

MIDSUMMER EDITION 1933

# RADIO IN INDEX

A COMPLETE RADIO LOG OF THE WORLD



25<sup>c</sup>

Sweeping Changes in Canada  
How to Build a Simple Short Wave  
Converter

The Most Interesting Station in  
the World

No. 70

JUNE 1, 1933



# RADIO IN DEX

Reg. U. S. Patent Office

FRED CLAYTON BUTLER  
*Editor and Publisher*



B. FRANCIS DASHIELL  
*Technical Editor*

PAGE TAYLOR  
*Short Wave Editor*

NINTH YEAR

## CONTENTS

NUMBER 70

Frontispiece—Mary Eastman

Coloratura Soprano of the Columbia System

The DX Calendar of Special Programs for June.....	1
Building a Short-Wave Converter, <i>by B. Francis Dashiell</i> .....	2
Remarkable Reception in the B. C. Band.....	5
Fading, Broad Tuning and Other Troubles, <i>by the Technical Editor</i> .....	7
The World's Most Friendly Station, <i>by Amando Cespedes M.</i> .....	11
Trials and Troubles of the Editor.....	12
Short Stories of Your Favorites, <i>by "Betty"</i> .....	16
This Summer on the Short Waves, <i>by Page Taylor</i> .....	19
Final DX Reports on the Closing Season.....	25
Fan Chat from the Pacific Coast, <i>by Chas. C. Norton</i> .....	31
He Tried to Prove DX Claims Impossible, <i>by John De Myer</i> .....	32
Verifying Under Difficulties, <i>by Irving Van Zandt, Jr.</i> .....	33
The Monthly DX Round Table.....	34
"What's on the Air Tonight," the Monthly Programs.....	35
Classified Index to the Chain Features.....	44
The Month's Changes in Station Data.....	45
A Complete Index to the World's Broadcasting Stations.....	46
Broadcasters of the World by Countries, States and Cities.....	57
The One Hundred Best S. W. Stations by Frequencies.....	68
Call Letter Index to the 100 Best S. W. Stations.....	70
Quick Index to Station Data in Past Issues.....	80

Published Monthly Excepting July and August

*See Subscription Blank on Page 24*

\$1.75 per Year

25c Per Copy

### THE RADEX PRESS, INC.

Publication Office, 404 No. Wesley Ave., Mount Morris, Illinois.

Editorial and Executive Office, Hanna Building, Cleveland, Ohio

Entered as second-class matter November 7, 1932, at the post office at Mount Morris, Ill. under the Act of March 3, 1879. Printed in U. S. A.

**ADDRESS ALL CORRESPONDENCE TO CLEVELAND OFFICE**

# JUNE DX CALENDAR

## Special Programs for Distant Listeners

A. M. time is given as the night before. Thus early Monday morning programs are listed under Sunday night. Time is given in Eastern Standard so that programs may be listed in proper sequence.

### SUNDAY NIGHT

June 4th

12:00-2:00—CMCH, 1405, Havana, Cuba.

June 4th, 11th, 18th, 25th

12:15-1:00—KSOO, 1110, Sioux Falls, S. D.

1:00-3:00—WGES, 1360, Chicago, Ill.

### MONDAY NIGHT

June 5th

4:30-5:15—WEOA, 570, Columbus, Ohio.

June 19th

2:30-5:00—10-BI, 1200, Prince Albert, Sask.

June 12th, 26th

5:00-6:00—WAWZ, 1350, Zarephath, N. J.

June 5th, 12th, 19th, 26th

12:00-2:30—WMIL, 1500, Brooklyn, N. Y.

1:00-5:00—WSUI, 880, Iowa City, Iowa.

5:00-5:15—WCAH, 1430, Columbus, Ohio.

5:15-5:30—WHPP, 1430, Harrisburg, Pa.

### TUESDAY NIGHT

May 30th, June 27th

2:30-3:30—WCLO, 1200, Janesville, Wis.

June 20th

2:00-3:00—WJMS, 1420, Ironwood, Mich.

5:30-7:00—WRAK, 1370, Williamsport, Pa.

June 6th, 13th, 20th, 27th

12:00-1:00—KFUO, 550, St. Louis, Mo.

2:00-4:00—CFJC, 1120, Kamloops, B. C.

5:00-6:00—KFGQ, 1310, Boone, Iowa.

### WEDNESDAY NIGHT

May 31st

2:30-4:00—CHWK, 780, Chilliwack, B. C.

June 7th

2:00-2:30—WHBF, 1210, Rock Island, Ill.

June 7th, 14th

12:00-1:00—WHBL, 1410, Sheboygan, Wis.

June 14th

4:00-6:00—KFBI, 1050, Abilene, Kans.

June 7th, 14th, 21st, 28th

2:00-3:00—KFXX, 1200, Grand Junction, Colo.

2:30-4:30—CKWX, 1010, Vancouver, B. C.

### THURSDAY NIGHT

June 1st

9:00-11:00—OFH, 1031, Viipuri, Finland.

4:00-5:00—KASA, 1210, Elk City, Okla.

June 1st, 8th, 15th, 22nd, 29th

11:00-12:30—WHOM, 1450, Jersey City, N. J.

12:00-1:00—KFUO, 550, St. Louis, Mo.

1:00-2:30—WMIL, 1500, Brooklyn, N. Y.

1:00-2:00—WBBX, 1200, New Orleans, La.

1:00-2:00—WENC, 1420, Americus, Ga.

### FRIDAY NIGHT

June 2nd

4:15-4:45—WNBZ, 1290, Saranac Lake, N. Y.

June 30th

2:30-4:00—CHWK, 780, Chilliwack, B. C.

June 2nd, 9th, 16th, 23rd, 30th

12:30-1:30—WCAJ, 590, Lincoln, Neb.

1:00-1:30—CFCN, 1030, Calgary, Alta.

1:30-3:30—KGEK, 1200, Yuma, Colo.

4:30-5:00—CMJH, 1150, Ciego de Avila, Cuba.

### SATURDAY NIGHT

June 3rd

12:00-4:00—WRBX, 1410, Roanoke, Va.

June 24th

3:00-4:00—KDLR, 1210, Devils Lake, N. D.

June 3rd, 10th, 17th, 24th

9:00-2:00—WWRL, 1500, Woodside, N. Y.

12:00-1:00—WGBI, 880, Scranton, Pa.

12:00-1:00—WJBK, 1370, Detroit, Mich.

12:00-1:30—WWVA, 1160, Wheeling, W. Va.

12:00-3:00—CMCD, 1140, Havana, Cuba.

12:00-4:00—WNAC, 1230, Boston, Mass.

1:00-1:30—WKY, 900, Oklahoma City, Okla.

1:00-2:00—KQV, 1380, Pittsburgh, Pa.

1:00-2:00—KTFI, 1240, Twin Falls, Idaho.

1:00-2:00—WGBF, 630, Evansville, Ind.

1:00-3:00—WGES, 1360, Chicago, Ill.

1:00-3:00—WWAE, 1200, Hammond, Ind.

1:00-4:00—KGU, 750, Honolulu, Hawaii.

1:30-3:00—KMAC, 1370, San Antonio, Tex.

2:00-3:00—CMGE, 1375, Cardenas, Cuba.

2:00-3:00—CMQ, 630, Havana, Cuba.

2:00-5:00—KFEL, 920, Denver, Colo.

2:00-7:00—KGBU, 900, Ketchikan, Alaska.

2:30-4:30—CKWX, 1010, Vancouver, B. C.

3:00-4:00—KXL, 1420, Portland, Ore.

3:00-5:00—CFCT, 1430, Victoria, B. C.

4:00-6:00—KVOA, 1260, Tucson, Ariz.

4:00-6:00—XFB, 1290, Jalapa, Ver., Mex.

## THE MONTH'S CHANGES

### FREQUENCY

570	WPCB	New York, N. Y., from 810
580	CJOC	Lethbridge, Alta., from 1120
580	CRCA	Moncton, N. B., from 630
600	CFCF	Montreal, Que., from 1030
630	CFCY	Charlottetown, P. E. I., from 580
630	HFX	Santo Domingo, D. R., from 579
690	HJN	Bogota, Colombia, from 685
730	CJCA	Edmonton, Alta., from 745
780	CHWK	Chilliwack, B. C., from 665
780	CKPR	Fort William, Ont., from 890
810	WNYC	New York, N. Y., from 570
880	CJRM	Moose Jaw, Sask., from 665
880	CJRW	Fleming, Sask., from 665
880	CRCO	Ottawa, Ont., from 600
890	CFQC	Saskatoon, Sask., from 910
890	CHML	Hamilton, Ont., from 880
910	CKY	Winnipeg, Man., from 780
915	CFRC	Kingston, Ont., from 930
930	CFCH	North Bay, Ont., from 910
930	CFLC	Prescott, Ont., from 915
1010	CHWC	Regina, Sask., from 960
1010	CKCD	Vancouver, B. C., from 730
1010	CKCK	Regina, Sask., from 960
1010	CKCQ	Ottawa, Ont., from 890
1010	CKOC	Hamilton, Ont., from 635
1010	CKWX	Vancouver, B. C., from 730
1030	CFBO	St. John, N. B., from 890
1030	CFCN	Calgary, Alta., from 985
1030	CKNC	Toronto, Ont., from 960
1050	CHNS	Halifax, N. S., from 815

(Continued on page 45)

# BUILDING *a* Short-Wave CONVERTER

● ● ● By B. FRANCIS DASHIELL

**L**AST month a list of parts necessary for our short-wave converter was published, and if they now have been gathered together we are ready to proceed with actual construction. RADEX herewith presents exclusively for its readers a special converter circuit designed for this magazine. It is shown in Figure 1. Its originator, Mr. Henry K. Bradford, member I. R. E., is a well-known short-wave expert and technical official of the National Radio Institute, of Washington, D. C.

The converter employs a 58 type r.f. pentode tube as detector, and a type 56 for oscillator. The latter is a Hartley modification with its cathode coupled to the detector. The antenna control grid circuit of the detector is tuned with a short-wave variable condenser, while a similar condenser is used to control oscillations. These two condensers may be ganged on a single shaft, but it is not recommended for sets that are home constructed. It is practically impossible to build coils and circuits that will balance to perfection over the entire wave band.

## Converts S. W. to Long

The circuits have been designed to provide a "beat" frequency of between 1,000 and 1,500 kilocycles, to which the broadcast set must be tuned permanently while the short wave converter is used. The two frequencies—that of the incoming signal wave, and that created by the oscillator of the converter—are mixed together and create a "beat" note or frequency that in turn is fed to the antenna terminal of the broadcast receiver. In other words, the short waves are increased in wave length so as to fall within the tuning limits of the broadcast receiver.

For instance, if a short-wave sig-

nal is being broadcast on a frequency of 8,734 kilocycles, and the broadcast receiver is tuned to a silent spot that happens to fall upon 1,360 kilocycles, it will be necessary automatically to create a frequency of 7,374 kilocycles by tuning the oscillator condenser so that a beat frequency of 1,360 kilocycles will be sent into the broadcast set. Beat frequency equals the difference between the received frequency and the oscillator frequency. The antenna condenser tunes the detector to the incoming short wave and the oscillator creates a different frequency, so it can be seen how difficult it is to align the condensers on a single shaft.

## Making the Coils

There are two coils in use at one time when the converter is working. These coils represent the only difficult work in making this converter, and it is important that these instructions be carefully followed if satisfactory results are to be obtained. One coil is the antenna or detector coil, indicated by  $L_1$  and  $L_2$ , and the other is the oscillator coil,  $L_3$ . However, because each coil responds only to a limited portion of the short-wave band, it is necessary to wind a number of sets or pairs of coils. A total of eight will be needed, two to a set, or four pairs in all. Blank forms (16 to 23) for the coils are about  $1\frac{1}{2}$  inches in diameter, and are fitted with four prongs or pins to fit standard 4-contact sockets (11 and 12). They can be procured from any radio supply house, and many have bakelite handles to facilitate removal from sockets when changing to different wave-lengths.

All coils are wound with number 26 double-cotton-covered copper magnet wire. All must be wound in the same direction. Take four blanks for the detector coils, and four for the oscil-

lator coils. In the detector or antenna coil,  $L_1$  is the primary coil wound at the bottom of the form, and  $L_2$  is the secondary coil wound above  $L_1$ , but with a space of not more than  $\frac{1}{8}$  inch between the two coils. Wind the wire tightly, evenly and carefully, with the ends passing directly to the proper pins to which they must be soldered.

For the 10-20 meter detector coil, wind 3 turns on the primary  $L_1$ , and 4 turns on the secondary  $L_2$ . For the oscillator coil on another form,  $L_3$ , wind 4 turns with a tap taken off at exactly  $1\frac{1}{4}$  turns from the bottom.

The ends of the coil wires—two from each the primary and secondary—of  $L_1$  and  $L_2$ , respectively, connect to the four pins of the base, while the two ends of the oscillator coil  $L_3$ , and the single wire cathode tap, connect to but three prongs of the base, as shown in Figure 2. One prong of the oscillator coil form remains unused. It will be noted that the number of turns of wire on the detector coil secondary  $L_2$  and the oscillator coil  $L_3$ , are equal. This gives the dials a tendency to track rather nicely.

The assembly of the parts may be

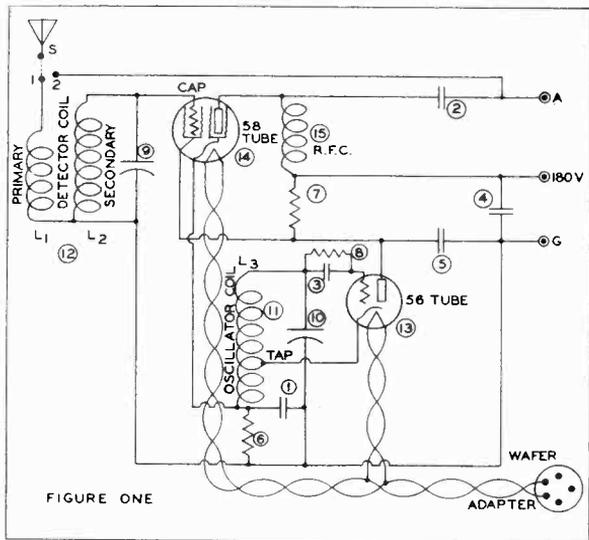
#### LIST OF PARTS

- One .001 mfd. fixed condenser (1)
  - Two .0001 mfd. ditto (2 and 3)
  - Two .1 mfd. ditto (4 and 5)
  - One 5000 ohms resistor (6)
  - One 50,000 ohms ditto (7)
  - One 100,000 ohms ditto (8)
  - Two .00015 mfd. variable condensers (9 and 10)
  - Two 4-pin tube sockets (11 and 12)
  - One 5-pin tube socket (13)
  - One 6-pin tube socket (14)
  - One 50-millihenry r. f. choke coil (15)
  - Eight  $1\frac{1}{2}$  inch diameter plug-in coil forms, 4-prong to fit sockets 11 and 12 (16 to 23 inclusive)
  - One wafer socket adapter to fit under any  $2\frac{1}{2}$  volt tube in broadcast receiver to obtain current to heat converter tubes.
  - One 56 type super-triode oscillator tube, 5-pin
  - One 58 type triple-grid super-control amplifier tube, 6-pin
  - Small quantity of No. 28 d.c. magnet wire.
- Numbers in parentheses refer to similar numbers on the drawings.

For the 20-40 meter detector coil, wind 4 turns on  $L_1$ , and 8 turns on the secondary  $L_2$ . Its oscillator coil  $L_3$  has 8 turns, tapped  $2\frac{3}{4}$  turns from the bottom. For the 40-80 meter coil, wind 5 turns on  $L_1$ , and 18 turns on the secondary  $L_2$ . The oscillator coil  $L_3$  has 18 turns, tapped 6 turns from the bottom. For the 80-200 meter coil, wind 10 turns on the primary  $L_1$ , and 50 turns on secondary  $L_2$ . For the oscillator coil  $L_3$ , wind 50 turns, tapped 17 turns from the bottom.

arranged on the base to suit the builder. But the two coils should be spaced as far apart as practicable so there will be no magnetic coupling between them. The oscillator coil  $L_3$  should be closely associated with its 56 type tube. All wires must be as short as possible for careful assembly. Shields over the two coils are not recommended, but the 58 detector tube should be placed within a metallic tube shield.

While the converter can be assembled on a wooden base and hard rub-



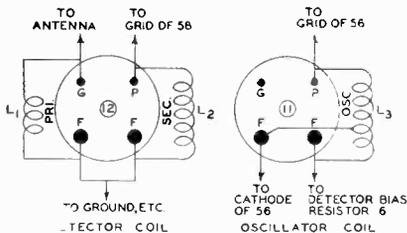


FIGURE TWO

ber panel, a metal panel and base are advised. And, in fact, it will be well if the entire converter is built within a metal container. The metal panel, base, shields, partitions, variable condenser frames, and other parts, must be well grounded to the converter ground connection. A wire must connect this ground terminal to the ground connection or negative B supply of the broadcast receiver with which the converter is used.

### Securing Filament Current

The two tubes of the converter obtain their filament current from one of the tubes in the broadcast receiver. The additional load of 2 amperes on the filament winding of the broadcast set will not ordinarily affect the average a.c. set. A wafer adapter, with either four or five holes, to fit beneath some tube that takes 2.5 volts, is used for this purpose. The filament contacts of the 56 and 58 sockets (13 and 14) are connected in parallel with twisted cord to the wafer adapter. A switch to turn the converter on and off is inserted in one of the leads.

The plates of the two tubes require 180 volts. This is taken off also from the broadcast set at some point such as a common plate supply lead, voltage divider, speaker field coil, or in the filter system. Or 180 volts of B batteries can be used, and operation will be smoother and more quiet. Another wafer adapter can be utilized to connect to the plate of some tube that takes approximately 180 volts within the set.

After the radio-frequency choke

coil (15), resistors (6, 7 and 8), and fixed condensers (1, 2, 3, 4 and 5) are arranged in the proper circuit positions, the converter is ready to test. Terminal post marked "A" is connected to the antenna terminal of the broadcast set. The filament adapter is placed directly on top of a conveniently selected socket in the set and the tube replaced. Switch  $S_1$  of the converter is closed. When the converter is not in use it need not be disconnected. The switch is placed at  $S_2$ , which then connects the antenna directly to the broadcast set.

### Operating the Converter

Select some point on the dial of the receiver between 1,000 and 1,500 kilocycles where no signal or interference can be heard. Set the volume control at its maximum but without undue noise. With the antenna tuning condenser (9) remaining in one position, the oscillation condenser (10) is rotated until the characteristic "rushing" noise or sound is heard. This means that oscillation is taking place, and the beat frequency will be produced at the proper frequency to which the broadcast receiver is tuned. The two condensers are then simultaneously rotated, very, very slowly, until a short-wave signal is picked up. Further adjustment of these condensers, and perhaps a final micrometer adjustment of the dial of the broadcast set together with its volume control, should bring short-wave stations in at their maximum strength.

### CANADIAN CHANGES

Official data from the Canadian Radio Commission enables us to make the necessary revision in all of our lists. A number of stations do not appear in the official list. The presumption is that these will be deleted. They are marked with an asterisk in the list by calls. CJGC, London, and CKOK, Windsor, are combined with the call CKLW. This station will use 540 kcs. at least for a time.

# REMARKABLE RECEPTION

## *in B. C. Band*

THOSE of us who give three cheers when we tune in Cuba can only stand aghast when we consider the reception recently reported by C. R. Caraven, 1840 East Georgia St., Vancouver, British Columbia. We have on our desk half a dozen really remarkable verifications of stations in the broadcast band.

The first is from Ostmarken Rundfunk, Konigsberg in East Prussia, on the Baltic Sea east of Poland. It says in part: "After your communication, there can be no doubt that you have heard our sender. Your two noticeable tones, which were repeated three times, stand between pauses. The sender of Konigsberg worked on 1382 kcs. with a strong wave of 600 watts."

The second is from Radio Journal Praha XII, at Praha (The Prague) in Czechoslovakia and from it we quote: "There can be no doubt about your picking up our station although we are emitting on 614 kcs. and not at 616 (!) as you assumed. We are working with a power of 120 k. w. and 488.6 meters wavelength. This is the first time that we have been received in Canada and it would be very interesting for us to have a report from time to time." The exclamation point is our own. How could Mr. Caraven make such a big mistake as two kilocycles when reporting his reception?

The next is from Radio Bucuresti in Bucarest, Roumania: "The reception heard by you has been from station Bucarest. Herewith we acknowledge the reception by you of our program in the day of January 1st."

From CX-26, Montevideo, Uruguay, comes this: "At the same time as we thank you for your valuable data we have the pleasure to confirm to you that reception as that night we

made in fact a transmission dedicated to the hams at a great distance. Before becoming broadcasters we had been enthusiastic amateurs and it is in memory of our reception of DX then that we at times give those emissions dedicated to the radio amateurs. The detailed information that you gave us is for us of inestimable value for the care of the observations and for the considerable distance that separates us. We are pleased to inform you that you are the record-holder for reception from CX-26, Radio Uruguay, at a distance."

For good measure we have this verification from 7ZL, Hobart, Tasmania: "The information you give is correct and corresponds with our station log."

And somewhat in the short waves,



Lots of people who thought they were listening to Greta Garbo on the air, were hearing Alice Hill. She now has the part of Thelma Jasper, Jack Arnold's secretary, in "Myrt and Marge," daily except Saturday and Sunday on the See-See-Ess at 7:00 p. m. EDT.

about 1713 kcs. to be exact, Mr. Caraven finds this one although he does not say whether he received it on his regular broadcast receiver or on a short wave set: From The Western India Wireless Association, Poona, India: "We have the greatest pleasure confirming your report of reception from our experimental transmitter VU2BY. This transmitter operates on 175 meters *with ten watts* input, but this last few days we have increased the output to 50 watts and now work on 42 meters between 8:00 and 9:00 p. m. I. S. T. We work Thursdays and Saturdays. Yours is the first real long-distance report we have had and I think, with the power employed, *it must constitute a record for telephony anywhere.*"

"I have been DXing for many years," writes Mr. Caraven, "beginning at a time when foreign reception was considered impossible. It is my firm belief that DXers are today pioneering the field for that future when foreign reception will be an everyday matter. To those desiring

distant reception, it should hardly be necessary to emphasize the necessity of having a perfect aerial and ground, good tubes and soldered connections. Such factors are of vital importance for, without these, foreign reception can not be expected. I have found it essential to have up-to-date lists of transmitting stations, to know times in foreign countries and to have a systematic manner of logging. Through the years RADEX has fulfilled these requirements in every respect and without this assistance, I should not have been able to accomplish such reception."

Mr. Caraven has a Remler 10-tube Superheterodyne receiver, a single-wire inverted L antenna and an Ollie Ross ground. He is a member of the International DXers Alliance.

## A Phone Receptor

The Amplivox "Phone Receptor" enables the owner of any radio set to listen with phones to distant radio signals. The outstanding feature of the unit is its ability automatically to cut out the speaker at will, but without unbalancing the receiver. The Receptor should fill a long-felt want where listeners wish to DX during the static season or at late hours when the loudspeaker is undesirable.

The device is made for any type of 4, 5, 6 and 7-prong power tubes. One or two socket-prong adapters are connected with a five-foot cable to a metal headphone-jack box. In the case of push-pull power circuits the tubes are removed from the output stages of the set. The two adapters are then inserted into the sockets. The tubes are replaced in the top sockets of the adapters. When the phones are desired the plug is inserted in the jack box and the loudspeaker is automatically silenced without its circuit being opened. The jack merely connects the phones in series with the grid contacts of the power socket or sockets, and in turn grounds the grids of the power tube

(Continued on page 33)



A microphone view of the broadcast of the Best Foods Musical Grocery Store. Herbert Polesie, Jeannie Lang and Tom Howard and his derby. NBC-WEAF net, Fridays at 9:00 p. m. EDST and again at 12:30 a. m.

# FADING, Broad Tuning *and* OTHER TROUBLES

• • • *By the* TECHNICAL EDITOR

**D**URING evenings and early mornings the radio programs come in good for a while, then the reception becomes blurred and distorted for a minute or so. Then it clears up but only to do the same things again. The service man checked my Philco 112 and found nothing wrong. It seems to do this on all stations. Is it a disadvantage of the automatic volume control?

Fading accompanied by blurring distortion is characteristic of distant reception, and is attributed to wave-interference. This is made more pronounced by automatic volume control, which brings the fading signal in strong at its lowest field strength at the time when wave-interference occurs. When signal fading is absent, the automatic volume control naturally is working at its minimum volume and the interfering station is drowned out and reception is clear. Then as fading comes on and the a.v.c. comes into action the interfering station becomes louder and you have distortion and blurring. When fewer stations are on the air there is less likelihood of so much station interference.

## Broad Tuning

*I have an Acme 6-tube receiver and it seems to tune very broadly on nights when reception is good. This prevents stations from coming in clearly at all times.*

The trouble you are experiencing is due to the fact that so many stations are now on the air. The more power a broadcasting station has, and the louder its signals are received, the more dial space it covers on a receiving set. When reception at nights is very good, signals come in

louder and more stations are heard. Thus, reception is spread out over a wider portion of the dial in a ratio proportional to the selectivity of the set, and more interference is noted.

Frequently selectivity in an old receiver becomes poor because of the accumulation of dust within the set. A radio set should be cleaned carefully twice a year. The plates of the variable condensers must be polished carefully and cotton pipe cleaners are best for this purpose. All parts should be brushed and dusted off. If tubes are old, they should be tested, and replaced if weak.

## Phones on AK 55

*I wish to attach headphones to my Atwater Kent model 55 set, but wish advice for this particular receiver.*

Your receiver has two power tubes in push-pull amplification. We suggest that you use the hook-up that is shown in Figure 4 of the article in the February issue of RADEX, as this corresponds to the circuit in your set. Use the wafer adapter shown in "A" of Figure 2 for the -45 tube, or the one at "B" for the -47 tube. Place an adapter beneath each tube in the same position shown in Figure 2. Insert the tube in its socket and press down on the wafer and fit snugly in place. Flexible wires, which have been soldered to the proper lug, as shown in Fig. 2, then run to the phones through the condensers and resistor. Two wires run from the output of the audio transformer which is fed by the two power tubes, either -45s or -47s. They terminate at the socket into which the speaker cable is plugged. The silencing switch can be placed in either one of these two wires which are colored yellow with

a black trace through them.

### Locating Tubes

*Can you tell me the location of the various tubes and the value of the volume control in my Silver Marshall 9-tube receiver?*

We assume that your receiver is model 36A. The model 724 is identical, except that it has only three variable condensers in the gang instead of four as in the 36A.

Looking down upon the receiver, standing at the rear, the tubes are as follows: Left to right in a row beginning in the rear of the four-gang variable condensers—the first -24 is the radio-frequency tube; second -24, the first detector; third -27 is the oscillator; fourth -24, the first intermediate frequency tube; fifth -24, the second intermediate frequency; and sixth -24, the second detector. In the rear will be found the -80 rectifier, and two -45s, connected in push-pull audio power output.

The value of the volume control is 3,000 ohms. It is a simple potentiometer with the arm and one end connected together to one end of a resistor of 375 ohms which in turn is grounded. The other end of the control connects into the circuit. In the 724 model receiver this control is similar except that the additional 375 ohm resistor is not used between the control and the ground.

### New R.F. Amplifier

*What about the "Amplitenna" device, and will it increase the sensitivity of my receiver?*

The "Amplitenna" scheme, which has been published in another radio magazine, has not been tested by RADEX. However, it is said to increase antenna signals before they pass into the radio set. It is a sort of pre-stage signal amplifier. The drawback, which has always hindered these radio-frequency untuned amplifiers from being in wider use with radio sets, is that all static and other noises are so amplified as to prevent even fair reception on the set. A high noise level is handed the set right at

the start and cannot be eliminated. Such r.f. amplification schemes, when reception is clear and perfect, will tend to increase the range and sensitivity of smaller sets, those of few tubes and little or no radio amplification.

### Two-Volt Tubes

*I wish to use 2-volt tubes in my Radiola 20 battery set that now utilizes the -99 tubes. Please explain what to do.*

The -30 series of tubes can be used in your set in all positions except the power tube (now a -20), for which a -31 should be substituted. If you use a 6-volt A battery or an eliminator it will be necessary to insert a suitable resistance in the filament lead in order to cut down the voltage to the 2-volts needed for the new tubes. We recommend the use of a 2-volt storage cell or the new Aircell battery. The present volume rheostat will be turned all the way on, and slightly less if the Aircell is used. The resistance, if 6-volts are used, should be of 12 ohms and is inserted in series in the yellow A plus wire next to the rheostat. The same B battery for the -30s and the -31 power tube will be suitable, and the same holds good for the C battery now on the -20 tube.

### Short Wave Harmonics

*My short wave receiver brings in local stations and some others that are not on short waves. Also I use this set and keep it near my Radiola 3 battery receiver, using the same aerial and ground. What seems to be wrong here?*

All short-wave sets bring in harmonics of local or other strong broadcasting stations if their harmonics fall within the range of the particular short wave coil being used. These harmonics are always multiples of the original frequency and are two, three, four, five, etc., times the broadcast frequency. For instance, if a station broadcasts on 1,000 kcs., it will emit harmonics on 2,000, 3,000, 4,000, 5,000, etc., kilocycles—all of which

will be within the short wave range.

A short-wave set should never be placed in close proximity to another tuned circuit, such as a broadcast receiver. The latter may have serious effects on short-wave reception unless the latter set is very well shielded. A separate aerial must be used, and never run the two sets at the same time if fairly close together.

### Phones on Zenith 430

*My new Zenith, model 430 receiver, is a new one using dual-speakers and some new type tubes. How can I attach headphones to this circuit which is not fully covered in your February issue?*

You can connect phones to the two 59 power tubes, but you cannot obtain adapters for these 7-contact sockets. It will be necessary to make the connections to plate contacts of the power tube sockets. These may be located by looking down upon the sockets: The two large holes at the bottom are the filament or heater terminals; next on the right is the plate; two grids, numbers 1 and 3, are tied to the plate. Thus they all have the same potential. Any of these and the plate may be used to attach the phones as shown in Figure 4 of the February, 1933, article.

Or the phones may be connected as shown in the upper left-hand corner of Figure 3, by attaching to the 59 driver tube in the right rear corner of your Zenith chassis. Connection is made to the plate of this tube. You can also attach the phones to the 56 first audio tube with a 5-hole wafer adapter. The dual speakers are connected together, and the wires leading from the output transformer may be considered as feeding just a single speaker. The silencing switch may be put in either of the leads from the transformer output.

### A Separate A.V.C.

*Can I procure a separate automatic volume control device to attach to my receiver which is not so equipped?*

We do not know of any separate automatic volume control that can be



*No wonder Raymond Knight goes "Cuckoo" listening to a perfectly charming singer like Mary McCoy fluting her notes in burlesque. For she can sing. She had leading roles in two Broadway operetta hits after studying under Mme. Schumann-Heink. At 10:30 p. m., Saturdays, EDST, on the NBC Blue chain.*

attached to a radio set. Because the automatic volume control is a complicated affair, requiring changes in wiring and the circuit of the receiver, we doubt whether the idea is practicable. When a.v.c. is designed for a set having only manual control it must be built within, and attached to, the parts and circuit of the broadcast receiver.

### RCA 50 With New Tubes

*Can new tubes be used in my RCA-Victor model 50 receiver?*

The first r.f. tube in your set, a -35, may be replaced with a new 58, provided a suitable adapter to convert the present 5-contact socket to a 6-hole socket is used. We believe a small improvement will be noted, and there will be a saving of current consumed. We do not recommend changing the first and second detectors or

intermediate frequencies. The -47s in power amplification cannot be improved upon in this set.

### Converter With AK 85

*Can my Atwater Kent model 85 receiver be used with some kind of short-wave converter?*

Your receiver can be used with any short-wave converter on the market. See the March, 1932, and May, 1933, issues of RADEX for articles on these converters. The instrument is simply attached to your receiver and all short-wave tuning done by a single control on the converter instead of the broadcast set. They are very satisfactory, and perhaps you have read of some of the remarkable results our readers are obtaining with this kind of radio reception.

### Dial Reads 0 to 100

*The dial of my Stewart-Warner short-wave converter reads 0-100. How can I tell where different frequencies can be located?*

Since your dial on the converter is divided into 0 to 100 spaces it is difficult to state where certain kilocycles will be found without experimentation. The preparation of a curve from a few known stations is the most satisfactory plan. This converter has two switch positions and the dial readings change when the switch is moved. Thus, if a straight-line variable condenser is used, the 0 reading should be for either 15 or 65 meters, and the 100 for 65 or 200 meters, provided the entire coil and condenser is used when tuning. This is purely problematical. At 50 on the dial with the low and high wave switches, you should get either 40 or 135 meters, respectively. Various other wave lengths or frequencies should be heard at intermediate points, and these can be calculated. But since these are theoretical readings, actual wave lengths may be found some spaces to either side of the estimated number on the dial.

### 60 vs. 30 Cycles

*Will my Majestic "B" eliminator,*

*which works on 110 volts at 60 cycles, operate the same on house current of 30 cycles in another locality?*

No alternating current device designed to operate on 60 cycles will operate satisfactorily on 30 or 25 cycles. If you use your eliminator on 30 cycles it will not deliver its full output and there will also be much hum. The primary coil of the transformer will tend to heat up and use considerable current. The resistance of a coil of wire at 60 cycles is higher than at 30 cycles, and therefore the coil becomes a carrier of more current which it cannot absorb—it is a partial short-circuit across the 110-volt line to which it is attached. There is nothing that you can do except replace the transformer and parallel condensers in the filter system, which latter should be twice the size of the originals, in order to reduce the hum that would otherwise arise.

### Short Wave Circuits

*Which is the best for a 2-volt and 3-tube short-wave circuit: One r.f. tube, one detector tube, one audio frequency tube; one detector, two audios; or two r.f. tubes, and one detector tube?*

We believe you will obtain better gain if you use a -32 tube as a radio-frequency amplifier and a -30 as a detector, with a -31 tube as an audio amplifier. Two stages of r.f. followed by a detector will give greater gain, but the volume will be low because there is no audio amplifier tube. Of three tubes, therefore, a r.f. amplifier, a detector, and an audio amplifier, will give the best all-around service and satisfaction.

### 140 Zenith Tubes

*Can I change the tubes in my Zenith model 140 receiver to still newer types and get better satisfaction?*

Your receiver now employs 56, 57, 58 and 59 tubes. We cannot advise any change from these tubes. This set is the latest, except in a few re-

*(Continued on page 79)*

# THE WORLD'S *Most Friendly* STATION

• • • By AMANDO CESPEDES MARIN

Editor's Note: We are pleased to present this message to our readers from the builder and operator of what is undoubtedly the most unique station in all the world, TI-4-NRH. We are giving it in the author's own words that our readers may enjoy the pleasant sincerity of the writer. In no other way could they catch the extreme friendliness which the author so evidently feels for the radio listeners of all the world.

**F**IVE years ago, by this time, the waves from a little tiny broadcaster were sprouting from 3800 feet shack, in the ever green mountains of near-by the city of Heredia, in the Benjamin Republic of the Americas, the girdle of the Continent, known as Costa Rica.

And since then all the readers of RADEX have known more or less of the marvellous success of the old NRH, a pure amateur station, built for fun and maintained through out by the help of amateur fans in the world, all admiring the so many events occurred in the "junk" amidst friendship, flowers and coffee trees.

It is the only known case in the world, that with tiny  $7\frac{1}{2}$  watts power, the whole continents were conquered with mere broadcasting efforts to please, in three years. Then, for two more years the power was increased

to 15 watts, and with them the NRH obtained long DX records from India, Russia and Japan, Denmark, Holland, and South Africa, not obstant that North and South America became obsolete to the waves, for some skip effects.

It has been all very queer, and today, when the NRH files have 16,800 letters from 46 countries on earth, you can not but repeat the phrase of Mr. Ragle in Massillon, Ohio, which reads: "—and I certainly hope we all hear you daily from now on, as you seem to be the only friendly station there is anymore."

