and 9:40 P.M. by all but one member, who said he had them between 10:30 and 11:00 P.M. They sign off at various times between 9:00 and 9:40 P.M. They sign off with "Good Night Song" by Ted Lewis' band. R. J. Russell, XDX, Sam Soliso, D. E. DeSouza, W. D. Flagg, Carlos Hurtado, Dr. R. C. Kash and K. Moots report it. HH2T on 11.57 mc from 4:45 to 8:00 P.M. was reported by L. D. Brewer. H. J. Davison also logged HH2S.

VRR4, Stony Hill, Jamaica, on 25.87 meters or 11.595 mc. was heard at noon testing, according to Ed Schmeichel, while F. Edward Fellows of Short Hills, New Jersey, reports a letter giving this wavelength saying they will soon start regular phone work with WNC Florida.

CMA3, CMB2 and CMB, Havana, Cuba. These stations are owned by the Cuban Trans-Atlantic Radio Corporation of Havana, Cuba. They are



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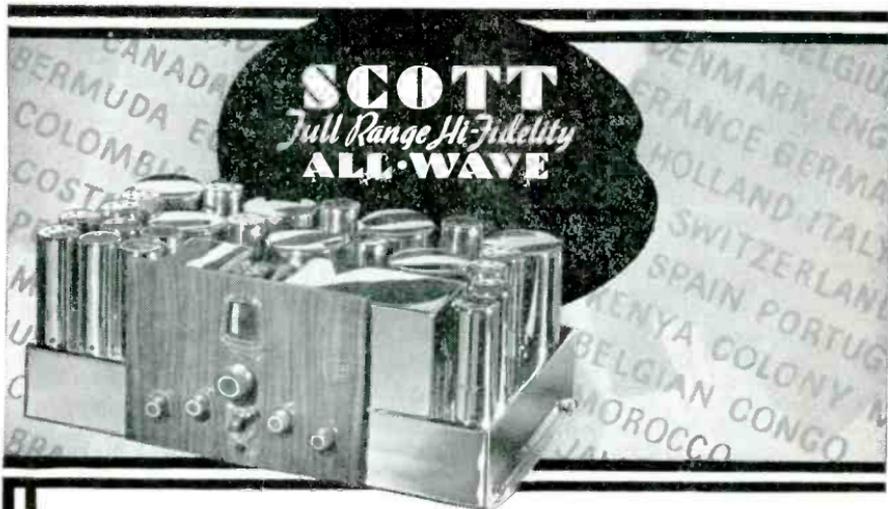
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usually heard using code, but last month they tested with stations in Rocky Point, N. Y., in preparation for a special broadcast which failed to take place, due to some political strife in Cuba. We have so many conflicting reports, we will just give the news the way we got it. CMA3 on 15.05 mc. at 3:00 P.M.—Joe Childs. Announced wave as 15.505 mc, heard 5:30 to 5:40 P.M.—F. Edwards Fellows. At 11:30 A.M. on 16.50 although they said 15.70 mc.—Charles Dutrow. Used call CMB2 on 25.63 meters at 6:00 P.M.—Ed. Davenport. On 15.50 mc., 5:30 to 6:00 P.M. and also on 11.62 mc.—D. Robinson. CMB2 announced wave as 51.90 meters or 5.78 mc., 9:45 to 10:00 P.M.—F. L. Perkson, Canton, Ohio. From 9:15 to 9:45 P.M.—S. P. Webb, Royal Oak, Michigan. At 9:00 P.M.—Dr. R. C. Kash. At 9:20 P.M.—H. Tydall, Jr., and F. Grey. On 5.78 mc., 9:00 to 10:00 P.M.—Ralph Brady. CMB on 11.6 mc., 7:00 to 8:15 P.M.; CMB2 on 5.78 mc., 8:25 to 8:45 P.M.—Ian Morgan, Montreal, Canada. CMB2 on 5.78 mc.—K. Moots. At 6:00 P.M., and CMA3 on 15.50 mc. at 4:30 P.M.—Ed. Schmeichel. CMB3 on 11.6 mc. from 6:00 to 8:00 P.M.—W. A. Dean, Hartford, Conn.

CO9WR, Sancti Spiritus, Cuba, on 25.42 meters, 11.80 mc. is supposed to broadcast 4:00 to 6:00 P.M. and 9:00 to 11:00 P.M., but was logged at 8:00 to 9:00 P.M., by H. Rappaport. Has asked for a 49 meter wave.—A. Gower and W. J. Woddall,

COCH, Havana, Cuba, on 31.80 meters or 9.42 mc. Schedule is 8:00 A.M. to 7:00 P.M. and 8:00 P.M. to 10:00 P.M., but they are not always heard. Sent a special program for the I. S. W. C. December 11th at 12:01 A.M., according to Luis Salazar, New York City.

COCO, Havana, Cuba, on 49.90 meters or 6.01 mc. Broadcasts between 9:30 A.M. and 10:00 P.M., most every day, and Saturdays from 11:30 P.M. until about 2:00 A.M. send a special DX program.

COCD, Havana, Cuba, 48.92 meters or 6.13 mc. broadcasts from 11:30 A.M. to Noon and 7:00 P.M. to Midnight, not 5:00 P.M. to Midnight according to Ned Connell. The station gives that first schedule.

HIH, San Pedro de Macoris, Dominican Republic, on 44.12 meters or 6.81 mc. broadcasts daily 7:30 to 9:00 P.M., Sundays 3:00 to 4:00 A.M. and 4:15 to 6:00 P.M. Heard until 6:45 P.M. Sundays by S. Solito.

HIZ, Santo Domingo, D. R., on 47.50 meters or 6.31 mc., say they broadcast on a regular schedule 11:50 A.M., 5:50 P.M. daily and 12:20 Sundays. George Van Honk, Erie, Pa., has the letter.

HIX, Santo Domingo, D. R., on 50.17 meters or 5.98 mc., sends out cards saying they broadcast Sundays 7:40 to 10:40 A.M., Tuesdays and Fridays 11:10 A.M. to 12:40 P.M. and 4:40 to 5:40 P.M. E. Orchard, Weymouth, England, and W. D. Flagg, Holyoke, Mass., have cards.

HIL, Santo Domingo, D. R., on 46.13 meters or 6.50 mc., is back on the air again. Reported on 6.50 mc., 6.55 mc., and 6.53 mc. and heard between 6:30 and 9:00 P.M. by several and at 5:00 P.M. by one member. Their address is Apartado 623. It was reported by George Van Honk, Charles Miller, Wilfred Siddle, Sam Solito, F. A. Beane and Eric Butcher.

HI4V or HI4B, Santo Domingo, is reported. Dr. Desmangles of Haiti gives them on 6.45 mc. from 1:00 to 2:00 P.M. Ed. Schmeichel, Chicago, gives them on 6.55 mc. at 6:00 P.M. W. Siddle, Birmingham, Ala., says 6.49 mc. at 6:30 P.M. Sam Solito, Leetsdale, Pa., gives them from 5:30 to 6:45 P.M. on 6.45 mc.

HI4D, Santo Domingo, D. R., on 45.50 meters or 6.61 mc. broadcasts 4:40 to 7:40 P.M. But reported at Midnight by J. Reese.

HI1J, San Pedro de Macoris, D. R., on 51.15 meters or 5.86 mc., sends a letter giving their schedule as 12:30 to 2:00 P.M. and 6:30 to 9:00 P.M. their time, which is 20 minutes ahead of E.S.T. The address is Box 204. Dr. Kash, Lee Williams and E. A. Beane have such letters. Logged at 10:00 P.M. by Sam Solito and between 5:30 and 6:00 A.M. by U. D. Webber.

HI1A, Santiago de las Caballeros, D. R., on 48.50 meters or 6.19 mc. usually broadcast 7:40 to 8:40 P.M., but was heard last month sending special programs around 1:00 A.M. and 7:00 A.M. These were reported by Frank Grey, S. Solito, Ieleen Hofmaster, Ed. Houlgate, G. Van Honk, J. Reese, Ed. Schmeichel and XDX.

New Dominicans reported. We have several reports on station HI5N, Santo Domingo, on about 48.92 meters or 6.13 mc. It was heard at 7:00 P.M. by Ed. Schmeichel, from 6:40 to 9:10 P.M. by F. A. Beane, at 6:10 A.M. (mornings) by Ed. Lips, and between 6:00 and 8:00 P.M. by H. J. Davison. Their identification is "La Voz del Almacen." Mr. Davison also reports an HI8A, Santo Domingo, on about 6.25 mc. saying they were on 6.06 mc. around 8:30 to 9:00 A.M. several times. An HI1S, Puerto Plata, calling "La Voz de la Espanola" was broadcasting on 46.73 meters or 6.42 mc. according to R. E. de Souza, Maracaibo, Venezuela. An HI59, Santo Domingo, on 6.13 mc. was reported by K. Moots at 7:00 to 7:30 A.M. (morning). HI3C, La Romana, on 43.48 meters or 6.90 mc. was logged from 8:00 to 10:00 P.M. by Dr. Kash. Their card says they broadcast 7:30 to 9:30 P.M. The phone HII on 29.85 meters or 10.04 mc. was working with HJA7 once at 8:45 P.M. and works Colombia in daytime according to W. D. Flag.

HH3W, Port-Au Prince, Haiti, on 49.90 meters or 6.01 mc. was broadcasting between 1:00 and 2:00 P.M. and 7:30 to 9:00 P.M. daily according to Dr. Desmangels of Haiti. This is a new one, too.

## THE EUROPEANS

From Rome, direct from the station, comes the following schedule for 2RO, arranged for the winter. They will be on 25.40 meters or 11.81 mc. from 8:15 to 9:00 A.M.; 9:15 to 11:15 A.M. and 11:30 A.M. to 12:15 P.M. On 31.13 meters or 9.64 mc. they will be heard from 1:30 until about 5:00 P.M., and 6:00 to 6:15 P.M. On Mondays, Wednesdays and Fridays from 6:00 to 7:30 P.M. they will broadcast to North American, but very soon they will be on 49.3 meters or 6.085 mc. with this. At the present it is on 31.13 meters. Every Tuesdays, Thursdays and Saturdays from 6:15 to 7:45 P.M. they broadcast to South America. They give news in English at 10:45 A.M., 1:30 P.M. and 6:00 P.M. daily. In French at 2:00 P.M. In Spanish Tuesdays, Thursdays and Saturdays at 6:40 P.M., Fridays and Sundays at 5:15 P.M.

Italian phones. IRY on 18.61 meters or 16.12 mc. works South America mornings and the U.S.A. once at 1:00 P.M. (Joe Childs). IQA on 20.37 meters or 14.73 works Africa mornings. IRJ on 22.72 meters or 13.22 mc, works Japan irregularly around 5:00 to 8:00 A.M. IAC on 23.45

meters or 12.80 mc. works the ships. IRM on 30.52 meters or 9.83 mc. works Egypt afternoons.

HVJ, Vatican City. They broadcast on 19.84 meters or 15.11 mc. daily 10:30 to 10:45 A.M., Saturdays 10:00 to 10:15 A.M. and 10:30 to 10:45 A.M.

TFJ, Reykjavik, Iceland, on 24.52 meters or 12.24 mc. broadcasts just about every Sunday from 1:45 to 2:00 P.M. Everyone should try for this one. They also work telephone with England irregularly. These broadcasts were logged by sixteen members last month.

SPW, Warsaw, Poland. This station was on 22.00 meters or 13.63 mc., broadcasting 11:30 to 12:30 P.M., but have not been heard for a long time now. W. E. Koneczny, Stratford, Conn., tells us they will start broadcasting regularly around February first and on February 22nd will send a special to the U.S.A.

HAS-3, Budapest, Hungary, on 19.52 meters or 15.37 mc. broadcasts Sundays 9:00 to 10:00 A.M. and HAT-4 on 32.88 meters or 9.12 mc. broadcasts Sundays 6:00 to 7:00 P.M. These are heard by hundreds.

ORK, Brussels, Belgium, on 29.04 meters or 10.33 mc. We were misinformed last month. They still broadcast from 2:30 to 4:00 P.M., not 1:30 to 3:00 P.M. G. Clinton Bell, Lee Williams, J. Wojtkewic, XDX, Sam Solito, J. B. Wotten, and W. D. Flag correct us.

The program from Zeesen, Germany, this month follows:

12:30 A.M. to 2:15 A.M.—DJN on 31.45 ( 9.54) and DJA on 31.38 ( 9.57 and DJQ on 19.63 (15.28).

3:45 A.M. to 7:15 A.M.—DJB on 19.74 (15.20) and DJN on 31.45 ( 9.54)

8:00 A.M. to 11:30 A.M.—DJB on 19.74 (15.20)

8:00 A.M. to 11:30 A.M.—DJN on 31.45 ( 9.54) and DJA on 31.38 (9.56) and DJE on 16.89 (17.70)

12:00 Noon to 4:30 P.M.—DJD on 25.49 (11.77) and DJC on 49.83 ( 6.02)

4:30 P.M. to 5:30 P.M.—DJB on 19.74 (15.20) irregularly.

5:05 P.M. to 9:15 P.M.—DJA on 31.38 meters (9.57 mc.)

5:05 P.M. to 10:45 P.M.—DJC on 49.83 ( 6.02) and DJN on 31.45 ( 9.54)

In addition to the above stations, Germany has been testing with several others. A DJI on 31.02 meters or 9.675 mc. has been broadcasting 5:00 to 7:00 P.M. This one is reported by several dozen members. Another one using the call DJE is supposed to be old DGU and it was broadcasting between 4:00 and 6:00 P.M. The wavelength is 31.09 meters or 9.65 mc. and it is reported by members Bradley, Wojkiewicz, Wooten, Koneczny, and Brewer. Mr. Brewer said it was heard at 5:30 A.M. once. A DJJ on 29.90 meters or 10.032 mc. from 2:00 to 4:00 P.M. was recorded by members Morgan, Flagg, Stitzinger, Williams, Fellows, Erhardt, Solito, Wojtkewic, Koneczny and Beane. DJO on 25.43 meters or 11.79 mc. at 5:00 to 6:00 A.M. is logged by Bob Everard. A DZE on about 20.81 meters or 14.42 mc. is reported from Noon to 2:00 P.M. daily by W. D. Flagg and at 11:30 A.M. once by Joe Childs. DIQ on 29.15 meters or 10.29 mc. has been relaying programs from 3:00 P.M. on, and testing with WQP, WEM and WEA for special programs. Many had this one. A German on 5.95 mc. between 3:00 and 5:00 P.M. one Sunday was logged by W. D. Flagg.

DJO on 25.43 meters or 11.75 mc., DJP on 25.31 meters or 11.85 mc.,

and DJR on 19.56 meters or 15.34 mc. all test Saturdays between 4:00 and 7:00 A.M. according to A. Gower, Overseal, England. DJL on 19.83 meters or 15.14 mc. and DJI on 31.01 meters or 9.67 mc. also tests irregularly, he says. F. A. Beane, Ridgewell, England, also reports DJR and DJP at 3:00 A.M. once. A station DJM, on 49.34 meters or 6.08 mc. has also been heard. It has been reported at Noon, 1:30 P.M., 3:30 P.M. and on up until 5:30 P.M. by members Larkman, Bird, Williams, Solito, Hayward, Beane, Flag and Gower.

Switzerland. Stations HBL on 31.27 meters or 9.59 mc. and HBP on 38.47 meters or 7.80 mc. broadcast every Saturday from 5:30 and 6:15 P.M. HBL and an HBO on 26.35 meters or 11.39 mc. also tested with VK3LR at 2:00 A.M. according to H. S. Campbell. HBO and an HBJ on 20.64 meters or 15.54 mc. tested with the U.S.A. several times last month. This was logged by J. Reese and Jas. B. Wooten.

The programs from Daventry this month are scheduled as follows according to word direct from the operators:

2:15 A.M. to 4:15 A.M.—GSF on 19.82 (15.14) and GSB on 31.55 ( 9.51)  
 6:00 A.M. to 8:45 A.M.—GSG on 16.86 (17.79) and GSF on 19.82 (15.14)  
 9:00 A.M. to 10:15 A.M.—GSE on 25.29 (11.86) and GSF on 19.82 (15.14)  
 10:15 A.M. to 12:00 Noon—GSE on 25.29 (11.86) and GSB on 31.55 ( 9.51)  
 12:15 P.M. to 4:00 P.M.—GSD on 25.53 (11.75) and GSB on 31.55 ( 9.51)  
 12:15 P.M. to 2:15 P.M.—GSI on 19.66 (15.26)  
 2:30 P.M. to 4:00 P.M.—GSL on 49.10 ( 6.11)  
 4:15 P.M. to 5:45 P.M.—GSC on 31.32 ( 9.58) and GSB on 31.55 ( 9.51)  
 6:00 P.M. to 8:00 P.M.—GSA on 49.59 ( 6.05) and GSC on 31.32 ( 9.58)  
 10:00 P.M. to 11:00 P.M.—GSC on 31.32 ( 9.58) and GSL on 49.10 ( 6.11)

OER2, Vienna, Austria, on 49.42 meters or 6.07 mc. is supposed to broadcast week-days 9:00 A.M. to 5:00 P.M. but Emmett Riggle claims he had them at 11:30 P.M. once.

Russia. A letter from Inna Marr, director of Radio in Moscow says they broadcast the English programs on 50.00 meters or 6.00 mc. now. We have reports that indicate that RW59 is on the air from 2:00 to 6:00 P.M. daily, with the exception of one or two days when they sign off at 5:00 P.M. RIO, a telephone station on 29.50 meters, 10.17 mc., has been heard phoning Moscow between 11:00 P.M. and 3:00 A.M. by members E. Reese, N. Gaug, E. Schmeichel, E. Houlgate, Van Honk, W. Siddle, C. Hurtado, K. Moots, and E. Lips. RIR, Tiflis, on 29.76 meters or 10.08 mc. has been heard between 7:00 and 11:00 A.M. phoning Tashkent and Moscow by members Bob Everard, S. Solito, K. Moots, Wm. Sparks and F. Karpen, while Ed. Lips reports it from Midnight to 3:00 A.M. RKR, Nova Sivakisk, on 12.84 mc. was phoning RNE between 7:00 and 7:30 A.M. when reported by K. Moots. He also reports Russian phones on 16.08 mc. and on 8.55 mc. between 5:30 and 6:00 A.M., and RIZ, Irkutsk, on 14.79 mc. between 9:30 and 10:00 A.M. RNE on 25.00 meters or 12.00 mc., RKI on 19.94 meters or 15.04 mc., and RIM, Tashkent, on 19.68 meters or 15.25 mc. have been reported by many phoning between 5:00 and 10:00 A.M. Bob Everard reports a RFZ, "Stanzig Moskwa," on 34.00 meters from 1:10 to 2:00 A.M. A Antogini also reports a station near 35 meters 10:30 A.M.

CT1AA, Lisbon, Portugal, on 31.09 meters or 9.65 mc. is broadcasting Tuesdays, Thursdays and Saturdays from 4:00 to 7:00 P.M., while one party said he had them one Friday. A CTV, Lisbon, on 26.91 meters or 11.15 mc. was heard at 2:40 P.M. by Bob Everard.

France. The broadcasts from France take place like this: On 19.68 meters, 15.25 mc from 7:00 to 11:00; On 25.23 meters, 11.90 mc. from 3:00 to 4:00 A.M. and 11:15 to 6:00 P.M.; On 25.63 meters, 11.70 mc., from 6:30 to 9:30 P.M. and 10:30 P.M. to 1:00 A.M. A great many French phones are reported. A new one, supposedly, is reported on 9.04 mc. at 3:45 P.M. by W. D. Flagg. It works telephone with ships.

Holland. PHI, Huizen, Holland, on 25.57 meters or 11.74 mc. broadcasts Mondays, Thursdays and Fridays from 8:00 to 10:30 A.M. and Saturdays and Sundays from 8:30 to 11:30 A.M. PCJ, Eindhoven, Holland, on 19.71 meters or 15.22 mc. broadcasts Tuesdays 3:15 to 7:30 A.M.; Wednesdays 7:30 to 11:30 A.M. and Sundays 8:30 to 11:30 A.M. Then, they sometimes relay PHI at other times. PIIJ, Dordrecht, on 42.35 meters or 7.08 mc. sends a card saying they have 50 watts power and broadcast Saturdays 11:10 A.M. to 12:10 P.M. (Noon) in winter. J. Munns and A. J. Hayward of England send us this.

### AUSTRALIA

VK2ME, Sydney, Australia, on 31.28 meters or 9.59 mc. broadcasts Sundays between 1:00 A.M. and 11:00 A.M. It is heard almost everywhere. G. Van Honk said they were heard once between 5:00 and 7:00 A.M. on Tuesday. VK3ME, Melbourne, on 31.55 meters or 9.51 mc. broadcasts daily excepting Sundays from 5:00 to 7:00 A.M. VK3LR, Melbourne, on 31.31 meters or 9.58 mc. broadcasts daily 3:15 to 7:30 A.M., but many times have been heard as early as 10:00 P.M. continuing on up till 7:30 A.M. VK2DL, an amateur station on 41.1 meters or 7.30 mc., broadcasts on Sundays and Wednesdays between 4:00 and 6:00 A.M. The address is 14 Watkin St., Canterbury, Sydney, NSW, Australia. A. B. McDonough, Wellington, New Zealand, reports this.

The phones. VK2ME on 28.51 meters or 10.52 mc. sometimes tests with W2XAF, New York, between 5:00 and 7:00 A.M. VLK on 30.75 meters or 9.76 mc., works phone with New Zealand, Java and England, as also does VK2ME on 28.51. New Zealand uses ZLT on 27.15 meters or 11.05 mc. and ZLT2 on 40.60 meters or 7.39 mc. Any of these stations may be heard between 10:00 P.M. and 10:00 A.M.