## Broadcasting Is Fun

It is all love down here and fun, therefore we all make merrymment, and when Miss Cespedes speaks, we laugh and when my boy plays the piano we applause and when the music is pretty I whistle, no matter if 52 years is upon me. I am just beginning to live. And radio is my plaything. The voice of the youngest announcer is that one of Alvarito, 4 years old, and the only announcer in the world, which has been heard ever since 45 days old.

The NRH has been a friend and it ever will be, because she does not carry paid up advertising of any nature, but that of his owner announcing his gospel of Friendship, or the headquarters of the Union Radio Americana, a big Club started for and by the listeners and radio followers in the American Continental countries, under the Spanish language domain.

The station works every evening from 4:30 to 5:30 p. m. central standard time, and is using two bottles DeForest type 503A in push pull, which nominally most give at least 200 watts. The modulation is done with two 845 type jugs, but one of them is under silence, and thus, some

*(Continued on page 79)*



*Here's one reason why visitors try to witness the broadcast of Pond's Program each Friday night at 9:30 EDST in the Red studios of the NBC. Her name is Lee Wiley.*

# TRIALS *and* TROUBLES

## *of the* EDITOR

**T**HE May issue of this compendium of radio information was all ready for the press when the first reports of the kilocycle earthquake in Canada first reached us. Time and Tide and RADEX can wait for no man. Much as we disliked to do so, we had to let the May issue go forward without the latest Canadian data.

Press reports from the Dominion are apprehensive that this reallocation is merely prophetic of others yet to come and that the new Radio Commission in Ottawa is going to follow the modern education principle of "learning by doing." Many complaints of conditions following the recent shift are coming from Canada, some intimating that it is all a part of a vast conspiracy on the part of the new Commission to keep U. S. vibrations out of Canada or at least out of Canadian sets.

Our sympathy goes both to Canadian listeners and to the new Radio Commission. It's some problem. We hope that we shall be able to give a complete picture in the proper departments of this issue of the Canadian broadcasting situation "as is." Some of the reports that have reached us are contradictory and we are awaiting official word from the Ottawa authorities.

### Radio in A B C

Our Technical Editor has under consideration a series of Simple Lessons in Radio to start with the September issue. These would be written in as nearly non-technical language as may be used to present a highly technical subject. The plan is to begin with the simplest phase of radio and lead the reader, through a series of ten monthly lessons, into an understanding of the real principles underlying radio. These articles would

constitute a home-study course in radio. How many of our readers want Mr. Dashiell to prepare such a course? Let us hear from you. As the ads say, "Write now—today."

For years we have wanted a really good world globe large enough to be of real, practical value. We have found it at last and one of them now ornaments your Editor's desk where it is used daily. It is surprising what a different aspect the countries of the world take on when presented in globe form and how many things are made clear that cannot be grasped from a series of maps on different pages. Heretofore a good large globe cost from \$15.00 to \$20.00 but at last we have found one at a very reasonable price and we are passing the advantage on to our readers. With one of these globes and a RADEX Time Converter, the radio listener can say "OK, Australia."

### Building Sets

There is still a widespread interest in building a set of one's own, particularly the smaller sets of one, two and three tubes. No music seems quite so sweet as that which comes from a set which one has himself created. As a child is to its mother, so a radio set is to the one who constructs it.

"Now that we have heard so much about two-tube records, why not have a one-tube set competition and see who can build the best set ('bloopless' by all means), and the most efficient hookup using one of the new tubes," suggests Douglas Wauchope, 501 S. Candler St., Decatur, Ga. "Those who 'bloop' should be disqualified and also dismembered! Do you think there is anything in the theory that double-wire aerials are less efficient than single? I have been told that each wire has a tendency to neutralize the other, thus lowering the

signal strength. At the present time, my aerial consists of a double copper ribbon system replacing a seven-strand one. Now I notice more difference on my crystal set than my tube receiver. Stations come in much louder on the former receiver than before, while there is some, though not as much difference on the latter. Perhaps the ribbon gives greater pick-up than the wire, but has anybody really settled this question of multiple-wire aerials?

"Incidentally, some of your readers might be interested in my crystal set, which is the most selective that I have ever been able to build. Living only two miles from WSB's transmitter and six from WGST, the first can be practically eliminated while the latter comes in fine even with only one-twentieth the power. All this on my double-wire aerial about 175 feet long. With this arrangement. I have listened to WENR, WSM, KDKA, WLW, WGST, WSB and one other Chicago station. No battery is used to bias the crystal. Anyone desiring this hook-up may have it by sending me a stamped, addressed envelope. Do you know anything about the 'Tunicoil' tuner manufactured by the Radio Products Co., of Kansas City, Mo.?"

"Here is another entry for your 'baby' department, which seems to be ever growing," remarks Bill McPherson, 134 Murray St., Peterborough, Ont. "I have my homemade one-peanut tube set, on which I have received 202 stations in a little over two months. I have received all the 50 k.w. stations in the U. S., 4 stations in Mexico, CMJK and CMAF, Cuba. Some of my best catches in Canada are CKY, CKCR, CFCO and CHGS. I would like to know when to tune in KOB."

We hesitate to give records made on regenerative sets for fear we will encourage readers to build such sets which are nearly always unpardonable squealers and may easily cause annoyance to other listeners for blocks around. Richard Hanau, 308



*A favorite of many thousands of children. Madge Tucker plays "The Lady Next Door." Mondays, Tuesdays, Thursdays and Fridays at 4:45 p. m. EDST and Saturday at 5:00.*

West 11th Street, New York City, writes us of two one-tube sets he has built, the first one using a screen-grid tube and the second a 230. He logged a total of 301 stations with the two sets.

#### The 24 Hour Pest

"I wish to refer," writes H. F. Strain, 15031 Vose St., Van Nuys, Calif., "to the article on page 19 of the April number by Mr. Alfred H. Bacon, New Westminster, B. C. I think his article is swell in regard to the 'wave hogs' and I most heartily agree with him, and especially in regard to our local KGFJ. I have been DXing since 1925 and I have been knocked out of getting nearly every station on the 1200 channel simply due to KGFJ. The only ones that I have on that channel are stations that I got at some time before they went on that frequency. I think it is an outrage and a shame. I know that

there are many more DXers who agree with me. It does seem as though if enough pressure was brought to bear and enough protests sent in that we could get the F. R. C. to do a little something about it. I would suggest that we all pull together and try to get KGFJ to sign off for at least one hour a night, say from one to two, or two to three, during the DX season each year, say from the first of October until the first of May. I don't think that would be asking too much and it would give us DXers here on the coast at least an even break. It would then show that KGFJ was at least human anyway."

#### And the Unlicensed Station

"Here is some more dope on out-laws," complains R. B. Rolfe, 1741 Burnett Ave., Waco, Texas. "The Rosebud station, 720 kcs., has apparently gone off the air, as I can't raise him any more. But there is BLTX on 1000 kcs., in Belton, Texas. They use the slogan 'The Playground of Central Texas' and there is also a station in Taylor, Texas, on 980 kcs. They don't have any special time on the air, as I get them at odd times. The Belton station also comes in at odd times. The Taylor station has never given any call other than 'This is the Cotton Belt station in Taylor.' There is also a station in Temple, Texas, with studios in the Doring (?) Hotel. Their call is also a slogan, 'The Voice of Bell County,' which is all I have ever heard them announce. What has become of XEPN? I can't get him any more. He used to be good 24 hours a day, on 585 kcs., but now I can never get him at all. My radio is a Philco Model 90 9-tube Baby Grand, and 1500 kcs. is as low as the dial reads. The Home Benefit Life Insurance Assn. station in Marlin comes in about as far as 30 kcs. would be below 1500. Are they a shortwave station? My pals say they are. I don't see how they could be."

Arthur Johnson, Secretary Newfoundland Boxing Commission, Box

E5103, St. John's, Newfoundland, sends us this interesting information: "Re: Wrestling Match Enquiry, page 27, April RADEX. While I cannot verify the source of the program, this may throw light on the subject. Wrestling by 10-minute rounds is common in many parts of the British Empire—England, South Africa, New Zealand, Australia (and we have also had some of it here). The short periods and rests give faster and more varied action when the wrestlers are used to the system. Therefore it is safe to assume that it was an Empire station, and from the time of reception, to select New Zealand (or perhaps Australia) but wrestling is more popular in the former."

#### Some Station Affinities

"Alfred H. Bacon, New Westminster, B. C., writes for help about stations who almost absolutely block various kilocycles," writes Miss C. A. Brinkerhoff, 317 Clinton Ave., Oak Park, Ill. "Now I have never been able to tune in KGFJ on 1200 kcs., though I do get KERN and KWG. It seems to me that various radios have super-sensitiveness, for if I bring in a station once that special one is almost always in evidence. On 570 kcs. WEO and WNOX are always there in full force, and only in specially good DX weather can other stations cut in. On 580 I can sometimes cut through WIBW. On 600 WMT, Waterloo, Iowa, day and night is never silent it seems to me. 620 gives WTMJ; 660 WEA; 880 WSUI; 910 XEW; 960 XEAW; 1200 WAAE; 1210 WSBC or WEDC; 1300 KFJ; 1310 WCLS or WKBC spoils all DX usually until after 11:00 p. m. KFJZ is ever evident on 1370; WHFC drowns out everything on 1420 until early morning. These are a few stations which bother me for early DX. Perhaps after 1 or 2 a. m. it would be better and locals would be off also, but it is marvelous how a fine selective radio can act so strangely at times."

Our good friend, Raoul Karman of

CMCF, Havana, Cuba, helps us materially in bringing our Cuban data up to the moment. He thinks there will be three or four new stations in that country soon. Senor Karman adds: "I must congratulate you on your campaign for better reports which has already given splendid results. The percentage of doubtful reports in two late programs I gave this season, was almost Zero—only two or three 'stamp-collectors' in 140 reports."

"May I make a suggestion?" inquires Earl R. Roberts, 105 Gomber Ave., Cambridge, Ohio. "In your list by frequencies, instead of listing the Mex's as being in Juarez, Mexico; Morelia, Mexico; N. Laredo, Mex., etc., why not list them by their states? We know that since their calls begin with 'X' they are in Mexico, but in order to find the state, have to look in the list by states. Would it be possible to list them as Juarez, Chih.; Morelia, Mich.; N. Laredo, Tams.; Mexico City, D. F., etc.?"

This suggestion is well made and there is no reason at all why it should not be put into effect.

### Converter Brought Zealand

W. T. R. Morris, Jr., 3219 Garland Ave., Richmond, Va., reports that he has just brought in his first really distant broadcast station. Says he: "Received my RADEX Map and Time Converter a few days ago and have certainly put it to use. I surely do urge those other DXers who have not as yet sent for theirs, to do so immediately. It has enabled me to bring in ten new stations on the short waves and is responsible for my first New Zealand long-waver."

"Early on the morning of April 23rd, I received a station on 1170 keys. with the call letters of WJKY, Sandusky, Ohio," reports George R. Schneider, 3148 Yorkshire Road, Cleveland Heights, Ohio, who wants to know what this station was doing on the broadcast band. Who knows WJKY?

Sufficient data for a DX Club Di-



*Presenting the "Men About Town" who provide the vocal harmonies for B. A. Rolfe and his Terraplane Orchestra on the Saturday Night Dancing Party over the NBC Red network at 10:00 p. m. EST. Will Donaldson and Frank Luther (top) and Phil Dewey and Jack Parker (bottom).*

rectory will not reach us in time for this issue. We hope secretaries of the clubs will send us the information requested in the May issue, so that we may have a complete roster of the leading DX Clubs of North America in our September issue.

"May I draw your attention to the fact that station WKAV, Laconia, N. H., mentioned in the April RADEX, has been off the air for at least two months?" complains B. B. Bosworth, 50 Clymer St., Burlington, Vt.

"I listened to a DX program over XEFV, Juarez, Mexico, on March 26," writes Charles Meyer, Jr., 411 Blake St., St. Joseph, Mo.," and I distinctly heard them say that XEFV was the greatest little 50-watt station in the world, while in the April RADEX you list them at 100 watts."

# SHORT STORIES *of your* FAVORITES

● ● ● *By "Betty"*

**A** RUNAWAY boy from New York, hungry and broke, leaped at the chance to make fifty cents by appearing in an amateur night show at the Bowdoin Square theatre in Boston.

Years later that boy became the first \$5,000 a week headliner and master-of-ceremonies in the great picture-and-vaudeville houses of America.

Now the boy, Phil Baker, is starring on the Armour program, heard every Friday night over a coast-to-coast NBC (Blue) network at 9:30 p.m. EDST.

The story of Phil's stage career, from that amateur night in Boston, covers well over twenty years.

Returning to his New York home after the runaway to Boston, he eventually became secretary to Carl Laemmle in the old IMP Film Company. Mary and Lottie Pickford and King Baggot were the company's stars. Bored by a secretary's chores, young Phil spent all his leisure moments at a movie house around the corner from his home. He almost lived there, he says, sitting down front and watching with envy the nimble fingers of the girl pianist. One hot night the girl was taken ill and had to leave. The picture was continuing without music when Phil, without invitation, slipped down to the piano and began to play. He could only play three tunes, among them "Hearts and Flowers," but the manager gave him a job, and he was really started on his career.

## And Then to Vaudeville

Phil's first real stage venture was in vaudeville, accompanying a violinist on the piano. Later he formed the team of Bernie and Baker with Ben

Bernie, the "Old Maestro" of today. By that time Phil had deserted the piano in favor of his accordion. When the team split, each became a star in his own right. When America entered the World War, Phil joined the Navy. "That did wonders for me," he declares. "I never had the nerve to speak a line on the stage until I put on that uniform. And now, well, even Beetle can't keep me quiet."

A flash at Phil's career since the war years brings in the names of some of the most successful musical comedies and revues the American stage has seen. He was starred in



*With Myrtle Vail out of "Myrt and Marge" by reason of an automobile accident, Bobby Brown, director of the series, is a busy man. In addition to directing, he now writes the script, a task formerly performed by Myrt. Here's Brown conferring with Marge on the new plot which, by reason of necessity, revolves about the question, "Where is Myrt?"*

"Greenwich Village Follies," and in the "Passing Show." He was a leading factor in the two-year run of "Artists and Models." He was the star in the "Music Box Revue." His comedy and his accordion helped a "Night in Spain" to its successful run of two years.

Only a little more than a year ago, Phil, teamed with Fanny Brice and Ted Healey in "Crazy Quilt," astounded the theatrical world by carrying that production to every key city and every likely one-night-stand in the country.

Outstanding in Phil's record is a run of twelve consecutive weeks in the Palace Theatre in New York. That was the achievement that made him the first \$5,000 a week headliner in history. Phil acted as master-of-ceremonies in addition to producing his own act.

Strange as it may sound, Phil doesn't relish the idea of being called a comedian. Every time he begins rehearsal for a new show, he extracts a promise from the management that he be given one classical solo on his accordion, and he has carried that idea into his radio programs.

### The Rise of "Myrt"

Once upon a time there was a beautiful chorus girl who fell in love with the tenor lead. The girl was Myrtle Vail, known to several millions of radio listeners as "Myrt." The tenor lead is George Damerel, famous as the "Prince" during the long run of "The Merry Widow."

Myrtle stepped into the theatrical picture at the age of fifteen, in the back row of the chorus in the then-current show, "The Umpire." From her isolated position she took one long look at the rising star, Damerel, and fell in love. Damerel was so busy with the make-believe love-making on the stage that more than a year passed before he realized the real thing was going on back stage. Then came a prompt marriage and one of those story-book types of stage partnerships.



*Phil Baker and his Accordion*

They have two children—the daughter, christened Donna, is now better known as "Marge," her mother's partner in the "Myrt and Marge" show. The son, George, Jr., is now 14 years old, a student in a California military academy.

Two years after their marriage the Damerels were playing opposite one another in "The Merry Widow." When Franz Lehár wrote the first condensed version for vaudeville presentation this couple grabbed the rights and toured the big-time circuits with the piece, as "Damerel and Vail." In eight years they crossed the continent eleven times in the two-a-day. Then young Donna was placed in a private girls' school in Chicago, with instructions that anything pertaining to the stage be omitted from her curriculum. Myrt went into temporary retirement, and George, Jr., appeared on the scene.

A year later she was back with her husband in vaudeville. This time she was writing the acts.

When Donna was fifteen, she served notice on the family that she was joining their act, or some other act—this in spite of the private school influence. The show became Damerel, Vail & Company," Donna being the "& Company." For two years she toured with mother and dad. Then they bought a chicken farm, and took up real-estate as a sideline, and a sub-division was soon flourishing.

When the stock market took its famous nose-dive, dragging real estate values along with it, Myrt remembered those vaudeville skits she once wrote. She remembered all of the real-life tragedies and comedies behind the scenes, often far more vividly than those before the foot-lights—and "Myrt and Marge" was born. Of course, there were a few difficulties in getting those first sample scripts before P. K. Wrigley, but a girl who'd spent some sixteen years fighting for success could hardly be stopped by a half-dozen secretaries. And in radio Myrtle Vail has attained a success greater than that afforded by musical comedy, vaudeville, chicken-farming, or real estate.

#### The Official Weeper

Most young ladies can get along with their weeping with the aid of a small hankie, but earning a living by crying requires more equipment. And any time you hear a baby crying on NBC programs, you can be pretty sure it is Sally Belle Cox, aged twenty-five.

The beginning of Miss Cox's unusual professional career was described in a recent issue of the New Yorker magazine. "Miss Cox seemed destined for a tearless life when, five years ago, she got a job at an orphan asylum in Cleveland," the New Yorker said, and told how she amused the children by imitating a wailing child. "It brought down the house, and the squawler shut up and let somebody squawl that could squawl. One day she read in the paper that the one sound the radio people had had no



*Sally Belle Cox*

success in imitating was the wailing of a baby. Miss Cox put on her hat and went right up to the National Broadcasting Company. She cried for several officials, and was solemnly hired."

She uses the pillow to help her cry in various ages, from an hour to fourteen years old. She laughs and coos, too, and her varied imitations are heard on many NBC programs, including the Maxwell House Show Boat, on Thursdays at 9:00 p.m. EDST, over an NBC (Red) network, on which she has the important role of Henry Maxwell.

\* \* \*

You can't tell these radio artists by their names—particularly after the numerologist has been working on them. Latest to fall under the spell of the "number lady" are the Neil Sisters, that trio of blonde blues singers. In the home town of Indianapolis, Lucille, Ann and Gwyneth are known as the Neal girls. But they were told that luck, fame and fortune awaited them if they put an "i" in their name.

# THIS SUMMER *on the* SHORT WAVES

● ● ● By PAGE TAYLOR

**M**ANY of our readers who are constructing the converter described in Mr. Dashiell's department are probably wondering just what they will be able to hear on it before "good DX commences again in the winter." These persons who have tuned exclusively in the broadcast band may be surprised to learn that the greatest distances are more easily accomplished on short waves during sultry summer weather than during the winter months. Many stations are very difficult to tune during the winter while they are heard with tremendous volume in the summer. This is particularly true of the Australian stations.

On completing the converter the builder should confine a few days to becoming familiar with it, following the procedure outlined in the article "Breaking into the Short Waves" in the May number of *RADEX*. After the required fundamentals have been acquired, if the tuner will confine his efforts to the ten best stations mentioned this month he will avoid many pitfalls usually encountered by the beginner. Perhaps of greatest interest among the stations listed are the two Australian stations.

## The Friendly Australians

These friendly stations are among the oldest short wave stations in the world, VK2ME having broadcast the first British Empire Program on September 5, 1927, on a wavelength of 28.5 meters. Since that time Amalgamated Wireless has pioneered in many radio activities, adding immeasurably to our store of radio knowledge. Their efforts to please by transmitting interesting and instructive programs are earning for them the reputation once held by PCJ, that of being the station with the largest audience in the world.

The present series of World Wide

Broadcasts was inaugurated on July 5, 1931, and continues to hold the interest of thousands of fans. These programs are transmitted every Sunday morning and may easily be heard by anyone with the most simple kind of receiver. The schedule of 2ME is changed slightly each month so as to obtain optimum results in each zone to which the various parts of the program are addressed. The schedule for the next three months will be as follows, time in EST.

June: 12 to 2 a. m.; 5 to 9 a. m.; 11:30 a. m. to 1:30 p. m.

July: 12 to 2 a. m.; 4:30 to 8:30 a. m.; 11:30 a. m. to 1:30 p. m.

August: 12 to 2 a. m.; 4:30 to 8:30 a. m.; 10:30 a. m. to 12:30 p. m.

VK3ME is heard on Wednesday mornings from 5 to 6:30 and on Saturdays from 5 to 7 a. m., EST. De-



*Permit us to present the distinguished Lieutenant Commander Rudy Vallee in his pretty new uniform. Rudy enters the navy via the staff of the Governor of Maine. The Lieutenant Commander still directs the Fleischmann Hour on the NBC-WEAF net each Thursday night at 8:00 EDST.*

spite the fact that 3ME uses only 4000 watts as compared with 2ME's 12,000 watts, the volume and quality of the two stations is about equal.

Amalgamated Wireless is very anxious to receive reports of reception and always acknowledges them. They may be addressed as follows:

VK2ME: Amalgamated Wireless (A/sia), Ltd., 47 York St., Sydney, Australia.

VK3ME: Amalgamated Wireless (A/sia), Ltd., Box No. 1272L, Elizabeth St. P. O., Melbourne, Australia.

### Ten For Practice

Following are the ten stations most often reported to us by readers. These are recommended especially to beginners as the most dependable and most easily tuned of the stations broadcasting musical programs regularly.

- 6,050 49.56, GSA, Daventry, England.
- 6.119 49.00, YV1BC, Caracas, Venezuela.
- 6.618 45.31, PRADO, Riobamba, Ecuador.
- 9.503 31.55, VK3ME, Melbourne, Australia.
- 9.510 31.53, GSB, Daventry, England.
- 9.585 31.28, VK2ME, Sydney, Australia.
- 9.862 30.40, EAQ, Madrid, Spain.
- 11.711 25.60, Pontoise, France.
- 11.753 25.51 DJD, Zeesen, Germany.
- 11.800 25.40, I2RO, Rome, Italy.

### The T-P Phones

We have been advised that the stations owned by Transpacific Communications, Ltd., located at Dixon, California (KWO, KWU, KWV and KWX) have been licensed to add Manila as a point of communication, while KEE at Bolinas is now authorized to communicate with Shanghai, Manila and Honolulu. These circuits are not yet in operation, but the trans-Pacifics will be as follows:

The stations of the Radio Corpora-

tion of the Philippines, Plaza Moraga, Manila: KAX, 19.980; KAY, 14.980; KAZ, 9.990; KBI, 21.140; KBJ, 13.240; KBK, 6.680; KTO, 16.240; KTP, 8.120; KTR, 10.910; KUS, 18.220; KUV, 12.280; KUW, 9.110. The frequencies are given in megacycles. Of these, KAY and KAZ have been heard testing by readers.

Whether new stations will be built at Shanghai is not known, but it is believed that the stations of the Chinese Government Radio Administration will be brought into use. These stations are, XGK, 18.692; XGL, 7.963; XGN, 16.383, and XGO, 7.575 megacycles. They may be addressed at Sassoon House, Jinkee Road, Shanghai, China.

Mr. E. N. Luken, a RADEXER in Crooks, S. Dak., reports station WXH at Ketchikan, Alaska, on 45 meters or 6.662 megs., testing with WBD or WVD, Seattle, Wash., on 45.3 meters or 6.618 megs. It appears that the long awaited Alaskan radiotelephone circuit is now in operation.

### Airways and Police

Of particular interest are the new Canadian Airways stations. CJU, Winnipeg, Manitoba, operates on 86.9 and 97.7 meters (3.450 and 3.068 megs.). The other stations are UYO, Echo Bay, Northwest Territories; CGK, Ft. Chipweyan, Alberta; UYN, Ft. McMurray, Alta., and UYM, Fort Rae, N. W. T. These four stations transmit on 2.481 megs. (120.8 meters); 3.450 (86.9); 4.751 (63.1); 8.353 (35.89), and 12.951 (23.15).

Several new police stations have recently been licensed, the first of these not yet having call letters assigned. It is located at Asheville, N. C., and uses the 2458 kcs. frequency with 100 watts. Others are:

- WPEL — W. Bridgewater, Mass., 1574 kcs., 500 watts.
- WPFJ—Columbus, Ga., 2414 kcs., 50 watts.
- WPOF—Knoxville, Tenn., 2470 kcs., 100 watts.

Station WPEY at Chattanooga, Tenn., has been deleted.

Hialeah, Florida, station WNC, has been heard working with several South American countries in addition to the formerly chronicled Pan-Americans. All the stations which have so far been heard talking with WNC are listed here: Argentina, LSR; Bahamas, VPN; Chile, CEC; Colombia, HJB and HJP; Costa Rica, TIR; Guatemala, TGA; Nicaragua, YNA; Panama, RFX; Peru, OCI, and Venezuela, YVQ. CEC, OCI and LSR are usually heard near 3-4 p. m., EST. and TGA and YNA near 5-6 p. m. The others are on the air at various times during the day from 10 a. m. to 6 p. m.

### From the Other Side

One of our overseas correspondents reports some stations that may interest readers who like to fish for those hard-to-get ones. Mr. H. N. Walker of Brisbane, Australia, reports that VK6AG at Perth, Western Australia, has returned to the air on 40 meters, transmitting at a time that is hardly favorable for general reception in the United States. Readers on the Pacific Coast may be able to hear it near 6 a. m. on Sundays, Pacific Time. The station of the Kuala Lumpur Radio Society located at Kuala Lumpur, Federated Malay States, broadcasts several mornings each week on 49.1 meters with the call sign ZGE. It has been heard a few times in the U. S. A. near 7 a. m., EST. A station that should be received here is VWZ at Kirkee, Poona, India, working duplex telephony with London. VWZ is on 17.3 meters. From 6 to 8 a. m., EST. should be the most favorable time for reception. Quoting from Mr. Walker's letter, "On Thursday between 2:30 and 3 a. m., EST., I heard KOR calling GMBJ, the Empress of Britain, on 40-41 meters and on Friday heard KOO, 38-39 meters working the same boat. KOO and KOR are at Dixon, Calif. KAY, Manila, has been on a lot lately, gen-



*Dolores Gillen, attractive young NBC dramatic actress, plays the part of Alice Dudley, daughter of the newspaper editor in "Northwestern Chronicle" on the Blue net Sundays at 2:30 p. m. EDST.*

erally between 5 and 8 a. m., EST., on 14,980 kcs., working with Berlin. VK2ME has been testing with VJDY, the S. S. Katoomba, which plies between Sydney and Perth. A few nights ago on about 32 meters, heard Mukden, Manchuria. The call here seems to be accepted as ZILY."

### S.W. DX Chat

We are printing this month a short article on station TI-4-NRH of Costa Rica, which was written especially for RADEX, by Sr. Amando Cespedes M., the operator of the station. This will be found on another page and we are sure readers will find it highly interesting, being written by the man who has done more than any other person to spread the fame of that little Central American Republic.

"All you short-wavers who want to get a really elaborate verification from a pretty hard-to-get station, try for TI-4-NRH on 31 meters, suggests W. T. R. Morris, Jr., 3219 Gar-

land Ave., Richmond, Va. He continues, "They sent me one and it's surely the best looking veri I've ever received. NRH takes pride in the fact that it is the only amateur station in the world providing programs for the short wave listener."

Doyle E. Carpenter, Emmetsburg, Iowa, comments on his reception of PHI, Huizen, Holland, at noon, announcing in English. He writes: "I have also heard PCK this week. They were working with Bangkok near 2 p. m., EST. DIQ was on Wednesday p. m., at about 8 o'clock with music, and also heard DJC the same night. Have been getting Radio Coloniale well on all three freqs. Its address is 103 Rue de Grenelle, Paris. I get their new broadcast in English best near 8:45 a. m., on 15,234 kcs."

"GSF has become my best 19-meter station," writes Geo. K. Glass, 1320 Cadillac Blvd., Detroit, Mich. "I received a card from VK2ME verifying my log just 9 weeks after the reception. I also got quite a booklet from YV1BC replete with photos and even a Lucky Strike ad." Mr. Glass lists 19 new stations received in the past month . . . says he is able to hear YV1BC with W2XE on top of it . . . and expresses his satisfaction with the promptness and courtesy with which the BBC verifies the Daventry station reports.

J. F. Maney, Spring Lane, Stoneham, Mass., says he "can't understand how those fellows with 11-tube sets fail to get foreigners. Have a National SW5AC and aside from Java, Japan and Russia have heard everywhere else. PHI came in with terrific volume last Saturday." Mr. Maney would like to hear from owners of the National FB7.

A reader who wishes his name withheld reports a Colombian station near 42 meters at 9 p. m., announcing their location as an island possession of that country.

The schedule of VE9GW as given in the lists this month was contributed by Alf Raymond, Avon, Ill. He also reports fine reception from EAQ



*Carveth Wells, traveler, explorer and naturalist, who makes the truth sound like a terrible whopper. He turns natural history into a "believe-it-or-not." On a split NBC Red network from Chicago at 10:30 p. m., Wednesday, EDST.*

and GSA on his Philco converter.

With a good log of stations in Australia, Europe, Africa and Asia, Bartlett Bemister, 522 Clifton St., Winnipeg, Man., is unable to hear anything in South America, Guatemala City, station TGX being the closest he has gotten. He is 16 and would be pleased to hear from other 16 year old readers.

"Patience probably plays about 50 per cent of a good DX record," advises Clarence Sargent, Dansville, N. Y. "I was tuning in the 20 meter band for about 2 hours and was about to give up when OA1B, Negritos, Peru, came in. Tuned in EAR262, a Spanish amateur, after listening an hour to all those 41 meter codes."

"I have been an ardent short wave DX'er for the past two months," advises Henry King, Jr., 743 Simpson St., Atlanta, Ga. "I have such foreigners as DJD in Germany, which signs off daily near 4 o'clock, I2RO in Rome, EAQ, Madrid, like a local, YV1BC, Caracas, which I can hear

in spite of W2XE, Daventry, on three wavelengths, VK2ME early Sunday mornings with their laughing Kookaburra, and the travel talks about Australia, and, best of all, NRH in Costa Rica. As I work nights my listening during the week is confined to the day time. I would like to hear from anyone else who gets good daylight reception."

Richard Zorn of Tucson, Ariz., tells us that he logged EAQ on the loudspeaker every day for a month. He has heard stations on every continent, not to mention numerous ocean liners, airplanes and police stations.

"Although I have no television set, I enjoy the television sound stations," advises Frank W. Pollitt, 1427 Reisterstown Road, Pikesville, Md. "I think W2XAR, Long Island, on 1550 kcs. and W1XAU, Boston, on 1550 present very good sound programs."

"I haven't seen many reports in RADEX regarding reception of ship to shore transmissions, so here's some dope that may be of value to the fans," contributes K. P. Williamson, of Montreal. "For the last few months I have been listening quite

frequently between 6 and 9 p. m., EST., on and around 4 megacycles, to ships talking to WOO on 4.75 megs. I have heard DDAS, DDNY, IBLI, VTSX, VPTG, WSBN, GLRZ and GMBJ and can be sure of one of the Bermuda ships almost any night. My best catch is the 'Empress of Britain', 1800 miles off New York. The 'Monarch' and 'Queen of Bermuda' can also be heard talking to VRT-ZFA in the early evening, the Bermuda phone having a very strong signal.

"Regarding the Empire's stations GSA, GSB, etc.," adds Mr. Williamson, "it may be of interest to readers to know that they merely acknowledge reports with a printed card which says: 'We regret that we do not issue specific verifications of reception.'"

#### His First Results

"Although several others here have had this same converter and could get no satisfaction with it, I am very much pleased with the Philco s. w. converter which I purchased a week or so ago," reports Eugene L. Beebe, 210 Franklin St., West, Jackson, Mich. "I am using it in connection with a

*Authors of "Somebody Loves You" and other song hits, May Singhi Breen and Peter de Rose (otherwise Mr. and Mrs.) are heard in piano and ukulele melodies each morning at 10:00 EDST excepting Tuesdays, Thursdays and Sundays.*



Sparton 7-tube super. I am on the second floor of a three-story building, four blocks from downtown district, and have only a picture-moulding antenna and a ground to a steam pipe and consequently have much man-made static to contend with.

"The first night or two I received nothing but U. S. and Canadian stations including some 35 police, a few airport and airplane stations, and, of course, quite a number of amateurs. However, on the third day, which was Sunday, I received GSE and GSF with good loud speaker volume. A few evenings after that I received a station announcing as HJ-4-ABB at Manzanales, Colombia. Later I received HJB at Bogota, Colombia, with quite a long broadcast which I held for sometime or until man-made static stopped my activities. All my listening is necessarily done before 10:30 p. m. as I have not yet adapted a set of headphones to my set.

"Whether fate was kind to me or whether I was more careful in tuning for foreign stations than the average new s. w. fan, I do not know. I feel that if I had a real good antenna, a

good location away from local interference and a good ground, I could pile them up quite fast for a time at least.

"As a result of my last letter in RADEX I have acquired several new friends in different parts of the country and I would be glad to hear from others particularly those who are using Sparton sets or Philco converters."

From Benigno Contreras, Box 74, Marina Station, Mataguez, Porto Rico, comes this report: "Although static has been more bothersome than ever this season and I am disappointed in my b. c. band reception, on the short waves I have had better luck. I have added Hawaii, Holland, Jave, Portugal, Costa Rica and Switzerland to my list of countries heard which now totals twenty-five."

"My log shows 543 stations, both long and short wave," advises C. C. Bargaen, Box 224, Mountain Lake, Minn. "On the short waves, I have GSA, GSC, GSD, DGT, YV11BMO, YVQ, I2RO, PLV, VK2ME, VK3ME, FYA, HKC, and VE9GW, the latter in daytime as clear as W8XK."

## INSURE YOUR RADIO ENJOYMENT

SEND THIS BLANK TODAY

The Radex Press, Inc.  
Hanna Building  
Cleveland, Ohio.

Enclosed find \$.....for which send me postpaid my choice of your offers as checked below:

- |  |                                    |                                    |                                    |
|--|------------------------------------|------------------------------------|------------------------------------|
| Program "Slates".....  | <input type="checkbox"/> 1 for 10c | <input type="checkbox"/> 2 for 15c | <input type="checkbox"/> 4 for 25c |
| <input type="checkbox"/> One radio map of North America.....   |                                    |                                    | 15c                                |
| <input type="checkbox"/> One Radio World Map and Time Converter.....   |                                    |                                    | 25c                                |
| <input type="checkbox"/> One copy of the next RADEX.....   |                                    |                                    | 25c                                |
| <input type="checkbox"/> Trial subscription, next five issues of RADEX.....                                      |                                    |                                    | \$1.00                             |
| <input type="checkbox"/> One year's subscription to RADEX, 10 issues and World Map-Converter, free.....          |                                    |                                    | 1.75                               |
| <input type="checkbox"/> Two subscriptions to RADEX with one leatherette cover and Map-Converter, both free..... |                                    |                                    | 3.50                               |
| <input type="checkbox"/> One two-year subscription with leatherette cover and Map-Converter, both free.....      |                                    |                                    | 3.50                               |
| <input type="checkbox"/> Leatherette Cover.....  |                                    |                                    | .50                                |

Write Name plainly.....

Street and Number.....

City and State.....

*No extra charge outside the U. S. A.*

# FINAL Reports on Closing Season

• • • *From the Radexers*

**E**ITHER radio is permanently improving due to the activities of the engineers, or the season of 1932-1933 has been an unusually favorable one and the pendulum may swing backward another year. There is no doubt that more and farther stations have been reported this season than in any that have preceded it. Scores of our readers who have fished in vain for those elusive T-P's in the past, have this year brought them in. And more of them have been reported from the Middle West and even from the Atlantic Seaboard than ever before. No longer are they confined to reports from the Pacific Coast division of the fraternity.