### NORTH AMERICAN

VE9DN, Drummondville, Canada, on 49.96 meters or 6.01 mc. is broadcasting Saturday nights between 11:30 P.M. and 3:00 A.M. Sunday mornings. This comes from Members H. S. Campbell, F. A. Beane, Sr. Las Casas, Lee Williams and G. C. Gallagher.

VE9HX, Halifax, N. S., Canada, on 49.10 meters or 6.11 mc. is heard again. The schedule sent out says 8:30 to 11:30 A.M. and 5:00 to 10:00 P.M., but it is coming on the air at 4:00 to 4:30 P.M. according to reports.

We thank A. Centanino, Charles Miller, Ed. Houlgate, A. Gower and F. A. Beane for reports.

An unlicensed station at Goderich, Ontario, has been operating on 50.00 meters or 6.00 mc., sending out short wave news and asking for reports to be sent to the Canadian DX Relay of Goderich. This station has been reported from noon to 1:00 P.M. Saturdays; 1:00 to 5:00 A.M. on Sunday mornings; 11:30 to 12:15 A.M. one Tuesday and once around 11:00 A.M. We have reports from Bob Jackson, H. S. Bradley, G. C. Gallagher, Sam Solito and perhaps others, for some mention a station but do not give details.

VE9CA, Calgary, Alberta, Canada, on 49.75 meters or 6.03 mc., broadcasting from midnight to 1:45 A.M. is reported by G. C. Gallagher. VE9BK, Vancouver, B. C. on 4.79 mc. is reported at 7:30 P.M. by Mr. Gallagher also. Canadian Airways may now be heard on 9.7 mc. according to Ian Morgan, Motreal, Canada. He shows CZ2S, CZ5M, CZ5R and CZ5L.

The Canadians, CRCX, CJRO and CJRX are too well-known to mention here. They are shown in our station list and hourly guide. CFU, an experimental station at Rossland, B. C., is reported on 5.70 mc., from 8:15 to 8:30 P.M. by Sam Solito and on 5.66 mc. at 8:00 P.M. by W. Sparks.

W1XAL, Boston, Mass., has a new schedule. A letter to us says they are on 25.42 meters or 11.79 mc. daily from 6:00 to 6:15 P.M. with news and from 4:00 to 7:00 P.M. Sundays only with a broadcast. They are on 49.67 meters or 6.04 mc. Tuesdays and Thursdays from 7:00 to 9:00 P.M. F. Karpen had them from 10:00 A. M. to Noon once. E. Orchard, England, had them on 11.79 at 10:30 A.M. and H. Rappaport had them one Saturday from 11:00 A.M. to Noon. Members Percher, Flagg and Poetzinger also report irregularities in the schedule.

W2XE, Wayne, New Jersey, has a new wave, according to F. Murphy, who says they are now on 13.9 meters or 21.50 mc. from 10:00 to 11:00 A.M. They are on 16.89 meters, 17.76 mc. from 11:00 A.M. to 1:00 P.M.; on 19.64 meters, 15.27 mc., from 1:00 to 6:00 P.M.; on 25.36 meters or 11.83 mc. from 6:00 to 8:00 P.M. and on 49.02 meters or 6.12 mc. from 8:00 to 11:00 P.M.

W4XB, Miami, Florida, on 49.67 meters or 6.04 mc., is broadcasting a special DX program between 5:00 and 7:00 A.M. now. The first verification we ever heard of from this station is reported by G. Van Honk, Erie, Pa. Hurrah. Charles Miller and J. Wojtkiewicz also report these special programs. W4XAD, owned by the University of Florida, is on 15.80 mc. testing with K4SA around 10:00 A.M. according to Frank Grey.

We believe everyone knows the waves and schedules of such stations as W2XAD, W2XAF, W8XK, W9XF, etc. W2XAD and W2XAF are heard Saturday afternoons now sending the Metropolitan opera programs. They also relayed special programs Christmas Day and New Year's Day. W8XK sends out a special Missionary program that will interest many members. These take place at 11:15 P.M. on the first four Sundays of each month, we are told.

The China Clipper plane, WOEH, is working between 7.5 and 8.7 mc. with KIO, Hawaii, according to G. C. Gallagher, San Francisco. A new ship, the Transylvania, GLTZ, is reported by W. D. Flagg.

Some CCC camps are reported by Wm. Sparks on 3.385 mc. They are heard in daytime, we understand. WVD, Seattle, Washington, on 34.68 meters or 8.65 mc. has been active this month, working Alaskan stations. They were heard near 11:00 P.M. WXE, Anchorage, Alaska, on 5.96 mc. is reported by Miss Eileen Hofmaster, and Wm. Sparks, who had them at 5:00 P.M. also. Edward Houlgate, London, Ontario, says WXE is on 59.92 meters and 43.10 meters.

Many American telephones are listed in this issue and reported by hundreds. Willis Werner of San Diego, California, reports that KET on 10.41 mc., KES on 9.48 mc., KEE on 7.71 mc., KIO on 11.68 mc., KKH on 7.52 mc. and KRO on 5.84 mc. work the China Clipper. HHK, Hawaii, and KIO, Hawaii, sometimes relay musical programs around 10:00 P.M. to 1:00 A.M. Stations like WEZ, WEA, etc., work with stations all over the world, and usually tie in on special rebroadcasts from overseas.

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### THE AMATEURS

We would like to give more space to these stations, as they are interesting, but due to the conflicting reports we receive and the number of stations reported and also the irregular schedules of the stations themselves, we simply can not say much about them. We suggest that you set your dials to about 21 meters or 14.20 mc. and tune very slowly and carefully any day up until 10:00 P.M. You may come across an amateur from the other side of the world booming in better than a broadcast station. They never work on a regular schedule. You simply have to keep your ears glued to this band to get them. Each station will come on the air for a few minutes and then sign off.

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**FLASH**—Club-member Eldon Lagontiere of Cartagena, Colombia, writes that late in January there will be erected a new 750 to 1000 watt transmitter which will be known as "Radiodifusora Cartagena." Mr. Lagontiere and Mr. Lequerica Hermanos are building the station and they have applied for a license and asked for several wavelengths. As soon as possible we will publish these waves.

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### WITH THE REPORTERS

This month we are doing something just a bit different than usual, and we would like to know members like the idea. For the past few months, we have been crowding the news quite a lot with the names of members who have sent in news. It got so that a person had to read quite a few names in order to get to the real news about a station. This month we are going to serve up the news in a brief manner, and use this section to acknowledge reports. We would like to know how members like the idea.

Dr. Paul Desmangles, Cap-Haitian, Haiti, reports stations HI4V and HH3W. H. S. Campbell, Upland, California, deserves thanks for his reports on JVN, TG2X, VE9DN, GSI, KKQ, XECR, VK3LR, HBL; HBO JVF, VPD, DAF, KKR, LSX and W1XAL. Emmett Riggles, Massillon,

Ohio, helps with reports on PRA8 and YBG. Nick Gaug, New York City, chips in with dope on RIO, RKI, RNE, LSX and HRN. Ernest Reese, Niagara Falls, New York, sends in helpful information on these: CT1AA, IRM, CO9JQ, HRN, XEFT, YV1ORSC, YNDA, ETA, JVM, KIO, PPQ, HIH, YVQ, HI4D, HRP1, HJN, DGU, KEJ, RIO, RNE, 2RO, HJ4ABD, DJI, DJJ, KKH, DIP and TIPG.

A. F. Lovell, England, reports OER2 and W1XAL. Luis Ferrer Calvo, Ensenada, P. R., reports YV12RM, and HRP1. Fred Baxter, Jr., Hobokus, New Jersey, helps with reports on CT1AA, EAQ, ORK, CEC, XBJQ, HRN, TIPG, JVN and JVM. Wilfred Siddle, Birmingham, Alabama, does his part with HJN, XEUW, XFA2, HJ1ABC, HJ4ABC, HJ2ABD, YV1ORSC, YV12RM, XEXA, HRP1, TG2X, YNVA, TI2M, TI8WS, HP5F, HIL, HI4B, ETB, JVM, RIO, KKH and KWV. Ian Morgan, Montreal, Canada, reports YV4RC, CO9JQ, IAC, YV12RM, YV5AM, DJJ and HVJ. Lee Williams, Clarksburg, West Virginia, chips in with HI1J, YV12RM, LSK, OAX4D, TIPGH, HIX, DJM, HP5J, HJ4ABC, HJ1ABB, HJ5ABD and CP5.

Miss Eileen Hofmaster, Sandusky, Ohio, reports VVD, 2RO, and HI1A. George Van Honk, Erie, Pa., reports H1L, HI1A, HJ4ABC, YV12RM, 2RO, HJ4ABD, DJI, DJJ, DJB, DIQ, JVN, JVM, FZR, TFJ, W4XB, RIO, YDA on 31.48; VK2ME, JVH, JVT, TIEP and TGS. Edward Houlgate, London, Ontario, ships in with XEUW, IDU, PCJ, DGU, JVN, JVM, RIO, VE9HX, VVD, YV12RM, VP3MR, HI1A, HIX, COCD and BSL. Dr. J. R. Cowdery, Lyons, Kansas, reports 2RO, JVM, JVN, JVH, RV15, XBJQ, KKH. U. D. Webber, Charlotte, North Carolina, reports DJB, WQP, DIQ, 2RO, GSB, GSL, HJ1ABB, HI1ABB, HI1J, YV2RC and HAT4. Eric Butcher, Cokeville, Wyoming, reports a whole flock of stations and exceptional news on YV5AM, HIZ, HC2ET, RV15, YNA, TI8WS, HCJB, HRP1, YNE, TIRCC, XEVI, XEUW, HKV, CFU and YV8RB.

Jean Reqoux, Le Pecq, France, reports PMA, W3XAL, RIM, VK3LR, PLE, JVM, CNR, VUB, a station on 31.5 meters calling CTU and one on 31.3 working Paragwey. Bob Everard, Sandy Beds, England, reports ZBW, PMN, CNR, CGA4, RIO, TFJ, DJO, ETA, HJB, LSL, VE9DN, CJRO, RIR, JVH, COCD, CTV, DHDL and French phones on 20.21 meters and 34 beters. William Woodell, Birmingham, England, reports YVQ, HJ1ABD, HBO, RV15, SPW, TIPG, HCETC, TFJ, 2RO, YV2RC, HJ1ABB, HP5B, JVM, JVH and JVB. John Cook, Stratford-Sub-Castle, England, helps out with JVH, YV5RMO, SPW, WQP, PMN, YV3RC, HJ44ABE, CRCX and 2RO. T. Purves, Selkirk, Scotland, reports PCJ, PHI and RW59. T. W. Moss, Exeter, England, reports TFJ, VWY, COCD, PLP, PMM, ETB and EA8AB. Thomas Simpson, Leven, Fife, Scotland, reports PI1J, HAS3, OER2 and amateurs. R. E. de Souza, of Maracaibo, Venezuela, helps us settle the dope on HJN, HJ3ABK, HJ1ABC, HH2S, YNBA, YV2RC, YV12RM, YV8RB, YV1ORSC, HP5F, YV44RC and HJ4ABD.

Carlos Hurtado, Curacao, D. W. I., sends help on OER2, RV59, DJJ, EHY, DJM, RIO, EHY, TG2X, CEC, HJN, HH2S, JVN, JVT, PMN, PLP, PVD and PMA. Arthur Williams, Kingston, N. Y., reports KKH, VP3MR, COCO, and African amateurs. L. D. Brewer, Phoenix, Arizona, sends us a lot of real news, many stations we do not mention here, but with special

credit for his help on SUV, ZBW, VPD., YDB, PMY, PMA, CO9MR, HH2T, ZFB, VP3MR, HP5J, XDR, LKJ1, 2RO, RV15, W1XAL, VE9BK, W2XE, DJE, SUZ and SUX. Ernest Orchard, Waymouth, England, reports VK3LR, PMN, PLP, JVM, ETB, W1XAL, WQV, HI4D, TG2X, VP3MR, HJ2ABD, HJ5ABC, 1RJ, DIQ, PCJ and HIX.

W. D. Flagg, Holyoke, Mass. sends a great long list of stations with much vital information that was used in making up this issue. We believe he mentioned just about every important bit of news used in this magazine. We used quite a lot of his material in making up the news, you can bet. Sam Solito, Leetsdale, Pa., is another ace reporter this month, having sent in enough material of his own to almost make up a magazine. Without taking the space to mention all his reports, we must give him extra credit for his assistance with stations ZSS, OPL, VWY, XGW, JZB, JZC, JIC, JIB, RIR, HCDT, XEVI, XFA2, CFU and HH2S.

A member who wishes to be known as XDX, of Philadelphia, sends us helpful news on JVN, JVP, ORK, LSX, HVJ, PHI, 2RO, XECR, HH2S, and HJ4ABA. C. J. W. Bird, of Gibraltar, reports OER2, DJM, GCL, VUB, IQA, WLL and VQ7LO. We give credit to Dr. R. C. Kash, Sevierville, Tennessee, for his wonderful help on HI4D, YNGU, HI3C, 2DO, YV1ORSC, TIPG, XEBT, YV12RM, XEXA, HH2S, XEVI.

Carlos Lopez Ona, of Havana, Cuba, an old faithful reporter for years sends these, TIPG, TIRCC, YV1ORSC and W4XB. Jimmie Reese, New York City, reports JIBM, DJE, W1VAL, XBJQ, TG2X, LKJ1, RIO, PLV, YV12RC, HH2T, ETB, XDR, XAM, ZBW, JYS and others. Luis Salazar, New York City, chips in with CP6, XEUW, HJ4ABA, JVM, TG2X, HJ5H. Thomas Grey, Lyons, Illinois, reports HP5B, HJ4ABD, HJ1ABJ, HJ1ABB, YV12RM, HI1J and amateurs. George Zehner, Jr., Philadelphia, reports YVQ, JVM, JVN, HAS3, RNE and TG2X. H. S. Bradley, Hamilton, New York, reports HRP1, YV12RM, HI1X and eight amateurs working near 20 meters in Africa.

John Wojtkewic, Philadelphia, reports a whole flock of stations, including much helpful information, and outstanding are DJJ, DIQ, DJE, IAC, 2RO, ORK, HPP, TG2X, YV5AM, YNA, TIPG, HJ4ABE, YV5RMO, W4XB, WOB, CGA4, JVM and JVT. Wm. C. Palmer, Cleveland, Ohio, reports a station OKP on 38.49 meters 12:30 to 1:00 P.M.; YOI, Roumania, on 13.94 meters (no time stated) and a station in Tahiti heard Tuesdays and Fridays starting at 11:00 P.M. on 7.10 mc. These may be code stations, as he does not say. F. Edward Fellows, Short Hills, New Jersey, reports TSG, CP7, VRR4, DJJ and CMA3. L. C. Parmenter, Neenah, Wisconsin, reports HRN and TFJ.

N. De Las Casas, Caracas, Venezuela, reports DJI, 2RO, OCJ2, VE9DN, YV12RM, and a number of others. V. P. Mathews, Flint, Michigan, reports DJI and YV12RM. Ed Schmeichel, Chicago, Illinois, chips in his news with YV12RM, HRP1, YNVA, TFJ, TGF, HP5F and RIO. Dr. Saylor, Altoona, Pa., does his bit with ZP10, TG2X and HAT4. We got a lot of helpful material from James B. Wooten, Mobile, Alabama, who deserves credit for ETA, W2XE, JVN, LSX, LSY, YV12RM, DJJ, DJI, VE9DN, RNE, DJE, DIQ, ORK, LSX, JVT, JVN, WCG, CT1AA and WQP.

G. C. Gallagher, San Francisco, California, reports many stations, with much useful information. We list only a portion of his report. YVQ, HJN, YV12RM, HKV, PPQ, HCK, HJ1ABJ, HJ1ABB, XEVI, XEFT, HRP1, KIO, KKH, WXE, WQO, VE9DN, VE9CA, VE9BK, DJI, DJJ, TGX, VPD, PLV, JVN, JVM, JVH, PVF, JVT, Java on 31.56 meters and the China Clipper. Ed Schmeichel, Chicago, adds VRR4, CMB2, CMA3, HJ4ABP, HI5N, TGS, HJ2ABD, HI1A, VP3MR, TFJ and TI5HH. Kenneth Moots, Kansas City, Missouri, helps out with reports on RKI, RIM, RNE, RIO, RIR, RIZ, RKR, RW59, OPL, ZBW, JVE, JVD, YV12RSC, HRP1, HH2S, CMB2, HI59, XEVI and a lot of Java stations.

F. W. Henning, Worthing, Sussex, England, reports IRY, IDU, HJ2ABD, YV8RB and ZBW. George Lowry, Brampton, Ontario, reports CMB, HRN, YNVA, TGWA, TG1X, TG2X, TGX, HI1J, YV2RC. F. A. Beane, Ridgewell, England, sends a three page letter reporting several stations including HJN, HCK, HC2CW, HC2RL, HIL, CO9JQ, HI5N, HI1J, ETB, VQ7LO, PLP, PMN and VE9HX. W. J. Woodall, Birmingham, England, helps with his letter reporting a dozen stations including DJI, CO9WR and VQ7LO. A. Gower, Overseal, England, reports about ten Europeans, VE9HX, W2XE and a few others. I. C. Morgan, Montreal, Canada, sends a letter reporting about ten stations and asking many questions about others.

William Sparks, San Francisco, sends a three-page letter that would just about fill a magazine. He reports many Java stations, many Japanese ZBW, DJI, TFJ, RIR, IRM, XEUW, TG2X, HRP1, TIPG, YV12RM; WXE, OAX4G and many North Americans. H. J. Davison, of Bayamon, Puerto Rico, has news on LSX, HI5N, HI1A, HH2T, H18A, HJ4ABA, YV12RM, YVQ, HJ1ABB, DJI, DJJ, PLP, PMN, CMA3 and CMB2. Ed Lips, Pittsburgh, Pa., reports many amateurs; RIR, RIO, HI5N, HJ5ABC, YV5AM, VP3MR., VP3BG, VPD, YV12RM, RV15, TFJ, JVN and DJJ.

Fred Karpen, Johnstown, Pa., has RIR, ETB, JVM, PLV, HSP, PNI, ZBW, JIB, CNR, YV12RCCEC, DJI, TFJ, IDU and several others. W. A. Dean, Hartford, Conn., has 1QA, YNVA, CMB3, VP3MR and HC2CW in his news list. A. Antognini, Greenfield, California, reports many stations, with news on XAM, XBJQ, LSX, PRF5, about six Japanese; ZBW, PLP, PMN, and several Europeans.

Herman Rappaport, Brooklyn, New York, sends in helpful material on many stations, including the Cubans, CO9JQ, CO9WR, also HP5F, HCJB and PPQ. Mrs. Alice Wilbur, Newark, New Jersey, reports about twenty stations, including ZP10, HI6F, and others, but she failed to mention the time of day on any of her reports. Max Horlick, Youngstown, Ohio, reports quite a few stations, with new on W1XAL, 2RO, HI4D, W4XB and some German stations.

Robt. Rossi, Philadelphia, Pa., reports JVN and YV12RM. Dr. J. S. Pugh, Dallas, Texas, reports HAT4, HAS3, TFJ and OAX4G. Frank Grey, Berwyn, Illinois, has YV12RM, TIGPH, TIX, HI1A, W2XE, XF2, CMB2, JVT, CO9JQ, HJ4ABD, PLE. A. Centanino, Freeport, Pa., has 2RO, VE9HX. E. Orchard, Weymouth, England, has YV10RSC, YV2RC and COCD. F. A. Beane sends more about CRCX, CJRO, CJRX, VE9DN and

H.J.N. Charles Miller, our ardent DXer from Covington, Ky., sends many reports, including HRP1, YV12RM, TFJ, VE9HX, T18WS, TGS, HJ5ABE, HCJB, HIL, HIX, JVP and PMA.

W. E. Koneczny, Stratford, Conn., reports SPW, DJJ, DGU, CEC, HJN and TIEP. We also thank V. J. Fitzsimmons, Jersey City for JVN and YVQ. Bob Dame, Garden City, N. Y. has DJI; Lee Erhard, Oklahoma City has DJJ.

### LATE REPORTS

A good many late reports were received this month. Probably held up by the Christmas mail. E. Reese, Niagara Falls, N. Y., sends word of about twenty stations, including VP3MR, W2XBJ, HJ4ABA, CT1AA on Friday night, ZFA, TFJ, VE9HX, and others. John Edwards, Sale, England reports a few stations including ETA, VUB and VP3MR. Carlos Lopez Ona, Havana, Cuba, shows verifications from YV5RMO, YV6RV and XEU whose address is given as Gomez Farias No. 33, Veracruz. Wilfred Siddle, Birmingham, Alabama, sends word of about ten stations, including HRY at 7:15 P.M., VP3MR at 7:45 P.M. H. W. Hills, Montreal, Canada, also heard VP3MR at 8:30 P.M. J. H. C. Lepard of Singapore, Straits Settlements tells of KAX and KTO phoning America. Wade Chambers, Tulsa, Oklahoma, sends a list of many stations, including LSX, HII, ORK and DJR. Frank Grey, Berwyn, Illinois, reports HRW on 11.15 mc. working a ship and XBJQ at 5:30 P.M.

Robert Hughes, Trowbridge, England, reports PLP, PMN, GSI, DJE, WIXAL and many amateurs. John C. Barron, Aberdeen, Scotland, reports about fifteen stations. Ken McKinley, Vancouver, B. C., reports ten stations. Ashley Walcott, San Francisco, reports about fifteen stations, including TFJ, WOEH, VE9BK and says KZGF, Manila, is on the air daily from 3:00 to 6:00 A.M. testing on 5.805 mc. Juan B. Pujol, Havana, Cuba, reports YV12RM, TGX, TG2X, XEXA, VP3MR and ETA.