## Has Ten T-P's

"I operate a 1932 Lucerne 7-tube TRF Northern Electric set," declares William Ansell, 168 Wascana St., North Regina, Sask., "and on November 15, 1932, my log stood at 137 stations, and then I commenced DXing, and to date my log has reached 369 stations, an increase of 232 this winter. I have logged 43 states and in addition the District of Columbia, KGBU, WKAQ, and KGU; 7 provinces in Canada; 5 Cuban and 19 Mexican. My trans-Pacific log to date is 2CO, 3AR, 5CK, 2YA, 4QG, 3LO, 2BL, 4RK, 3HA and 4BC. Have also heard one Chinese and several Jap stations, but have been unable to log them. My log consists in part of 110 stations operating on 250 watts power and under, including 81 100-watters, but, with the exception of trans-Pacific stations, I consider my greatest catches to be CKIC, Wolfville, N. S., and CHGS, Summerside, P. E. I., 50 and 100-watters respectively. I can use from 90 to 400 feet of antenna including lead-ins as conditions require, and have often used the maximum in order to

log some of the Australians first, having found through experiments that directional aerials give me greater reception in the direction I am searching.

"Following is a quotation from my verification from 4BC: 'Your two most interesting letters of the 17th and 19th December, '32, reporting reception of 4BC programmes to hand with thanks, and we wish to congratulate you on your very excellent reception. The programme accurately reported in your letter of the 17th December was a relay from 200 miles away in the Australian bush of a real Aboriginal Corroboree, which was relayed to every Australian state and from station 3ME, Melbourne, on short waves for European reception. Your letter of the 19th December is practically a



Introducing H. V. Kaltenborn, expert commentator on world affairs, whose program, "Current Events" is heard each Sunday at 7:00 p. m. EDST and Thursdays at 6:00 p. m. EDST, over WABC and the Columbia network.

word by word report of our programme and the session featuring the Kelly family is a serial comedy drama presented one episode per week, entitled 'On Enterprise Farm,' and is a feature presented on behalf of United Metal Industries of Brisbane, Queensland."

### Spokane Gets News via Japan

"Had a rather interesting experience this morning while listening to the Japanese," writes S. S., R. No. 4, Spokane, Wash. "This morning DX seemed to be in the doldrums so decided to listen to the Japs awhile, and at 2:45 tuned in JOIK and heard a fellow say in English, 'So she said to Walter,' followed by a minute's talk in Jap, when this sentence was repeated, some more Jap, then, 'And he made her queen of the Broadlands.' This was also repeated after a little more Jap explanations, then more English sentences, followed by more Jap. After about

ten minutes of this the whole story was read in English, sentence after sentence. Very evidently this was a lesson in English, with a fairy tale as the practice theme. At 2:55 a man with an English accent took the air and read news cables of world interest. The first news was of the Jap situation in Manchuria. Then a cable from Washington regarding prohibition here, followed by a report that Mayor Cermak was dangerously wounded by the assassin. Then a few New York stock exchange quotations. Then a cable from Ottawa and one from London. This news was broadcast from 2:55 to 3:00 a. m. PST, over the entire Japanese network of 10kw stations, as were the English lessons. While this is the first time I have heard this, it is probably a regular nightly feature. This was the first time I have listened to a Jap for any length of time. The Japs have been coming in here very well this winter, and it was no more difficult to hear every word in their English program than in a news report from nearby domestic stations. As a coincidence with the news report, we have been snowed in here all this month (February) and our last mail delivery came a week ago. I live ten miles from the city. But here I am getting the latest news from Japan."



Meet the "Greek Grocer" with Fred Waring and his Pennsylvanians on the Old Gold program, Wednesdays at 10:00 p. m. EDST. Take our tip and listen to him murder the good King's English. In humdrum, every-day life he is George Givot, of the Omaha Givots.

### Europe From Santa Barbara

"Having become interested in the DX game only a short time ago," writes E. B. Martin, Deane School, Santa Barbara, Calif., "I cannot boast of long use of RADEX, but the two issues I have used have afforded me every possible advantage in getting distance. I have been DXing for three weeks with my new Scott All-Wave and am very pleased with its performance. Please find for me, either through your readers or through Washington, the address of EAJ1, in Barcelona, on 860 keys. I have a very nice program received from them last Tuesday and have been trying frantically to find their

address, because I wish to verify this, my best catch. Europe from Santa Barbara! I failed to understand their Spanish, but have the music, time, etc. I am buying a phonograph hook-up to take records of my more distant stations. Now for the statistics. In those three weeks, by rather concentrated effort, I have logged 308 long-wave stations and 120 short-wave, making a total of 428 stations. Among the long wave are the following: 32 in Australia, 17 in Japan, 4 New Zealand, 2 Tasmania, 4 Cuba, 2 Hawaii, 2 Alaska, 1 Formosa, EAJ1, and of course XGOA, and 18 in Canada and 14 in Mexico. This makes 97 foreign stations or 57 trans-Pacific, and 211 U. S. stations. The latter record is rather poor because I spent most of my short time on the foreign ones. On short wave I have the usual Europeans and 7 in South America. Lots of police and airport stations bring the total to 428. Your magazine has been the deciding factor in bringing out what I believe is a good record from a superb radio."

#### Take Your Choice

"In your April issue, I notice some of your readers have received verifications from 4RK in Rockhampton on reports about the recent cricket matches played in Australia," remarks Clyde W. Ham, 1002 S. Lafayette St., Shelby, N. C. "I would like to say that the following Australian stations broadcast the matches: 5CL, 5CK, 2FC, 2BL, 3LO, 3AR, 4QG, 4RK, 2CO, 7ZL, 6WF, 2GB, 5KA, 2UW, 5DN, 3UZ, 4BH. All of the class A stations gave the scores at the fall of each wicket. Talks were given from other stations by the following: Don Bradman, W. Woodfull, and Stan McCabe. I am of the belief that your readers who received veris from Rockhampton did not really hear 4RK, but did hear Poste Parisien. Some of your readers will want to know what I mean by this. Well 4RK was broadcasting the matches as explained, as was the French station, both at practical-

ly the same time, so naturally if a report was sent to 4RK he would verify it because he was really broadcasting the matches, but still they could have been coming from Parisien, and again it was really too early for reliable trans-Pacific reception. This is the reason I think it was not 4RK, but Poste Parisien."

#### His Year's Report

"Well the DX season is all over the shouting, so I will do mine now," exclaims Lee F. Blodgett, 917½ W. Montgomery St., Creston, Iowa. "I have never had an article about my DXing in print except for the local paper news items. As I live in a small town I have a lot of my good verification news published in the local newspaper. I now have 545 stations in my log from 11 countries of the world. I have 10 countries verified to date. My best foreign stations are: 2YA, 2BL, 4QG, 4BC, 5CK and KGU. Of this list 4BC, 2YA and KGU verified, as well as JOIK and JOCK of course. I also have WKAQ and YV1BC verified. I now have 331 verified in 44 states of the U. S. A., 6 provinces of Canada verified, but I have heard 7. I have 7 states in Mexico heard and 7 verified. My set is an Earl Model 21-22, using none of the screen-grid tubes. The antenna, which I intend to junk for a cage type next season, runs N-W by S-W on the first 100 feet and S-W by N-E on the last 50 feet, with a lead-in directional on Australia. I would appreciate receiving any information on a cage antenna that anyone who has tried one can give me."

#### Verifies 100 Per Cent

"After reading of the numerous DX catches by many readers," comments C. Hesterman, 506 Fourth Ave. N., Saskatoon, Sask., "I, with many misgivings, submit my own list. I have verifications from some of the stations and the others should come within the next two weeks. Not one



*Pearl Pickens is registering something or other as she listens to Carson Robison in the Friday night series "Triple Bar X Days and Nights" on the CBS at 8:30 p. m. EDST.*

of the stations has failed to send verification to date. Therefore I am very optimistic regarding those yet to come. I make it a set rule never to ask for verification until I have heard at least two station identifications and thirty minutes of the program. Class me with the 'Baron' or 'Ripley' if you will. Nevertheless I have sent to most of the Australians and New Zealanders a log of reception that encompasses from two to three and a half hours of their programs, with very few blank spaces due to fade-outs, static, etc. Now follows a list of my star catches. Don't forget all these stations were heard for more than an hour and a half at least: 2CO, 7ZL, JOAK, 3AR, 5CK, 4YA, 2YA, 5CL, 4QG, 3LO, 1YA, JOIK, 2BL, JOBK, 4RK, 2GB, 5DN, 3YA, 2UE, 4BC, WKAQ, KGU, YV1BC, CMX, CMBY, CMCD and CMCJ. I must thank RADEX for them all, as it showed me just where to go for them."

"Concerning the publicity on those remarkable catches of five and ten-

watters half way around the globe, while I don't question their authenticity, my sympathies are all with the anonymous agnostic," complains Arthur L. Robb, Topeka, Kans. "My claim to recognition lies in the fact that I have never heard Japan, Hawaii, New Zealand, Australia, or cricket matches. The only station I have heard off of the North American continent was HJN on the morning of February 26th. While countless other listeners had 'enormous volume' and 'heard call and location 15 times' I had a hard time holding a faint signal long enough to hear one station identification. Here are some questions: Does XER use the call XEF any more? I haven't heard it now for about a year. Also, has anyone heard XEPN since it left 885 for 585?"

#### Logs Italy On B. C. Band

"I just want to tell you what I have been doing with my 2-tube battery receiver," writes Charles H. Peterson, W2CFW, 168 Beacon Ave., Jersey City, N. J. "Have had the set about a month and have heard 37 states and 5 countries. My best catch is IMI in Milan, Italy. I heard them on the morning of March 25th and was listening to them from 2:30 to 4:00 a. m. EST., on 905 keys. They were coming in fairly well, but managed to get enough of their broadcast to send for a verification. Perhaps some of your readers heard this station also. I think that the morning of March 27th was about the best morning I ever heard. All the west coast stations were coming in as loud as Chicago. Some of the stations I heard were KPO, KGO, KHJ, KFI, KGER, KSL, KDYL, KECA, KEX, KNX, KGB, KFPY and finally finished the evening with KERN, the little 100-watter in Bakersfield. I built the receiver, using the old Ambassador coil to kill time while I'm not using my amateur transmitter. I operate an amateur station and operate on the 20 meter band, but DX has been so poor down there

lately that I built this little outfit."

"Have a DX log of 533 stations, all verified by either card or letter and am a member of the Buffalo News DX Club," advises Joseph B. Reilley, 5 Forest Park, Jamestown, N. Y. "Am a make-up man on our morning newspaper here and get home about 2:30 a. m. just in time to DX. All my verifications but ten are verified from stations heard after 2:30 a. m. and are all real verifications. Have all our states verified, all the provinces of Canada (never have had Newfoundland), have a dozen from Cuba, the same number from Mexico, WKAQ in Porto Rico, YV1BC in Venezuela, HIX in Santo Domingo, and expect one from HJN in Bogota soon. In the summer of 1931 I received \$5.00 in gold from the Buffalo News DX Club for logging the longest distance, smallest powered station during June, which, as you know, is about the noisiest month of the year for DX, and the station was KFPM in Greenville, Texas, using 15 watts, and have a verified letter of ten consecutive records, verified by the owner himself, which I think is the most valuable verification in my collection."

#### Revises Log Monthly

"In the six months since October 1st, I have logged 365 stations on the b.c. band, including 329 in the U. S., 22 in Canada, 7 in Mexico, one in Porto Rico, and one in South America," reports Alf Raymond, Avon, Ill. "I have logged stations on all of the 97 channels, and 44 states. My log is on the same plan as that of A. L. Long, Oklahoma City, in that I never log a station unless I hear the call letters and I am DXing for my own pleasure. I revise my log every month with the latest copy of RADEX, and the stations logged, as numbered above, are all active stations and are listed in the new copy of RADEX. Here are some stations to illustrate my plan. I did not add another station to my log when the call XED was changed to XEAW, or when

WTSL was changed to WAML. Neither did I again count XEPN when they changed their wave from 885 to 585 keys."

"Although I have been a Radexer since November, 1931, this is my first letter to you," greets Wilkins B. Green, 63 Thyra Ave., Toronto, Ont. "I have a Kolster CK66 model, which I have had since last May, and since then I have managed to log 494 stations, of which 84 are 100 watts, 8 fifties, 4 twenty-fives, 2 fifteen, and one lone ten. I have logged 84 over 2000 miles away. Some of my best catches are 2YA, KGU, YV1BC, HJN, KXO, KPCB, CKMO, KFPM and several others. In regard to the records claimed by some of your listeners, I would like to say that in radio reception almost anything is possible. Take the incident of my reception of KFPM, a 15-watt station over 1500 miles away. At the time of the reception it came in a great deal louder than WEBR, a 100-watt station on the same band, but only 40 miles, and it was as loud as



*And this is the one-man radio show—Smiling Ed McConnell—who is heard each Sunday at 2:00 p. m. EDST from Cincinnati over the Columbia net.*

WBBM, Chicago, was that night. So why not anything!"

### Best In Four Years

Guy B. Welch, 114 Brown Street, Reynoldsville, Pa., thinks "there is no doubt that this year has been the best for reception in the four years past. This is indicated by the fact that I can pick up Australian and New Zealand stations which I have tried to hear in other years ever since I started and this in spite of the fact that my old 8-tube Philco is now in its last stages. I'm sure that with a new set similar to mine I could have logged at least 20 foreigners." Guy reports the following "outlaws" now rampant in his state and wonders what the FRC is doing: WJAE, 1030 kcs., in Brookville, Pa., on daily; XYZ, 1010 kcs., Dubois Pa., daily; WRT, 800 kcs., Indiana, Pa., daily; have other readers logged these?

"After reading other readers' reports in DXing, I thought I would tell you about mine, since I am rather proud of it," comments C. Albin Johnson, 561 Trenton Ave., Wilkesburg, Pa. "I have only been DXing since last October and to date I have received 222 stations. I have only recently started writing for verifications. Included are stations from Mexico, Canada, Cuba and Porto Rico. I have not had such good luck with the far western states. I have logged quite a number in California, but that is the only state in the far west where I have logged more than one. The best I have received are KABC, KDB and WKAQ, Porto Rico. Am using an American Bosch Model 200. Am not using any aerial as it works better when I attach the aerial connection to my ground."

"RADEX started me DXing," blames J. Dickenson, 2109 Winnipeg St., Regina, Sask. "Being a policeman I can tune in when I get home in the morning at 4:00 a. m. My log stands at present at 171 stations, all of which are listed in RADEX and are operating at present. I am using a Philco Model 20 Baby Grand TRF.

On the morning of April 9th I received the surprise of my life when I tuned in 2CO, 2YA, 4QG, 3LO, 4BC, and on April 11th and 12th I again tuned in 4QG. I noticed something which I have not seen in print in your magazine and that is the wave band is very narrow. In other words, it requires finer tuning for Australia. Those who have been trying for Australia better take note. No one would believe me when I told them what I received on a Baby Grand, so I am getting them verified, if I can. I received KGU also on March 25th."

### Regarding CMQ

"I have just received my verification from CMQ," announces Francis E. Andrew, 96 22nd St., Warwood, Wheeling, W. Va. "They write in English and have changed power to 500 watts. They inform me that they are on the air every Sunday from 2 to 3 a. m. with special programs dedicated to radiofans in foreign countries, which we hope you will enjoy. I have been logging stations since March 17 and have 151 to date. Have sent to about 70 for verification and have received 29 to date. I know that most of these are commonplace, but I really am proud of WLBC. My radio is four years old and has very little selectivity. I am about 250 feet from a street car line. There is also a leaky transformer across the street which, despite numerous protests, is still interfering."

"I never did any DXing until three months ago," confesses Theo. Emmons, 88 River St., Niles, Mich., "and since then have logged several 100, 250 and 500-watt stations on the west coast and Canada. Some of them are KXA, KGDM, KFVD, KMPC, KFWL, CHGS and 10-BP, a 25-watter. My two best catches are HJN and 2YA. I logged an hour of HJN's DX program on Sunday morning, February 26. This program was announced in English, the call letters being given after every musical selection. I received them on 685

*(Continued on page 75)*

# FAN CHAT *from the* Pacific Coast

● ● ● By CHARLES C. NORTON, *Vice-President Transcontinental Radio DX Club*

**T**OM WALLACE was born in Bisbee, Arizona, about 32 years ago; is 5 feet 10 inches tall, weighs 170 pounds, has blue eyes, light brown hair, athletic shoulders and clear-cut features. At high and college he excelled in sports: football, baseball, basketball, track. Also, he sang in the University of Arizona Glee Club, played in the campus band, went in for dramatics, held various offices, was president of his fraternity, Kappa Sigma, during his senior year, and upon graduation in 1922 operated a tire business in Oklahoma for about a year. From that he went into real estate in Long Beach, California, and then came an opportunity to act as instructor in physical education and athletic coach for the Long Beach High School. Radio opened new avenues; he sang over KFI for 3 years, switched to KNX and has been more than active announcing sports, appearing in dramas and writing ever since. There is an attractive Mrs. Thomas Jay Wallace, and three children, two boys and a little girl, complete the happy family.

\* \* \*

Rob Roberts, after an absence of a year, has returned as the General Manager of KTAB. He resigned from that job last year to enter his own radio advertising business which he still maintains. Roberts was largely responsible for building up KTAB to the top of the medium class stations in the San Francisco Bay area at that time. He has many new plans for the growth of the station and is busy formulating them. KTAB is now located in the Kohler-Chase Building in San Francisco, to which it recently moved from Oakland.

\* \* \*

The Mauna Keans (KQW), specializing in native Hawaiian music, were originally the Mauna Kea Tric.

Three American girls (Lei Lani, Lei Aloha and Lei Nani) started out with a "big idea." Seeing great possibilities in these girls, Kimo Haulani joined them, forming the troupe of Mauna Keans. Kimo is native Hawaiian. He has played in all the larger radio stations on the Pacific Coast. The Mauna Keans are one of the most popular groups playing over the air on the Pacific Coast. Their fan mail has reached tremendous proportions.

\* \* \*

Eddie Holden, the inimitable Japanese house boy of "Frank Watanabe and the Honorable Archie" (KNX), was born in San Francisco and still readily admits it. He spent most of his boyhood playing with Japanese youngsters on the sand lots of the Bay district, absorbing the colloquialisms of the language that are so much a part of his radio dialect. Holden now numbers his friends among the Japanese by the hundreds.

\* \* \*

Monroe Upton was born in Bandon, Oregon, in 1898, finished school in Marshfield, went to seas as a ship's radio operator, spent a year with a radio station in Shanghai, saw more travel, landed in San Francisco and began broadcasting 6 years ago. Although he is best known as a comedian—(his "Lord Bilgewater" on Associated Spotlight has them in stitches)—he is a successful writer and has turned out several books. Six feet tall, blonde, blue eyes, married.

\* \* \*

Joe Wright, whose orchestra has been heard over KYA until a recent fire destroyed the cafe from which they played, is mourning the loss of a Stradivarius violin destroyed by the fire. He says that during the entire time that the valuable instrument was in his possession this was the only oc-

casion upon which he left it anywhere overnight. He is now heard with his orchestra over KFWI broadcasting from the New Lido Cafe.

\* \* \*

Claude Sweeten is now musical director of KFRC. He directed the orchestra at the RKO-Golden Gate Theatre in San Francisco for 10 years and previous to that was concert master of the Salt Lake Symphony orchestra. Sweeten succeeds Walter Kelsey.

\* \* \*

The Emporium, one of San Francisco's larger department stores, is sponsoring a program over KYA from 8 to 9 a. m., daily except Sunday. Barbara Lee conducts the program which consists of chats on styles, beauty, household hints, coupled with a good round of music.

\* \* \*

Jack Hall's "Keep Smiling Revue" on KTAB is featuring a thirty-piece accordion orchestra every Wednesday afternoon, under the direction of Danti Barsi, one of the "Chile Peppers."

\* \* \*

After a lay-off of several months KOL's Mid-Week Jubilee has returned to the air. Wen Niles is the new master of ceremonies.

\* \* \*

The "Goldbergs" are now heard only over KPO on the Pacific Coast.

## He Tried to Prove

### DX Claims Impossible

By JOHN DE MYER\*

AWAY back about 1922, in the days of the one-tube "Blooper" receiver, I was a DXer. In those days our stations were few and of low power, and it was a real thrill to tune in a station out on the Pacific Coast. In fact, it was an event to proudly tell all your friends about. As time marched on, our station list increased, also power was increased to many thousands of watts, and most of our

broadcast stations were taken over, or at least the programs were sponsored, by commercial advertisers. Their sole aim seemed to be dedicated to the task of impressing us with our possible social handicap if we did not use a certain brand of tooth paste or cold cure, etc. It was about this time that I lost my enthusiasm for DXing.

Last fall, as I was looking over some radio magazines on the news stand, I ran on to RADEX. The station listing in RADEX looked very impressive, also the DXers' comments. I purchased a copy and in it I read several "preposterous claims" of trans-Pacific reception on the broadcast band. After giving this trans-Pacific business some careful consideration, I decided to try it myself. I designed and installed the most efficient aerial and ground system that I could think of and had room for, and in this installation I decided to spare no expense.

Well, sir, the installation was soon made to my satisfaction and I selected a good clear night in December, set the alarm for 3:30 a.m. and was all set for my initial test to definitely prove to myself that 10,000-mile broadcast reception was impossible. I tuned in first on 750 kcys. for KGU, and of all things impossible, I heard him, very clearly. Then I tuned in on 720 kcys. and heard a man announcing the next portion of his program. His accent was very distinctly English. Could this possibly be Zealand? It was—ZL2YA.

Following I shall list a few foreign stations that I have since heard on the broadcast band: ZL1YA, KGMB, RUS, HIX, HHK, TICR, WKAQ, KGBU, VOWR, YV1BC, HJN, VK5CK, VK6WF, VK5CL, VK4QG, VK3LO, VK2BL, VK4RK, VK4BC, VK4TO, JOBK, JOHK, JOGK, JOCK, JOIK, JOFK, JOAK and XGOA. In addition to this list I have heard many Canadian, Mexican and Cuban stations. Incidentally, I do some short-wave DXing. My shortwave log consists of over 100 foreign phone stations, located in 35 countries in every

continent on earth.

My receivers are a Model No. 111 A. C. Philco (11 tubes) and a Model No. 4 Philco converter (3 tubes). My aerial is a 2" copper tube mounted vertically on a weather-proof insulator on top of the house. Also I have an 8" copper ball on this tube and it looks very much like a tail flag pole. My ground is made of 40 feet of one-half inch copper tube wound into a six-foot coil and sunk into the ground. I filled in, with the earth around it, about fifty pounds of rock salt. Well, with this outfit, again I am a DXer, and you and your magazine are to blame for it.

---

\*545 Baker Street, Lansing, Mich.

## Verifying Under Difficulties

By IRVING VAN ZANDT, JR.\*

ONLY in one case out of over two dozen, have I succeeded in getting my report to the mail within 48 hours after reception, and never within the 24-hour limit that many stations are adopting. I live 18 miles from town on a road that, from Christmas until Easter, only a horse can get through. The nearest telephone is five miles away and it rarely works in winter. There is no mail delivery up this way and we venture to town but once every five weeks or so in winter. Mail delivery and collection is made by neighbors, and this service varies from once a week to once every three or four weeks. I have destroyed numerous reports that have been in the mail bag for over a week. A few stations have been generous enough to accept my explanation, but the vast majority, I fear, merely raise one eyebrow. The 24-hour deadline is a good idea, but it drives me crazy. I should greatly appreciate any suggestions from you or from readers of RADEX.

I have been DXing since last November with a Philco 35, after having been out of the DX game since 1923. Due to a remarkable location, results

have been most satisfactory. When my log began to include a few real good catches, I started to seek verifications, writing only to 3000-milers, and 2000-milers if less than 1000 watts. I have been most careful, writing only after having logged definitely at least 15 consecutive minutes of reception, and I never even log a station whose call I have not unquestionably heard.

I heartily endorse any fight that you may make towards the rapid and complete extinction of "channel hogs." I wish to add KXL to this list. They seem to be on the air indefinitely every Saturday morning, playing records for Gertie and Joe and for the Broadway Cab Co., and announcing most infrequently. Once I listened to them for an hour and twenty minutes without their giving the slightest indication of who or where they were. Perhaps the F.R.C., if it functions at all, could work out a ratio between time on the air and power. Or perhaps the ax is the sole solution.

---

\*Forsythe Range, Bozeman, Montana.

## A Phone Receptor

*(Continued from page 6)*

or tubes. The bias thus thrown on the tubes renders them inoperative although the filaments remain lighted. The box with jack may be placed in any convenient location.

Any signal that can be heard with the speaker can be heard on the phones. The volume of sound is pleasing, and stations that cannot be identified on the speaker due to the high noise level, can be heard with the phone receptor.

The "Phone Receptor" is manufactured and sold by the Amplivox Laboratories, 82 East 95th Street, Brooklyn, N. Y.

---

*Would you like a fine world-globe?  
See back cover.*

# STATIONS CAUGHT *and* *Those That* GOT AWAY

**T**HERE would be very little fun in DX or in any other hobby, for that matter, if we couldn't brag a bit to others about our progress and talk over our triumphs and disappointments. So here we are at the regular monthly meeting of the greatest radio club on earth—the RADEX family. Our first speaker is a new member of the tribe.

"I have just discovered RADEX and like it very much," comments Maxwell Hall, 806 Fifth St., Marietta, Ohio. "It seems to me that your idea of having certain minimum requirements for counting DX reception is an excellent one. When we report receiving a certain number of stations it should be generally understood just what we mean. This is more important that verification. At our house we have been interested in seeing how large a portion of the stations licensed by the F.R.C. we can get. Counting only stations listed in the F.R.C. bulletin of January 1, 1933, we have listed since December 1, 1931, 507 out of 608 stations, and including all stations listed in 12 states, Puerto Rico and D. of C., all but one in 17 states, and at least half the stations in all other states. We have also identified 23 stations in Canada, 16 in Cuba, 14 in Mexico, and one in Colombia. The above includes one or more stations on every standard frequency in the regular broadcast band between 540 and 1500 keys."

## Added 151 New Ones

"For lack of space and other reasons I am unable to erect a really efficient aerial, an aerial suited to real distant reception," writes Rudolph Kuré, 3633 Vine St., Clifton, Cincinnati, Ohio. "In spite of this handicap and the bad location I am dwelling in, with my rejuvenated

RCA 60—although the number of stations logged then was pretty high and the higher the number the harder it is to add new ones—I managed to log 151 new stations from October 1, 1932 to March 13, 1933. And good stations, too, such as KPJM, Prescott, Ariz., 100 watts; CKOV, Kelowna, B. C., 100 watts; KFXM, San Bernardino, Calif.; 10-BQ, 10-AB, CKIC, WAGM, CHGS, CHRC, KREG, KFIO, YV1BC and HJN, giving me a total of 836 stations."

"I have now received 550 stations, 218 veris," comments George E. Lowrey, David St., Brampton, Ont. "All the states and provinces logged, but not Newfoundland. One in France, YV1BC and HJN in South America; 2BL and 4QJ in Australia, and 2YA in New Zealand; KGU logged and verified. 15 100-watters on the west coast; 31 stations in California logged. Connecticut, D. of C., New Hampshire, North Carolina, Porto Rico, Tennessee, Utah, West Virginia, Wyoming and Manitoba completed. CKIC, a 50-watter, was logged and verified at 7:00 p. m., also CHNS of Nova Scotia, after 6:00 p. m. My best is KFPM rating 75.3 with 10-BL, 10-AB and CMJH coming close. WHBC is my lowest powered station, having 10 watts, logged with lots of volume on April 1st."

## Can't Get Over Seas

"I have been much interested in letters from other DXers published in your magazine," comments F. Herbert Peters, Woodbury, N. J., "but so far have hesitated to write to you because my record must seem rather small beside some of those published. However, if you are interested, here goes: I have logged 279 stations since October on a Philco 9-tube baby

*(Continued on page 71)*

# WHAT'S ON THE AIR TONIGHT?

Fill in calls and dial numbers for those stations through which you best receive the three chains. You can then turn quickly to the one that has the feature you want.

COLUMBIA (C).....WABC NATIONAL, Red (R).....WEAF NATIONAL, Blue (B).....WJZ

Call	Dial	Call	Dial

Call	Dial	Call	Dial

Call	Dial	Call	Dial

TIME: ED Eastern Daylight; E Eastern; C Central; M Mountain.

For Pacific Time subtract one hour from Mountain.

RADEX is the only publication listing stations in alphabetical order for your convenience.

While these programs are correct at the time of going to press changes are made from time to time.

## MONDAY

**ED-5:45 p.m., E-4:45, C-3:45, M-2:45**  
**B — Little Orphan Annie**  
 CKGW KDKA WBAL WBZA WCKY  
 WGAR WHAM WIS WJAX WJR  
 WJZ WRVA WWCN

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**  
**R — Waldorf-Astoria Orchestra**  
 CKGW KFJR KGO KOA KPRC  
 KSD KTBS WBEN WCAE WCKY  
 WCHS WDAF WEAF WENR WFBR  
 WFI WHO WJBA WJOD WJAR  
 WKY WMC WOAI WOC WRC WSB  
 WSMB WTAG WWCN

**C — Reis and Dunn**  
 CFRB CKOK KFAB KFH KLZ  
 KMBC KSCJ KSL KTRH KVOR  
 WAAB WADC WBCM WBIG WBRC  
 WBT WCAO WDAE WDBO WDOB  
 WDSU WEAN WFWN WGR WHIC  
 WIP WISN WJAS WJSV WKBH  
 WLWB WLWZ WNAW WOKO WORC  
 WQAM WSBT WSFA WSJS WSPD  
 WTAQ WTAR WTOC

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**  
**R — Richard Himber's Ensemble**  
 KFJR KGO KGW KHO KOA KOMO  
 KPRC KSD KTBS KTHS KVOO  
 WDAF WEAF WFBR WJBA WIS  
 WMAQ WMC WOAI WSB WSMB

**C — Happy Noodle Bakers**  
 WAAB WABC WHCC WKBW WMAS  
 WORC

**B — Tasteyest Jesters**  
 KDKA WBAL WBZ WBZA WGAR  
 WHAM WJR WJZ

**ED-6:45 p.m., E-5:45, C-4:45, M-3:45**  
**R — Countess Olga Albani**  
 KFSD KGO KGW KOMO WBEN  
 WCAE WEAF WFBR WHO WIS  
 WJAR WJAX WMAQ WMC WOC  
 WOV WRC WSAI WSB WSM WTAG  
 WWCN

**C — Just Plain Bill**  
 CKOK WAAB WABC WCAO WCAU  
 WHK WJSV WKBW

**B — Lowell Thomas**  
 CKGW KDKA WBAL WBZ WBZA  
 WGAR WHAM WJR WJZ WLW

**B — Little Orphan Annie**  
 KFJR KOIL KPRC KSO KSTP  
 KTBS KWCR KWK WBAP WDAY  
 WEBC WENR WKY WOAI WREN

**ED-7:00 p.m., E-6:00, C-5:00, M-4:00**  
**B — Amos 'n' Andy**  
 CKGW KDKA WBAL WBZ WBZA  
 WCKY WFLA WGAR WJOD WJAX  
 WJZ WLW WMAL WPTF WRVA  
**C — Theo. Karle, Tenor**

CFRB KFH KLZ KMBC KSE KVOR  
 WABC WACO WBBM WBIG WBRC  
 WCAH WCAO WCAU WDAE WDBJ  
 WDBO WDOB WDRS WDSU WEAN  
 WFBL WFEA WGR WGST WHK  
 WHI WISN WLAC WLWB WMBG  
 WMT WNC WODX WOKO WORC  
 WQAM WSFA WSJS WSPD WTAQ

**R — Southernaires Male Quartet**  
 KDYL KOA KOMO KSTP KTBS  
 WBEN WCAE WCHS WDAF WEAF  
 WFBR WGY WHO WJBA WMAQ  
 WOC WOW WRC WSAI WTAM

**ED-7:15 p.m., E-6:15, C-5:15, M-4:15**  
**C — Buck Rogers — Year 2433**

CKOK KMOX WABC WBBM WCAU  
 WCCO WGR WHAS WHK  
**B — Everett Marshall, Baritone**  
 KDKA WBAL WBZ WBZA WCKY  
 WJR WJZ WMAL WSYR

**R — Century of Progress**  
 CFOP CKGW KFSD KFJR KGO  
 KOMO KPRC KSD KTHS WBEN  
 WCAE WCHS WDAF WEAF WEEI  
 WFBR WGY WHO WJBA WJOD WIS  
 WJAR WKY WLIT WMAQ WMC  
 WOAI WOC WOW WRC WRVA  
 WSAI WSB WSM WSMB WTAG  
 WTAM WTC WJZ WWCN

**ED-7:30 p.m., E-6:30, C-5:30, M-4:30**  
**B — Five Star Theatre**  
 KDKA KTBS WBAL WBZ WBZA  
 WHAM WIS WJZ WMAL WMC  
 WPTF WRVA WSAZ WSMB WWCN

**C — Dolph Martin's Orchestra**  
 WABC WCAO WCAU WDRS WEAN  
 WFBL WFEA WGR WHIC WHI  
 WJAS WJSV WLWZ WNAW WOKO  
 WORC

**R — Elvia Allman**  
 WCKY WLHS WDAF WEAF WEEI  
 WENR WFBR WGY WJAR WSAI  
 WTAG

**ED-7:45 p.m., E-6:45, C-5:45, M-4:45**

**R — The Goldbergs**  
 KFJR KPRC WBEN WCAE WCHS  
 WDAF WEAF WEEI WENR WFAA  
 WFBR WGY WJAR WKY WLIT  
 WOAI WOW WRC WSAI WTAG  
 WTAM WTMJ WJZ

**C — Boake Carter, News Flashes**  
 CKOK KMBC KMOX WABC WBBM  
 WBT WCAO WCAU WCCO WGR  
 WHAS WHK WJSV WNAW

**ED-8:00 p.m., E-7:00, C-6:00, M-5:00**

**C — Singin' Sam**  
 CKOK KMOX WABC WADC  
 WCAO WCAU WDRS WEAN WFBL  
 WFBM WGN WGR WHK WJAS

WJSV WKRC WNAW WOKO WSPD  
**R — Sonnyland Sketches**  
 WBEN WCHS WEAF WEEI WGY  
 WJAR WTAG WTC

**B — Clicquot Club Eskimos**  
 KDKA KOIL KSO KWCR KWK  
 WBAL WBZ WBZA WCKY WGAR  
 WHAM WJZ WLS WREN

**ED-8:15 p.m., E-7:15, C-6:15, M-5:15**

**C — Carson Robison and Buckaroos**  
 CFRB KFH KLZA KMBC KTRH  
 KVOR WABC WBIG WCAH WCAO  
 WCCO WDAE WDBJ WDOB WDOB  
 WDRS WDSU WEAN WFBL WFBM  
 WFEA WGR WGST WHEC WHK  
 WHI WISN WJAS WLAC WLWB  
 WMBG WNAW WODX WOKO WORC  
 WQAM WSFA WSJS WSPD WTAQ  
 WWVA

**ED-8:45 p.m., E-7:45, C-6:45, M-5:45**

**R — Famous Brands — Ranny Weeks**  
 WBEN WCAE WCHS WDAF WEAF  
 WEEI WGY WJAR WLIT WLW  
 WMAQ WRC WTAG WTAM WTC  
 WJZ

**B — Phil Cook-Andy Sanelia**  
 KDKA KOIL KSO KWCR KWK  
 WBAL WBZ WBZA WCKY WGAR  
 WJAX WJR WJZ WLS WMAL WREN  
 WSYR

**ED-9:00 p.m., E-8:00, C-7:00, M-6:00**

**R — A. & P. Gypsies**  
 KSD WBEN WCAE WCHS WDAF  
 WEAF WEEI WGY WHO WJAR  
 WLIT WMAQ WOC WOW WRC  
 WSAI WTAG WTAM WTC WJZ