Shokichi Yoshimura, Moji, Japan, reports a great many Asian stations. W. R. Anderson, St. Charles, Illinois, reports a number of stations, including one on 9.50 mc. between 4:00 and 5:00 P.M. announcing as KGI, Ketchikan, Alaska. W. H. Jessen, Eugene, Oregon, reports a goodly number of stations, mentioning many Japanese, LSX, HRN, XEBT, XERA and XEUW. Joe Miller, Brooklyn, New York, reports many stations, including a FTH, France, a new phone on 27.42 meters heard at 6:00 A.M., ZTJ, IDU, VWY, RIR, SUX, CNR, RTZ, and RKK on 20.29 meters and 24.45 meters phoning at 3:45 A.M.

We also acknowledge late reports received from Jas. B. Wooten, Mobile, Ala.; Dr. R. C. Kash, Sevierville, Tenn.; Dr. J. S. Pugh, Dallas, Texas; Carl Cochrane, West Pittsburg, Pa.; C. E. Johnstowne, Taylor Ridge, Illinois; Charles Miller, Covington, Ky.; H. S. Davison, Jr., Fond du Lac, Wisconsin; Roger Legge, Jr., Binghamton, N. Y.; M. J. Lozak, Toronto, Canada. F. A. Beane, Ridgewell, England; Hyman Cohen, New York City; W. A. Wright, London, England; E. Orchard, Weymouth, England; Stuart B. Fuller, Providence, R. I.







## "ON-THE-AIR"

The time given is in Eastern Standard. Add five hours for G. M. T. Mary 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 Station. These stations broadcast programs, usually relaying some long wave station.

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

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

Meters	Meg.	STATION	TIME
B-13.92	-21.54	W8XK, Pittsburgh, Pa., relays KDKA,	7:00 to 9:00 A.M.
T-14.01	-21.41	WKK, Lawrenceville, N. J.	Phones LSN, 8:00 A.M. to 4:00 P.M.
T-14.17	-21.16	LSL, Buenos Aires, Arg.	8:00 A.M. to 1:00 P.M. GAA and PSF.
T-14.23	-21.08	PSA, Rio de Janeiro, Brazil.	Phones WKK, WLK, daytime.
T-14.27	-21.03	LSN, Buenos Aires, Arg.	8:00 A.M. to 4:00 P.M. WKK and WLK.
T-14.38	-20.86	EHY-EDM, Madrid, Spain.	Phones South America, mornings.
T-14.72	-20.38	GAA, Rugby, England.	Phones LSL and PPU near 8:00 A.M.
T-14.97	-20.04	OPL, Leopoldville, Belgian Congo.	Phones ORG, mornings.
T-14.99	-20.02	DHO, Nauen, Germany.	Phones PPU and LSM mornings.
T-15.14	-19.18	WKN, Lawrenceville, N. J.	Phones GAU, daytime.
T-15.24	-19.69	CCK, Santiago, Chile.	Phones LSR, HJY near 11 A.M. and 4 P.M.
T-15.39	-19.50	LSQ, Buenos Aires, Argentina.	Heard testing near 2:00 P.M.
T-15.50	-19.35	FTM, Assise, France.	10:00 A.M. to 2:00 P.M. LSG.
T-15.50	-19.35	PMA, Bandoeng, Java.	Phones Holland, mornings.
T-15.57	-19.27	PPU, Rio de Janeiro, Brazil.	Phones FTM, 10:30 A.M. to 3:00 P.M.
T-15.58	-19.25	DFA, Nauen, Germany.	Phones 10:00 A.M. to 2:00 P.M. irregularly.
T-15.62	-19.21	ORG, Brussels, Belgium.	Phones OPL, mornings.
T-15.68	-19.13	LSM, Buenos Aires, Argentina.	Phones EAQ, DHO, GAA, mornings.
T-15.88	-18.89	ZSS, Klipkeuval, S. Airica.	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. KWV irregularly.
T-16.06	-18.68	OCI, Lima, Peru.	Testing with HJY near 2:00 P.M.
T-16.11	-18.62	GAU, Rugby, England.	Phones New York mornings.
E-16.22	-18.48	HBH, Geneva, Switzerland.	Used for special programs.
T-16.25	-18.46	HJY, Bogota, Colombia.	Phones CEC. LSR, 11 A.M. and 4:00 P.M.
T-16.30	-18.40	PKC, 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 5:00 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.
E-16.42	-18.27	ETA, Addis Ababa, Ethiopia.	Used irregularly.
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, Rugby, England.	Phones Argentina, 10:00 A.M. to 2:00 P.M.
T-16.82	-18.05	PCV, Kootwijk, Holland.	6:00 to 9:00 A.M. Java.
B-16.86	-17.79	GSG, Daventry, England.	6:00 to 8:45 A.M.; 9:00 to 10:45 A.M.
B-16.87	-17.78	W3XAL, Bound Brook, N. J.	9:00 A.M. to 5:00 P.M. daily.
B-16.89	-17.76	W2XE, Wayne, New Jersey,	relays WABC 11:00 A.M. to 1:00 P.M.
T-16.89	-17.76	IAC, Piza, Italy.	Phones ships early mornings.
B-16.89	-17.76	DJE, Nauen, Germany.	7:00 to 11:30 A.M., irregular.
T-16.85	-18.27	-17.80 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-17.00	-17.64	XGN, Shanghai, China,	phones London 7 to 9 A.M., Mon. Wed. Sat.
T-17.10	-17.54	VWY, Poona, India.	Phones GBU, 2:00 to 8:00 A.M.

Meters	Meg.	STATION	TIME
T-17.12	-17.52	DFB, Nauen, Germany.	Phones LSM and YVO near 9:00 A.M.
T-17.37	-17.27	DAF, Norden, Germany.	Phones ships, irregularly.
T-17.52	-17.12	WOO, Ocean City, New Jersey.	Phones ships, irregularly.
T-18.44	-16.30	WLK, Lawrenceville, N. J.	Phones England.
T-18.47	-16.24	KTO, Manila, P. I.	Phones Japan 5:00 to 9:00 P.M., irregularly.
T-18.51	-16.20	FZR, Saigon, Indo-China.	Phones Paris mornings.
T-18.61	-16.12	JRY, Rome, Italy,	phoning 7:00 A.M. to 1:30 P.M.
T-18.71	-16.04	KKF, 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-19.06	-15.74	JIA, Chureki, Taihoku, Japan.	Phones Tokio, irregularly.
T-19.15	-15.66	JVE, Nazaki, Japan.	Phones Java 3:00 to 5:00 A.M.
T-19.20	-15.61	JVF, Nazaki, Japan,	phones U.S.A. near 5:00 A.M. and 8:00 P.M.
T-19.47	-15.41	KWO, Dixon, California.	Phones Hawaii in place of KWU.
E-19.50	-15.46	KKR, Bolinas, California.	Tests irregularly.
B-19.52	-15.37	HAS-3, Budapest, Hungary.	Sundays 9:00 to 10:00 A.M.
T-19.54	-15.35	KWU, Dixon, California.	Phones Hawaii, 2:00 to 7:00 P.M.
B-19.56	-15.33	W2XAD, Schenectady, N.Y.	Daily 2-3 P.M., Sun. 10:30 A.M. to 4 P.M.
B-19.63	-15.28	DJQ, Zeesen, Germany.	12:30 to 2:15 A.M.
B-19.64	-15.27	W2XE, Wayne, New Jersey,	relays WABC 1:00 to 6:00 P.M.
B-19.66	-15.26	GSI, Daventry, England.	12:30 to 2:15 P.M. irreg.
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,	7:00 to 11:00 A.M. daily.
B-19.71	-15.22	PCJ, Eindhoven, Holland.	7:00 A.M. to 11:00 A.M., irregular.
B-19.71	-15.21	W8NK, Pittsburgh, Pa.	relays KDKA 10 A.M. to 7:00 P.M.
B-19.74	-15.20	DJB, Zeesen, Germany.	3:45 to 11:30 A.M. daily.
B-19.82	-15.14	GSF, Daventry, England.	2:15 to 4:15 and 6:00 to 10:15 A.M.
B-19.84	-15.11	HVJ, Vatican City.	10:30 to 10:45 A.M. daily.
T-19.91	-15.07	WNC, Hialeah, Florida.	Phones HJB, RXC and YVO, daytime.
T-19.94	-15.04	RKI, Moscow, U.S.S.R.	Phones RIM near 7:00 A.M.
B-19.94	-15.04	HII or HIR, Santo Domingo, R. D.,	phones WNC daytime.
T-20.03	-14.98	KAY, Manila, P. I.	Phones DFS 5 to 7 A.M.; U.S.A.; 7 to 8 P.M.
T-20.06	-14.96	HJB, Bogota, Colombia.	Phones Hialeah, daytime.
T-20.19	-14.86	OCJ2, Lima, Peru.	Phones HKB-HJY-LSN, daytime.
T-20.29	-14.79	ROU, Omsk, Siberia,	phones Moscow 7:00 to 9:00 A.M. irregularly.
T-20.29	-14.79	RTZ, Irkutk, U.S.S.R.	Heard around 7:00 to 9:00 P.M., phoning.
T-20.37	-14.73	IQA, Rome, Italy,	phones 8:00 to 11:00 A.M. irregularly.
T-20.42	-14.69	PSF, Rio de Janeiro, Brazil.	7 A.M. to 6 P.M. LSL, WLK, WOK.
T-20.45	-14.67	GBL, Rugby, England.	Phones JVH 1:00 to 7:00 A.M.
B-20.55	-14.60	JVH, Nazaki, Japan.	Phones Europe from 4:00 to 8:00 A.M.
T-20.56	-14.59	WMN, Lawrenceville, N. J.	Phones England daylight.
T-20.64	-15.54	HBJ, Geneva, Switzerland.	Used irregularly.
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.
B-20.71	-14.48	HRM, Tela, Honduras.	Phones WNC irregularly in 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-20.80	-14.41	DIP, Nauen, Germany.	Experimenting 12:00 to 2:00 P.M.
E-20.97	-14.26	-14.30 to 14.11	Amateur phones heard in daytime.
B-21.26	-14.10	HJ5ABE, Cali, Colombia.	7:00 P.M. to midnight, irregular.
E-21.58	-13.90	WQP, Rocky Point, N. Y.	Testing with RNE irregularly, mornings.
T-21.70	-13.83	SUZ, Cairo, Egypt.	Phones GAA 7:00 A.M. to 3:30 P.M.
E-21.91	-13.69	KKZ, Bolinas, California.	Used irregularly.
T-21.98	-13.65	HJY, Bogota, Colombia.	Phones irregularly.
T-22.09	-13.58	GBB, Rugby, England.	Phones Canada and Egypt, daytime.
T-22.35	-13.42	GJ, Rugby, England.	Phones JVH 3:00 to 8:00 A.M.
T-22.40	-13.38	IDU, Asmara, Eritrea,	phones Italy 8:00 A.M. to 3:30 P.M. irregularly.
T-22.40	-13.39	WMA, Lawrenceville, N. J.	Phones England, daytime.

Meters	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.
T-2p.70	-13.22	IRJ, Rome, Italy, phones Japan	irregularly 5:00 to 8:00 A.M.
E-22.76	-13.18	DGG, Nauen, Germany.	Phones Asia mornings, irregularly.
B-22.95	-13.07	VPD, Suva, Fiji Islands.	Daily, except Sun., 12:30 to 1:30 A.M.
T-23.00	-13.04	German ships.	11:15 A.M. and 1:30 P.M.
T-23.36	-12.84	WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-23.38	-12.83	CNR, Rabat, Morocco.	Phones St. Assise 5:00 to 8:00 A.M.
T-23.45	-12.80	IAC, Piza, Italy.	Works ships mornings.
T-23.47	-12.78	GBC, Rugby, England.	Phones ships irregularly.
T-24.20	-12.40	DAF, Norden, Germany.	Phones ships irregularly, mornings.
T-24.40	-12.30	PLM, Bandoeng, Java.	Phones VK2ME near 6:30 A.M.
T-24.41	-12.29	GBU, Rugby, England.	Phones America, evenings.
E-24.52	-12.24	TFJ, Reykjavik, Iceland.	Phones GSC irregularly.
T-24.56	-12.22	TYA, Pontoise, France.	Phones the Normandie, irregularly.
T-24.69	-12.15	GBS, Rugby, England.	Phones New York.
T-24.88	-12.09	PDV, Kootwijk, Holland.	Tests near 7:30 A.M.
B-25.00	-12.00	RNE, Moscow, U.S.S.R.	Irregular.
T-25.02	-11.99	FZS, Saigon, Indo-China.	Phones Paris mornings.
E-25.10	-11.95	ETB, Addis Ababa, Ethiopia,	2:00 to 6:30 P.M. irreg. Wed at 5 P.M.
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-25.23	-11.90	Pontoise, France,	3:00 to 4:00 A.M. 11:15 to 6:00 P.M.
B-25.27	-11.87	W8XK, Pittsburgh, Pa.,	relays KDKA 5:00 to 9:00 P.M.
B-25.29	-11.86	GSE, Daventry, England.	9:00 A.M. to Noon.
B-25.36	-11.83	W2XE, Wayne, N. J.	Relays WABC 6:00 to 8:00 P.M.
B-25.40	-11.81	2RO Rome, Italy.	8-15 A.M. to 12:15 Noon.
B-25.40	-11.81	HJ4ABA, Medellin, Colombia.	11:30 to 1:00 and 6:30 to 10:30 P.M.
B-25.42	-11.80	CO9WR, Sancti Spiritus, Cuba,	4-6 and 9-11 P.M.
B-25.42	-11.79	W1XAL, Boston, Mass.,	Sundays 4:00 to 7:00 P.M.; daily at 6 P.M.
B-25.49	-11.77	DJD, Zeesen, Germany.	12:00 Noon to 4:30 P.M.
B-25.53	-11.75	GSD, Daventry, England.	12.15 to 4:00 P.M.
B-25.57	-11.74	PHI, Huizen, Holland.	Daily, except Tues. and Wed., 8:30-10:30 A.M.
B-25.60	-11.72	CJRX, Winnipeg, Canada.	8:00 P.M. to Midnight.
B-25.63	-11.70	Pontoise, France,	6:30 to 9:30 P.M. and 10:30 to 1:00 A.M.
E-25.63	-11.71	KIO, Kauhuku, Hawaii.	Heard in the evenings testing.
E-25.73	-11.66	PPO, Rio de Janeiro, Brazil.	Used irregularly in evenings.
B-25.93	-11.57	HH2T, Port-au-Prince, Haiti.	Heard irregularly, evenings.
E-26.09	-11.50	VIZ3, Fiskville, Australia.	Phones CJA4 irregularly.
E-26.09	-11.50	NAM, Merida, Yucatan.	Irregularly 1:00, 6:00 and 7:00 P.M.
T-26.29	-11.41	CJA-4, Drummondville, Ont.,	phones VIZ-3 6:00 to 11:00 P.M., Irreg.
T-26.35	-11.39	HBO, Geneva, Switzerland.	Used irregularly.
T-27.15	-11.05	ZLT, Wellington, New Zealand.	Phones VLK 1:00 to 7:00 A.M.
T-27.26	-11.00	PLP, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10-10:30 A.M.
T-27.26	-11.00	NBJO, Mexico City.	Testing irregularly now.
T-27.35	-10.97	OCL, 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-27.86	-10.77	GBP, Rugby, England.	Phones VLK 11:00 P.M. to 8:00 A.M.
T-27.93	-10.74	JVM, Nazaki, Japan.	Heard 1:30 to 7:00 A.M. and 7 to 11 P.M.
T-28.09	-10.68	WNB, Lawrenceville, N. J.	Phones Bermuda, daytime.
B-28.12	-10.67	CEC, Santiago, Chile,	daily 7 to 8 P.M. Thurs., Sun., 8:30 to 9 P.M.
T-28.14	-10.66	JVN, Nazaki, Japan.	Phones Europe 3:00 to 8:00 A.M.
E-28.28	-10.61	WEA, Rocky Point, N. J.	Tests irregularly with Europe.
T-28.44	-10.55	WOK, Lawrenceville, N. J.	Phones Brazil and Argentina, irregularly.
E-28.49	-10.53	JIB, Tawian, Japan.	Heard 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.

Meters	Meg.	STATION	TIME
B-28.98	10.35	L-SX, Buenos Aires, Argentina.	Irregular.
E-29.03	10.33	ZFD, St. Georges, Bermuda.	Heard afternoons, irregularly.
B-29.04	10.33	ORK, Brussels, Belgium.	2:30 to 4:00 P.M. daily.
E-29.13	10.30	LSQ, Buenos Aires, Argentina.	Used for special tests.
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.
E-29.27	10.25	L-SL, Buenos Aires, Argentina.	testing 5:30 to 7:00 P.M.
T-29.45	10.22	PSH, Rio de Janeiro, Brazil.	Sending music, evenings.
T-29.50	10.17	RIO, Bakou, U.S.S.R.	Phones Moscow 8-10 A.M., 10 P.M. to 1 A.M.
T-29.58	10.14	OPM, Leopoldville, Belgian Congo.	Phones ORK 9-11 A.M., 3-6 P.M.
T-29.76	10.08	RIR, Tiflis, Siberia.	Phones Moscow 5:00 to 8:00 A.M., irregularly.
T-29.79	10.07	EHY, Madrid, Spain.	Phones YVR near 4:00 P.M., irregularly.
T-29.80	10.06	JZB, Shinkyo, Manchukuo,	phones JVO 10:00 P.M. to 3:00 A.M.
T-29.83	10.05	ZFB, Hamilton, Bermuda.	Phones U.S.A. and ships, daytime.
T-29.83	10.05	SUV, Cairo, Egypt.	Phones GAA after 3:30 P.M.
E-29.90	10.32	DJJ, Zeesen, Germany.	Testing between 2:00 and 4:00 P.M.
T-30.09	9.97	KAZ, Manila, P. I.	Phones PLV near 2:00 A.M.
T-30.15	9.95	GCU, Rugby, England.	Phones New York evenings.
T-30.21	9.93	HKB, Bogota, Colombia.	Phones PSK irregularly, evenings.
T-30.30	9.90	LSN, Buenos Aires, Argentina.	6:00 P.M. to 6:00 A.M. WLO.
T-30.40	9.87	WON, Lawrenceville, N. J.	Phones England evenings.
B-30.40	9.87	EAQ, Madrid, Spain.	Daily 5:15 to 9:30; Sat. 1:00 to 3:00 P.M.
E-30.40	9.87	JYS, Kemikawa-Cho, Japan.	Relays JOAK Irreg., mornings.
T-30.52	9.83	IRM, Rome, Italy.	Phones Egypt afternoons.
T-30.60	9.80	GCW, Rugby, England.	Phones America, evenings.
E-30.61	9.80	LSI, Buenos Aires, Argentina.	Used irregularly, evenings.
T-30.75	9.76	VK2ME-VLK, Sydney, Australia.	Phones Java 4:00 to 8:00 A.M.
T-30.77	9.75	WOF, Lawrence, N. J.	Phones England, evenings.
T-30.90	9.71	GCA, Rugby, England.	Phones Argentina around 6:00 P.M.
E-31.02	9.67	DJJ, Zeesen, Germany.	Testing between 5:00 and 7:00 P.M.
T-31.08	9.67	DGU, Nauen, Germany.	Phones Egypt daily from 5 A.M. to 5 P.M.
B-31.09	9.65	CT1AA, Lisbon, Portugal.	4:00 to 7:00 P.M. Tues., Thurs., and Sat.
B-31.13	9.64	2RO, Rome, Italy.	Daily 1:30 to 5:00 P.M. and 6:00 to 7:30 P.M.
B-31.27	9.59	HBL, Geneva, Switzerland.	5:30 to 6:15 P. M., Saturday.
B-31.28	9.59	W3XAU, Philadelphia, Pa.	Noon to 6:45 P. M.
B-31.28	9.59	VK2ME, Sydney, Australia.	Sun. 1-3, 4:30-8:30 and 9 to 11 A.M.
B-31.29	9.59	HP5J, Panama City, Panama.	11:45 A.M. to 1:00 P.M., 7:30 P.M. to 10:00 P.M.
B-31.30	9.58	GSC, Davenport, England.	4:15-5:45; 6:00-8:00; 10:00-11:00 P.M.
B-31.31	9.58	VK3LR, Melbourne, Australia.	10:30-3:00 irreg.; 3:15-7:30 A.M., daily.
B-31.36	9.57	W1XK, Boston, Mass. (Millis)	6:00 A.M. to Midnight.
B-31.36	9.57	VUB, Bombay, India, Wed., Thurs., and Sat.	11:00 A.M. to 12:30 P.M.
B-31.38	9.56	DJA, Zeesen, Germany.	12:30-2:15 A.M., 8-11:30 A.M., 5:00-9:15 P.M.
B-31.40	9.56	YDB, Soerabaya, Java,	heard around 5:30 to 8:00 A.M. with music.
B-31.45	9.54	DJN, Zeesen, Germany.	12:30 to 2:15 A.M.; 3:45 to 7:15 A.M.; 8:00 to 11:30 A.M.; 5:05 to 10:45 P.M.
B-31.48	9.53	LKJ1, Leloy, Norway.	5:00-8:00 A.M., 11:00 A.M. to 6:00 P.M.
B-31.48	9.53	W2XAF, Schenectady, N. Y.	Daily 4:00 P.M. to Midnight.
B-31.55	9.51	GSB, Daventry, England.	2:15 to 4:15 A.M. and 10:30 A.M. to 8 P.M.
B-31.55	9.51	VK3ME, Melbourne, Australia.	Daily except Sunday, 5 to 7 A.M.
B-31.56	9.50	PRF5, Rio de Janeiro, Brazil.	Daily 4:45 to 5:45 P.M., also irreg.
T-31.71	9.46	Tripoli, Africa.	Phones IAC, Italy, 6:00 A.M. to 1:00 P.M., irreg.
B-31.80	9.42	COCH, Havana, Cuba.	8:00 A.M. to 7:00 P.M.; 8:00 to 10:00 P.M.
T-31.86	9.42	PLV, Bandoeng, Java.	Broadcasts Tues. and Thurs., 10:00-10:30 A.M.
T-32.15	9.33	CGA4, Drummondville, Canada.	Phones ships and England, irregularly.
T-32.33	9.28	GCB, Rugby, England.	Phones CGA and SUV afternoons.
T-32.72	9.17	WNA, Lawrenceville, N. J.	Phones England evenings.
T-32.83	9.14	YVR, Maracay, Venezuela.	Phones Europe afternoons.
B-32.88	9.12	HAT-4, Budapest, Hungary.	Sundays 6:00 to 7:00 P.M.
T-33.26	9.02	GCS, Rugby, England.	Phones New York evenings.
E-33.29	9.01	KEJ, Bolinas, California.	Tests irregular.
E-33.52	8.95	WEL-W2XB, Rocky Point, N. Y.	Testing irregularly, evenings.
T-33.41	8.98	VWY, Poona, India.	Phones England near 8:30 A.M.