**B — Sinclair Minstrels**  
 KDKA KFJR KOIL KPRC KSO  
 KSTP KTBS KTHS KVOO KWCR  
 KWK WAPI WBAI WBZ WBZA  
 WDAY WEBC WFAA WFLA WGAR  
 WHAM WJBA WJOD WIS WJAX  
 WJDX WJR WJZ WKY WLW WMC  
 WOAL WREN WRVA WSB WSM  
 WSMB WTMJ WWCN

**C — Eton Boys, Do Re Mi Girls**

CFRB KLRA KLZ KMBC KRLD  
 KTRH KVOR WABC WBIG WCAH  
 WCAO WCAU WCCO WDAE WDBJ  
 WDBO WDOB WDRS WDSU WEAN  
 WFBL WFBM WFEA WGST WHEC  
 WHK WHI WHW WJZ WJZ WISN

**MONDAY—(Continued)**

WJAS WKBW WLAC WL BW WMBG  
WOKO WORC WQAM WSPA WSJS  
WSPD WTAQ WWVA

**ED-9:15 p.m., E-8:15, C-7:15, M-6:15**  
**C — Street Singer**

CFRB KFH KLRA KMBC KTRH  
KTSK KFOR WABC WBIG WCAH  
WCAO WCAU WCOO WDAE WDBJ  
WDBO WDOD WDRG WDSU WEAN  
WFBL WFBM WFPA WGST WHEC  
WHK WHP WICC WISN WJAS  
WJWB WLAC WL BW WLBZ WMBG  
WMT WNAC WOKO WORC WQAM  
WSPA WSJS WSPD WTAQ WWVA

**ED-9:30 p.m., E-8:30, C-7:30, M-6:30**  
**C — Evening in Paris**

CFRK KLZ KMBC KMOX KOMA  
KSL WABC WCAO WCAU WCCO  
WDSU WEAN WGN WGST WHK  
WJAS WJSV WNAC

**B — Jack Frost's Melody Moments**  
KDKA WBAL WENR WGAR WHAM  
WJR WJZ WLW

**ED-10:00 p.m., E-9:00, C-8:00, M-7:00**  
**C — Golden Country Club**

WAAB WABC WCAO WCAU WDRG  
WFBL WHDC WHP WICC WJAS  
WJSV WKBW WLBW WOKO WPG

**R — Contented Program**  
CFCF CKGW KFYR KPRC KSD  
KSTP WBEN WCAE WDAE WFAE  
WIBC WENR WFAA WFLA WGY  
WHO WIOD WJAX WKY WMC  
WOAI WOC WVA WSAI WSB  
WSM WTAM WTMJ WWJ

**ED-10:30 p.m., E-9:30, C-8:30, M-7:30**  
**C — Edwin C. Hill**

CFRB CKOK KLRA KLZ KMBC  
KMOX KSCJ KTRH KTSK KFOR  
WAAB WABC WADC WBGM WBRG  
WBTV WCAH WCAO WCOO  
WDAE WDBJ WDOD WDRG WDSU  
WFAN WFBL WFBM WFLA WGST  
WHAS WHEC WHP WIP WISN  
WJAS WJSV WKBC WKBN WKBW  
WLBW WLBZ WMBD WNAX WNOX  
WODX WOKO WORC WQAM WREC  
WSJS WSPD WTOC

**R — Neighbors, Drama**  
CFCF CKGW KDYL KFI KFSD  
KFYR KGHJ KGR KGO KGW  
KHQ KOA KOMO KPRC KSD KSTP  
KTRH KTIJS WBEN WCAE WCKY  
WCSH WDAF WDAY WFAE WIBC  
WEFL WFAA WFBR WFLA WFG  
WHO WIBA WIOD WJAR WJAX  
WJDX WKY WLIT WMAQ WMC  
WOC WOV WRC WSAI WSB WSM  
WSMB WTAG WTAM WTV WWJ  
WWNC

**ED-10:45 p.m., E-9:45, C-8:45, M-7:45**  
**C — Howard Barlow's Symphony**

CFRB CKOK KFAB KFH KLZ  
KMBC KSCJ KSL KTRH KFOR  
WAAB WABC WADC WBGM WBRG  
WBTV WCAO WDOD WDRG WDSU  
WEAN WFAN WFBM WHK WIPW  
WICC WIP WISN WJAS WJSV  
WKBN WKBW WLBW WLBZ WMBD  
WNAX WODX WOKO WORC WQAM  
WSBT WSJS WSPD WTAQ WTOC

**ED-11:00 p.m., E-10:00, C-9:00, M-8:00**  
**B — Amos 'n' Andy**

KDYL KFI KFSD KGO KGW KHQ  
KOA KOIL KOMO KPRC KSTP

KTHS KWK WBAP WDAF WENR  
WHAM WJDX WJR WKY WMAQ  
WMC WOAI WREN WSB WSM  
WSMB WTMJ

**B — Ann Butler, Comedienne**  
WBAL WFLA WHAM WIOD WIS  
WJZ WWNC

**ED-11:15 p.m., E-10:15, C-9:15, M-8:15**  
**B — Everett Marshall, Baritone**

KDYL KFI KFYR KGO KGW KHQ  
KOA KOIL KOMO KPRC KSO KSTP  
KTHS KWCR KWK KYW WDAY  
WEBC WFAA WIBA WJDX WKY  
WMC WOAI WREN WSB WSMB  
WTMJ

**C — William O'Neal Tenor**  
CFRB CKOK WAAB WABC WADC  
WCAU WDRG WEAN WFBL WFEA  
WHEC WHK WICC WJAS WJSV  
WKBN WKBW WLBW WLBZ WOKO  
WORC WPG WSPD

**ED-11:30 p.m., E-10:30 C-9:30, M-8:30**  
**C — Ted Lewis and Orchestra**

CFRB CKOK KFAB KFH KLRA KLZ  
KMBC KMOX KSCJ KSL KTRH  
KFOR WAAB WABC WCAO WADC  
WCAH WCAO WCAU WCOO WDAE  
WDBJ WDBO WDOD WDRG WDSU  
WEAN WFBL WFBM WGST WHEC  
WHK WIP WICC WJSV WKBN  
WKBW WLAC WL BW WLBZ WMBD  
WMT WNAX WNOX WOKO WORC  
WPG WQAM WREC WSBT WSJS  
WSPD WTOC

**B — Phantom Gypsy**  
CFCF KFYR KPRC KSO KSTP  
KTHS KTHS KWCR KWK WBAL  
WBAP WCKY WDAY WEBC WENR  
WGAR WHAM WIBA WIZ WKY  
WMAI WMC WOAI WREN WSB  
WSMB WSYR

**ED-12:00 p.m. E-11:00, C-10:00, M-9:00**  
**C — Leon Belasco and Orchestra**

CFRK KFAB KLRA KLZ KMBC  
KRLD KSCJ KTRH KFOR WABC  
WACO WCAH WCAO WCAU WCCO  
WDOD WDSU WEAN WFBL WGST  
WHP WIBW WICC WISN WJAS  
WJSV WKBW WLAC WLBW WMBD  
WMT WNAC WNAX WNOX WOKO  
WREC WSBT WSPD WTOC

**TUESDAY**

**ED-5:45 p.m., E-4:45, C-3:45, M-2:45**  
**B — Orphan Annie** See Monday

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**  
**C — Reis and Dunn** See Monday

**R — Waldorf-Astoria**, See Monday

**ED-6:15 p.m., E-5:15, C-4:15, M-3:15**  
**C — Ozzie Nelson and Orchestra**

CFRB KFH KLRA KLZ KTRH  
KFOR WAAB WABC WACO WBIG  
WBRG WCAH WDAE WDBJ WDBO  
WDOD WDRG WDSU WFEA WGR  
WGST WHK WHP WIBW WIP WISN  
WJAS WLAC WLBW WMBG WMT  
WODX WOKO WORC WQAM WSBT  
WSPA WSJS WSPD WTAQ WWVA

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**  
**B — Three X Sisters**

KSO KWCR KWK WCKY WJZ  
WLW WMLA WREN WSYR

**R — Mid-Week Hymn Sing**  
KFYR KGO KOA KOMO KTHS  
KTHS KVOO WREN WDAF WFAE  
WFBR WFI WIS WMAQ WMC  
WOAI WPTB WSB WSMB WTAG  
WWNC

**ED-6:45 p.m., E-5:45, C-4:45, M-3:45**  
**R — James Melton, Tenor**

KOA WFAE WFBR WFI WHO WIS  
WJR WMAQ WOC WOW WVR  
WSAI WSM WTAG

**B — Lowell Thomas**, See Monday  
**B — Orphan Annie**, See Monday  
**C — Just Plain Bill**, See Monday

**ED-7:00 p.m., E-6:00, C-5:00, M-4:00**  
**B — Amos 'n' Andy**, See Monday

**R — Three Keys**  
WFAE WFEI WFBR WFI WJAR  
WRC WTAG

**ED-7:15 p.m., E-6:15, C-5:15, M-4:15**  
**C — Buck Rogers**, See Monday

**B — Radio in Education**

KDKA KDYL KECA KEX KFSD  
KFYR KGA KGR KJR KOA KOIL  
KPO KTHS KVOO KWCR WBS  
WBZA WENR WFLA WIBA WIZ  
WJDX WJZ WMC WOAI WPTB  
WREN WSB WSM WSMB WWNC

**R — Century of Progress**, See Monday

**ED-7:30 p.m., E-6:30, C-5:30, M-4:30**  
**C — Jack Dempsey's Gymnasium**

CFRB WABC WCAO WCAU WKB  
WKBW WKRC

**ED-7:45 p.m., E-6:45, C-5:45, M-4:45**  
**B — Irene Bordoni**

CFCF CKGW KDKA KFYR KOIL  
KPRC KSO KWCR KWK KYW  
WBAL WBZ WBZA WCKY WDAY  
WEBC WGAR WHAM WIBA WIOD  
WIS WJR WJZ WKY WMAI WMC  
WOAI WREN WRNA WSB WSM  
WSMB WSYR

**C — Boake Carter**, See Monday  
**R — The Goldbergs**, See Monday

**ED-8:00 p.m., E-7:00, C-6:00, M-5:00**  
**R — Blackstone, Sanderson-Crumit**

KSD KSTP KYW WBEN WCAE  
WCSH WDAF WFAE WIBC WEEI  
WFI WGY WIO WJAR WOC WOW  
WRC WSAI WTAG WTAM WWJ

**B — Eno Crimig Club**

KDKA KOIL KSO KWCR KWK  
WBAL WBZ WBZA WGAR WHAM  
WJZ WLW WMAQ WREN

**C — Mary Eastman, Soprano**  
CFRB KFH KLZ KMBC KRLD KSL  
KTRH KFOR WABC WBBM WBIG  
WBRG WCAH WCAU WDAE WDBJ  
WDBO WDOD WDRG WDSU WEAN  
WFBL WFEA WGR WGST WHEC  
WHK WHP WISN WJAS WLAC  
WLBW WMBG WMT WNAC WODX  
WOKO WORC WPG WQAM WSPA  
WSJS WSPD WTAQ WWVA

**ED-8:15 p.m., E-7:15, C-6:15, M-5:15**  
**C — Magic Voice**

CFRK KMBC KMOX WABC WADC  
WCAO WCAU WDRG WEAN WFBL  
WFBM WGN WGR WHAS WHK  
WJAS WJSV WKRC WNAC WOKO  
WSPD

**TUESDAY—(Continued)**

**ED-8:30 p.m., E-7:30, C-6:30, M-5:30**  
**C — Kate Smith**  
CKOK KMBC KMOX WABC WADC  
WBCM WCAH WCAO WCAU WCCO  
WFBL WFBM WGN WGR WHAS  
WHCC WHCk WISN WJAS WJSV  
WKBB WKRC WOKO WOVO WSPD  
**R — Wayne King and Orchestra**  
KSD KSTP WBEH WCAE WCKY  
WCSH WCAF WEBC WEEL WFBR  
WFI WGY WHO WIBA WJAR  
WMAQ WOC WOW WRC WSAI  
WTAG WTAM WTMJ WJW  
**B — Horlick-Health Talks**  
KDKA KOIL KWCR KWK WBAL  
WBZ WBZA WGAR WHAM WJZ  
WLW WREN

**ED-8:45 p.m., E-7:45, C-6:45, M-5:45**  
**C — Abe Lyman and Orchestra**  
CKOK KMBC KMOX WABC WADC  
WCAO WCAU WDRG WEAN WFBL  
WFBM WGN WGR WHAS WHK  
WJAS WJSV WKRC WNAS WOKO  
WOVO WSPD  
**B — Herman Hupfeld, Songs**  
KDKA KDYL KFSD KOA KOIL  
KPO KPRC KSO KTRT KTBS KWCR  
KWK KYW WBAL WBAF WCKY  
WFLA WGAR WHAM WIOD WIS  
WJR WJZ WKY WMAL WMC WOAI  
WREN WSB WSM WSMB WSYR  
WVNC

**ED-9:00 p.m., E-8:00, C-7:00, M-6:00**  
**C — Easy Aces**  
CKOK KMBC KMOX WABC WADC  
WCAO WCAU WCCO WDRG WEAN  
WFBL WFBM WGN WGR WHAS  
WHK WJAS WJSV WKRC WNAC  
WOKO WSPD

**R — Ben Bernie and Orchestra**  
KFYR KOA KPRC KSTP WBAF  
WBEH WCAE WCKY WCSH WDAF  
WDAY WFAF WEEL WFBF WFI  
WGY WHO WJAR WKY WLS WMC  
WOAI WOC WOW WRC WRVA  
WSAI WSB WSM WSMB WTAG  
WTAM WWJ

**B — Willard Robison and Orchestra**  
CFCE CKGW KDKA KOIL KSO  
KWCR KWR WBAL WBZA WGAR  
WJR WJZ WMAQ WREN WSYR

**ED-9:15 p.m., E-8:15, C-7:15, M-6:15**  
**C — Threads of Happiness**  
CKOK KDB KERH KFBK KFH  
KFPY KPRC KGB KHJ KLRA KLZ  
KMBC KMJ KMOX KOIN KOMA  
KRLD KSL KTRH KTSB KVI KWG  
WABC WADC WBRG WBT WCAO  
WCAU WCCO WDAE WDBO WDOD  
WDRG WDSU WEAN WFBL WFBM  
WGN WGST WHAS WHCC WHK  
WJAS WJSV WKBB WKRC WLAC  
WNAC WOKO WOVO WQAM WREC  
WSPD WTAR WTOG

**ED-9:30 p.m., E-8:30, C-7:30, M-6:30**  
**R — Ed Wynn-Don Voorhees**  
CFCE KDYL KFI KFSD KFYR  
KGHL KGIR KGO KGW KHQ KOA  
KOMO KPRC KSD KSTP KTRT  
KTBS KTHS KVVO WBAF WBEN  
WCAE WCSH WDAF WDAY WFAF  
WEBC WEEL WFBR WFI WFLA  
WGY WHO WIBA WIOD WIS WJAR  
WJAX WJDX WKY WLW WMAQ  
WMAQ WOAI WOC WOW WRC  
WRVA WSB WSM WSMB WTAG  
WTAM WTMJ WJW WVNC

**C — Nino Martini, Tenor**  
CFRB KFH KLRA KLZ KMBC  
KRLD KTRH KVOR WABC WBBM  
WBG WBRG WCAH WCAO WCCO  
WDAE WDBJ WDBO WDOD WDRG  
WDSU WEAN WFBL WFBM WFEA  
WGST WHCC WHK WHP WIBW  
WICC WIP WISN WJAS WKBB  
WLAC WLWB WMBG WMT WNAC  
WOKO WORC WQAM WSFA WSJS  
WSPD WTAQ  
**R — Sigmund Spaeth, Tune Detective**  
CFCE KDKA KOIL KSO KWCR  
KWK WBAL WCKY WGAR WHAM  
WJR WJZ WMAQ WREN WSYR

**ED-10:00 p.m., E-9:00, C-8:00, M-7:00**  
**C — Five Star Theatre**  
KLRA WABC WBG WBT WCAO  
WCAU WDBJ WDOD WDRG WDSU  
WEAN WFBL WFEA WIP WICC  
WJAS WJSV WKBB WLAC WMBG  
WNAC WNOX WOBU WOKO WORC  
WREC WSJS WTAR

**R — Lives at Stake, Drama**  
KDYL KFI KGO KGW KHQ KOA  
KOMO KPRC KSD KSTP KTBS  
KTHS KVVO WAPI WBAF WBEN  
WCAE WCSH WDAF WFAF WEBC  
WEEL WENR WFBR WFI WGY  
WHO WJAR WJDX WKY WLW  
WMC WOAI WOC WRC WRVA WSB  
WSMB WTAG WTAM WTMJ WWJ  
**B — Household Musical Memories**  
KDKA KSO KWK WBAL WBZ  
WBZA WHAM WJR WJZ WMAQ  
WREN WSYR

**ED-10:30 p.m., E-9:30, C-8:30, M-7:30**  
**C — Edwin C. Hill, See Monday**  
**B — Miss Lilla, Southern Drama**  
KDKA KSO KWCR WBAL WCKY  
WHAM WJR WJZ WMAQ WREN  
WSYR

**ED-10:45 p.m., E-9:45, C-8:45, M-7:45**  
**C — Howard Barlow, See Monday**

**ED-11:00 p.m., E-10:00, C-9:00, M-8:00**  
**B — Amos 'n' Andy, See Monday**

**ED-11:30 p.m., E-10:30, C-9:30, M-8:30**  
**C — Abe Lyman and Orchestra**  
CFRB CKOK KFAB KFH KLRA  
KLZ KMBC KSCJ KSL KTRH  
KVOR WAAB WABC WACO WADC  
WCAH WCAO WCAU WCCO WDAE  
WDBJ WDBO WDOD WDRG WDSU  
WEAN WFBL WFBM WGST WHK  
WHP WTBB WICC WISN WJSV  
WKBN WKBB WLAC WLWB WLZ  
WMBD WMT WNAX WNOX WOKO  
WORC WPG WQAM WREC WSBT  
WSJS WSPD WTOG WWVA

**R — Talkie Picture Time, Drama**  
KPRC KSD KTHS KTHS WBEN  
WCAE WCSH WDAF WFAF WEEL  
WFAA WFBR WFI WHO WJAR  
WKY WMAQ WOAI WOC WOW  
WRC WSAI WTAG WTAM WWJ  
**B — Phantom Gypsy, See Monday**

**ED-12:00 p.m., E-11:00, C-10:00, M-9:00**  
**C — Glen Gray and Orchestra**  
KFH KLRA KLZ KMBC KSL KTRH  
KVOR WABC WACO WBRG WCAH  
WCAO WCAU WCCO WDAE WDBJ  
WDBO WDOD WDSU WEAN WFBL  
WFBM WGST WHCC WHP WLWB  
WICC WISN WJAS WKBB WLAC  
WLWB WMBD WMBG WMT WNAC  
WODX WOKO WQAM WSBT WSJS  
WSPD WWVA

**ED-12:30 a.m., E-11:30, C-10:30, M-9:30**  
**R — Ben Bernie and Orchestra**  
KFI KFSD KGO KHQ KOMO KSD  
KTRT

**WEDNESDAY**

**ED-5:45 p.m., E-4:45, C-3:45, M-2:45**  
**B — Orphan Annie, See Monday**

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**  
**R — Waldorf-Astoria, See Monday**  
**C — Art Cogan and Orchestra**  
CFRB KFH KLRA KLZ KMBC KSL  
KTRH KTSB KVOR WAAB WABC  
WACO WBBM WBG WBRG WCAH  
WCAO WCAU WDAE WDBJ WDBO  
WDOD WDRG WDSU WFBL WFEA  
WGST WHAS WHK WHP WTBB  
WIP WISN WJAS WKBB WLAC  
WLWB WLZ WMBG WMT WODX  
WOKO WORC WQAM WSBT WSFA  
WSJS WSPD WTAQ WWVA

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**  
**C — Happy Wonder Bakers, See Monday**  
**B — Three X Sisters, See Tuesday**  
**R — Back of the News—Wm. Hard**  
KECA KEX KFYR KGA KJR KOA  
KPO KSD KTHS KTHS WBEN  
WCKY WDAF WFAF WFBR WIHA  
WIOD WIS WJAR WMAQ WMG  
WOAI WSB WTAG WVNC

**ED-6:45 p.m., E-5:45, C-4:45, M-3:45**  
**R — John Pierce, Tenor**  
KFSD KPO WBEN WCAE WFAF  
WFBF WHO WIS WJAR WMAQ  
WMC WOC WOW WSAI WTAG  
**C — Just Plain Bill, See Monday**  
**B — Lowell Thomas, See Monday**  
**B — Orphan Annie, See Monday**

**ED-7:00 p.m., E-6:00, C-5:00, M-4:00**  
**B — Amos 'n' Andy, See Monday**  
**C — Mildred Bailey, Songs**  
CFRB KFH KLZ KMBC KGL KTSB  
KVOR WABC WACO WBG WBRG  
WCAH WCAO WCAU WDAE WDBJ  
WDBO WDOD WDRG WDSU WEAN  
WFBL WFLA WGR WGST WHAS  
WHK WHP WISN WJAS WJSV  
WKBN WLAC WLWB WLZ WMBG  
WMT WNAC WODX WORC WQAM  
WSFA WSJS WSPD WTAQ

**ED-7:15 p.m., E-6:15, C-5:15, M-4:15**  
**R — Century of Progress, See Monday**  
**B — Everett Marshall, See Monday**  
**C — Buck Rogers, See Monday**

**ED-7:30 p.m., E-6:30, C-5:30, M-4:30**  
**B — String Symphony**  
KDKA KOIL KWCR WBAL WCKY  
WIOD WIS WJDX WJZ WMAL  
WMC WREN WSMB WSYR WVNC  
**R — Elvia Allman, See Monday**  
**C — Jack Dempsey, See Tuesday**

**ED-7:45 p.m., E-6:45, C-5:45, M-4:45**  
**C — Boake Carter, See Monday**  
**R — The Goldbergs, See Monday**

**ED-8:00 p.m., E-7:00, C-6:00, M-5:00**  
**C — Voice of Experience**  
KMBC KMOX WABC WCAO WCAU  
WDRG WEAN WGR WHAS WHK  
WJAS WJSV WKRC WNAC  
**B — Eno Crime Club, See Tuesday**  
**R — George Olsen-Fanny Brice**  
KSD WBEN WCAE WCSI WDAF  
WFAF WEEL WFBF WGY WHO  
WJAR WLIT WLS WOC WOW WRC  
WSAI WTAG WTAM WTIC WWJ

## WEDNESDAY—(Cont'd)

**ED-8:15 p.m., E-7:15, C-6:15, M-5:15**

**C — Boswell Sisters**  
CFBR KMBC KRLD KTRH K TSA  
KVOR WABC WBIG WCAH WDBJ  
WDBO WDOE WDSU WEAN WFBL  
WFEA WGR WGST WHHC WHK  
WHP WISN WJAS WJVS WLAC  
WLWB WLWZ WMBG WNBC WOKO  
WORC WQAM WSPA WSJS WSPD  
WTAQ WWVA

**ED-8:30 p.m., E-7:30, C-6:30, M-5:30**

**R — Woodbury — Donald Novis**  
KSD KTBS KTHS KVOO WAPI  
WBEN WCAE WCHS WDAF WFAF  
WEEI WFAA WFBR WGY WHO  
WJAR WJDX WKY WLIT WMAQ  
WMO WOCI WOC WOW WRC WSB  
WSM WSMB WTAG WTAM W TIC  
WWJ

**B — Tastyest Jesters**  
KDKA WBAL WBZ WBZA WCKY  
WHAM WJZ

**C — Kate Smith, See Tuesday**

**ED-8:45 p.m., E-7:45, C-6:45, M-5:45**

**B — Phil Cook, See Monday**

**C — Abe Lyman, See Tuesday**

**ED-9:00 p.m., E-8:00, C-7:00, M-6:00**

**C — Irvin S. Cobb**  
CFBR CKOK KFH KLRA KLZ  
KMBC KRLD KSCJ KTRH K TSA  
KVOR WABC WADC WBIG WCAH  
WCAO WCAU WCCO WDAE WDBJ  
WDBO WDDO WDRS WDSU WEAN  
WFBL WFBM WFEA WGST WHEC  
WHK WHP WIBW WICC WISN  
WJAS WJVS WKBW WLAC WLWB  
WLWZ WMBD WMT WNBC WNA3  
WNOX WOKO WORC WPG WQAM  
WREC WSBT WSJS WSPD WTOC  
**R — Famous Brands, Ranny Weeks**  
KSD WBEN WCAE WCHS WDAF  
WFAF WEEI WGY WJAR WLIT  
WMAQ WRC WTAG WTAM W TIC  
WWJ

**B — Sherlock Holmes**  
CFCE CKGW KDKA KOHL KWCR  
KWK WBAL WBZ WBZA WGAR  
WHAM WJR WJZ WLS WLW WREN

**ED-9:15 p.m., E-8:15, C-7:15, M-6:15**

**C — Street Singer, See Monday**

**R — Vic Erwin and Band**

KDYL KFI KFSD KFRY KGO KGW  
KHQ KOA KOMO KPRC KSD KSTP  
KTBS KVOO WABN WCAE WCKY  
WCSH WDAF WDAY WFAF WIBC  
WEEI WFBP WFLA WGY WHO  
WIBA WIOD WIS WJAR WJAX  
WJDX WKY WLIT WMAQ WOI  
WOC WOW WRC WRVA WSAI WSB  
WSM WTAM W TIC WWJ WWNC

**ED-9:30 p.m., E-8:30, C-7:30, M-6:30**

**C — Guy Lombardo-Burns and Allen**  
CKOK KMBC KMOX KOMA KRLD  
KTRH K TSA WABC WADC WCAO  
WCAU WCCO WDRS WEAN WFBL  
WFBM WGN WHK WJAS WJVS  
WKBW WKRC WNBC WOKO WOWO  
WSPD

**R — Mischa Levitzki, Pianist**  
PCFC CKGW KDYL KFI KGO KGW  
KHQ KOA KOMO KSD WBEN  
WCAE WCKY WCHS WDAF WFAF  
WEEI WFBP WFLA WHO WIOD  
WIS WJAR WJAX WLIT WMAQ  
WOC WOW WRC WRVA WSAI  
WTAG WTAM W TIC WWJ WWNC

**B — Conrad Thibault, Baritone**  
KDKA KOHL KPRC KSD KSTP  
KTBS KTHS KVOO KWCR KWK  
WBAL WBZ WBZA WENR WFAA  
WGAR WHAM WJDX WJZ WKY  
WLW WMC WOI WREN WSB  
WSM WSMB

**ED-10:00 p.m., E-9:00, C-8:00, M-7:00**

**C — Old Gold — Fred Waring**

CKOK KDB KERN KFBK KFPY  
KFRK KGB KHJ KLIA KLZ KMBC  
KMJ KMIX KOIN KOL KOMO  
KSL KTAT KTRH K TSA KVI KWG  
WAB WABC WADC WBCB WBT  
WACH WCAO WCAU WCCO WDAE  
WDBO WDDO WDRS WDSU WFBL  
WFBM WGN WGST WHAS WHHC  
WHK WIBW WJAS WJVS WKBW  
WKRC WODX WOKO WOWO WQAM  
WREC WRR WSPD

**R — Corn Cob Pipe Club**

KDYL KFI KGHK KGR KGO KGW  
KHQ KOA KOMO KSD WBEN  
WCAE WCHS WDAF WFAF WEEI  
WENR WFBR WGY WHO WJAR  
WLIT WLW WOC WOW WRC WRVA  
WTAG WTAM W TIC WWJ

**ED-10:15 p.m., E-9:15, C-8:15, M-7:15**

**B — Irene Franklin, Songs**

KSO KTBS KWCR KWK KYW WAPI  
WBAL WCKY WFAA WFLA WGAR  
WIOD WIS WJAX WJR WJZ WKY  
WMAL WMC WOI WREN WSMB  
WSYR WWNC

**ED-10:30 p.m., E-9:30, C-8:30, M-7:30**

**B — Century of Progress**

CKGW KOHL KSO KWCR KWK  
KYW WAPI WBAL WFLA WGAR  
WHAM WIOD WIS WJAX WJR  
WJZ WMAL WMC WREN WSB  
WSMB WSYR WWNC

**C — Edwin C. Hill, See Monday**

**R — Dance Hits of Yesteryear**

WAPI WBEN WCAE WCKY WCHS  
WFAF WEEI WGY WJAR WMC  
WSB WSMB WTAG WTAM WWJ

**R — Carveth Wells**

KDYL KFRY KGHK KGR KOA  
KPRC KSD KSTP KTBS KTHS  
WDAF WDAY WBC WFAA WFBR  
WHO WIBA WKY WMAQ WOI  
WOC WOW WRVA WTMJ

**ED-10:45 p.m., E-9:45, C-8:45, M-7:45**

**C — Light Opera Gems**

CFBR CKOK KFH KLZ KMBC  
KRLD KSCJ KSL K TSA KVOR  
WABC WADC WBCM WBIG WCAH  
WCAO WCAU WDAE WDBJ WDBO  
WDDO WDRS WDSU WEAN WFBL  
WFBM WFEA WGR WGST WHEC  
WHK WHP WIBW WISN WJAS  
WLAC WLWB WLWZ WNBC WNA3  
WNOX WOKO WORC WQAM WREC  
WSPA WSJS WSPD WTAQ WTOC  
WWVA

**ED-11:00 p.m., E-10:00, C-9:00, M-8:00**

**B — Amos 'n' Andy, See Monday**

**ED-11:15 p.m., E-10:15, C-9:15, M-8:15**

**B — Everett Marshall, See Monday**

**ED-11:30 p.m., E-10:30, C-9:30, M-8:30**

**C — Freddie Martin and Orchestra**  
CFBR KLRA KLZ KMBC KSL KTRH  
K TSA KVOR WABC WADC WBCB  
WCAH WCAU WCCO WDAE WDBJ  
WDBO WDDO WDRS WDSU WEAN

WFBL WFBM WGST WHAS WHEC  
WHK WHP WIBW WICC WISN  
WJAS WJVS WKBW WLAC WLWB  
WLWZ WMBD WMBG WMT WNBC  
WODX WOKO WORC WPG WQAM  
WSBT WSJS WSPD

**B — Sixteen Male Voices**

KSO KWCR KWK WBAL WBZ  
WBZA WCKY WENR WGAR WHAM  
WJZ WREN

**ED-12:00 p.m., E-11:00, C-10:00, M-9:00**

**C — Eddie Duchin and Orchestra**  
CKOK KFAB KLZ KMBC KSCJ  
KTRH KVOR WABC WBCB WBT  
WCAH WCAU WCCO WDAE WDDO  
WDSU WEAN WFBL WGST WHAS  
WHK WHP WICC WISN WJAS  
WJVS WKBW WLWB WMBD WMT  
WNAC WNA3 WNOX WOKO WORC  
WPG WREC WSBT WSPD WTOC

**ED-12:15 a.m., E-11:15, C-10:15, M-9:15**

**B — Sherlock Holmes**

KDYL KFI KFSD KGHK KGR  
KGO KGW KHQ KOA KOMO K TAR

## THURSDAY

**ED-5:45 p.m., E-4:45, C-3:45, M-2:45**

**B — Orphan Annie, See Monday**

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**

**R — Waldorf-Astoria, See Monday**

**C — H. V. Kaltenborn**

CFBR CKOK KFAB KFH KLZ  
KSCJ KVOR WAAB WABC WACO  
WBIG WBCB WCAO WDAE WDBJ  
WDBO WDDO WDRS WDSU WEAN  
WFEA WGST WHAS WHEC WHP WICC  
WIP WISN WKBW WKBN WLWB  
WLWZ WMT WNA3 WNOX WODX  
WOKO WORC WQAM WREC WSBT  
WSPA WSJS WSPD WTAQ WTAR  
WTOC

**ED-6:15 p.m., E-5:15, C-4:15, M-3:15**

**C — Ozzie Nelson and Orchestra**

CFBR CKOK WAAB WABC WACO  
WBIG WBCB WCAO WDAE WDBJ  
WDBO WDDO WDRS WDSU WFEA  
WGST WHEC WHP WLWB WLWZ  
WNOX WODX WOKO WORC WQAM  
WREC WSBT WSPA WSJS WSPD  
WTAR WTOC

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**

**R — Three Keys**

KECA KEX KFSD KFRY KGA  
KJR KOA KPO KSD KTBS KTHS  
WAPI WDAF WDAY WFAF WFBP  
WFI WIBA WIS WJAR WMAQ  
WMC WOI WSAI WSB WSMB  
WTAG WWJ WWNC

**ED-6:45 p.m., E-5:45, C-4:45, M-3:45**

**R — Olga Albani, See Monday**

**C — Just Plain Bill, See Monday**

**B — Lowell Thomas, See Monday**

**B — Orphan Annie, See Monday**

**ED-7:00 p.m., E-6:00, C-5:00, M-4:00**

**B — Amos 'n' Andy, See Monday**

**C — Charles Carlie, Tenor**

CFBR CKLW KFH KLZ KMBC KSL  
K TSA KVOR WABC WACO WBIG  
WBCB WCAO WDAE WDBJ  
WDBO WDDO WDRS WDSU WEAN  
WFBL WFEA WGR WGST WHAS  
WHK WHP WISN WJAS WJVS  
WKBW WLAC WLWB WLWZ WNBC  
WMT WNA3 WNOX WOKO WORC  
WQAM WREC WSPA WSJS WSPD  
WTAQ WTAR

## THURSDAY—(Continued)

**ED-7:15 p.m., E-6:15, C-5:15, M-4:15**  
C — Buck Rogers, See Monday  
R — Century of Progress, See Monday

**ED-7:30 p.m., E-6:30, C-5:30, M-4:30**  
C — Jack Dempsey, See Tuesday

**ED-7:45 p.m., E-6:45, C-5:45, M-4:45**  
B — Merle Tharpe, Talks  
KDKA KECA KFSB KGA KGIR  
KGW KJR KOA KOIL KSO KWCR  
KWK KYW WAPI WBAL WGAR  
WHAM WIOD WIS WJDX WJZ  
WMAL WMC WREN WSB WSM  
WSYR WWNC  
C — Boake Carter, See Monday  
R — The Goldbergs, See Monday

**ED-8:00 p.m., E-7:00, C-6:00, M-5:00**  
C — Evan Evans—Do Re Mi  
CFRB CKOK KFII KLRA KMBC  
KSCJ KTRH KTSa KVOR WABC  
WADC WCAH WCAO WDAE WDBJ  
WDBO WDOD WDRC WDSU WEAN  
WFBL WFBM WFEA WGR WGST  
WHAS WHDC WHK WHP WIBW  
WIP WISN WJAS WJWV WKBH  
WLAC WLWB WLWB WMBG WNAC  
WNOX WOKO WPG WQAM WREC  
WSFA WSJS WSPD WTAQ WTAR  
WTAM WTJ WWJ

**R — Rudy Vallee and Orchestra**  
CFPC CKGW KDYL KPI KFYR  
KGO KGW KHQ KOA KOMO KPRC  
KSD KSTP KTAZ WAPI WBAP  
WBEN WCAE WCKY WOSH WDP  
WDAY WEAF WEEB WEEI WFBF  
WFI WFLA WGY WHO WIOD WJAR  
WJAX WJDX WKY WMAQ WMC  
WOAI WOC WOW WRC WRVA  
WSAI WSB WSM WSMB WTAG  
WTAM WTJ WWJ

**ED-8:30 p.m., E-7:30, C-6:30, M-5:30**  
C — Kate Smith, See Tuesday  
B — Rin Tin Tin Thriller  
KDKA KOIL KWK WBZ WBZA  
WGAR WHAM WJZ WLS WLW  
WREN