Meters	Meg.	STATION	TIME
T-33.93	to 36.58	—8.84 to 8:20—Ships.	Heard irregularly.
E-34.10	8.79	—HKV, Bogota, Colombia.	Testing, 5:30 to 11:00 P.M., irregularly.
T-34.19	8.77	—PNI, Makassar, D. E. I.	Phones Java near 4:00 to 5:00 A.M.
B-34.21	8.77	—HCJB, Quito, Ecuador,	Daily excepting Mondays 7:30 to 9:30 P.M.
B-34.29	8.75	—ZBW, Hong Kong, China.	Daily 11:30 P.M. to 1:15 A.M., Mon. and Thurs. 3:00 to 7:00 A.M., other days 6:00 to 10:00 P.M.
E-34.35	8.74	—WXV, Fairbanks, Alaska.	Works WXH between 10 P.M. and 4 A.M.
T-34.56	8.68	—GBC, Rugby, England.	Phones ships irregularly.
B-34.62	8.66	—C09JQ, Camaguey, Cuba.	5:30 to 6:30 P.M.; 8:00 to 9:00 P.M.
E-34.68	8.65	—WVD, Seattle, Wash.	Testing irregularly.
T-35.02	8.57	—WOO, Ocean Gate, N. J.	Phones ships irregularly.
T-35.42	8.47	—DAF, Norden, Germany.	Phones ships irregularly.
B-35.69	8.41	—HC2CW, Guayaquil, Ecuador.	8:00 to 11:30 P.M., irregular.
T-35.80	8.38	—IAC, Piza, Italy.	Works ships, irregularly.
T-36.65	8.19	—PSK, Rio de Janeiro, Brazil.	Sending music 6:00 to 7:30 P.M.
T-38.06	7.86	—SUX, Cairo, Egypt.	Phones Rome and London afternoons.
B-38.47	7.80	—HBP, Geneva, Switzerland.	5:30 to 6:15 P.M. Saturdays.
E-38.50	7.78	—PSZ, Rio de Janeiro, Brazil.	Heard between 6:00 and 11:00 P.M. irreg.
E-38.89	7.71	—KEE, Bolinas, California.	Tests evenings irregularly.
T-39.34	7.63	—RIM, Russia.	Phones RKI 6:00 to 8:15 A.M.
E-39.37	7.62	—ETB, Addis Ababa, Ethiopia.	Heard 2:00 to 7:00 P.M., irregularly.
T-39.42	7.61	—KWX, Dixon, California.	Phones Hawaii nights.
B-39.47	7.60	—T18WS, Puntarenas, Costa Rica,	heard 6:00 to 11:00 P.M. irregularly.
E-39.68	7.56	—KWY, Dixon, California.	Phones Japan, irregularly.
T-39.89	7.52	—KKH, Kauhuku, Hawaii.	Phones KWO evenings.
T-39.95	7.51	—JVP, Nazaki, Japan.	Phones irregularly.
T-39.97	7.50	—RKL, 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-40.60	7.39	—ZLT2, Wellington, New Zealand,	phones Sydney 3:00 to 7:00 A.M. irreg.
B-40.65	7.38	—XECR, Mexico City.	Sundays, 6:00 to 7:00 P.M.
T-40.71	7.37	—KEQ, Kauhuku, Hawaii.	Phones Dixon nights.
B-41.20	7.28	—HJ1ABD, Cartagena, Colombia.	7:30 to 9:00 P.M.
B-41.55	7.22	—HKE, Bogota, Colombia.	Mon. 6 to 7 P.M.; Tues., Fri., 8 to 9 P.M.
B-41.60	7.21	—E8AB, Santa Cruz, Canary Islands.	5:00 to 7:00 P.M., irregular.
B-41.80	7.17	—CR6AA, Lobito, Angola, Africa.	Wed. and Sat. 2:30 to 4:30 A.M.
B-42.35	7.08	—PI1J, Dordrecht, Holland.	Saturdays 11:10 A.M. to 12:10 Noon.
B-42.68	7.08	—VP3MR, Georgetown, British Guiana,	around 4:45 to 8:40 P.M.
B-42.88	7.00	—PZH, Paramaribo, Dutch Guiana,	2:40 to 9:40 P.M. irregularly.
T-43.45	6.90	—GDS, Rugby, England.	Phones New York nights.
B-43.48	6.90	—HI3C, La Romana, R. D.	12:30 to 2:00 P.M., 7:30 to 9:30 P.M.
E-43.82	6.84	—KEN, Bolinas, California.	Used irregularly.
B-44.12	6.81	—HIH, San Pedro de Macoris, D. R.	Daily 7:30 to 9:00 P.M.; Sundays 3:00 to 4:00 A.M. and 4:15 to 6:00 P.M.
T-44.41	6.75	—WOA, Lawrenceville, N. J.	Phones England nights.
T-44.44	6.75	—JVT, Nazaki, Japan.	1:30 to 8:00 A.M., oftimes with music.
B-44.71	6.71	—TIEP, San Jose, Costa Rica.	5:00 to 10:00 P.M., irregularly.
B-44.90	6.70	—TI2M, San Jose, Costa Rica,	heard 9:00 to 11:00 P.M. irregularly.
E-44.96	5.67	—YVQ, Maracay, Venezuela.	Broadcasts 8:00 to 8:30 P.M. Saturday.
B-45.00	6.66	—ZP10 Asuncion, Paraguay,	heard 10:00 to 11:45 P.M. irregularly.
B-45.00	6.67	—HC2RL, Guayaquil, Ecuador.	Sun. 5:45-7:45, Tues. 9:15-11:15 P.M.
T-45.10	6.65	—IAC, Piza, Italy.	Phones ships evenings.
B-45.31	6.62	—PRADO, Riobamba, Ecuador.	Thursdays 9:00 to 11:30 P.M.
B-45.50	6.61	—HI4D, Santa Domingo, R. D.	11:55 to 1:40 and 4:40 to 7:40 P.M.
B-45.52	6.60	—XFAZ, Vera Cruz, Mexico,	heard between 7:00 and 11:00 P.M. irreg.
B-45.81	6.55	—TIRCC, San Jose, Costa Rica,	daily 6 to 7; Thurs., Sun., 6 to 11 P.M.
B-46.01	6.52	—YV6RV, Valencia, Venezuela.	12:00-2:00 P.M. and 6:00-10:00 P.M.
B-46.13	6.50	—HIL, Santo Domingo, D. R.,	6:30 to 9:00 P.M. irregularly.
B-46.30	6.48	—HJ5ABD, Cali, Colombia.	7:00 to 10:00 P.M.
B-46.44	6.46	—HJ4ABC, Ibaque, Colombia.	Around 8:00 to 10:00 P.M.
B-46.51	6.45	—HJ1ABB, Barranquilla, Colombia.	4:30 to 10:00 P.M. daily.
B-46.54	6.45	—HI4B, Santo Domingo, R. D.,	heard at 2, 3, 5 and 6 P.M.
E-46.73	6.42	—W9XBS, Chicago, Illinois.	Heard irregularly broadcasting.