**ED-8:45 p.m., E-7:45, C-6:45, M-5:45**  
C — Abe Lyman, See Tuesday

**ED-9:00 p.m., E-8:00, C-7:00, M-6:00**  
R — Maxwell House Show Boat  
KPRC KSD KSTP KTBS WAPI  
WBAP WBEN WCAE WCKY WCHS  
WDAF WEAF WEEI WFBF WFI  
WFLA WGY WHO WIOD WIS WJAR  
WJAX WJDX WKY WMAQ WMC  
WOAI WOC WOW WRC WRVA  
WSAI WSB WSM WSMB WTAG  
WTAM WTJ WWJ WWNC  
C — Easy Aces, See Tuesday  
B — Death Valley Days  
KDKA KOIL KWK WBAL WBZ  
WBZA WGAR WHAM WJR WJZ  
WLS WLW WREN

**ED-9:15 p.m., E-8:15, C-7:15, M-6:15**  
C — Fray and Braggiotti  
CFRB CKOK KFII KLRA KLZ  
KMBC KSCJ KTRH KTSa KVOR  
WABC WADC WBIG WCAH WCAO  
WCAU WDAE WDBJ WDOD WDOD  
WDRC WDSU WEAN WFBL WFEA  
WGST WHDC WHP WIBW WICC  
WISN WJAS WKBN WKWB WLAC  
WLWB WLWB WMT WNAC WNAX  
WNOX WOKO WORC WPG WQAM  
WREC WSBT WSJS WSPD WTOC

**ED-9:30 p.m., E-8:30, C-7:30, M-6:30**  
C — Col. Stoopnagle and Budd  
CKOK KDB KERN KFBK KFH  
KFPY KPRC KGB KHJ KLRA KLZ  
KMBC KMJ KMOX KOIN KOI  
KOMA KSCJ KSL KTRH KTAZ  
KTSa KVI KWG WABC WADC  
WBRW WBT WCAH WCAO WCAU  
WCCO WDAE WDBO WDRC WDSU  
WEAN WFBL WFBM WGN WGST  
WHAS WHDC WIK WJAS WJWV  
WKWB WKRC WLAC WNAC WOKO  
WOWO WQAM WREC WRR WSPD  
WTAR

**B — Wayne King and Orchestra**  
KDKA KOIL KSO KWCR KWK  
WBAL WBZ WBZA WENR WJZ  
WREN

**ED-10:00 p.m., E-9:00, C-8:00, M-7:00**  
R — Lucky Strike—Jack Pearl  
KDYL KFI KFSB KFYR KGO KGW  
KHQ KOA KOMO KPRC KSD KSTP  
KTAZ KTBS KTHS KVOO WRAP  
WBEN WCAE WCHS WDAF WDAY  
WEAF WEEB WEEI WENR WFBF  
WFI WFLA WGY WHO WIBA WIOY  
WIS WJAR WJAX WJDX WKY  
WLW WMC WOAI WOC WOW WRC  
WRVA WSB WSM WSMB WTAG  
WTAM WTJ WWJ WWNC

**C — John Henry—River Giant**  
CFRB CKLW KFII KLRA KLZ  
KMBC KSL KTRII KTSa KVOR  
WAAB WABC WBBM WBIG WBRW  
WCAH WCAO WCAU WCCO WDAE  
WDBJ WDOD WDOD WDRC WDSU  
WEAN WFBL WFBM WFEA WGST WHAS  
WHK WHP WIBW WICC WISN  
WJAS WJWV WKBN WKWB WLAC  
WLWB WLWB WMBD WMBG WMT  
WODX WOKO WORC WPG WQAM  
WREC WSBT WSJS WSPD

**ED-10:15 p.m., E-9:15, C-8:15, M-7:15**  
C — California Melodies  
CFRB CKLW KFII KLRA KLZ  
KMBC KSL KTRII KTSa KVOR  
WAAB WABC WBBM WBIG WBRW  
WCAH WCAO WCAU WCCO WDAE  
WDBJ WDOD WDOD WDRC WDSU  
WEAN WFBL WFBM WFEA WGST WHAS  
WHDC WHK WHP WIBW WICC  
WJAS WJWV WKBN WKWB WLAC  
WLWB WLWB WMBD WMBG WMT  
WODX WOKO WORC WPG WQAM  
WREC WSBT WSJS WSPD WTAR

**ED-10:45 p.m., E-9:45, C-8:45, M-7:45**  
C — Howard Barlow, See Monday

**ED-11:00 p.m., E-10:00, C-9:00, M-8:00**  
B — Sizzlers Trio  
WBAL WFLA WGAR WHAM WIS  
WJAX WJZ WMAL WRVA WSYR  
WWNC

**R — James Melton, Tenor**  
KSD WCAE WCKY WEAF WFBF  
WRC WSAI WTAG WWJ  
B — Amos 'n' Andy, See Monday

**ED-11:30 p.m., E-10:30, C-9:30, M-8:30**  
C — Ted Lewis, See Monday

**ED-1:00 a.m., E-12:00, C-11:00, M-10:00**  
R — Maxwell House Show Boat  
KDYL KFI KFSB KGO KGW KHQ  
KOA KOMO KTAZ

## FRIDAY

**ED-5:45 p.m., E-4:45, C-3:45, M-2:45**  
B — Orphan Annie, See Monday

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**  
R — Waldorf-Astoria, See Monday

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**  
R — Betty Boop—Mae Questel  
KFSB KFYR KOA KPO KSD KTBS  
KTBS WBEN WDAF WEAF WFBF  
WGY WIBA WIS WJDX WOAI  
WSB WSMB WWNC  
B — Tastyest Jesters, See Monday  
C — Happy Wonder Bakers, See Monday

**ED-6:45 p.m., E-5:45, C-4:45, M-3:45**  
C — Just Plain Bill, See Monday  
B — Lowell Thomas, See Monday  
B — Orphan Annie, See Monday

**ED-7:00 p.m., E-6:00, C-5:00, M-4:00**  
B — Amos 'n' Andy, See Monday  
C — Mildred Bailey, See Wednesday  
R — Borrah Minevitch, Harmonica  
WAPI WEAF WFBF WJAR WMC  
WRC WSAI WSB WSM WWJ

**ED-7:15 p.m., E-6:15, C-5:15, M-4:15**  
R — Century of Progress, See Monday  
C — Buck Rogers, See Monday

**ED-7:30 p.m., E-6:30, C-5:30, M-4:30**  
B — Five Star Theatre, See Monday

**ED-7:45 p.m., E-6:45, C-5:45, M-4:45**  
C — Boake Carter, See Monday  
R — The Goldbergs, See Monday

**ED-8:00 p.m., E-7:00, C-6:00, M-5:00**  
R — Cities Service Concert  
CKGW KDYL KOA KPRC KSD  
KSTP KTBS KYW WBEN WCAE  
WCHS WDAF WEAF WEEB WEEI  
WFLA WFBF WGY WHO WJAR  
WKY WLIT WOAI WOC WOW WRC  
WSAI WTAG WTAM WTIC WTJ  
WWJ

**B — Nestle's Program**  
KDKA KOIL KWK WBAL WBZ  
WBZA WGAR WHAM WJR WJZ  
WLS WLRN

**C — Nino Martini, Tenor**  
CFRB CKLW KMBC KTRH KTSa  
KVOR WABC WBG WBRW WCAH  
WCAO WCAU WCCO WDBJ WDOD  
WDOD WDRC WDSU WEAN WFBL  
WFEA WGR WGST WHEC WHK  
WHP WISN WJAS WJWV WLAC  
WLWB WLWB WMBG WMT WODX  
WOKO WORC WQAM WREC WSBT  
WSFA WSJS WSPD WTAQ WTAR

**ED-8:30 p.m., E-7:30, C-6:30, M-5:30**  
C — Foreign Legion

CFRB CKLW KLRA KMBC KSL  
KTRH KTSa KVOR WABC WBIG  
WCAH WCAO WCAU WCCO WDAE  
WDBJ WDOD WDOD WDRC WDSU  
WFBL WFBM WGR WGST WHAS  
WHDC WHK WHP WISN WJAS  
WJWV WLAC WLWB WLWB WMBG  
WMT WODX WOKO WQAM WREC  
WSBT WSFA WSJS WSPD WTAQ  
WTAR

**B — Horlick Program, See Tuesday**

**ED-8:45 p.m., E-7:45, C-6:45, M-5:45**  
B — Phil Cook, See Monday

**ED-9:00 p.m., E-8:00, C-7:00, M-6:00**  
B — Archer Gibson, Organist  
KDYL KFSB KFYR KGO KGW  
KHQ KOA KOMO KSO KTBS KWCR  
KWK KYW WBAL WDAY WFAA  
WFLA WIBW WIS WJR WJZ WKY  
WOAI WREN WRVA WSB WSMB  
WSYR WWNC

**FRIDAY—(Continued)**

**C** — Irvin S. Cobb, See Wednesday  
**R** — Musical Grocery Store  
KSD WBEN WGSB WDAF WEAF  
WEEI WFBR WGY WJAR WLIT  
WMAQ WRC WTAG WTAM WTIC

**ED-9:15 p.m., E-9:15, C-7:15, M-6:15**  
**C** — Street Singer, See Monday

**ED-9:30 p.m., E-9:30, C-7:30, M-6:30**  
**R** — Pond's Program  
KSD WBEN WCAE WGSB WDAF  
WEAF WENR WFBR WGY WHO  
WJAR WLIT WOC WOW WRC WSAI  
WTAG WTAM WWJ

**C** — Edwin C. Hill, Inside Story  
CKOK KFH KLRA KMBC KMOX  
KOMA KRLD KTRH KTSB WABC  
WADC WBCM WCAH WCAO WCAU  
WCCO WDRS WEAN WFBL WFBM  
WGN WHAD WHAS WHK WHP  
WIBW WJAS WJSV WKBH WKBW  
WKRC WLWB WLWZ WMGD WNAO  
WOKO WORC WOW WREB WSPD  
**B** — Armour Program—Phil Baker  
KDKA KDYL KFI KGO KGW KHQ  
KOA KOIL KOMO KPRC KSO KSTP  
KWK WAPI WBAL WBZ WBSZ  
WEEC WFAA WGAR WHAM WIOD  
WJAX WJR WJZ WKY WMAQ  
WMC WOI WREN WRVA WSB  
WSM WSMB WTMJ WWNC

**ED-10:00 p.m., E-9:00, C-8:00, M-7:00**  
**R** — Chevrolet—Jack Benny  
KDYL KFI KFSD KFYR KGHK  
KGIR KGO KGW KHQ KOA KOMO  
KPRC KSD KSTP KTAR KTBS  
KTHS KVOO WBEN WCAE WGSB  
WDAF WDAY WEAF WEEC WEEI  
WENR WFAA WFRB WFLA WGY  
WHO WIBA WIOD WIS WJAR  
WJAX WKY WLIT WLW WMC  
WOAI WOC WOW WRC WRVA WSB  
WSM WSMB WTAG WTAM WTIC  
WTMJ WWJ WWNC

**C** — Chesterfield—Lou Holtz  
CKLW KDB KERN KFBK KFPY  
KPRC KGB KHJ KLRA KLZ KMBC  
KMJ KMOX KOH KOIN KOL KOMA  
KRLD KSL KTRH KTSB KVI KWG  
WABC WADC WBRB WBT WCAH  
WCAO WCAU WCCO WDAE WDBJ  
WDBO WDRS WDSU WEAN WFBL  
WFBM WGN WGST WHAS WHCZ  
WHK WISN WJAS WJSV WKBW  
WKRC WLAC WLWB WMGB WMT  
WNAO WOKO WORC WOW WPG  
WQAM WREB WSPD WTAR WTOG

**ED-10:15 p.m., E-9:15, C-8:15, M-7:15**  
**B** — Irene Franklin, See Wednesday

**ED-10:30 p.m., E-9:30, C-8:30, M-7:30**  
**R** — Richfield Country Club  
WBEN WCAE WEAF WEEI WFBR  
WGY WJAR WLIT WRC WTIC

**C** — Little Jack Little  
CFRB CKLW KFH KLRA KLZ  
KMBC KRLD KSL KTSB KVOR  
WAAB WABC WBBM WBIG WBRB  
WCAH WCAO WCAU WDAE WDBJ  
WDBO WDOO WDRS WDSU WEAN  
WFBL WFBM WFEA WGST WHAS  
WHCZ WHK WHP WIBW WJAS  
WJSV WKBW WLAC WLWB WLWZ  
WMGD WMGB WMT WODX WOKO  
WORC WPG WQAM WREC WSBT  
WSJS WSPD WTAR

**B** — First Nighter, Drama  
KDKA KDYL KFI KFSD KGO KGW  
KHQ KOA KOIL KOMO KPRC

KSTP KTAR KWK WAPI WBAL  
WBZ WBZA WCKY WEEC WGAR  
WHAM WJR WJZ WKY WLS WMAI  
WREN WSB WSM WTMJ

**ED-11:00 p.m., E-10:00, C-9:00, M-8:00**  
**B** — Amos 'n' Andy, See Monday

**ED-11:15 p.m., E-10:15, C-9:15, M-8:15**  
**C** — Do Re Mi Girls

CFRB CKLW KLRA KLZ KMBC  
KSL KTSB KVOR WABC WBIG  
WBRB WCAH WCAO WCCO WDAE  
WDBJ WDBO WDOO WDRS WDSU  
WEAN WFBL WFBM WFEA WGST  
WHAS WHCZ WHP WIBW WIP  
WJAS WJSV WKBW WLAC WLWB  
WLWB WMGD WMGB WMT WNAO  
WODX WOKO WORC WPG WQAM  
WSBT WSJS WSPD WTAR WWVA  
**B** — Dorothy Fields—Jimmy McHugh  
KSO KWCR KWK WBAL WENR  
WGAR WHAM WJR WJZ WMAL  
WREN

**ED-11:30 p.m., E-10:30, C-9:30, M-8:30**  
**R** — Musical Grocery Store

KDYL KFI KFSD KGO KGW KHQ  
KOA KOMO KTAR WDAF  
**C** — Abe Lyman, See Tuesday  
**B** — Phantom Gypsy, See Monday

**ED-12:00 p.m., E-11:00, C-10:00, M-9:00**  
**C** — George Hall and Orchestra

CKOK KFAB KLZ KMBC KRLD  
KSCJ KSL KTRH KVOR WABC  
WBIC WBT WCAU WCCO WDAE  
WDOO WDSU WICC WISN WJSV  
WLWB WMGD WNAO WNAO WOKO  
WPG WSBT WSPD WTOG

**SATURDAY**

**ED-5:45 p.m., E-4:45, C-3:45, M-2:45**  
**B** — Orphan Annie, See Monday

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**  
**B** — Don Bestor and Orchestra

KDKA KOIL KSO KWCR KWK  
WBAL WENR WHAM WJR WJZ  
WMAL WREN WSYR  
**C** — America's Grub Street  
CFRB CKOK KFAB KFI KSCJ KSL  
KTRH KVOR WAAB WABC WADC  
WBBM WBCM WCCO WBIC WBT  
WCAO WCAU WCCO WDAE WDBO  
WDOO WDRS WDSU WEAN WFEA  
WHCZ WICC WISN WJSV WKBH  
WLWB WLWZ WNAO WOKO WORC  
WQAM WSBT WSJS WSPD  
WTAG WTAR WTOG WWVA

**R** — Waldorf-Astoria, See Monday

**ED-6:15 p.m., E-5:15, C-4:15, M-3:15**  
**C** — Art Coogan and Orchestra

CFRB CKLW KFH KLRA KLZ  
KMBC KSL KTRH KTSB KVOR  
WAAB WABC WACO WBIG WBRB  
WCAH WDAE WDBJ WDBO WDOO  
WDRS WDSU WFBL WFEA WGR  
WGST WHAS WHK WHP WIBW  
WIP WJAS WJSV WJAS WLAC  
WLWB WLWZ WMGB WMT WODX  
WOKO WORC WQAM WSBT WSA  
WSJS WSPD WTAQ WTAR WWVA

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**  
**C** — Billy Burton and Orchestra

CFRB CKOK KTRH WAAB WABC  
WACO WADC WBIG WCAO WCAU  
WDAE WDBJ WDBO WDOO WDRS  
WDSU WEAN WFEA WGR WGST  
WHCZ WHP WICC WJSV WLAC  
WLWB WLWZ WNOX WODX WOKO

WORC WQAM WREC WSBT WSWA  
WSJS WSPD WTOG

**B** — Laws That Safeguard

KDYL KEX KFSD KFYR KGA KGIR  
KJR KOA KOIL KPO KPRC KSO  
KSTP KTAR KTBS KTHS KTRB  
KWK WBAL WBZ WBZA WCKY  
WEEC WFLA WIBA WIOD WIS  
WJAX WJR WJZ WKY WMAQ  
WMC WWOI WREN WRVA WSB  
WSMB WWNC

**ED-6:45 p.m., E-5:45, C-4:45, M-3:45**  
**B** — Orphan Annie, See Monday

**R** — Pickens Sisters  
CKGW KDYL WBEN WCAE WEAF  
WFBR WGY WHO WIOD WIS WJAR  
WJAX WMC WOC WOW WSAI  
WTAG WWNC

**B** — Vincent Lopez and Orchestra  
WBAL WGAR WHAM WJR WJZ  
WSYR

**ED-7:00 p.m., E-6:00, C-5:00, M-4:00**  
**R** — Bert Lown and Orchestra

CFCE WBEN WDAF WEAF WFBR  
WFI WGY WJAR WMAQ WSAI  
WTAG WTAM

**B** — American Taxpayers' League

KDKA KDYL KFSD KGA KJR KOA  
KPO KSO KTBS KWCR WBAL  
WEEC WFLA WHAM WIBA WJZ  
WJZ WMAL WMC WSB WSMB  
WSYR WWNC

**C** — Frederic William Wile

KMBC KRLD KTRH WABC WADC  
WBBM WBCM WBIG WBRB WBT  
WCAO WCAU WDAE WDBO WDOO  
WDRS WDSU WEAN WFBM WFEA  
WGR WHCZ WHK WICC WJAS  
WJSV WLWB WLWZ WNAO WOKO  
WQAM WSPA WSPD WTAR WWVA

**ED-7:15 p.m., E-6:15, C-5:15, M-4:15**  
**C** — Gypsy Nina

CFRB CKLW KFH KIZ KMBC  
KTRH KTSB KVOR WABC WACO  
WBBM WBIG WBRB WCAH WCAO  
WCAU WCCO WDAE WDBJ WDBO  
WDOO WDRS WDSU WEAN WFEA  
WGR WGST WHK WHP WIBW  
WISN WJAS WJSV WLAC WLWB  
WLWB WMGB WMT WNAO WODX  
WOKO WORC WQAM WREB WSA  
WSJS WSPD WTAQ WTAR

**R** — Century of Progress, See Monday  
**B** — Everett Marshall, See Monday

**ED-7:30 p.m., E-6:30, C-5:30, M-4:30**  
**C** — Glen Gray and Orchestra

CFRB CKLW KFH KIZ KMBC  
KTRH KTSB KVOR WABC WACO  
WBIG WBRB WCAH WCAO WCAU  
WCCO WDAE WDBJ WDBO WDOO  
WDRS WDSU WFBM WFEA WGR  
WGST WHCZ WHP WICC WISN  
WJAS WJSV WLAC WLWB WLWZ  
WMGB WMT WNAO WODX WOKO  
WORC WQAM WREB WSA WSJS  
WSPD WTAQ WTAR

**R** — Elvia Allman, See Monday

**ED-7:45 p.m., E-6:45, C-5:45, M-4:45**  
**R** — The World Today

KFYR KTBS WBLX WDAF WEAF  
WENR WFBR WFLA WGY WHO  
WIBA WIS WJAR WJAX WKY  
WOAI WOC WOW WPTF WRC  
WSAI WTAG WTAM WWJ WWNC  
**B** — Irene Bordoni, See Tuesday

**ED-8:00 p.m., E-7:00, C-6:00, M-5:00**  
**R** — Ortiz Tirado, Mexican Tenor

CKGW KFYR KOA KPO KPRC KSD

## SATURDAY—(Continued)

KSTP KTBS WBEN WCKY WCSH  
WDAF WDAY WFAE WBEW WEI  
WFI WGY WHO WIBA WIOD WIS  
WJAR WMAQ WOC WOI WOC  
WRC WSAI WSMB WTAG WTAM  
WWJ WWNC

**ED-8:15 p.m., E-7:15, C-6:15, M-5:15**  
**C—Magic Voice, See Tuesday**

**ED-8:30 p.m., E-7:30, C-6:30, M-5:30**  
**B—Leon Belasco and Orchestra**  
CFRB CKOK KFH KLRA KLZ  
KMBC KSCJ KSL KTRH KTSa  
KVOR WAAC WADC WBIG WCAH  
WCAO WCAI WCCO WDAE WDBJ  
WDBO WDDO WDRC WDSU WEAN  
WFBL WFBM WFEA WGR WGST  
WHCC WHK WHP WIBW WICC  
WISN WJAS WJW WLAC WLWB  
WLWB WMT WNAC WNAX WNOX  
WODX WOKO WORC WQAM WREC  
WSBT WSFA WSPD WTAQ WTOG

### R—Economic World Today

KDYL KFSD KFYR KGA KFHL  
KGIR KJR KOA KPO KPRC KSD  
KSTP WAPI WBAP WBEN WCSH  
WDAF WDAY WFAE WBEW WEI  
WFBF WFI WFLA WGY WHO WIBA  
WIOD WIS WJAR WJDX WKY  
WMAQ WMC WOI WOC WOV  
WRC WSAI WSMB WTAG WTAM  
WWJ WWNC

**ED-9:00 p.m., E-8:00, C-7:00, M-6:00**  
**C—Easy Aces, See Tuesday**  
**R—Ranny Weeks, See Wednesday**

**ED-9:15 p.m., E-8:15, C-7:15, M-6:15**  
**C—Boswell Sisters**  
CFRB CKOK KFH KLRA KLZ  
KMBC KMOX KRLD KSCJ KSL  
KTRH KTSa KVOR WAAC WABC  
WACO WADC WBBM WBCM WBIG  
WBRC WBT WCAH WCAO WCCO  
WDAE WDHI WDBO WDOD WDSU  
WEAN WFBL WFBM WFEA WGST  
WHAS WHEC WIBW WICC WIP  
WISN WJAS WJW WKWB WKWB  
WLWB WLWB WMT WNAX WNOX  
WODX WOKO WORC WQAM WREC  
WSPD WTAR WTOG

**ED-9:30 p.m., E-8:30, C-7:30, M-6:30**  
**R—K-7, Drama**  
KSD WBEN WCAE WCSH WDAF  
WFAE WEEI WFBR WFI WGY WHO  
WJAR WMAQ WOC WOV WRC  
WSAI WTAG WTAM WWJ

**ED-9:45 p.m., E-8:45, C-7:45, M-6:45**  
**C—Saturday Frivolities**  
CFRB CKOK KFH KLRA KLZ  
KMBC KMOX KSCJ KSL KTRH  
KTSa KVOR WAAC WADC WBBM  
WBCA WCAH WCAO WCAU WCCO  
WDAE WDBJ WDBO WDOD WDSU  
WEAN WFBM WFEA WFEA WGST  
WHP WIBW WICC WJAS WJW  
WKWB WLAC WLWB WLWB WMBD  
WMT WNAC WNAX WNOX WODX  
WOKO WORC WPG WQAM WREC  
WSBT WSJS WSPD WTOG

**ED-10:00 p.m., E-9:00, C-8:00, M-7:00**  
**B—Gilbert and Sullivan Gems**  
KDKA KOIL KSO KWCW KWK  
WBAL WBZ WBZA WCKY WFLA  
WJAR WHAM WIS WJAX WJR  
WJZ WMAL WREN WRVA WSYR  
WWNC

**R—B. A. Rolfe and Orchestra**  
CFCF CKGW KDYL KFI KGO  
KOA KSD KSTP WBAP WBEN  
WCAE WCSH WDAF WFAE WEI  
WFBR WFI WGY WHO WJAR  
WLW WMAQ WOC WOV WRC  
WSB WSMB WTAG WTAM WWJ

**ED-10:15 p.m., E-9:15, C-8:15, M-7:15**  
**C—Public Affairs Institute**  
KFH KLZ KSCJ KTRH KTSa KVOR  
WAAB WABC WADC WBBM WBCM  
WBIG WBRC WBT WCAO WCAU  
WCCO WDAE WDBO WDOD WDRS  
WDSU WEAN WFBM WFEA WFEA  
WICC WJAS WJW WKWB WLWB  
WLWB WMBD WNAX WOKO WORC  
WPG WQAM WSBT WSJS WSPD  
WTAR WTOG WWVA

**ED-10:30 p.m., E-9:30, C-8:30, M-7:30**  
**B—Cuckoo Program**  
CKGW KDIA KOIL KSO KWCW  
KWK KYW WBAI WCKY WGAR  
WHAM WJZ WREN WSYR

**ED-10:45 p.m., E-9:45, C-8:45, M-7:45**  
**C—Gertrude Niesen**  
CFRB CKOK KFH KLRA KLZ  
KMBC KSCJ KTRH KTSa KVOR  
WAAB WABC WBIG WCAO WDAE  
WDBJ WDBO WDOD WDRS WDSU  
WEAN WFEA WGST WHAS WHEC  
WHK WHP WICC WIP WISN WJAS  
WJW WKWB WLAC WLWB WLWB  
WMBD WMT WNAX WNOX WODX  
WOKO WORC WPG WQAM WREC  
WSBT WSJS WSPD WTAR WTOG  
WWVA

**ED-11:00 p.m., E-10:00, C-9:00, M-8:00**  
**B—The Buccaneers Vocal Trio**  
KDKA KDYL KFSD KFYR KGH  
KOA KOIL KPO KPRC KSO KSTP  
KTRB KWCW KWK WBAL WBZ  
WBZA WBEW WFAA WFLA WGAR  
WHAM WIBA WIOD WIS WJDX  
WJR WJZ WKY WLW WMAQ WMC  
WREN WSJ WSMB WSYR WWNC

**C—Freddie Martin and Orchestra**  
CFRB CKOK KFH KLRA KLZ  
KMBC KSCJ KSL KTRH KVOI  
WAAB WABC WACO WADC WCAH  
WCAO WCAU WCCO WDAE WDBJ  
WDBO WDOD WDSU WEAN WFBM  
WGR WGST WHEC WHK WHP  
WIBW WICC WISN WJAS WJW  
WLAC WLWB WLWB WMBD WMT  
WNAX WNOX WODX WOKO WORC  
WQAM WRF C WSBT WSJS WSPD  
WTOG WWVA

**ED-11:15 p.m., E-10:15, C-9:15, M-8:15**  
**B—Everett Marshall, See Monday**

**ED-11:30 p.m., E-10:30, C-9:30, M-8:30**  
**C—Ben Pollack and Orchestra**  
CFRB CKOK KFH KLRA KLZ  
KMBC KTRH KTSa KVOR WABC  
WBIG WBRC WCAH WCAO WCCO  
WDAE WDBJ WDBO WDOD WDRS  
WDSU WEAN WFBM WFBM WFEA  
WGST WHAS WHEC WHK WHP  
WIBW WICC WIP WISN WJW  
WKWB WLAC WLWB WLWB WMBD  
WMBG WNAC WODX WOKO WORC  
WQAM WREC WSBT WSPD WTAR  
WWVA

**B—The Witching Hour**  
KDKA KDYL KEX KFSD KFYR  
KGA KGH KJR KOIL KPO KPRC  
KSO KSTP KTBS KWCW KWK  
WBAL WBZ WBZA WDAY WBEW

WFLA WGAR WIBA WIOD WIS  
WJR WJZ WKY WLW WMAL WMC  
WREN WRVA WSB WSMB WSYR  
WWNC

**R—Harold Stern and Orchestra**  
KSD WBEN WCAE WCKY WCSH  
WDAF WFAE WEEI WFBR WFI  
WGY WHO WJAR WMAQ WOC  
WRC WSAI WTAG WTAM WWJ

**ED-12:00 m., E-11:00, C-10:00, M-9:00**  
**R—Johnny Johnson and Orchestra**  
KSD WCAE WCKY WDAF WFAE  
WFBR WFI WGY WHO WJAR  
WMAQ WOC WRC WTAG WTAM  
**B—Mark Fisher's Orchestra**  
KOIL KSO KWCW KWK KYW  
WGAR WJZ WLW WRC WREN

## SUNDAY

**ED-11:15 a.m., E-10:15, C-9:15, M-8:15**  
**R—Major Bowes' Family**  
KDYL KEX KFSD KFYR KGA KJR  
KOA KPO KPRC KVOO WBAP  
WDAF WDAY WFAE WFBF WFLA  
WGY WHO WIOD WJAR WJAX  
WKY WMC WOC WRC WSM WSMB  
WTAG WTAM WTAM WWJ WWNC

**ED-11:30 a.m., E-10:30, C-9:30, M-8:30**  
**C—Salt Lake Tabernacle Choir**  
CFRB CKOK KFAB KLZ KSCJ KSL  
KTRH KTSa KVOR WABC WADC  
WBCM WHIG WBT WCAO WCAU  
WCCO WDAE WDBO WDOD WDRS  
WDSU WEAN WFEA WGR WHEC  
WHK WIBW WISN WJAS WJW  
WKWB WKBN WLWB WLWB WMBD  
WNAC WNAX WODX WOKO WORC  
WPG WQAM WSBT WSJS WSPD  
WTAQ WTAR WWVA

**ED-12:15 p.m., E-11:15, C-10:15, M-9:15**  
**B—Radio City Concert**  
CFCF CKGW KDIA KDYL KECA  
KEX KFSD KFYR KGA KJR KOA  
KOIL KPO KPRC KSTP KTA  
KVOO KWK WAPI WBAL WBZ  
WBZA WDAY WBEW WBAI WFLA  
WGAR WHAM WIBA WIOD WIS  
WJAX WJR WJZ WKY WLW WMAQ  
WQAI WRC WREN WRVA WSB  
WSM WSMB WSYR WWNC

**ED-12:30 p.m., E-11:30, C-10:30, M-9:30**  
**R—Walter Logan Pop Concert**  
CFCF CKGW KDYL KFYR KOA  
KPRC KSTP KTBS KVOO WAPI  
WBEN WCAE WCKY WCSH WDAF  
WDAY WFAE WBEW WBI WFLA  
WFBR WFI WGY WHO WIBA  
WIOD WIS WJAR WKY WQAI  
WOC WRVA WSAI WSB WSM  
WSMB WTAG WTAM WWJ WWNC

**ED-12:45 p.m., E-11:45, C-10:45, M-9:45**  
**C—Street Singer**  
CFRB CKOK KFAB KLZ KMBC  
KSCJ KSL KTRH KTSa KVOR  
WABC WADC WBCM WBIG WBT  
WCAO WCCO WDAE WDBO WDOD  
WDSU WGR WHEC WHK WIBW  
WISN WJAS WJW WKWB WKBN  
WLWB WLWB WMBD WNAX WODX  
WOKO WPG WQAM WSJS WSPD  
WTAQ WTAR WTOG WWVA

**ED-1:00 p.m., E-12:00, C-11:00, M-10:00**  
**C—Columbia Church of the Air**  
CFRB CKOK KLZ KSCJ KSL KTRH  
KTSa KVOR WAAC WABC WADC  
WBCM WBIG WCAO WCCO WDAE

**SUNDAY—(Continued)**

WDBO WDOOD WDRC WDSU WGR  
WHCC WBW WJAS WJSV WKBB  
WLBW WLBZ WNAX WODX WOKO  
WFG WQAM WSBT WSJS WSPD  
WTAQ WTRW WTOG WVVVA

**ED-1:15 p.m., E-1:15, C-1:15, M-10:15**  
**B — Cook Travelogues**  
KDKA WBAL WBZ WBZA WCKY  
WGR WHAM WJR WJZ WMAL  
WMAQ WSYR

**ED-1:30 p.m., E-1:30, C-1:30, M-10:30**  
**C — Lazy Dan, Minstrel Man**  
CKOK KMBC KMOX WAAB WABC  
WBMM WCAE WCAO WCAU WCCO  
WHAS WJAS WJSV WKRC WMBG

**R — Folks from Dixie**  
CFCC CKGW KFI KFSD KFYR KGO  
KGW KHQ KOA KOMO KPRC KSD  
KSTP KTBS KVOO KWBZ  
WCAE WCKY WDAF WDAY WEAF  
WEBC WEEI WFLA WFBZ WFLA  
WGY WHO WIBA WIOD WIS WJAR  
WJAX WKY WMAQ WOAI WOC  
WOW WRC WRVA WSAI WSB WSM  
WSMB WTAG WTAM WWJ WWCN

**ED-2:00 p.m., E-1:00, C-12:00, M-11:00**  
**C — Smiling Ed McConnell**  
CKOK KEIN KFCB KFPY KFCR  
KGB KHJ KLZ KMBC KMOX KOIN  
KOL KSL KVI KGW WABC WBBM  
WBT WCCO WDSU WGR WGST  
WHAS WHEC WJAS WJSV WKRC  
WLAC WNAC WOWO WQAM WWR

**B — Monarch Mystery Toner**  
KDKA KDYL KFI KFSD KFYR KGO KOA  
KOIL KSO KSTP KWCR KWR KWBZ  
WBAZ WCKY WDAY WEBC WGAR  
WHAM WIBA WJAR WJAX WJR  
WJZ WMAQ WREN WTAM WWCN

**R — Pilgrims Mixed Chorus**  
CFCC KSD KTBS KTHS KYW WAPI  
WBEN WCAE WCHS WCSH WEAF  
WEEI WFAA WGY WJAX WJDX  
WMC WOAI WOW WSAI WSM  
WSMB WTAG WTAM WWJ

**ED-2:15 p.m., E-1:15, C-12:15, M-11:15**  
**B — International Radio Forum**  
KDKA KOIL KSO KWCR KWK  
WBAL WJZ WMAL WMAQ WREN  
WSYR

**C — Albert Bartlett Tango King**  
CKOK KMBC KMOX WABC WBBM  
WCAO WCAU WGR WHEC WHK  
WJAS WJSV WKRC WNAC WOKO  
WOWO

**ED-2:30 p.m., E-1:30, C-12:30, M-11:30**  
**R — Joe Green's Marimba Band**  
CFCC CKGW WBEN WCAE WCKY  
WDAF WEAF WFBZ WGY WJAR  
WMAQ WOV WRC WTAG WTAM

**B — Northwestern Chronicle, Drama**  
KDKA KDYL KFI KFSD KFYR  
KGHL KGIR KGO KGW KHQ KOA  
KOIL KOMO KPRC KSO KSTP  
KTAR KTHS KVOO KWCR KWK  
KYW WAPI WBAL WBZ WBZA  
WDAY WEBC WFAA WFLA WGAR  
WHAM WIBA WIOD WIS WJAX  
WJDX WJR WJZ WKY WLW WMAL  
WMC WOAI WPTF WREN WRVA  
WSB WSM WSMB WTMJ WWCN

**C — Victor Arden and Orchestra**  
CKOK KMBC KMOX WABC WBBM  
WCAO WCAU WGR WHEC WHK  
WJAS WJSV WKRC WNAC WOKO  
WOWO

**ED-2:45 p.m., E-1:45, C-12:45, M-11:45**  
**C — Armida, Songstress**  
CKLW KMBC KMOX WABC WBBM  
WCAO WCAU WGR WHEC WHK  
WJAS WJSV WKRC WNAC WOKO  
WOWO

**ED-3:00 p.m., E-2:00, C-1:00, M-12:00**  
**B — National Opera Concert**  
CFCC KDKA KOIL KSO KWCR  
KWK WBAL WBZ WBZA WCKY  
WHAM WJZ WMAL WMAQ WREN  
WSYR

**R — Wayne King and Orchestra**  
KDYL KFI KGO KGW KHQ KOA  
KOMO KPRC KSD KSTP KTBS  
KTHS KVOO KYW WBEN WCAE  
WCKY WCSH WDAF WEAF WEBC  
WEEI WFAA WFBZ WGY WHO  
WIBA WJAR WKY WLIT WOAI  
WOC WOW WRC WSAI WTAG  
WTAM WTMJ WWJ

**ED-3:15 p.m., E-2:15, C-1:15, M-12:15**  
**C — Howard Barlow, Symphony**  
CFRB KFH KLZ KLZ KMBC  
KTRH KVOR WABC WACO WRIG  
WCAH WCAO WCCO WDAE WDBJ  
WDBO WDOOD WDRC WDSU WEAN  
WFBM WFEA WGR WGST WHCC  
WHK WHP WIBW WICC WISN  
WJAS WLAC WLBW WMBD WMBG  
WMT WNAC WODX WOKO WORC  
WQAM WSBT WSFA WSJS WSPD  
WTAQ

**ED-3:30 p.m., E-2:30, C-1:30, M-12:30**  
**R — Radio Pulpit**  
KDYL KFI KFSD KFYR KGHL  
KGIR KGO KGW KHQ KOA KOMO  
KPRC KSD KTHS KVOO WBBN  
WCAE WCSH WDAF WEAF WEBC  
WEEI WFBZ WFLA WGY WHO  
WIBA WIOD WIS WJAR WJAX  
WJDX WKY WLIT WMC WOAI  
WOC WOW WPTF WRC WRVA  
WSAI WSB WSM WSMB WTAG  
WTAM WWJ WWCN

**ED-4:00 p.m., E-3:00, C-2:00, M-1:00**  
**R — Fiddlers Three**  
CFCC CKGW KDYL KFI KFSD  
KPYR KGO KGW KHQ KOA KOMO  
KPRC KTAR KTBS KTHS KVOO  
WAPI WBAP WBEN WCAE WDAF  
WEAF WEBC WEEI WFBZ WFLA  
WGY WIOD WIS WJAR WJAX  
WJDX WKY WLIT WMAQ WMC  
WOAI WOW WRC WRVA WSAI WSM  
WSM WSMB WTAG WTAM WWCN

**C — Cathedral Hour**  
CFRB CKOK KFH KLZ KMBC  
KRLD KSCJ KSL KVOR WAAB  
WABC WADC WBBM WBCM WBIG  
WBRC WBT WCAO WCAU WCCO  
WDAE WDBO WDOOD WDRC WDSU  
WFBM WFEA WHEC WIBW WICC  
WISN WJAS WJSV WKBB WKBN  
WWRK WLBW WLBZ WNAX WOKO  
WORB WQAM WSBT WSFA WSJS  
WSPD WTRW WTOG WVVVA

**ED-4:15 p.m., E-3:15, C-2:15, M-1:15**  
**B — Symphonette**  
CFCC CKGW KDKA KOIL KPRC  
KSO KTHS KWCR KWK WBAL  
WBAP WCKY WFLA WHAM WIOD  
WJAX WJZ WMAL WMC WOAI  
WREN WRVA WSB WSM WSMB  
WSYR WWCN

**R — Wildroot—Vee Lawnhurst**  
KDYL KFI KGO KGW KHQ KOA  
KOMO WBBN WCAE WCSH WDAF

WEAF WEEI WFBZ WGY WJAR  
WLIT WMAQ WOW WRC WSAI  
WTAG WTAM WWJ

**ED-4:30 p.m., E-3:30, C-2:30, M-1:30**  
**R — Temple of Song**  
WBEN WCAE WCSH WDAF WEAF  
WEEI WFBZ WFI WGY WJAR  
WMAQ WOW WRC WSAI WTAG  
WTAM WWJ

**ED-5:00 p.m., E-4:00, C-3:00, M-2:00**  
**R — Impressions of Italy**  
WBEN WCAE WCSH WDAF WEAF  
WEEI WFBZ WFI WGY WJAR  
WMAQ WOW WRC WSAI WTAG  
WTAM WWJ

**B — World of Religion**  
KDYL KFSD KFYR KGHL KGIR  
KGO KGW KHQ KOA KOIL KOMO  
KSTP KTAR KTBS KVOO KWCR  
KWK WBAL WBAP WBZ WBZA  
WCPFL WCKY WEBC WFLA WGAR  
WHAM WIBA WIOD WIS WJAX  
WJDX WJZ WKY WMAL WMC  
WOAI WPTF WREN WRVA WSB  
WSM WSMB WTMJ WWCN

**ED-5:30 p.m., E-4:30, C-3:30, M-2:30**  
**C — Sanderson and Crumit**  
CKLW KFAB KFH KMBC KMOX  
KOMA WAAB WABC WADC WCAH  
WCAO WCAU WDRC WDSU WEAN  
WPBL WFBM WGR WHAS WHEC  
WHK WICC WJSV WOKO WORC  
WSPD WTRW WVVVA

**R — Clyde Doerr's Saxophone Octet**  
KSD WBEN WCAE WCSH WDAF  
WEAF WEEI WENR WFBZ WFI  
WFLA WGY WHO WIOD WIS WJAR  
WMC WOC WOW WRC WSAI WSB  
WSM WSMB WTAG WTAM WWJ  
WWCN

**B — Pages of Romance, Drama**  
KDKA KOIL KSO KWCR KWK  
KYW WBAL WBZ WBZA WGAR  
WJR WJZ WLW WREN

**ED-6:00 p.m., E-5:00, C-4:00, M-3:00**  
**B — L'Heure Exquise**  
KDKA KOIL KSO KWCR KWK  
WBAL WBZ WBAZ WCKY WGAR  
WHAM WJR WJZ WMAQ WREN  
WSYR

**R — Catholic Hour**  
KDYL KEX KFYR KGHL KGIR  
KJR KOA KPRC KSD KTAR KTBS  
KVOO WAPI WBAP WBEN WCAE  
WCKY WCSH WDAF WDAY WEAF  
WEBC WEEI WENR WFBZ WFLA  
WGY WHO WIBA WIOD WIS WJAR  
WJAX WJDX WKY WLIT WMC  
WOAI WOC WOW WRC WRVA  
WSAI WSB WSM WSMB WTAG  
WTAM WWJ WWCN

**C — The Lawyer and Public**  
CFRB KFAB KFH KLZ KRLD  
KSCJ KSL KVOR WAAB WABC  
WACO WBCM WBIG WERC WCAO  
WCCO WDAE WDBJ WDBO WDOO  
WDRC WDSU WEAN WFEA WGST  
WHAS WHP WIBW WICC WISN  
WKBB WLBW WLBZ WNAX WNOX  
WODX WOKO WORC WPG WQAM  
WREB WFOA WSJS WSPD WTAQ  
WTRW WTOG WVVVA

**ED-6:30 p.m., E-5:30, C-4:30, M-3:30**  
**C — Roses and Drums**  
CKOK KMBC KMOX KRLD WAAB  
WABC WADC WCAO WCCO WDSU  
WGN WGR WHAS WHK WJAS  
WJSV WKRC

SUNDAY—(Continued)

R — Our American Schools

KDYL KBKA KEX KFSB KFYR  
KGA KOA KPO KPRC KSD KSTP  
KTBS KVOO WBAP WBNB WCAE  
WCSH WDAY WFAF WBEBC WEEL  
WENR WFBR WFLA WGY WIBA  
WIOD WJAR WKY WLIT WMC  
WOAI WOW WPTF WRC WRVA  
WSAI WSM WSMB WTAG WWJ  
WVNC

ED-6:45 p.m., E-5:45, C-4:45, M-3:45

B — Dick Daring, Children's Sketch

KDKA KOIL KSO KWCR WBAL  
WBZ WBZA WCKY WENR WGAR  
WHAM WJZ WMAL WREN WSYR

ED-7:00 p.m., E-6:00, C-5:00, M-4:00

B — Borrah Minevitch, Harmonica

KDYL KFYR KOA KOIL KPRC KSO  
KTBS KVOO KWK WBAL WCKY  
WDAY WBEBC WFLA WIBA WIOD  
WIS WJZ WKY WLS WOAI WREN  
WRVA WSMB WVNC

R — James Melton, Tenor

KDYL KFYR KOA KPRC KSD  
KSTP KTBS KVOO WBNB WDAF  
WDAY WFAF WBEBC WEEL WFBR  
WFLA WGY WIBA WIOD WIS  
WJAR WMAQ WOAI WRVA WSAI  
WSMB WTAG WWJ WVNC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30

R — Joe Moss and Orchestra

WCSH WFAF WJAR WTAG WTIC

B — Great Moments in History

KDKA KDYL KFI KFSB KFYR  
KGO KGW KHQ KOA KOIL KOMO  
KPRC KSTP KTAR KVOO KWCR  
KWK WBAL WBZ WBZA WDAY  
WBEBC WFAA WFLA WGAR WHAM  
WIBA WIOD WJAX WJDX WJR  
WJZ WKY WLS WLW WMC WOAI  
WPTF WREN WRVA WSB WSM  
WSMB WTMJ WVNC

C — Fray and Braggiotti

CKOK KFAB KFH KLZ KMBC  
KSCJ KSL KTRH KVOR WABC  
WACO WADC WBRC WCAH WCAO  
WDAE WDBJ WDBO WDOD WDRC  
WDSU WEAN WFBL WFBM WFEA  
WGST WHAS WHEC WHP WIBW  
WISN WJAS WJSV WLWB WLWB  
WMT WNAC WNOX WOKO WORC  
WQAM WSFA WSJS WSPD WTAR  
WTOC WVVA

ED-7:45 p.m., E-6:45, C-5:45, M-4:45

C — Angelo Patri, Your Child

CKOK KMBC KMOX WABC WCAO  
WCAU WCCO WFBL WGN WGR  
WHAS WHK WJAS WJSV WKRC  
WNAC

ED-8:00 p.m., E-7:00, C-6:00, M-5:00

R — Chase and Sanborn

CFBC CKGW KDYL KFI KFSB  
KFYR KGO KGW KHQ KOA KOMO  
KPRC KSD KSTP KATR KVOO  
WBNB WCAE WCSH WDAF WDAY  
WFAF WBEBC WFAA WFBR WFLA  
WGY WHO WIOD WIS WJAR WJDX  
WKY WLIT WLW WMAQ WMC  
WOAI WOC WOW WRC WSB WSM  
WSMB WTAG WTAM WTIC WTMJ  
WWJ WVNC

C — The Gauchos

CKOK KFAB KFH KLZ KSCJ KTRH  
KVOR WAAB WABC WADC WBCM  
WBRC WBT WCAO WDAE WDBO  
WDOD WDRC WDSU WEAN WFAN  
WFBM WGR WHEC WIBW WICC

WIP WISN WJAS WJSV WKBN  
WLBW WLWB WMBD WNAX WODX  
WOKO WPTG WQAM WSJS WSPD  
WTAR WTOC

ED-8:30 p.m., E-7:30, C-6:30, M-5:30

C — Chicago Variety Program

KFH KLRA KLZ KMBC KSL KTRH  
KVOR WABC WACO WBBM WBIG  
WBRC WCAH WCAO WCCO WDAE  
WDBJ WDBO WDOD WDRC WDSU  
WEAN WFBL WFBM WFEA WGR  
WGST WHEC WHP WITC WISN  
WJAS WLWB WMT WNAC WODX  
WOKO WORC WQAM WSFA WSJS  
WSPD WTAQ WVVA

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

C — Columbia Dramatic Guild

CFRB KLRA KLZ KMBC KSL KTRH  
KVOR WABC WACO WBRC WCAH  
WCAO WCAU WCCO WDAE WDBJ  
WDBO WDOD WDRC WDSU WEAN  
WFBL WFBM WFEA WGR WGST  
WHEC WHK WHP WIBW WICC  
WISN WJAS WLWB WNAC  
WOKO WORC WQAM WSFA WSJS  
WSPD WTAQ WVVA

B — Will Rogers

KPRC KTBS KTHS WAPI WBAL  
WBZ WBZA WFAA WFLA WGAR  
WHAM WIS WJAX WJDX WJR  
WJZ WLW WML WMC WOAI  
WPTF WRVA WSB WSM WSMB  
WSYR WVNC

R — Manhattan Merry-Go-Round

KSD WDAF WFAF WENR WFBR  
WFI WGY WHO WJAR WOC WOW  
WRC WSAI WTIC WWJ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30

R — Album of Familiar Music

KDYL KFI KGO KGW KHQ KOA  
KOMO KPRC KSD KSTP KTHS  
WAPI WBNB WCAE WCKY WCSH  
WFAF WENR WFAA WFBR WFI  
WFLA WGY WHO WIOD WJAR  
WJAX WJDX WKY WMC WOAI  
WOC WOW WRC WRVA WSAI WSB  
WSM WSMB WTAG WTAM WTMJ  
WWJ

B — Walter Winchell

KDKA KOIL KSO KWCR KWK  
KYW WBAL WBZ WBZA WGAR  
WHAM WJR WJZ WLW WREN

C — Andre Kostelanetz Presents

CKOK KLZ KMBC KMOX KRLD  
KSCJ KSL KTRH KTSA KVOR  
WABC WADC WBBM WBCM WBRC  
WBT WCAO WCAU WCCO WDAE  
WDBO WDOD WDRC WDSU WEAN  
WFBM WFEA WGR WHEC WHK  
WIBW WISN WJAS WJSV WKBH  
WLWB WLWB WNAC WNAX WOKO  
WORC WSBT WSFA WSJS WSPD  
WTAR WTOC WVVA

ED-9:45 p.m., E-8:45, C-7:45, M-6:45

B — Pickens Sisters

CFBC CKGW KDKA KOIL KSO  
KWCR KWK KYW WBAL WHAM  
WJR WJZ WREN WSYR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

R — David Lawrence

KDYL KFI KFSB KFYR KGO KGW  
KHQ KOA KOMO KPRC KSTP  
KTBS WBNB WCAE WCKY WCSH  
WDAF WDAY WFAF WBEBC WEEL  
WFBR WFI WFLA WGY WHO WIBA  
WIOD WIS WJAR WJAX WKY WMC  
WOAI WOC WRC WSAI WSM WSMB  
WTAG WTAM WTIC WWJ WVNC

B — Phil Doney, Fireside Songs

KDKA KOIL KSO KWCR KWK

WBAL WBZ WBZA WCKY WGAR  
WHAM WJR WJZ WMAQ WREN  
WSYR

C — John Henry—River Giant

CKOK KLRA KLZ KMBC KRLD  
KSCJ KSL KTRH KTSA KVOR  
WABC WACO WADC WBBM WBCM  
WBRC WBT WCAH WCAO WCCO  
WDAE WDBJ WDOD WDRC WDSU  
WFBL WFBM WFLA WGR WGST  
WHEC WHK WHP WISN WJAS  
WKBH WLWB WLWB WNAX WNOX  
WOKO WORC WREC WSFA WSJS  
WSPD WVVA

ED-10:15 p.m., E-9:15, C-8:15, M-7:15

C — Columbia Revue

CFRB KLRA KLZ KMBC KRLD  
KSL KTRH KVOR WAAB WABC  
WBIG WBRC WCAH WCAO WCAU  
WCCO WDAE WDBJ WDOD WDOD  
WDRC WDSU WFBL WFBM WFEA  
WGR WGST WHEC WHP WIBW  
WICC WISN WJAS WKBW WLAC  
WLWB WMBD WMT WODX WOKO  
WORC WPG WQAM WSBT WSJS  
WSPD WTAQ

R — Highlights and Shadows

CKGW KYW WBNB WCAE WCKY  
WCSH WDAF WFAF WEEL WFBR  
WFLA WGY WIOD WIS WJAR WWR  
WRC WSAI WTAG WTAM WWJ  
WVNC

B — Vincent Lopez; Pratt-Sherman

KDKA KDYL KFI KGO KGW KHQ  
KOA KOIL KOMO KPRC KSTP  
KTHS KWK WBAL WBAF WBZ  
WBZA WGAR WIBA WJDX WJR  
WJZ WKY WLW WMAQ WOAI  
WREN WSB WSM WSMB WTMJ

ED-10:45 p.m., E-9:45, C-8:45, M-7:45

R — Sunday at Seth Parker's

CFBC CKGW KDYL KFSB KFYR  
KGHL KGIR KGO KGW RHQ KOA  
KPRC KSTP KTAR KTBS KTHS  
KYW WAPI WBAF WBNB WCAE  
WCKY WCSH WDAF WDAY WFAF  
WBEBC WEEL WFBR WFI WFLA  
WGY WHO WIBA WIOD WIS WJAR  
WJAX WJDX WMC WOAI WOC  
WOW WRC WRVA WSAI WSB WSM  
WSMB WTAG WTAM WTMJ WWJ  
WVNC

B — Orange Lantern, Mystery Drama

KDKA KSO KWCR KWK WBAL  
WGAR WHAM WJZ WREN

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

C — Eddie Duchin and Orchestra

CKOK KFAB KFH KLRA KLZ  
KMOX KSCJ KTRH KVOR WAAB  
WABC WBCM WBRB WCAO WCAU  
WCCO WDAE WDBJ WDBO WDOD  
WDRC WDSU WEAN WGST WHK  
WHP WIBW WICC WISN WKBH  
WLWB WLWB WMBD WMT WNAC  
WNAX WNOX WOKO WPG WQAM  
WREC WSBT WSJS WSPD WTAR  
WTOC

ED-11:15 p.m., E-10:15, C-9:15, M-8:15

R — Don Hall Trio

KFYR KSTP WCAE WCKY WCSH  
WDAF WDAY WFAF WBEBC WENR  
WFBR WFI WGY WHO WIBA WOC  
WRC WSAI WTAG WTIC

ED-11:30 p.m., E-10:30, C-9:30, M-8:30

C — Abe Lyman, See Tuesday

B — Minneapolis Symphony Orchestra  
KDKA KSO KWCR KWK KYW  
WBAL WBZ WBZA WGAR WHAM  
WJR WJZ WMAL WREN WSYR

# CLASSIFIED INDEX TO CHAIN PROGRAMS

*Time in Eastern Daylight Saving*

## CONCERTS

Howard Barlow, 3:15 p.m., Sun.; 10:45 p.m., Mon., Tues., Thurs., C.  
Gauchos, 8:00 p.m., Sunday, C.  
Gilbert and Sullivan Gems, 10 p.m., Saturday, B.  
Impressions of Italy, 5:00 p.m., Sunday, R.  
L'Heure Exquise, 6:00 p.m., Sunday, B.  
Walter Logan, 12:30 p.m., Sunday, R.  
Minneapolis Symphony, 11:30 p.m., Sunday, B.  
National Opera, 3:00 p.m., Sunday, B.  
Orchestral Gems, 11:30 p.m., Sunday, R.  
Radio City Symphony, 12:15 p.m., Sunday, B.  
Riesensfeld's Viennese, 8:00 p.m., Sunday, B.  
String Symphony, 7:30 p.m., Wednesday, B.  
Symphonette, 4:15 p.m., Sunday, B.  
Waldorf-Astoria, 6:00 p.m., daily, ex. Sunday, R.

## DANCE BANDS

Victor Arden, 2:30 p.m., Sunday, C.  
Albert Bartlett, 2:15 p.m., Sunday, C.  
Ben Bernie, 9:00 p.m. and 12:30 a.m., Tuesday, R.  
Don Bestor, 6:00 p.m., Saturday, B.  
Frank Black, 10:00 p.m., Friday, R.  
Art Cozzani, 6:00 p.m., Wed.; 6:15 p.m., Sat., C.  
Clyde Doerr, 5:30 p.m., Sunday, R.  
Eddie Duchin, 11:00 p.m., Sun.; 12 mid., Wed., C.  
Vic Erwin, 9:15 p.m., Tuesday, R.  
Glen Gray, 12 mid., Tuesday; 7:30 p.m., Sat., C.  
Richard Himber, 6:40 p.m., Monday, R.  
Johnny Johnson, 12 mid., Saturday, R.  
Wayne King, 3:00 p.m., Sun.; 8:30 p.m., Tues., R.; 9:30 p.m., Thurs., B.  
Ted Lewis, 11:30 p.m., Mon. and Thurs., C.  
Gay Lombardo, 9:30 p.m., Wednesday, C.  
Vincent Lopez, 10:15 p.m., Sun.; 6:45 p.m., Sat., B.  
Bert Lown, 7:00 p.m., Saturday, R.  
Abe Lyman, 11:30 p.m., Sun., Tues., Fri.; 8:45 p.m., Tues., Wed., Thurs., C.  
Dolph Martin, 7:30 p.m., Monday, C.  
Freddie Martin, 11:30 p.m., Wed.; 11:00 p.m., Sat., C.  
Joe Moss, 7:30 p.m., Sunday, R.  
Ozzie Nelson, 6:15 p.m., Tuesday, C.  
George Olsen, 8:00 p.m., Wednesday, R.  
Ben Pollack, 12 mid., Sun.; 11:30 p.m., Sat., C.  
Willard Robison, 9:00 p.m., Tuesday, B.  
B. A. Rolfe, 10:00 p.m., Saturday, R.  
Harold Stern, 11:30 p.m., Saturday, R.  
Rudy Vallee, 8:00 p.m., Thursday, R.  
Fred Waring, 10:00 p.m., Wednesday, C.

## DIALOG

Amos 'n' Andy, 7 and 11 p.m., daily, ex. Sat. and Sun., B.  
Phil Baker, 9:30 p.m., Friday, B.  
Jack Benny, 10:00 p.m., Friday, R.  
Burns and Allen, 9:30 p.m., Wednesday, C.  
Ann Butler, 11:00 p.m., Monday, B.  
Phil Cook, 8:45 p.m., Mon., Wed., Fri., B.  
Cuckoo, 10:30 p.m., Saturday, B.  
Easy Aces, 9:00 p.m., Tues., Thurs., Sat., C.  
Lou Holtz, 10:00 p.m., Friday, C.  
Tom Howard, 9:00 p.m. and 11:30 p.m., Friday, R.  
Marx Bros., 7:30 p.m., Monday, B.  
Baron Munchausen, 10:00 p.m., Thursday, R.  
Jack Osterman, 2:30 p.m., Sunday, C.  
Reis and Dunn, 6:00 p.m., Mon. and Tues., C.  
Stoopnagle and Budd, 9:30 p.m., Thursday, C.

## DRAMA

Columbia Dramatic Guild, 9:00 p.m., Sunday, C.  
Dick Daring, 6:45 p.m., Sunday, B.  
Death Valley Days, 9:00 p.m., Thursday, B.  
Eno Crime Clues, 8:00 p.m., Tues. and Wed., B.  
First Nighter, 10:30 p.m., Friday, B.  
Folks from Dixie, 1:30 p.m., Sunday, R.  
Foreign Legion, 8:30 p.m., Friday, C.  
Goldbergs, 7:45 p.m., daily, ex. Sat. and Sun., R.  
John Henry, 10:00 p.m., Sun. and Thurs., C.  
Sherlock Holmes, 9:00 p.m. and 12:15 a.m., Wednesday, B.

K-7, 9:30 p.m., Saturday, R.  
Miss Lilla, 10:30 p.m., Tuesday, B.  
Lives at Stake, 10:00 p.m., Tuesday, R.  
Magic Voice, 8:15 p.m., Tuesday and Saturday, C.  
Neighbors, 10:30 p.m., Monday, R.  
Northwestern Chronicle, 2:30 p.m., Sunday, B.  
Pages of Romance, 5:30 p.m., Sunday, B.  
Rin Tin Tin, 8:30 p.m., Thursday, B.  
Buck Rogers, 7:15 p.m., daily, ex. Sat. and Sun., C.  
Roses and Drums, 6:30 p.m., Sunday, C.  
Soconyland Sketches, 8:00 p.m., Monday, R.

## PIANO AND ORGAN

Fray and Braggiotti, 7:30 p.m., Sun.; 9:15 p.m., Thurs., C.  
Archer Gibson, 9:00 p.m., Friday, B.  
Vee Lawnhurst, 4:15 p.m., Sunday, R.  
Mischea Leblitzki, 9:30 p.m., Wednesday, R.  
Ohman and Arden, 2:30 p.m., Sun., C.; 9:30 p.m., Sun., R.

## POPULAR PROGRAMS

A. & P. Gypsies, 9:00 p.m., Monday, R.  
Album of Familiar Music, 9:30 p.m., Sunday, R.  
Armour Program, 9:30 p.m., Friday, B.  
Major Bowes' Family, 11:15 a.m., Sunday, R.  
California Melodies, 10:15 p.m., Thursday, C.  
Chase and Sanborn, 8:00 p.m., Sunday, R.  
Chesterfield, 10:00 p.m., Friday, C.  
Chevrolet Program, 10:00 p.m., Friday, R.  
Chicago Variety, 8:30 p.m., Sunday, C.  
Cities Service, 8:00 p.m., Friday, R.  
Clicquot Club, 8:00 p.m., Monday, B.  
Columbia Revue, 10:15 p.m., Sunday, C.  
Contented Program, 10:00 p.m., Monday, R.  
Corn Cob Pipe Club, 10:00 p.m., Wednesday, R.  
Evening in Paris, 9:30 p.m., Monday, C.  
Fiddlers Three, 4:00 p.m., Sunday, R.  
Five Star Theatre, 10:00 p.m., Tues., C.; 7:30 p.m., Mon. and Fri., B.  
Jack Frost's Melody, 9:30 p.m., Monday, B.  
Golden Country Club, 10:00 p.m., Monday, C.  
Happy Wonder Bakers, 6:30 p.m., Mon., Wed., Fri., C.  
Household Musical Memories, 10:00 p.m., Tuesday, B.  
Inside Story, 9:30 p.m., Friday, C.  
Lucky Strike, 10:00 p.m., Thursday, R.  
Manhattan Merry-Go-Round, 9:00 p.m., Sunday, R.  
Maxwell House, 9:00 p.m. and 1:00 a.m., Thursday, R.  
Borrah Minevitch, 7:00 p.m., Sunday, B.; 7:00 p.m., Fri., R.  
Nestle's Program, 8:00 p.m., Friday, B.  
Old Gold, 10:00 p.m., Wednesday, C.  
Pond's Program, 9:30 p.m., Friday, R.  
Richfield Country Club, 10:30 p.m., Friday, R.  
Royal Vagabonds, 8:00 p.m., Wednesday, R.  
Saturday Frivolities, 9:45 p.m., Saturday, C.  
Sinclair Minstrels, 9:00 p.m., Monday, B.  
Wildroot Institute, 4:15 p.m., Sunday, R.  
Woodbury Program, 8:30 p.m., Wednesday, R.  
Ed Wynn, 9:30 p.m., Tuesday, R.

## RELIGIOUS

Cathedral Hour, 4:00 p.m., Sunday, C.  
Catholic Hour, 6:00 p.m., Sunday, R.  
Church of the Air, 1:00 p.m., Sunday, C.  
Mid-Week Hymn Sing, 6:30 p.m., Tuesday, R.  
Seth Parker's, 10:45 p.m., Sunday, R.  
Pilgrims, 2:00 p.m., Sunday, R.  
Salt Lake Choir, 11:30 a.m., Sunday, C.  
World of Religion, 5:00 p.m., Sunday, B.

## SINGERS

Countess Olga Albani, 6:45 p.m., Mon. and Thurs., R.  
Frances Alda, 6:00 p.m., Tuesday, R.  
Elvia Allman, 7:30 p.m., Mon., Wed. and Sat., R.  
Armida, 2:45 p.m., Sunday, C.  
Mildred Bailey, 7:00 p.m., Wed. and Fri., C.  
Betty Barthell, 10:30 p.m., Friday, R.  
Irene Bordoni, 7:45 p.m., Tuesday and Saturday, B.  
Boswell Sisters, 8:15 p.m., Wed.; 9:15 p.m., Sat., C.  
Fanny Brice, 8:00 p.m., Wednesday, R.

Buccaneers, 11:00 p.m., Saturday, B.  
 Charles Carlile, 7:00 p.m., Thursday, C.  
 Phil Dewey, 10:00 p.m., Sunday, B.  
 Do Re Mi, 9:00 p.m., Mon.; 8:00 p.m., Thurs.; 11:15 p.m., Fri., C.  
 Jessica Dragonette, 8:00 p.m., Friday, R.  
 Mary Eastman, 9:30 p.m., Sunday; 8:00 p.m., Tuesday, C.  
 Eton Boys, 9:00 p.m., Monday, C.  
 Evan Evans, 9:30 p.m., Sun.; 8:00 p.m., Thurs., C.  
 Fields and McHugh, 11:15 p.m., Friday, B.  
 Irene Franklin, 10:15 p.m., Wed. and Fri., B.  
 Gypsy Nina, 7:15 p.m., Saturday, C.  
 Don Hall Trio, 11:15 p.m., Sunday, R.  
 Herman Hupfeld, 8:45 p.m., Tuesday, B.  
 Theo Karle, 7:00 p.m., Monday, C.  
 Irving Kaufman, 8:45 p.m., Tues., Wed., Thurs., C.  
 Jeannie Lang, 9:30 p.m., Thurs., C.; 9:00 and 11:30 p.m., Friday, R.  
 Lazy Dan, 1:30 p.m., Sunday, C.  
 Little Jack Little, 11:15 p.m., Wed.; 10:30 p.m., Fri., C.  
 Everett Marshall, 7:15 and 11:15 p.m., Mon., Wed., Sat., B.  
 Nino Martini, 9:30 p.m., Tues.; 8:00 p.m., Fri., C.  
 Smiling Ed McConnell, 2:00 p.m., Sunday, C.  
 Tommy McLaughlin, 9:15 p.m., Tuesday, C.  
 James Melton, 7:00 p.m., Sun.; 6:45 p.m., Tues.; 11:00 p.m., Thurs., 10:00 p.m., Fri., R.  
 Monarch Mystery Tenor, 2:00 p.m., Sunday, B.  
 Frank Munn, 9:30 p.m., Sunday, R.  
 Gertrude Nielsen, 10:45 p.m., Saturday, C.  
 Donald Novis, 8:30 p.m., Wednesday, R.  
 William O'Neal, 11:15 p.m., Monday, C.  
 Pickens Sisters, 9:45 p.m., Sunday, B.; 6:45 p.m., Sat., R.  
 Mae Questel, 6:30 p.m., Friday, R.  
 Carson Robison, 8:15 p.m., Monday, C.  
 Lanny Ross, 9:00 p.m., Thursday, R.  
 Sanderson-Crumit, 5:30 p.m., Sunday, C.; 8:00 p.m., Tues., R.  
 Singin' Sam, 8:00 p.m., Monday, C.  
 Sixteen Male Voices, 11:30 p.m., Wednesday, B.  
 Sizzlers Trio, 8:30 p.m., Mon.; 11:00 p.m., Thurs., B.

Kate Smith, 8:30 p.m., Tues., Wed., Thurs., C.  
 Southernaires Male Quartet, 7:00 p.m., Monday, R.  
 Street Singer, 12:45 p.m., Sun.; 9:15 p.m., Mon., Wed., Fri., C.  
 Tastyneast Jesters, 6:30 p.m., Mon., Fri.; 8:30 p.m., Wed., B.  
 Conrad Thibault, 9:30 p.m., Wednesday, B.  
 Three Keys, 7:00 p.m., Tues.; 6:30 p.m., Thurs., R.  
 Three X Sisters, 6:30 p.m., Tues. and Wed., B.  
 Ortiz Tirado, 9:30 p.m., Mon.; 8:00 p.m., Sat., R.  
 Ranny Weeks, 8:45 p.m., Mon., 9:00 p.m., Wed. and Sat., R.  
 "Titching Hour, 11:30 p.m., Saturday, B.

### TALKS

America's Grub Street, 6:00 p.m., Saturday, C.  
 American Taxpayers' League, 7:00 p.m., Saturday, B.  
 Boake Carter, 7:45 p.m., daily, ex. Sat. and Sun., C.  
 Century of Progress, 7:15 p.m., daily, ex. Sun., 11:30 p.m., Wed., B.  
 Irvin Cobb, 9:00 p.m., Wed. and Fri., C.  
 Cook Travelogs, 1:15 p.m., Sunday, B.  
 Jack Dempsey, 7:30 p.m., Tues., Wed., Thurs., C.  
 William Hard, 6:30 p.m., Wednesday, R.  
 Edwin C. Hill, 10:30 p.m., Mon., Tues., Wed.; 9:30 p.m., Fri., C.  
 Horlick's Health, 8:30 p.m., Tues. and Fri., B.  
 David Lawrence, 10:00 p.m., Sunday, R.  
 Laws that Safeguard, 6:30 p.m., Saturday, B.  
 Lawyer and Public, 6:00 p.m., Sunday, C.  
 Alex. Morrison on Golf, 10:00 p.m., Mon., C.; 10:30 p.m., Fri., B.  
 Angelo Patri, 7:45 and 11:15 p.m., Sunday, C.  
 Radio Pulpit, 3:30 p.m., Sunday, R.  
 Will Rogers, 9:00 p.m., Sunday, B.  
 Sigmond Spaeth, 9:30 p.m., Tuesday, B.  
 Lowell Thomas, 6:45 p.m., daily, ex. Sat. and Sun., B.  
 Merle Thorpe, 7:45 p.m., Thursday, B.  
 Voice of Experience, 8:00 p.m., Wednesday, C.  
 Carveth Wells, 10:30 p.m., Wednesday, R.  
 Frederic William Wile, 7:00 p.m., Saturday, C.  
 Walter Winchell, 9:30 and 11:15 p.m., Sunday, B.

## THE MONTH'S CHANGES

(Continued from page 1)

1100 CRCV Vancouver, B. C., from 1030  
 1210 CFCO Chatham, Ont., from 1010  
 1360 KUOA Fayetteville, Ark., from 1390  
 1310 CHCK Charlotte, P. E. I., from 960  
 1310 CKQB Quebec, Que., from 850  
 1340 KGNO Dodge City, Kans., from 1210  
 1410 CKEC Vancouver, B. C., from 730  
 1410 CKMO Vancouver, B. C., from 730  
 1430 CFCT Victoria, B. C., from 630

### POWER

580 CKCL Toronto, Ont., 500 to 100  
 580 CRCA Moncton, N. B., 790 to 500  
 630 CMQ Havana, Cuba, 250 to 500  
 680 KFO San Francisco, Calif., 5000 to 50000  
 690 HJN Bogota, Colombia, 2000 to 1000  
 850 CJRW Fleming, Sask., 1030 to 500  
 940 WAAT Jersey City, N. J., 300 to 500  
 1000 WHO Des Moines, Iowa, 5000 to 50000  
 1000 WOC Davenport, Iowa, 5000 to 50000  
 1010 CKOC Hamilton, Ont., 1600 to 100  
 1030 CKNC Toronto, Ont., 500 to 100  
 1120 CPGA Toronto, Ont., 500 to 100  
 1210 CFCO Chatham, Ont., 250 to 100  
 1310 WTRC Elkhart, Ind., 50 to 100  
 1340 KGNO Dodge City, Kans., 100 to 250

### OWNERS

580 CRCA Moncton, N. B., to Canadian Radio Broadcasting Commission  
 680 WPTF Raleigh, N. C., to WPTF Radio Co.  
 880 CRCO Ottawa, Ont., to Canadian Radio Broadcasting Commission  
 1100 CRCV Vancouver, B. C., to Canadian Radio Broadcasting Commission  
 1290 KFUL Galveston, Texas, to Southwest Broadcast Co.  
 1310 WFDF Flint, Mich., to Flint Broadcasting Co.  
 1390 KUOA Fayetteville, Ark., to KUOA, Inc.  
 1440 WSAN Allentown, Pa., to WSAN, Inc.

### CALLS

540 CKLW Windsor, Ont., formerly CKOK  
 580 CRCA Moncton, N. B., formerly CNRA  
 880 CRCO Ottawa, Ont., formerly CNRO  
 1100 CRCV Vancouver, B. C., formerly CNRV  
 1400 WARD Brooklyn, N. Y., formerly WCRGU

### DELETED

595 CJGC London, Ont.  
 1200 KGEW Fort Morgan, Colo.  
 1420 WERE Erie, Pa.

# INDEX BY FREQUENCIES AND DIAL NUMBERS

## 520 kcs. 576.6 m.

..... 250	.....	Freiburg, Germany
..... 700	522	Hamar, Norway
..... 7000	522	Ljubljana, Yugo.