Meters	Meg.	STATION	TIME
B-46.77	6.41	HJA3, Barranquilla, Colombia.	Phones HJA2, irregular.
B-46.86	6.41	TIPG, San Jose, Costa Rica.	Noon to 2:00 P.M., 6:00 to 11:30 P.M.
B-47.10	6.37	YV4RC, Caracas, Venezuela.	4:30 P.M. to 10:30 P.M.
B-47.24	6.35	HRV, Tegucigalpa, Honduras,	heard testing 6:45 to 9:30 P.M.
B-47.39	6.33	HRP1, San Pedro Sula, Honduras,	heard 6:30 to 10:00 P.M. irreg.
B-47.39	6.35	JZG, heard relaying JVT, JOAK from	5:00 to 7:30 A.M., irregularly.
B-47.50	6.31	HIZ, Santo Domingo, R. D.	Heard 5:00 to 9:30 P.M., irregularly.
B-47.51	6.30	YV12RM, Maracay, Venezuela,	8:00-10:30 daily; 4:30-11:00 P.M. irreg.
B-48.00	6.25	Army aircraft, heard in daytime.	
B-48.00	6.25	OAX4G, Lima, Peru, daily	7:00 to 10:30 P.M., Wed. at 6:00 P.M.
B-48.48	6.20	XEXA, Mexico City, heard	7:00 to 11:00 P.M. irreg.
B-48.50	6.19	HI1A, Santiago de Caballeros, R. D.	11:40 to 1:40; 7:40 to 8:40 P.M.
B-48.60	6.17	HJ2ABA, Tunja, Colombia.	1:00-2:00 P.M. and 7:00 to 10:00 P.M.
B-48.62	6.17	HJ3ABF, Bogota, Colombia.	7:00 to 11:15 P.M.
B-48.78	6.15	HJ5ABC, Cali, Colombia,	7:00 to 10:00 P.M. except Sat. and Sun.
B-48.78	6.15	YV3RC, Caracas, Venezuela,	10:00 A.M. to 1:00; 3:00 to 9:30 P.M.
B-48.79	6.15	CO9GC, Santiago, Cuba.	8:30-10:00 A.M., Noon-1:30 P.M., 3:30-4:30 P.M., 10:00-11:00 P.M.
B-48.85	6.14	CJRO, Winnipeg, Canada.	8:00 P.M. to Midnight.
B-48.86	6.14	W8XK, Pittsburg, Pa., relays	KDKA 7:00 P.M. to 1:00 A.M.
B-48.92	6.13	ZGE, Kuala Lumpur, S. S.	Sun, Tues. and Fri., 6:40 to 8:40 A.M.
B-48.92	6.13	HI5N, Santo Domingo, D. R.,	heard 6:40 to 9:10 P. M.
B-48.92	6.13	COCD, Havana, Cuba.	Heard 5:00 P.M. to 1:00 A.M., irregularly.
B-49.02	6.12	W2XE, Wayne, N. J.	Relays WABC 8:00 P.M. to 11:00 P.M.
B-49.02	6.12	XEFT, Vera Cruz, Mexico.	11:30 to 4:00 P.M., 7:30 P.M. to 12 M.
B-49.05	6.11	HJ1ABE, Cartagena, Colombia.	Daily 7:30-9:00; Mon. 10:30 P.M.
B-49.10	6.11	GSL, Daventry, England.	2:30 to 4:00 P.M. and 10:00 to 11:00 P.M.
B-49.10	6.11	VE9HX, Halifax, N. S.,	8:30 to 11:30 A.M.; 4:00 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-49.15	6.10	HJ4AB, Manizales, Colombia.	8:00 to 11:30 P.M., irregularly.
B-49.18	6.10	W3NAL, Bound Brook, N.J.	Mon., Wed. and Sat. 6 P.M. to 12:45 A.M.
B-49.18	6.10	W9XF, Chicago, Ill., Sun.,	Thurs., 9-2 A.M.; Daily 1-2 A.M.
B-49.20	6.09	ZTJ, Johannesburg, Africa.	3:30 to 7:00 A.M.; 9:00 A.M. to 4:00 P.M.
B-49.22	6.09	CRCX, Bowmanville, Canada.	5:30 to 11:30 P.M. daily, 11:45 A.M. to 11:30 P.M. Sundays.
B-49.31	6.08	VO7LO, Nariobi, Africa.	11:00 A.M. to 3:30 P.M., 5:45 to 6:15 A.M.
B-49.34	6.08	W9XAA, Chicago, Illinois.	No apparent regular schedule.
B-49.34	6.08	DJM, Zeesen, Germany,	tests irregularly.
B-49.34	6.08	HP5F, Colon, Panama,	11:45 to 1:15 and 7:45 to 10:00 P. M.
B-49.34	6.08	ZHJ, Penang, S. S.	Daily 6:40 to 8:40 A.M.
B-49.34	6.08	CP5, La Paz, Bolivia.	8:00 to 9:00 P.M. daily.
B-49.40	6.07	VE9CS, Vancouver, B. C.	Daily 6-7 P.M., Sun. 1:45 P.M. to 1:00 A.M.
B-49.42	6.07	OER2, Vienna, Austria.	9:00 A.M. to 5:00 P.M., week-days.
B-49.45	6.06	HJ4ABL, Manizales, Col.,	11-Noon, 5:30-7:30 daily, Sat. 10:30 P.M.
B-49.50	6.06	OXY, Skamlebaek, Denmark.	Daily 1:00 to 6:00 P.M.
B-49.50	6.06	W8XAL, Cincinnati, Ohio,	6:30 A.M. to 8 P.M.; 11 P.M. to 2 A.M.
B-49.50	6.06	W3XAU, Philadelphia, Pa.	7:00 P.M. to 10:00 P.M.
B-49.55	6.05	HJ4ABD, Medellin, Colombia.	Heard 8:00 to 11:30 P.M.
B-49.59	6.05	GSA, Daventry, England.	6:00 to 8:00 P.M. daily.
B-49.65	6.04	HJ1ABG, Barranquilla, Colombia.	6:00 to 10:00 P.M.
B-49.67	6.04	HJ4ABC, Periera, Colombia.	9:30 to 11:00 A.M., 7:00 to 8:00 P.M.
B-49.67	6.04	W4XB, Miami Beach, Florida.	11:30-2:00 P.M., 8:00-12 Midnight.
B-49.67	6.04	PRAS, Pernambuco, Brazil.	2:30 to 8:30 P.M.
B-49.67	6.04	W1XAL, Boston, Mass.,	7:15 to 9 P.M. Tues., Thurs.; 4-7 P.M. Sun.
B-49.75	6.03	HP5B, Panama City,	12 Noon to 1 P.M.; 7:00 to 10:30 P.M.
B-49.83	6.02	XEUW, Vera Cruz, Mexico,	8:00 P.M. to 12:30 A.M. irregularly.
B-49.83	6.02	DJC, Zeesen, Germany.	12 Noon to 4:30 P.M. and 5:05 to 10:45 P.M.
B-49.83	6.02	CQN, Macao, China.	Monday and Friday, 3:00 to 5:00 A.M.
B-49.85	6.01	HJ3ABH, Bogota, Col.	11:30 A.M. to 2, 6-11 P.M., Sun. 4:19 P.M.
B-49.90	6.01	COCO, Havana, Cuba.	9:30 A.M. to 12:30 Noon; 4:00 to 7:00 P.M.; 8:00 to 10:00 P.M.; Saturdays at 11:30 P.M.
B-49.92	6.01	ZHI, Singapore.	Mon., Wed., Thurs., 5:40-8:10; Sat. 10:40-1:10 A.M.
B-49.95	6.01	HJ1ABJ, Santa Marta, Colombia.	6:30 to 10:30 P.M., irregularly.
B-49.96	6.00	VE9DN, Drummondville, Canada,	Saturdays at 11:30 P.M.

Meters	Meg.	STATION	TIME
B-30.00	6.00	RW59, Moscow, U.S.S.R.	2:30 to 5:00 or 6:00 P.M. daily.
B-50.00	6.00	HJ1ABC, Quibdo, Colombia	daily 5-6 P.M.; Wed. and Sun. 9-11 P.M.
B-50.00	6.00	XEBT, Mexico City.	6:00 P.M. to 3:00 A.M., irregularly.
B-50.10	5.99	HJ2ABD, Bucaramanga, Col.	11:30-12:30; 5:30-6:30; 7:30-10:30 P.M.
B-50.17	5.98	XEVI, Mexico City, Tues.	7-8; Thurs. 7-8, 9-10; Sat. 8-9 P.M.
B-50.17	5.98	HIX, Santo Domingo, R. D.	Tues. and Fri., 8:10 to 10:10 P.M.; Sundays 8:40 to 10:40 A.M. and 2:40 to 4:40 P.M.
B-50.26	5.97	HVI, Vatican City.	Daily, 2:00 to 2:15 P.M., Sun. 5:00 to 5:30 A.M.
B-50.26	5.97	HJN, Bogota, Colombia,	6:00 to 11:00 P.M. irregularly.
B-50.26	5.97	HJ2ABC, Cucuta, Colombia.	11:00 A.M. to Noon; 6:00 to 9:30 P.M.
B-50.30	5.96	YNLF, Managua, Nicaragua.	6:00 P.M. to 1:00 A.M., irregularly.
B-50.51	5.94	TG2X, Guatemala City,	heard 4:00 P.M. to 2:00 A.M. irregularly.
B-50.60	5.93	HJ4ABE, Medellin, Colombia,	6:00 to 10:30 P.M.
B-50.85	5.91	HH2S, Port-Au-Prince, Haiti,	7:30 to 9:40 P.M. irregularly.
B-50.93	5.89	HCK, Quito, Ecuador,	8:00 to 11:00 P.M. daily. Also other times.
T-50.93	5.89	JJC, Taiwan, Japan,	around 8:00 A.M. irregularly phoning Japan.
B-51.11	5.87	HRN, Tegucigalpa, Honduras.	6:30-10 P.M. daily, Sundays 11:00 P.M.
B-51.15	5.86	HI1J, San Pedro de Macoris, D. R.	12:10 to 1:40; 6:10 to 8:40 P.M.
T-51.26	5.85	WOB, Lawrenceville, N. J.	Phones Bermuda nights.
B-51.28	5.85	YV5RMO, Maracaibo, Venezuela.	11:00 A.M. to 12:30 P.M., 5-9 P.M.
B-51.50	5.82	TIGPH, San Jose, Costa Rica.	6:15 to 11:00 P.M., irregularly.
T-51.50	5.82	HJA2, Bogota, Colombia,	Phones HJA3 afternoons and evenings.
B-51.60	5.88	YV8RB, Barquisimeto, Venezuela.	6:00 to 10:00 P.M.
B-51.72	5.80	YV2RC, Caracas, Venezuela.	10:30 to 1:00 P.M., 5:15 to 10:00 P.M.
B-51.90	5.78	OAX4D, Lima, Peru.	Wed. and Sat. from 8:00 to 11:30 P.M.
B-52.17	5.75	HJ4ABD, Medellin, Colombia.	8:00 to 11:30 P.M.
B-52.45	5.72	YV1ORSC, San Cristobal, Venezuela,	7:00 to 11:30 P.M. irregularly.
E-52.97	5.66	CFU, Rossland, Canada.	Works CFO and CFN near 10 P.M., irreg.
B-54.74	5.48	TI5HH, San Roman, Costa Rica,	3:30 to 4:00; 8:00 to 11:30 P.M.
E-55.56	5.40	HJA-7, Cucuta, Colombia.	Mondays 4:30 to 7:30 P.M., irregularly.
B-58.30	5.15	PMY, Bandoeng, Java.	6:00 A.M. to Noon.
T-59.08	5.08	WCN, Lawrenceville, N. J.	Phones England evenings.
T-59.76	5.02	ZFA, Hamilton, Bermuda.	Phones U.S.A. and ships at night.
T-60.26	4.98	GBC, Rugby, England.	Phones to ships, irregularly.
T-61.15	4.90	CGA8, Drummondville, Canada.	Phones ships irregularly.
T-61.98	4.84	GDW, Rugby, England,	phones U.S. A. nights.
B-62.63	4.79	VE9BK, Vancouver, B. C.	2:00-4:00 P.M., 7-9 P.M., 11 P.M.-1:00 A.M.
T-63.13	4.75	WOO, Ocean Gate, N. J.	Phones ships irregularly.
B-65.22	4.60	HC2ET, Guayaquil, Ecuador.	Wed. and Sat. 9:00 to 11:00 P.M.
T-66.50	4.51	ZFS, Nassau, Bahamas.	Works WND evenings.
T-67.87	to 73.17	-4.42 to 4.10	-Ships. Heard irregularly.
B-70.65	4.25	RV15, Khabarovsk, U.S.S.R.	1:00 to 9:00 A.M.
T-73.21	4.10	WND, Hialeah, Florida.	Phones irregularly with VPN.
E-75	to 75.8	-4.00 to 3.96	-Amateurs on voice.

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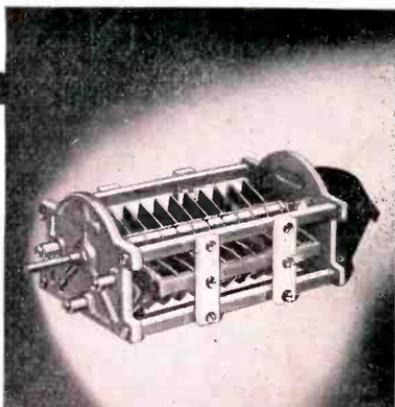
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