## 530 kcs. 565.7 m.

LKH	700	536	Hamar, Norway
OFE	1000	536	Tampere, Finland
RW24	2000	531	Smolensk, USSR
.....	250	536	Augsburg, Germany
.....	2000	.....	Grenoble, France
.....	250	.....	Hanover, Germany
.....	1500	536	Kaiserslautern, Germany
.....	16000	533	Wilno, Poland

## 540 kcs. 555.2 m.

CKLW	5000	.....	Windsor, Ont.
HAL-2	20000	545	Budapest, Hungary
.....	700	.....	Tammerfors, Finland
KEY	105	546	Merida, Yucatan

## 550 kcs. 545.1 m.

IPA	3000	558	Palermo, Italy
KFDY	1000	.....	Brookings, S. Dak.
KFUO	1000	.....	St. Louis, Mo.
KFYR	1000	.....	Bismarck, N. Dak.
KOAC	1000	.....	Corvallis, Ore.
KSD	500	.....	St. Louis, Mo.
RW48	1200	554	Romek, USSR
SBD	10000	554	Sundsvall, Sweden
WDEV	500	.....	Waterbury, Vt.
WGR	1000	.....	Buffalo, N. Y.
WKRC	1000	.....	Cincinnati, Ohio

## 560 kcs. 535.4 m.

KFDM	500	.....	Beaumont, Texas
KLZ	1000	.....	Denver, Colo.
KTAB	1000	.....	San Francisco, Calif.
RW41	1200	563	Sykytykka, USSR
WFI	500	.....	Philadelphia, Pa.
WBO	1000	.....	Chicago, Ill.
WBIT	500	.....	Philadelphia, Pa.
WNOX	1000	.....	Knoxville, Tenn.
WPCC	500	.....	Chicago, Ill.
WQAM	1000	.....	Miami, Fla.
XEAO	7.5	.....	Mexicali, B. C.
ZCO	7500	.....	Corowa, Australia
.....	12000	563	Makhatch, USSR
.....	60000	563	Munich, Germany

## 570 kcs. 526.0 m.

FQN	250	.....	St. Pierre, Miquelon
KGKO	250	.....	Wichita Falls, Texas
KMPR	500	.....	Hollywood, Calif.
KVI	500	.....	Tacoma, Wash.
WLEO	1000	.....	Columbus, Ohio
WKBN	500	.....	Youngstown, Ohio
WMCA	500	.....	New York, N. Y.
WNAJ	1000	.....	Yankton, S. Dak.
WPCH	500	.....	New York, N. Y.
WSYR	250	.....	Syracuse, N. Y.
WWNC	1000	.....	Asheville, N. Car.
YLZ	15000	571	Riga, Latvia
.....	10000	571	Nagmitogorsk, USSR

## 580 kcs. 516.9 m.

CHMA	250	.....	Edmonton, Alta.
CJOC	100	.....	Lethbridge, Alta.
CKCL	100	.....	Toronto, Ont.
CKUA	500	.....	Edmonton, Alta.
CRCA	500	.....	Moncton, N. B.
KMJ	500	.....	Fresno, Calif.
KSAC	500	.....	Manhattan, Kans.
ON4RB	3600	589	Brussels, Belgium
RW35	10000	589	Astrakhan, USSR

RW38	1200	.....	Alexandrovs, USSR
WDBO	250	.....	Orlando, Fla.
WIBW	1000	.....	Topeka, Kans.
WOBW	250	.....	Charleston, W. Va.
WTAG	250	.....	Worcester, Mass.
XEPN	10000	585	Pedras Negras, Coah.
ZTB	750	588	Bloemfontaine, S. Africa
.....	15000	581	Vienna, Austria
ZZL	3000	.....	Hobart, Australia

## 590 kcs. 508.2 m.

IFI	20000	598	Firenze, Italy
JOAK-2	10000	.....	Tokyo, Japan
KHQ	1000	.....	Spokane, Wash.
LP6	1500	.....	Buenos Aires, Argentina
RW42	10000	598	Gorki, USSR
WCAJ	500	.....	Lincoln, Neb.
WFTI	1000	.....	Boston, Mass.
WKZO	1000	.....	Kalamazoo, Mich.
WOW	1000	.....	Omaha, Neb.
No. 1	15000	.....	Brussels, Belgium
.....	10000	598	Nijni-Novgorod, USSR

## 600 kcs. 499.7 m.

CFCF	500	.....	Montreal, Que.
CMW	1400	.....	Havana, Cuba
KFSD	1000	.....	San Diego, Calif.
LKT	1200	608	Trondelag, Norway
TISO	50	.....	San Jose, Costa Rica
WCAC	250	.....	Storrs, Conn.
WCAO	250	.....	Baltimore, Md.
WCC	250	.....	Bridgeport, Conn.
WMT	500	.....	Waterloo, Iowa
WREC	500	.....	Memphis, Tenn.
ZZK	120	.....	Wanganui, N. Z.
.....	1750	.....	Colombo, Ceylon
.....	1200	605	Trondheim, Norway

## 610 kcs. 491.5 m.

JODK-1	1000	.....	Keijo, Korea
KFRK	1000	.....	San Francisco, Calif.
KZRM	50000	618.5	Manila, P. I.
OKP	120000	614	Praha, Czech.
RW22	10000	617	Oufa, USSR
TIXA	7.5	614	San Jose, C. R.
WDAF	1000	.....	Kansas City, Mo.
WIP	500	.....	Philadelphia, Pa.
WJAY	500	.....	Cleveland, Ohio
XETR	1000	.....	Mexico City, D. F.
3AR	5000	.....	Melbourne, Australia

## 620 kcs. 483.6 m.

CE82	1000	625	Santiago, Chile
JOTK	500	625	Matsuyae, Japan
KGW	1000	.....	Portland, Ore.
KTAR	1000	.....	Phoenix, Ariz.
LV3	350	.....	Carlova, Arg.
NR	50000	625	Mandchiesier, G. B.
OFD	500	621	Orfi, Finland
RW31	10000	625	Ivanovo, USSR
RW40	1000	621	Gomel, USSR
WFLA	1000	.....	Clearwater, Fla.
WLBZ	500	.....	Bangor, Maine
WSUN	1000	.....	St. Petersburg, Fla.
WTMJ	1000	.....	Milwaukee, Wis.
XOTN	500	624	Tientsin, China

## 630 kcs. 475.9 m.

CFCY	500	.....	Charlottetown, P. E. I.
CJGX	500	.....	Yorkton, Sash.
CKTB	1000	635	St. Catharines, Ont.
CMCU	150	.....	Havana, Cuba
CMQ	500	.....	Havana, Cuba
HIX	1000	.....	Santo Domingo, D. R.
JODG	500	635	Hamamatsu, Japan
KFRU	500	.....	Columbia, Mo.
KGFN	200	.....	Pierre, S. Dak.
LU3	4500	.....	Buenos Aires, Arg.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

RW28	700	635	Vladivostok, USSR
RW52	4000	.....	Simferopol, USSR
WGBF	500	.....	Evansville, Ind.
WMAL	250	.....	Washington, D. C.
WOS	500	.....	Jefferson City, Mo.
XETP	500	.....	Veracruz, Ver.
XFG	2000	638.3	Mexico City, D. F.
1ZH	45	.....	Hamilton, N. Z.
5CK	7500	635	Crystal Brook, Australia
.....	60000	635	Langenberg, Germany

### 640 kcs. 468.5 m.

CHRC	100	645	Quebec, Que.
CKCI	100	645	Quebec, Que.
CKCR	100	645	Waterloo, Ont.
JOUK	300	645	Akita, Japan
JQAK	500	645	Dairen, Manchuria
KFI	50000	.....	Los Angeles, Calif.
RW17	10000	644	Kazan, USSR
RW56	1200	.....	Penza, USSR
WAIU	500	.....	Columbus, Ohio
WOI	5000	.....	Ames, Iowa
YN	3000	644	Lyons, France
.....	500	644	Tartu, Estonia

### 650 kcs. 461.3 m.

JOCG	300	655	Asahikawa, Japan
KPCB	100	.....	Seattle, Wash.
RW33	1000	.....	Krasnodar, USSR
RW46	10000	653	Karaganda, USSR
WSM	50000	.....	Nashville, Tenn.
4YA	500	.....	Dunedin, N. Z.
.....	60000	653	Beromunster, Switz.

### 660 kcs. 454.3 m.

EAJ8	600	662	San Sebastian, Spain
FAJ22	1000	662	Salamanca, Spain
LKD	500	662	Bodo, Norway
LKM	110	662	Tromsøe, Norway
LKP	700	662	Porsgrund, Norway
RUS	500	664	San Salvador, Salvador
RW13	10000	662	Odessa, USSR
SCY	150	662	Upsala, Sweden
TIGP	75	666	San Jose, C. R.
WAAV	500	.....	Omaha, Neb.
WEAF	50000	.....	New York, N. Y.
XEM	500000	.....	Matamoros, Tams.
2FC	15000	665	Sydney, Australia
ZTJ	500	667	Johannesburg, S. Africa
.....	500	662	Bjorneborg, Finland
.....	500	662	Bodo, Norway
.....	500	662	Danzig
.....	500	662	Klagenfurt, Austria
.....	15000	667	Madonna, Latvia
.....	700	662	Porsgrund, Norway
.....	500	662	Radio-Agen, France
.....	100	662	Tromsøe, Norway

### 670 kcs. 447.5 m.

FPTT	1000	671	Paris, France
JFAK	10000	.....	Taihoku, Formosa
LKA	350	671	Alesund, Norway
LKN	50	671	Notodden, Norway
LKR	180	671	Rjukan, Norway
LP4	1000	.....	Buenos Aires, Arg.
RW23	1200	676	Groznyi, USSR
WMAQ	5000	.....	Chicago, Ill.

### 680 kcs. 440.9 m.

CMAF	500	.....	Havana, Cuba
CMB	1000	681	Canton, China
IIRO	50000	.....	Rome, Italy
JOLK	500	.....	Fukuoka, Japan
JOVK	500	.....	Hakodate, Japan
KPEQ	2500	.....	St. Joseph, Mo.
KPO	50000	.....	San Francisco, Calif.
RW27	1200	689	Makhateh, USSR

RW46	1200	686	Karaganda, USSR
RW74	1200	.....	Tehekobarsky, USSR
SBA	75000	689	Stockholm, Sweden
SCN	250	689	Malinberget, Swelen
VAS	2000	685	Glace Bay, N. S.
WPTF	1000	.....	Raleigh, N. Car.
XGOA	15000	681	Nanking, China

### 690 kcs. 434.5 m.

CFAC	500	.....	Calgary, Alta.
CFRB	10000	.....	Toronto, Ont.
CJCJ	500	.....	Calgary, Alta.
HJN	1000	.....	Bogota, Colombia
JODK	1000	.....	Keijo, Korea
NAA	1000	.....	Arlington, Va.
XET	500	.....	Monterrey, N. L.
6WF	5000	.....	Perth, Australia
.....	2800	697	Begrade, Yugo.
.....	1500	696	Parade, Portugal

### 700 kcs. 428.3 m.

CE70	1000	705	Santiago, Chile
EAJ2	750	708	Madrid, Spain
EAJ7	2000	707	Madrid, Spain
JORK	500	.....	Okayama, Japan
PRAG	3000	706	Porto Alegre, Brazil
RW39	100000	707	Moska-Stalina, USSR
WLW	50000	.....	Cincinnati, Ohio

### 710 kcs. 422.3 m.

JOJK	3000	.....	Kiuzawaza, Japan
KMPC	500	.....	Beverly Hills, Calif.
LSI	5000	.....	Buenos Aires, Arg.
TIFB	30	714	San Jose, C. R.
WOR	5000	.....	Newark, N. J.
XEN	1000	711	Mexico City, D. F.
.....	1500	715	Berlin, Germany
.....	500	.....	Cairo, Egypt

### 720 kcs. 416.4 m.

JFBK	1000	.....	Tainan, Japan
JORK	500	.....	Kochi, Japan
RW28	10000	725	Vladivostok, USSR
RW52	10000	725	Simferopol, USSR
WGN	25000	.....	Chicago, Ill.
2RN	1500	725	Dublin, Ireland
2YA	5000	.....	Wellington, N. Z.
.....	60000	725	Athlone, Ireland
.....	6000	721	Rabat, Morocco

### 730 kcs. 410.7 m.

CHLS	100	.....	Vancouver, B. C.
CHYC	5000	.....	Montreal, Que.
CJCA	500	.....	Edmonton, Alta.
CKAC	5000	.....	Montreal, Que.
CMK	3150	.....	Havana, Cuba
CX10	1000	.....	Montivideo, Uruguay
JOSK	1000	735	Kokura, Japan
LVI	1500	.....	San Juan, Arg.
XEF	75000	735	Villa Acuna, Coah.
ZTD	1000	731	Durban, S. Africa
5CL	5000	.....	Adelaide, Australia
.....	16000	734	Katowice, Poland
.....	2200	735	Tartu, Estonia

### 740 kcs. 405.2 m.

CE74	1000	745	Santiago, Chile
KMMJ	1000	.....	Clay Center, Neb.
RW51	1200	748	Nalchik, USSR
SBF	600	747	Ostersund, Sweden
WHEB	250	.....	Portsmouth, N. H.
WSB	5000	.....	Atlanta, Ga.
.....	10000	743	Mourmansk, USSR.
.....	25000	743	Sottens, Switz.

INDEX BY FREQUENCIES AND DIAL NUMBERS

750 kcs. 399.8 m.

JOBK-1	10000	Osaka, Japan.
KGU	2500	Honolulu, Hawaii.
LR7	1000	Buenos Aires, Arg.
MR	25000	752 Daventry, G. B.
PRAA	2000	Rio de Janeiro, Brazil.
RW64	10000	752 Vladikavkaz, USSR.
VOWR	500	St. John's, Nfld.
VQ7LO	1000	Nairobi, Kenya.
WJR	10000	Detroit, Mich.
XEAN	5000	Juarez, Chih.
.....	250	Mont-de-Marsan, France.

760 kcs. 394.5 m.

JQAK	1000	Dairen, Manchuria.
KXA	250	Seattle, Wash.
LT4	170	Mendoza, Arg.
WBAL	10000	Baltimore, Md.
WEW	1000	St. Louis, Mo.
WJZ	50000	New York, N. Y.
4QG	5000	Brisbane, Australia.
.....	12000	761 Bucharest, Rumania.

770 kcs. 389.4 m.

CX12	500	Montivideo, Uruguay.
IOHK	10000	Sendai, Japan.
KFAB	5000	Lincoln, Neb.
RW26	10000	779 Stalino, USSR.
VUM	200	Madras, India.
WBBM	25000	Chicago, Ill.
.....	120000	Leipzig, Germany.
.....	500	777 Rheims, France.
.....	8000	779 Toulouse, France.

780 kcs. 384.4 m.

CE78	1000	785 Santiago, Chile.
CHWK	100	Chilliwack, B. C.
CKPR	100	Fort William, Ont.
CMBS	150	Havana, Cuba.
CMCQ	1000	Havana, Cuba.
JOPK	500	Shizuoka, Japan.
KELW	500	Burbank, Calif.
KTM	500	Los Angeles, Calif.
LF1	4500	Rosario, Arg.
PRAJ	200	780 Juiz de Fora, Brazil.
PRAN	8	789 Curitiba, Brazil.
PRAY	50	789 Mogy das Cruzes, Brazil.
WEAN	500	Providence, R. I.
WMC	500	Memphis, Tenn.
WPOR	500	Portsmouth, Va.
WTAR	500	Norfolk, Va.
XEP	1000	Mexico City, D. F.
.....	200	Alexandria, Egypt.
.....	300	Cairo, Egypt.
.....	16000	788 Iwów, Poland.
.....	50	785 Valparaiso, Chile.
.....	.....	Vienna, Austria.

790 kcs. 379.5 m.

CMHC	250	Tuineu, Cuba.
CMJK	300	Cannagay, Cuba.
JOGK	10000	Kumamoto, Japan.
KGO	7500	San Francisco, Calif.
LRI	500	Buenos Aires, Arg.
OAX	5000	Lima, Peru.
RW37	1000	792 Moscow, USSR.
SR	50000	797 Falkirk, G. B.
WGY	50000	Schenectady, N. Y.

800 kcs. 374.8 m.

LU2	500	Bahia Blanca, Arg.
WBAP	50000	Fort Worth, Texas.
WFAA	50000	Dallas, Texas.
3LO	500	Melbourne, Australia.
.....	1500	806 Hamburg, Germany.

810 kcs. 370.2 m.

CNRH	500	815 Halifax, N. S.
CX14	1000	Montivideo, Uruguay.
EJ5	1500	815 Seville, Spain.
IJBZ	1000	815 Bolzano, Italy.
JOCK-1	10000	Nagoya, Japan.
LKF	700	815 Fredrikstad, Norway.
LL	1200	Paris, France.
OFA	10000	815 Helsinki, Finland.
RW20	10000	815 Kharkov, USSR.
VOAS	75	St. John's, Nfld.
VUC	3000	Calcutta, India.
WCCO	50000	Minneapolis, Minn.
WNYC	500	New York, N. Y.
XFC	350	Aguaascalientes, Ags.
XFT	1000	818 Mexico City, D. F.
ZTC	1000	Capetown, S. Africa.

820 kcs. 365.6 m.

CE82	1000	825 Santiago, Chile.
CMGC	30	Matanzas, Cuba.
F8GC	1500	825 Paris, France.
LKB	1000	824 Bergen, Norway.
LV7	200	Tucuman, Arg.
RW68	1500	824 Tcheliabinsk, USSR.
RW69	4000	825 Ijevsk, USSR.
WHAS	25000	Louisville, Ky.
1YA	500	Auckland, N. Z.
.....	13000	824 Algiers, Algeria.
.....	700	Fredrikstad, Norway.

830 kcs. 361.2 m.

CMGA	100	834 Colon, Cuba.
JOIK	10000	Sapporo, Japan.
KOA	12500	Denver, Colo.
LR5	1600	Buenos Aires, Arg.
RW57	4000	838 Tiraspol, USSR.
TIEA	7.5	833 San Jose, C. R.
WEEU	1000	Reading, Pa.
WHDH	1000	Boston, Mass.
WRUF	5000	Gainesville, Fla.
XETW	500	Mexico City, D. F.
.....	60000	832 Stuttgart, Germany.

840 kcs. 356.9 m.

CHNC	5000	Toronto, Ont.
CKGW	5000	Toronto, Ont.
CKLC	1000	Red Deer, Alta.
CMC	500	Havana, Cuba.
CPRY	5000	Toronto, Ont.
F3ICD	12000	Saigon, Indo China.
LR	50000	843 London, England.
LTS	350	Rosario, Arg.
VUB	3000	Bombay, India.
XETH	100	Puebla, Pue.
XETM	15000	845 Matamoros, Tams.
ZBW	12000	845 Hong Kong, China.

850 kcs. 352.7 m.

CX6	1000	Montivideo, Uruguay.
CX16	.....	Montivideo, Uruguay.
HSP1	2500	857 Bangkok, Siam.
JOPK	10000	Hiroshima, Japan.
KIEV	100	..... Glendale, Calif.
KWKH	10000	..... Shreveport, La.
PRAC	500	857 Rio de Janeiro, Brazil.
PRAI	10	857 Ribeirao Preto, Brazil.
WWL	10000	..... New Orleans, La.
XEFD	2500	855 Tijuana, B. C.
2BL	5000	855 Sydney, Australia.
2HZ	350	857 Rangoon, India.
.....	7000	852 Graz, Austria.

INDEX BY FREQUENCIES AND DIAL NUMBERS

**860 kcs. 348.6 m.**

CE86	1000	865	Santiago, Chile.
EAJ1	8000	.....	Barcelona, Spain.
LV10	350	.....	Las Heras, Arg.
RW30	3000	869	Dnepropetrovsk, USSR.
RW70	10000	.....	Leningrad, USSR.
SPTT	6000	867	Strasburg, France.
TIVL	30	.....	San Jose, C. R.
WABC	50000	.....	New York, N. Y.
WEB	500	.....	Kansas City, Mo.
XFX	500	.....	Mexico City, D. F.

**870 kcs. 344.6 m.**

JOAK-1	10000	.....	Tokyo, Japan.
LR6	2100	.....	Buenos Aires, Arg.
OKB	36000	878	Brno, Czech.
WENR	50000	.....	Chicago, Ill.
WLS	50000	.....	Chicago, Ill.
XEAD	250	875	Mexico City, D. F.

**880 kcs. 340.7 m.**

CE88	100	.....	Valparaiso, Chile.
CJCB	100	.....	Sydney, N. S.
CJRM	500	.....	Moose Jaw, Sask.
CJRW	500	.....	Fleming, Sask.
CRCO	500	.....	Ottawa, Ont.
CT1GL	150	885	Lisbon, Portugal.
HJ3ABD	20	881	Bogota, Colombia.
KFKA	500	.....	Greeley, Colo.
KLX	1000	.....	Oakland, Calif.
KPOF	500	.....	Denver, Colo.
TIC	15	882	San Jose, C. R.
VUL	100	882	Lahore, India.
WCOC	500	.....	Meridian, Miss.
WGBI	250	.....	Scranton, Pa.
WQAN	250	.....	Scranton, Pa.
WSUI	500	.....	Iowa City, Iowa.
YV2BC	100	882	Caracas, Venezuela.
6PR	200	.....	Perth, Australia.
No. 2	15000	887	Brussels, Belgium.

**890 kcs. 336.9 m.**

CFQC	500	.....	Saskatoon, Sask.
CHML	50	.....	Hamilton, Ont.
CMCF	250	.....	Havana, Cuba.
CMX	750	.....	Havana, Cuba.
CX18	250	.....	Montevideo, Uruguay.
KARK	250	.....	Little Rock, Ark.
KRFN	500	.....	Shenandoah, Iowa.
KSEI	250	.....	Pocatello, Idaho.
KUSD	500	.....	Vermilion, S. Dak.
VOGY	100	.....	St. John's, Nfld.
WGST	250	.....	Atlanta, Ga.
WILL	250	.....	Urbana, Ill.
WJAR	500	.....	Providence, R. I.
WMMN	250	.....	Fairmont, W. Va.
XETU	100	.....	Pachuca, Hdo.
7HO	50	.....	Hobart, Australia.
.....	5500	896	Cadiz, Spain.
.....	1900	896	Poznan, Poland.

**900 kcs. 333.1 m.**

CE90	1000	905	Santiago, Chile.
IMI	50000	905	Milan, Italy.
JODK-2	10000	.....	Keijo, Korea.
KGBU	500	.....	Ketchikan, Alaska.
KHJ	1000	.....	Los Angeles, Calif.
LV9	500	.....	Rosario, Arg.
WBEN	1000	.....	Buffalo, N. Y.
WJAX	1000	.....	Jacksonville, Fla.
WKY	1000	.....	Oklahoma City, Okla.
WLBL	2500	.....	Stevens Point, Wis.
Z1LY	1500	.....	Hoten, Manchuria
Z2P	105	.....	Wairoa, N. Z.

**910 kcs. 329.6 m.**

CFRC	50	915	Kingston, Ont.
CKY	5000	.....	Winnipeg, Man.
LR2	5500	.....	Buenos Aires, Arg.
PP	50000	914	Paris, France.
TICR	50	911	San Jose, C. R.
XEW	5000	.....	Mexico City, D. F.
XFF	500	915	Chihuahua, Chih.
4RK	2000	.....	Rockhampton, Australia.

**920 kcs. 325.9 m.**

CMBW	150	925	Havana, Cuba.
CMCN	250	925	Havana, Cuba.
HHK	1000	.....	Port-au-Prince, Haiti.
JOQK	500	.....	Niigata, Japan.
KFEL	500	.....	Denver, Colo.
KFXF	500	.....	Denver, Colo.
KOMO	1000	.....	Seattle, Wash.
KPRC	1000	.....	Houston, Texas.
LV2	500	.....	Cordoba, Arg.
PRAD	50	.....	Pelotas, Brazil.
PRAE	1000	921	Sao Paulo, Brazil.
WAAF	500	.....	Chicago, Ill.
WBOS	500	.....	Babson Park, Mass.
WWJ	1000	.....	Detroit, Mich.
.....	60000	923	Breslau, Germany.

**930 kcs. 322.4 m.**

CFCH	100	.....	North Bay, Ont.
CFLC	100	.....	Preston, Ont.
CKPC	100	.....	Preston, Ont.
CKX	500	.....	Brandon, Man.
CMJF	200	.....	Camaguey, Cuba.
CTIBO	150	936	Lisbon, Portugal.
CX20	2000	.....	Montivideo, Uruguay.
JOAG	500	.....	Nagasaki, Japan.
KFWI	500	.....	San Francisco, Calif.
KGBZ	500	.....	York, Neb.
KMA	500	.....	Shenandoah, Iowa.
KROW	500	.....	Oakland, Calif.
PRAB	500	937	Rio de Janeiro, Brazil.
SBB	1000	932	Goteborg, Sweden.
WBRC	500	.....	Birmingham, Ala.
WDBJ	250	.....	Roanoke, Va.
WIBG	25	.....	Glenside, Pa.
3UZ	500	.....	Melbourne, Australia.

**940 kcs. 319.0 m.**

CE94	1000	945	Santiago, Chile.
INA	1500	941	Naples, Italy.
JONK	500	.....	Nagano, Japan.
KOIN	1000	.....	Portland, Ore.
WAAT	500	.....	Jersey City, N. J.
WCSS	100	.....	Portland, Maine.
WDAY	1000	.....	Fargo, N. Dak.
WFIW	1000	.....	Hopkinsville, Ky.
WHA	1000	.....	Madison, Wis.
XEFO	5000	.....	Mexico City, D. F.
.....	2500	941	Dresden, Germany.
.....	1000	941	Sofia, Bulgaria.

**950 kcs. 315.6 m.**

CM1D	250	.....	Caibarien, Cuba.
CT1DH	10	952	Lisbon, Portugal.
IGE	10000	959	Genoa, Italy.
KFWB	1000	.....	Los Angeles, Calif.
KGHL	1000	.....	Billings, Mont.
KMBC	1000	.....	Kansas City, Mo.
LR3	7500	.....	Buenos Aires, Arg.
RW55	1000	959	Engels, USSR.
WRC	500	.....	Washington, D. C.
XOPP	100	952	Peiping, China.
2GB	3000	.....	Sydney, Australia.
.....	250	.....	Bremen, Germany.
.....	1500	959	Cracow, Poland.
.....	2500	.....	Marseilles, France.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 960 kcs. 312.3 m.

CMBD	150	965	Havana, Cuba.
CMCW	150	965	Havana, Cuba.
CMJL	50	....	Camaguey, Cuba.
JOOK	300	....	Kyoto, Japan.
QFC	2500	....	Jacobstad, Finland.
PRAP	300	967	Pernambuco, Brazil.
RW75	10000	968	Vinnitza, USSR.
XEAW	10000	965	Reynosa, Tams.
YV1BC	5000	....	Caracas, Venezuela.
5DN	1000	....	Adelaide, Australia.
.....	1000	968	Cardiff, G. B.

### 970 kcs. 309.1 m.

CX22	250	....	Montevideo, Uruguay.
JOBG	500	....	Maebashi, Japan.
KJR	5000	....	Seattle, Wash.
SCC	500	977	Falun, Sweden.
XGFL	1500	....	Chicago, Ill.
WGOD	1000	973	Hangchow, China.
3BO	200	....	Bendigo, Australia.
.....	750	977	Zagreb, Yugo.

### 980 kcs. 303.9 m.

CE98	1000	....	Santiago, Chile.
CMGF	100	987	Matanzas, Cuba.
CNO	25	983	Casablanca, Morocco.
JOXK	500	....	Tokushima, Japan.
KDKA	50000	....	Pittsburgh, Pa.
3YA	500	....	Christchurch, N. Z.
.....	13000	986	Bordeaux, France.
.....	250	985	Santiago, Chile.

### 990 kcs. 302.8 m.

JOFG	300	....	Fukui, Japan.
LR4	20000	....	Buenos Aires, Arg.
NN	50000	995	Manchester, England.
TITV	7.5	999	San Jose, C. R.
WBZ	25000	....	Boston, Mass.
WBZA	1000	....	Springfield, Mass.
XEK	100	....	Mexico City, D. F.

### 1000 kcs. 299.8 m.

KFVD	250	....	Los Angeles, Calif.
PRAR	500	1006	Sao Paulo, Brazil.
WIO	50000	....	Des Moines, Iowa.
WOC	50000	....	Davenport, Iowa.
WORK	1000	....	York, Pa.
XEA	100	....	Guadalajara, Jal.
XEC	50	....	Toluca, D. F.
NEFE	100	....	Nuevo Laredo, Tams.
XEFI	100	....	Chihuahua, Chih.
XEFJ	100	....	Monterrey, N. L.
XEFS	40	....	Queretaro, Qro.
XEL	100	....	Saltillo, Coah.
ZP3	300	....	Asuncion, Paraguay.
ZTP	50	....	Pretoria, S. Africa.
4GR	50	....	Toowoomba, Australia.
.....	350	....	Hague, Holland.
.....	11000	1004	Tallin, Estonia.

### 1010 kcs. 296.9 m.

CHWC	500	....	Regina, Sask.
CKDC	100	....	Vancouver, B. C.
CKCK	500	....	Regina, Sask.
CKCO	100	....	Ottawa, Ont.
CKIC	50	....	Wolfville, N. S.
CKOC	100	....	Hamilton, Ont.
CKWX	100	....	Vancouver, B. C.
CMBZ	150	....	Havana, Cuba.
CX24	1000	....	Montevideo, Uruguay.
KGGF	500	....	Coffeyville, Kans.
KQW	500	....	San Jose, Calif.

PFB1	20000	1013	Hilversum, Holland.
PH9	6400	1013	Amsterdam, Holland.
TIGA	30	1014	Cartago, C. R.
WHN	250	....	New York, N. Y.
WIS	500	....	Columbia, S. Car.
WNAD	500	....	Norman, Okla.
WPAP	250	....	New York, N. Y.
WQAO	250	....	New York, N. Y.
WRNY	250	....	New York, N. Y.
XEJ	500	1015	Juarez, Chih.
XEU	100	....	Veracruz, Ver.
3HA	200	....	Hamilton, Australia.

### 1020 kcs. 293.9 m.

CE102	100	1025	Santiago, Chile.
KYW	10000	....	Chicago, Ill.
OKK	2600	1022	Kosice, Czech.
WRAX	250	....	Philadelphia, Pa.
XEFC	10	....	Merida, Yuc.
ZUE	1000	1025	Sydney, Australia.
.....	700	1022	Limoges, France

### 1030 kcs. 291.1 m.

CFBO	500	....	St. John, N. B.
CFCN	10000	....	Calgary, Alta.
CKNC	100	....	Toronto, Ont.
CMHI	30	....	Santa Clara, Cuba.
CMKC	150	1034	Santiago, Cuba.
LR9	5000	....	Buenos Aires, Arg.
OPH	13200	1031	Vihorj, Finland.
XEB	10000	....	Mexico City, D. F.
YR	500	....	Lyons, France.

### 1040 kcs. 288.3 m.

CMGH	15	....	Matanzas, Cuba.
KRIJD	10000	....	Dallas, Texas.
KTHS	10000	....	Hot Springs, Ark.
SN	50000	....	Falkirk, G. B.
-WESG	1000	....	Elmira, N. Y.
WKAR	1000	....	East Lansing, Mich.
5PI	50	1041	Port Pirie, Australia.
.....	1000	....	Bournemouth, G. B.
.....	800	1049	Montpellier, France.
.....	20	1045	Valparaiso, Chile.

### 1050 kcs. 285.5 m.

CHNS	500	....	Halifax, N. S.
CMJG	50	....	Camaguey, Cuba.
CT1AA	2000	1056	Lisbon, Portugal.
CT1AN	10	1056	Lisbon, Portugal.
CT1BM	50	1056	Lisbon, Portugal.
CT1DS	10	1058	Lisbon, Portugal.
CT1EB	50	1056	Lisbon, Portugal.
CX26	2000	....	Montevideo, Uruguay.
KFBI	5000	....	Abilene, Kans.
KNX	25000	....	Hollywood, Calif.
XES	250	1055	Tampico, Tams.
2CA	50	....	Camberra, Australia.
2ZF	150	....	Palmerston N., N. Z.
2ZO	200	....	Palmerston N., N. Z.
.....	500	1058	Berlin, Germany.
.....	500	1058	Innsbruck, Austria.
.....	500	1058	Magdeburg, Germany.
.....	500	1058	Stettin, Germany.

### 1060 kcs. 282.8 m.

CT1GK	50	1062	Lisbon, Portugal.
KWJJ	500	....	Portland, Ore.
LT9	100	....	Rosario, Arg.
WBAL	10000	....	Baltimore, Md.
WJAG	1000	....	Norfolk, Neb.
WTIC	50000	....	Hartford, Conn.
4MB	50	....	Maryborough, Australia.
.....	750	1067	Copenhagen, Denmark.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

<b>1070 kcs.</b>	<b>280.2 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CMBG	225	....	Havana, Cuba.		
CMCB	150	....	Havana, Cuba.		
KJBS	100	....	San Francisco, Calif.		
OKR	14000	1075	Bratislave, Czech.		
WCAZ	50	....	Carthage, Ill.		
WDZ	100	....	Tuscola, Ill.		
WTAM	50000	....	Cleveland, Ohio		
XEG	500	1075	Mexico City, D. F.		
2KY	1500	....	Sydney, Australia.		

<b>1080 kcs.</b>	<b>277.6 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
JOBK-2	10000	1085	Osaka, Japan.		
LKO	60000	1083	Oslo, Norway.		
LT3	250	....	Rosario, Arg.		
WBT	25000	....	Charlotte, N. Car.		
WCBD	5000	....	Zion, Ill.		
WBMB	5000	....	Chicago, Ill.		
3SH	50	....	Swan Hill, Australia.		
4ZB	20	....	Dunedin, N. Z.		
4ZF	10	....	Dunedin, N. Z.		
4ZM	45	....	Dunedin, N. Z.		
4ZO	40	....	Dunedin, N. Z.		
4ZW	50	....	Dunedin, N. Z.		
.....	500	....	Alexandria, Egypt.		
.....	200	....	Caen, France.		
.....	60000	1085	Heilsberg, Germany.		
.....	500	1085	Konigsberg, Germany.		
.....	500	....	Port Said, Egypt.		

<b>1090 kcs.</b>	<b>275.1 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
11TO	7000	1096	Turin, Italr.		
KMOX	50000	....	St. Louis, Mo.		
XEAI	100	....	Mexico City, D. F.		
XGOB	250	....	Loyang, China.		
1ZR	80	....	Auckland, N. Z.		
.....	250	1091	Angers, France.		
.....	1500	1098	Poznan, Poland.		

<b>1100 kcs.</b>	<b>272.6 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CRCV	500	....	Vancouver, B. C.		
KGDM	250	....	Stockton, Calif.		
WLWL	5000	....	New York, N. Y.		
WPG	5000	....	Atlantic City, N. J.		
7LA	300	....	Launceston, Australia.		
.....	1300	1103	Rennes, France.		
.....	.....	1105	Santiago, Chile.		

<b>1110 kcs.</b>	<b>270.1 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CMJO	50	....	Ciego de Avila, Cuba.		
11BA	20000	1112	Bari, Italy.		
KSOO	1000	....	Sioux Falls, S. Dak.		
LS 5	5000	....	Buenos Aires, Arg.		
PRAZ	50	....	France, Brazil.		
WRVA	5000	....	Richmond, Va.		
XENT	150000	1115	Nuevo Laredo, Tams.		
2HD	200	....	Newcastle, Australia.		
.....	250	1112	Bremen, Germany.		
.....	1500	1112	Kaiserslautern, Germany.		
.....	.....	.....	Thesalonik, Greece.		

<b>1120 kcs.</b>	<b>267.7 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CFCA	100	....	Toronto, Ont.		
CFJC	100	....	Kumloops, B. C.		
CHGS	100	....	Summerside, P. E. I.		
CHLP	100	....	Montreal, Que.		
CMHJ	40	1125	Cienfuegos, Cuba.		
EAJ3	1500	1121	Valencia, Spain.		
EAJ19	700	1121	Oviedo, Spain.		
KFIO	100	....	Spokane, Wash.		
KFSG	500	....	Los Angeles, Calif.		
KRKD	500	....	Los Angeles, Calif.		
KRSC	100	....	Seattle, Wash.		
KTRH	500	....	Houston, Texas.		
LV5	500	....	San Juan, Arg.		

WDEL	250	....	Wilmington, Del.
WHAD	250	....	Milwaukee, Wis.
WISN	250	....	Milwaukee, Wis.
WTAW	500	....	College Station, Texas.
2UW	1500	1125	Sydney, Australia.
2ZW	400	....	Wellington, N. Z.

<b>1130 kcs.</b>	<b>265.3 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CX30	250	....	Montivideo, Uruguay.		
KSL	50000	....	Salt Lake City, Utah.		
WJJD	20000	....	Chicago, Ill.		
WOV	1000	....	New York, N. Y.		
XEH	250	1132	Monterrey, N. L.		
ZP1	1000	1135	Asuncion, Paraguay.		
6ML	300	1135	Perth, Australia.		
.....	1300	.....	Lille, France.		
.....	11000	1137	Moravska, Czech.		

<b>1140 kcs.</b>	<b>263.0 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CMBJ	150	....	Havana, Cuba.		
CMCD	250	....	Havana, Cuba.		
CW30	.....	....	Tuearembó, Uruguay.		
KVOO	5000	....	Tulsa, Okla.		
LN	50000	1147	London, G. B.		
WAP1	5000	....	Birmingham, Ala.		
XETA	250	....	Mexico City, D. F.		
3YB	25	....	Melbourne, Australia.		
4BC	600	1145	Brisbane, Australia.		
.....	100	1145	Santiago, Chile.		

<b>1150 kcs.</b>	<b>260.7 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CMJH	30	....	Ciego de Avila, Cuba.		
LR8	3000	....	Buenos Aires, Arg.		
PRAK	500	1153	Rio de Janeiro, Brazil.		
WHAM	25000	....	Rochester, N. Y.		
XED	500	1155	Guadalajara, Jal.		
2WG	50	1155	Wagga, Australia.		
2ZJ	75	....	Gisborne, N. Z.		
2ZM	110	....	Gisborne, N. Z.		
10-AT	25	1155	Trail, B. C.		
.....	17000	1157	Frankfurt-am-Main, Germany.		
.....	7500	1153	Kalundborg, Denmark.		
.....	2000	1157	Trier, Germany.		
.....	20	1153	Valparaiso, Chile.		

<b>1160 kcs.</b>	<b>258.5 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
SBH	10000	1166	Horby, Sweden.		
WOWO	10000	....	Fort Wayne, Ind.		
WWVA	5000	....	Wheeling, W. Va.		
4Z1	8	....	Invercargill, N. Z.		
4ZP	125	....	Invercargill, N. Z.		

<b>1170 kcs.</b>	<b>256.3 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CMJE	50	1175	Camaguey, Cuba.		
CX32	200	....	Montivideo, Uruguay.		
JOCK-2	10000	1175	Nagoya, Japan.		
MRD	1500	....	Toulouse, France.		
WCAU	50000	....	Philadelphia, Pa.		
4TO	100	....	Townsville, Australia.		

<b>1180 kcs.</b>	<b>254.1 m.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CMBN	150	1185	Havana, Cuba.		
CMCJ	250	1185	Havana, Cuba.		
CE32	30	....	Salto, Uruguay.		
HJK	15000	....	Santo Domingo, D. R.		
KEX	5000	....	Portland, Ore.		
KOB	20000	....	Albuquerque, N. Mex.		
TICR	30	....	San Jose, C. R.		
WDGY	1000	....	Minneapolis, Minn.		
WINS	500	....	New York, N. Y.		
WMAZ	500	....	Macon, Ga.		
3DB	500	....	Melbourne, Australia.		
.....	14000	1184	Gleiwitz, Germany.		
.....	100	1185	Santiago, Chile.		

# INDEX BY FREQUENCIES AND DIAL NUMBERS

## 1190 kcs. 252.0 m.

EAJ15	1000	1193	Barcelona, Spain.
EAJ18	1000	1193	Almeria, Spain.
LS2	5500		Buenos Aires, Arg.
VOVF	100	1195	St. John's, Nfld.
VOAI	5000		San Antonio, Texas.
WSAZ	25		Huntington, W. Va.
1ZQ	25		Auckland, N. Z.
4MK	100		Mackay, Australia.
.....	250	1193	Trollhattan, Sweden.

## 1200 kcs. 249.9 m.

CHCH	100		Montreal, Que.
CKOV	100		Kelowna, B. C.
CMGB	30	1205	Matanzas, Cuba.
KBTM	100		Paragould, Ark.
KERN	100		Bakersfield, Calif.
KFBJ	100		Marshalltown, Iowa.
KFWF	100		St. Louis, Mo.
KFXD	100		Nampa, Idaho.
KFXJ	100		Grand Junction, Colo.
KGDE	100		Fergus Falls, Minn.
KG EK	100		Yuma, Colo.
KGFI	100		Los Angeles, Calif.
KGHI	100		Little Rock, Ark.
KGVO	100		Missoula, Mont.
KMLB	100		Monroe, La.
KVOS	100		Bellingham, Wash.
KWG	100		Stockton, Calif.
SCI	200	1202	Kalmar, Sweden.
TF A	1200		Reykjavik, Iceland.
WABI	100		Bangor, Maine.
WBBX	100		New Orleans, La.
WBBZ	100		Ponca City, Okla.
WBHS	100		Huntsville, Ala.
WCAT	100		Rapid City, S. Dak.
WCAX	100		Burlington, Vt.
WCLO	100		Janesville, Wis.
WCOD	100		Harrisburg, Pa.
WFAM	100		South Bend, Ind.
WFBC	100		Greenville, S. Car.
WFBE	100		Cincinnati, Ohio.
WHBC	10		Canton, Ohio.
WHBY	100		Green Bay, Wis.
WIBX	100		Utica, N. Y.
WIL	100		St. Louis, Mo.
WJBC	100		LaSalle, Ill.
WJBL	100		Decatur, Ill.
WJBW	100		New Orleans, La.
WKJC	100		Lancaster, Pa.
WLAP	100		Louisville, Ky.
WNBO	100		Washington, Pa.
WNBW	10		Carbondale, Pa.
WORC	100		Worcester, Mass.
WPHR	100		Petersburg, Va.
WRBL	100		Columbus, Ga.
WVAE	100		Hammond, Ind.
YV3BC	50		Caracas, Venezuela.
3ZC	250		Christchurch, N. Z.
5KA	300		Adelaide, Australia.
10-AB	25		Moose Jaw, Sask.
10-AK	15		Stratford, Ont.
10-BI	25		Prince Albert, Sask.
10-BP	25	1199	Wingham, Ont.
10-BQ	15		Brantford, Ont.
10-BU	15		Canora, Sask.
.....	800	1205	Nice, France.
.....	500		Toulon, France.

## 1210 kcs. 247.8 m.

CFCO	100		Chatham, Ont.
CFNB	100		Fredericton, N. B.
CJOR	500		Vancouver, B. C.
CKMC	100		Cobalt, Ont.
CX34	500		Montevideo, Uruguay.
11TR	10000	11	Trieste, Italy.
KASA	100		Elk City, Okla.
KDLR	100		Devils Lake, N. D.
KFJI	100		Klamath Falls, Ore.

KFOR	100		Lincoln, Neb.
KFPV	100		Fort Smith, Ark.
KFVS	100		Cape Girardeau, Mo.
KFXM	100		San Bernardino, Calif.
KGCR	100		Watertown, S. Dak.
KG Y	100		Olympia, Wash.
KIEM	100		Eureka, Calif.
KPPC	50		Pasadena, Calif.
KWEA	100		Shreveport, La.
ON4FO	100	1219	Brussels, Belgium
ON4RG	400	1219	Ghent, Belgium.
ON4RW	200	1219	Liege, Belgium.
WALR	100		Zanesville, Ohio.
WBAX	100		Wilkes-Barre, Pa.
WBBL	100		Richmond, Va.
WCBS	100		Springfield, Ill.
WCRW	100		Chicago, Ill.
WEBQ	100		Harrisburg, Ill.
WECB	100		Chicago, Ill.
WFAS	100		White Plains, N. Y.
WGBB	100		Freeport, N. Y.
WGCM	100		Chillicothe, Miss.
WGN Y	50		Chester, N. Y.
WHBF	100		Rock Island, Ill.
WHBU	100		Anderson, Ind.
WHET	100		Troy, Ala.
WIBU	100		Poyntette, Wis.
WJBI	100		Red Bank, N. J.
WJBU	100		Lewisburg, Pa.
WJBY	100		Gadsden, Ala.
WJEJ	100		Hagerstown, Md.
WJW	100		Akron, Ohio.
WKFI	100		Greenville, Miss.
WMBG	100		Richmond, Va.
WOCL	50		Jamestown, N. Y.
WOMT	100		Manitowoc, Wis.
WPAW	100		Providence, R. I.
WQDX	100		Thomasville, Ga.
WSBC	100		Chicago, Ill.
WSEN	100		Columbus, Ohio.
WSLX	100		Springfield, Tenn.
WSOC	100		Gastonia, N. C.
WTAX	100		Springfield, Ill.
XEX	500		Mexico City, D. F.
2CH	1000		Sydney, Australia.
2ZE	10		Eketahuna, N. Z.
.....	100		Hull, Que.

## 1220 kcs. 245.8 m.

CMHK	15	1225	Cruces, Cuba.
CW34	50		Salto, Uruguay.
KFKU	500		Lawrence, Kans.
KTW	1000		Seattle, Wash.
KWSC	1000		Pullman, Wash.
OFG	600		Abo, Finland.
SCB	200		Eskestuna, Sweden.
SCL	200		Kiruna, Sweden.
SCP	400		Saffle, Sweden.
SCU	300		Varberg, Sweden.
WACD	500		Canton, N. Y.
WCAE	1000		Pittsburgh, Pa.
WDAE	1000		Tampa, Fla.
WREN	1000		Lawrence, Kans.
4ZL	100		Dunedin, N. Z.
6KG	100		Kalgoorlie, Australia.
.....	500	1229	Basle, Switz.
.....	500		Berne, Switz.
.....	400		Bloemendaal, Holland.
.....	250		Cartagena, Spain.
.....	500		Cassel, Germany.
.....	100	1225	Linz, Austria.
.....	120		Santiago, Chile.
.....	120		Swansea, G. B.

## 1230 kcs. 243.8 m.

CMBY	250		Havana, Cuba.
CMCA	150		Havana, Cuba.
KFQD	250		Anchorage, Alaska.
KGGM	250		Albuquerque, N. Mex.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

KYA	1000	....	San Francisco, Calif.
LBS	2000	....	Buenos Aires, Arg.
WFMB	1000	....	Indianapolis, Ind.
WNAC	1000	....	Boston, Mass.
WSBT	500	....	South Bend, Ind.
2YB	100	....	New Plymouth, N. Z.
.....	1000	1238	Belfast, Ireland.
.....	.....	1236	Liège, Belgium.
.....	.....	1239	Rancagua, Chile.

### 1240 kcs. 241.8 m.

CMAB	20	1249	Pinar del Rio, Cuba.
CMJN	50	.....	Camaguey, Cuba.
KGCU	250	.....	Mandan, N. Dak.
KLPM	250	.....	Minot, N. Dak.
KTAT	1000	.....	Fort Worth, Texas.
KTFI	500	.....	Twin Falls, Idaho.
LKS	500	1247	Stavanger, Norway.
PRP1	1500	1249	Oporto, Portugal.
SBE	600	1245	Boden, Sweden.
WACO	1000	.....	Waco, Texas.
WKAQ	1000	.....	San Juan, P. R.
WXYZ	1000	.....	Detroit, Mich.
XEFW	70	.....	Tampico, Tams.
2NC	2000	1245	Newcastle, Australia.
.....	50	1249	Valparaiso, Chile.

### 1250 kcs. 239.9 m.

CX36	250	.....	Montevideo, Uruguay.
KFMX	1000	.....	Northfield, Minn.
KFOK	1000	.....	Long Beach, Calif.
WAAM	1000	.....	Newark, N. J.
WCAL	1000	.....	Northfield, Minn.
WDSU	1000	.....	New Orleans, La.
WGCP	250	.....	Newark, N. J.
WLB	1000	.....	St. Paul, Minn.
WODA	1000	.....	Paterson, N. J.
WRHM	1000	.....	Minneapolis, Minn.
XEFA	500	.....	Mexico City, D. F.
.....	1500	.....	Beziers, France.
.....	500	.....	Nîmes, France.
.....	2000	1256	Nurnberg, Germany.

### 1260 kcs. 238.0 m.

CW36	30	.....	Salto, Uruguay.
KOIL	1000	.....	Council Bluffs, Iowa.
KRGV	500	.....	Harlingen, Texas.
KUOA	1000	.....	Fort Smith, Ark.
KVOA	500	.....	Tucson, Ariz.
KVWG	500	.....	Brownsville, Texas.
SCV	200	1265	Orebro, Sweden.
WLBW	500	.....	Erie, Pa.
WNBX	250	.....	Springfield, Vt.
WTOC	500	.....	Savannah, Ga.
1ZM	10	.....	Auckland, N. Z.
3WR	50	.....	Wangaratta, Australia.
.....	3000	1265	Bordeaux, France.
.....	1000	1265	Nîmes, France.
.....	20	1265	Santiago, Chile.

### 1270 kcs. 236.1 m.

CMBC	150	.....	Havana, Cuba.
CT1BP	50	1275	Lisbon, Portugal.
KGCA	100	.....	Decorah, Iowa.
KOL	1000	.....	Seattle, Wash.
KVOR	1000	.....	Colorado Springs, Colo.
KWLC	100	.....	Decorah, Iowa.
LKK	500	1274	Kristiansand, Norway.
LS9	3500	.....	Buenos Aires, Arg.
TUA	500	1275	Tunis, Tunisia.
WASH	500	.....	Grand Rapids, Mich.
WFBR	500	.....	Baltimore, Md.
WJDX	1000	.....	Jackson, Miss.
WOOD	500	.....	Grand Rapids, Mich.
ZP4	150	1275	Asuncion, Paraguay.
2SM	1000	.....	Sydney, Australia.

### 1280 kcs. 234.2 m.

KFBB	1000	.....	Great Falls, Mont.
LU7	200	.....	Putna Alta, Arg.
WCAM	500	.....	Camden, N. J.
WACP	500	.....	Asbury Park, N. J.
WDOD	1000	.....	Chattanooga, Tenn.
WIBA	500	.....	Madison, Wis.
WRR	500	.....	Dallas, Texas.
WTNJ	500	.....	Trenton, N. J.
3TR	50	.....	Sale, Australia.
4GC	20	.....	Otago, N. Z.
.....	2000	1283	Lodz, Poland.
.....	1000	1284	Sao Paula, Brazil.

### 1290 kcs. 232.4 m.

CMHL	20	.....	Cienfuegos, Cuba.
CX38	100	.....	Montevideo, Uruguay.
KDYL	1000	.....	Salt Lake City, Utah.
KFUL	500	.....	Galveston, Texas.
KLCN	100	.....	Blytheville, Ark.
KTSA	1000	.....	San Antonio, Texas.
WEBC	1000	.....	Superior, Wis.
WJAS	1000	.....	Pittsburgh, Pa.
WNBZ	500	.....	Saranac Lake, N. Y.
XEAC	100	1295	San Luis Potosi, S. L. P.
XJAP	500	.....	Xalapa, Ver.
2ZB	7.5	.....	Napier, N. Z.
2ZH	65	.....	Napier, N. Z.
4BK	200	.....	Brisbane, Australia.
.....	250	1292	Kiel, Germanv.
.....	250	1292	Noorkoping, Sweden.

### 1300 kcs. 230.6 m.

CMKJ	20	.....	Guantanamo, Cuba.
CE38	30	.....	Salto, Uruguay.
KALE	500	.....	Portland, Ore.
KFAC	1000	.....	Los Angeles, Calif.
KFH	1000	.....	Wichita, Kans.
KFJR	500	.....	Portland, Ore.
SCB	1250	1301	Malame, Sweden.
SCO	250	1301	Noorkoping, Sweden.
SCQ	250	1301	Trollhattan, Sweden.
SCR	50	1301	Uddevalla, Sweden.
VOKW	30	.....	St. John's, Nfld.
WBBR	1000	.....	Brooklyn, N. Y.
WEVD	500	.....	New York, N. Y.
WFAB	1000	.....	New York, N. Y.
WHAZ	500	.....	Troy, N. Y.
WIOD	1000	.....	Miami, Fla.
WOQ	1000	.....	Kansas City, Mo.
3BA	50	.....	Ballararat, Australia.
3ZE	45	.....	Greymouth, N. Z.
3ZR	80	.....	Greymouth, N. Z.
.....	200	1301	Halsingborg, Sweden.
.....	250	1304	Oliveira, Portugal.
.....	20	1305	Santiago, Chile.

### 1310 kcs. 228.9 m.

CHCK	100	.....	Charlottetown, P. E. I.
CKCV	100	.....	Quebec, Que.
KCRJ	100	.....	Jerome, Ariz.
KFBK	100	.....	Sacramento, Calif.
KFGQ	100	.....	Boone, Iowa.
KFPL	100	.....	Dublin, Texas.
KPPM	15	.....	Greenville, Texas.
KPXR	100	.....	Oklahoma City, Okla.
KFYO	100	.....	Lubbock, Texas.
KGBX	100	.....	Springfield, Mo.
KGCC	100	.....	Wolf Point, Mont.
KGLEZ	100	.....	Kalispell, Mont.
KGFV	100	.....	Kearney, Neb.
KIPH	100	.....	Juneau, Alaska.
KIT	100	.....	Yakima, Wash.
KMED	100	.....	Medford, Ore.
KRMD	100	.....	Shreveport, La.
KTSM	100	.....	El Paso, Texas.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

KXRO	100	.....	Aberdeen, Wash.
SCS	200	.....	Umea, Sweden.
WMAL	100	.....	Laurel, Miss.
WBBO	100	.....	Marquette, Mich.
WBOW	100	.....	Terre Haute, Ind.
WBRE	100	.....	Wilkes-Barre, Pa.
WCLS	100	.....	Joliet, Ill.
WDAH	100	.....	El Paso, Texas.
WEBR	100	.....	Buffalo, N. Y.
WXL	50	.....	Royal Oak, Mich.
WFBG	100	.....	Altounga, Pa.
WFDF	100	.....	Flint, Mich.
WGAL	100	.....	Lancaster, Pa.
WGH	100	.....	Newport News, Va.
WHAT	100	.....	Philadelphia, Pa.
WIAS	100	.....	Ottumwa, Iowa.
WIAC	100	.....	Johnstown, Pa.
WKA V	100	.....	Laconia, N. H.
WKBB	100	.....	Joliet, Ill.
WKBC	100	.....	Birmingham, Ala.
WLBC	50	.....	Muncie, Ind.
WMBO	100	.....	Auburn, N. Y.
WNBH	100	.....	New Bedford, Mass.
WOL	100	.....	Washington, D. C.
WRAW	100	.....	Reading, Pa.
WROL	100	.....	Knoxville, Tenn.
WSAJ	100	.....	Grove City, Pa.
WSJS	100	.....	Winston-Salem, N. Car.
WTFL	100	.....	Philadelphia, Pa.
WTJS	100	.....	Jackson, Tenn.
WTRC	100	.....	Elkhart, Ind.
XEFB	100	1315	Monterrey, N. L.
XEI	150	.....	Merelia, Mich.
5AD	300	.....	Adelaide, Australia.
.....	500	1319	Flensburg, Germany.

### 1320 kcs. 227.1 m.

CMCY	1000	1325	Havana, Cuba.
KGHF	250	.....	Pueblo, Colo.
KGMB	250	.....	Honolulu, Hawaii.
KID	250	.....	Idaho Falls, Idaho.
TGW	250	.....	Guatemala City, Gua.
WADC	1000	.....	Akron, Ohio.
WSMB	500	.....	New Orleans, La.
1ZJ	25	.....	Auckland, N. Z.
2MO	.....	.....	Gunnedah, Australia.
.....	10000	1328	Pecamp, France.

### 1330 kcs. 225.4 m.

CMJI	45	1335	Ciego de Avila, Cuba.
CX40	100	.....	Montivideo, Uruguay.
KGB	1000	.....	San Diego, Calif.
KMO	250	.....	Tacoma, Wash.
KSCJ	1000	.....	Sioux City, Iowa.
TITR	75	1333	San Jose, C. R.
WDRC	500	.....	Hartford, Conn.
WSAI	500	.....	Cincinnati, Ohio.
WTAQ	1000	.....	Eau Claire, Wis.
2ZI	15	.....	Hastings, N. Z.
4RO	250	.....	Roekhampton, Australia.
6CK	1500	1337	Cork, Ireland.

### 1340 kcs. 223.7 m.

CW40	30	.....	Paysandu, Uruguay.
KPPY	1000	.....	Spokane, Wash.
KGDY	250	.....	Huron, S. Dak.
KGNO	250	.....	Dodge City, Kans.
LOAA	10000	1344	Luxemburg, Lux.
SCG	200	1346	Halsingborg, Sweden.
WCOA	500	.....	Pensacola, Fla.
WLEC	250	.....	Portland, Maine.
WSPD	1000	.....	Toledo, Ohio.
2XN	50	.....	Lismore, Australia.
4ZR	5	.....	Otago, N. Z.
.....	100	1345	Santiago, Chile.

### 1350 kcs. 222.1 m.

CPX	1000	.....	LaPaz, Bolivia.
JRL	7.5	.....	San Pedro Sula, Hond.
KIDO	1000	.....	Boise, Idaho.
KWK	1000	.....	St. Louis, Mo.
LS6	1500	.....	Buenos Aires, Arg.
SCF	150	1355	Hudekssvall, Sweden.
WAWZ	250	.....	Zarephath, N. J.
WBNX	250	.....	New York, N. Y.
WCDA	250	.....	New York, N. Y.
WEHC	250	.....	Emory, Va.
WMSG	250	.....	New York, N. Y.
3KZ	200	.....	Melbourne, Australia.

### 1360 kcs. 220.4 m.

CMCR	150	1365	Havana, Cuba.
CMJP	7.5	.....	Moron, Cuba.
KGER	1000	.....	Long Beach, Calif.
KGIR	500	.....	Butte, Mont.
PRAX	2000	1364	Rio de Janeiro, Brazil.
WCSC	500	.....	Charleston, S. Car.
WFBL	1000	.....	Syracuse, N. Y.
WGES	500	.....	Chicago, Ill.
WJKS	1000	.....	Gary, Ind.
WQBC	500	.....	Vicksburg, Miss.
2ZR	50	.....	Nelson, N. Z.
.....	1500	1364	Beziers, France.
.....	250	1364	St. Etienne, France.

### 1370 kcs. 218.8 m.

CMGE	30	1375	Cardenas, Cuba.
CX42	500	.....	Montivideo, Uruguay.
HRB	2300	.....	Tegucigalpa, Hond.
KCRC	100	.....	Enid, Okla.
KFBL	50	.....	Everett, Wash.
KFJM	100	.....	Grand Forks, N. Dak.
KFJZ	100	.....	Fort Worth, Texas.
KFLN	100	.....	Galveston, Texas.
KGAR	100	.....	Tucson, Ariz.
KGDA	100	.....	Mitchell, S. Dak.
KGFG	100	.....	Oklahoma City, Okla.
KGFL	100	.....	Roswell, N. Mex.
KGKL	100	.....	San Angelo, Texas.
KICA	100	.....	Clovis, N. Mex.
KMAC	100	.....	San Antonio, Texas.
KONO	100	.....	San Antonio, Texas.
KOOS	100	.....	Marshfield, Ore.
KRE	100	.....	Berkeley, Calif.
KSO	100	.....	Des Moines, Iowa.
KUJ	100	.....	Walla Walla, Wash.
KVL	100	.....	Seattle, Wash.
KWKC	100	.....	Kansas City, Mo.
ON4GT	100	1375	Brussels, Belgium.
WBTM	100	.....	Danville, Va.
WCBM	100	.....	Baltimore, Md.
WDAS	100	.....	Philadelphia, Pa.
WGL	100	.....	Port Wayne, Ind.
WGLC	50	.....	Hudson Falls, N. Y.
WHB D	100	.....	Mount Orab, Ohio.
WHBC	100	.....	Memphis, Tenn.
WIDF	100	.....	Calumet, Mich.
WIBM	100	.....	Jackson, Mich.
WJBK	100	.....	Detroit, Mich.
WJEQ	100	.....	Williamsport, Pa.
WJTL	100	.....	Atlanta, Ga.
WLEY	100	.....	Lexington, Mass.
WLVA	100	.....	Lynchburg, Va.
WMBR	100	.....	Tampa, Fla.
WPFB	100	.....	Hattiesburg, Miss.
WQDM	100	.....	St. Albans, Vt.
WRAK	100	.....	Williamsport, Pa.
WRAM	100	.....	Wilmington, N. Car.
WRDO	100	.....	Augusta, Maine.
WRJN	100	.....	Racine, Wis.
WSVS	50	.....	Buffalo, N. Y.
XEFV	100	.....	Juarez, Chih.
.....	200	1373	Plymouth, G. B.
.....	500	1373	Salzburg, Austria.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 1380 kcs. 217.3 m.

CMJC	150	1382	Camaguey, Cuba.
KOH	500	.....	Reno, Nev.
KQV	500	.....	Pittsburgh, Pa.
LU6	50	.....	Mar del Plata, Arg.
ON4CE	200	1388	Chatelaineau, Belgium.
ON4EX	100	1388	Ottomont, Belgium
SCK	250	1382	Karlstad, Sweden.
WKBH	1000	.....	LaCrosse, Wis.
XMTK	200	.....	Dayton, Ohio.
XETB	125	.....	Torreon, Coah.
4BH	600	.....	Bristane, Australia.
.....	500	1382	Konigsberg, Germany.
.....	10	1388	Rancagua, Chile.

### 1390 kcs. 215.7 m.

CMBD	40	1395	Havana, Cuba.
HHH	15	1395	San Pedro, D. R.
KLRA	1000	.....	Little Rock, Ark.
KOY	500	.....	Phoenix, Ariz.
LT10	100	.....	Sante Fe, Arg.
SCE	200	1391	Hulmstad, Sweden.
WHK	1000	.....	Cleveland, Ohio.
2GN	50	.....	Goulburn, Australia.

### 1400 kcs. 214.2 m.

CMCH	50	1405	Havana, Cuba.
CMCM	15	1405	Havana, Cuba.
KLO	500	.....	Ogden, Utah.
KOCW	250	.....	Chickasha, Okla.
WARD	500	.....	Brooklyn, N. Y.
WBBA	500	.....	Lafayette, Ind.
WBBC	500	.....	Brooklyn, N. Y.
WFOX	500	.....	Brooklyn, N. Y.
WKBF	500	.....	Indianapolis, Ind.
WLTH	500	.....	Brooklyn, N. Y.
2ZL	20	.....	Hastings, N. Z.
3GL	50	.....	Geelong, Australia.
.....	1000	.....	Aberdeen, G. B.

### 1410 kcs. 212.6 m.

CKFC	50	.....	Vancouver, B. C.
CKMO	100	.....	Vancouver, B. C.
CX44	20	.....	Montivideo, Uruguay.
KFLV	500	.....	Rockford, Ill.
KGRS	1000	.....	Amarillo, Texas.
WAAB	500	.....	Boston, Mass.
WBCM	500	.....	Bay City, Mich.
WDAG	1000	.....	Amarillo, Texas.
WHBL	500	.....	Sheboygan, Wis.
WH1S	250	.....	Bluefield, W. Va.
WODX	500	.....	Mobile, Ala.
WRBX	250	.....	Roanoke, Va.
WSFA	500	.....	Montgomery, Ala.
2KO	200	1415	Newcastle, Australia.

### 1420 kcs. 211.1 m.

CW44	30	.....	Paysandu Uruguay.
HAE-2	3000	1428	Magyarovar, Hungary.
KABC	100	.....	San Antonio, Texas.
KBPS	100	.....	Portland, Ore.
KCMC	100	.....	Texarkana, Ark.
KFIZ	100	.....	Fond du Lac, Wis.
KGFF	100	.....	Shawnee, Okla.
KGGC	100	.....	San Francisco, Calif.
KGIW	100	.....	Trinidad, Colo.
KGIX	100	.....	Las Vegas, Nev.
KGKX	100	.....	Sand Point, Idaho.
KICK	100	.....	Red Oak, Iowa.
KIDW	100	.....	Lamar, Colo.
KORE	100	.....	Eugene, Ore.
KUMA	100	.....	Yuma, Ariz.
KWCR	100	.....	Cedar Rapids, Iowa.
KXL	100	.....	Portland, Ore.

OA4M	12	1428	Lima, Peru.
WAGM	100	.....	Presque Isle, Maine.
WAMC	100	.....	Anniston, Ala.
WAZL	100	.....	Hazleton, Pa.
WEHS	100	.....	Cieero, Ill.
WEILL	50	.....	Battle Creek, Mich.
WENC	100	.....	Americus, Ga.
WHDL	100	.....	Tupper Lake, N. Y.
WHFC	100	.....	Cieero, Ill.
WILM	100	.....	Wilmington, Del.
WJBO	100	.....	New Orleans, La.
WJMS	100	.....	Ironwood, Mich.
WKBI	100	.....	Cieero, Ill.
WLBF	100	.....	Kansas City, Kans.
WMAS	100	.....	Springfield, Mass.
WMBC	100	.....	Detroit, Mich.
WMBH	100	.....	Joplin, Mo.
WPAD	100	.....	Paducah, Ky.
WSPA	100	.....	Spartanburg, S. Car.
WTBO	100	.....	Cumberland, Md.
ZB	20	.....	Auckland, N. Z.
ZS	5	.....	Auckland, N. Z.
3AW	300	1425	Moolbourne, Australia.
.....	1000	.....	Newcastle, G. B.

### 1430 kcs. 209.7 m.

CFCT	500	.....	Victoria, B. C.
HAC	1200	.....	Budapest, Hungary.
KECA	1000	.....	Los Angeles, Calif.
KGNF	500	.....	North Platte, Neb.
LP9	1500	.....	La Plata, Arg.
WBAK	1000	.....	Harrisburg, Pa.
WCAH	500	.....	Columbus, Ohio.
WFPA	500	.....	Manchester, N. H.
WHEC	500	.....	Rochester, N. Y.
WHP	500	.....	Harrisburg, Pa.
WNBR	500	.....	Memphis, Tenn.
WOKO	500	.....	Albany, N. Y.
2WL	50	1435	Woollongong, Australia.

### 1440 kcs. 208.2 m.

CMBL	20	1445	Havana, Cuba.
CSIRS	1000	1448	Oporto, Portugal.
KDFN	500	.....	Casper, Wyo.
KLS	250	.....	Oakland, Calif.
KXYZ	250	.....	Houston, Texas.
ON4RC	100	1448	Brussels, Belgium.
TIFS	7.5	1441	Cartago, C. R.
WBIG	500	.....	Greensboro, N. Car.
WCBA	250	.....	Allentown, Pa.
WMBD	500	.....	Peoria, Ill.
WSAN	250	.....	Allentown, Pa.
WTAD	500	.....	Quincy, Ill.

### 1450 kcs. 206.8 m.

CX46	100	.....	Montivideo, Uruguay.
KTBS	1000	.....	Shreveport, La.
ON4CE	100	1455	Verviers, Belgium
ON4EB	50	1455	Antwerp, Belgium
ON4FG	25	1455	Danpremy, Belgium.
SCA	150	.....	Boras, Sweden.
TIEP	7.5	.....	San Jose, C. R.
WGAR	500	.....	Cleveland, Ohio.
WHOM	250	.....	Jersey City, N. J.
WSAR	250	.....	Full River, Mass.
WTPI	500	.....	Athens, Ga.
XEAB	7.5	.....	Nuevo Laredo, Tams.
3ZM	100	.....	Christchurch, N. Z.

### 1460 kcs. 205.4 m.

CW46	20	.....	Tucuaembo, Uruguay.
KSTP	25000	.....	St. Paul, Minn.
SCW	200	.....	Ornskoldsvik, Sweden.
WJSV	10000	.....	Washington, D. C.
ZP5	150	1465	Asuncion, Paraguay.
7UV	200	1465	Ulverstone, Australia.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 1470 kcs. 204.0 m.

KGA	5000	.....	Spokane, Wash.
LU9	50	.....	Azul, Arg.
SCE	200	.....	Gavle, Sweden.
WLAC	5000	.....	Nashville, Tenn.

### 1480 kcs. 202.6 m.

CMBK	15	1485	Havana, Cuba.
CMBR	40	1485	Havana, Cuba.
KOMA	5000	.....	Oklahoma City, Okla.
SCM	250	.....	Kristinehamn, Sweden.
WKBW	5000	.....	Buffalo, N. Y.
2AY	50	.....	Albury, Australia.

### 1490 kcs. 201.2 m.

CX48	50	.....	Montivideo, Uruguay.
SCIH	250	.....	Jonkoping, Sweden.
WCKY	5000	.....	Covington, Ky.

### 1500 kcs. 199.9 m.

KDB	100	.....	Santa Barbara, Calif.
KGFI	100	.....	Corpus Christi, Texas.
KGFK	100	.....	Moorhead, Minn.

KGIZ	100	.....	Grant City, Mo.
KGKB	100	.....	Tyler, Texas.
KGKY	100	.....	Scottsbluff, Neb.
KNOW	100	.....	Austin, Texas.
KPJM	100	.....	Prescott, Ariz.
KPQ	100	.....	Wenatchee, Wash.
KREG	100	.....	Santa Ana, Calif.
KXO	100	.....	El Centro, Calif.
WFDV	100	.....	Rome, Ga.
WIEF	100	.....	Kosciusko, Miss.
WKBV	100	.....	Connerville, Ind.
WKBZ	100	.....	Ludington, Mich.
WKFU	100	.....	LaGrange, Ga.
WLOE	100	.....	Boston, Mass.
WMBQ	100	.....	Brooklyn, N. Y.
WMLL	100	.....	Brooklyn, N. Y.
WMPC	100	.....	Lapeer, Mich.
WNRB	100	.....	Binghamton, N. Y.
WOFI	100	.....	Bristol, Tenn.
WPEN	100	.....	Philadelphia, Pa.
WRDW	100	.....	Augusta, Ga.
WSYB	100	.....	Rutland, Vt.
WWRL	100	.....	Woodsie, N. Y.
WWSW	100	.....	Pittsburgh, Pa.
XEFZ	100	.....	Coyocacan, D. F.
3AK	50	.....	Melbourne, Australia.
.....	250	1515	Biarriz, France.
.....	10000	.....	Riga, Latvia.

## REVISED INDEX OF CANADIAN STATIONS BY CALL LETTERS

\*Not in official list; evidently to be deleted.

CFAC	690	Calgary, Alta.	CHRC	645	Quebec, Que.	CKMC	1210	Cobalt, Ont.
CFBO	1030	St. John, N. B.	CHWC	1010	Regina, Sask.	CKMO	1410	Vancouver, B. C.
CFCA	1120	Toronto, Ont.	CHWK	780	Chilliwack, B. C.	CKNC	1030	Toronto, Ont.
CFCE	600	Montreal, Que.	CHYC*	730	Montreal, Que.	CKOC	1010	Hamilton, Ont.
CFCH	930	North Bay, Ont.	CJCA	730	Edmonton, Alta.	CKOV	1200	Kelowna, B. C.
CFCN	1030	Calgary, Alta.	CJCB	880	Sydney, N. S.	CKPC	930	Preston, Ont.
CFCO	1210	Chatham, Ont.	CJCG	690	Calgary, Alta.	CKPR	780	Pt. William, Ont.
CFCT	1430	Victoria, B. C.	CJGX	630	Yorkton, Sask.	CKTB*	635	St. Catharines, Ont.
CFCY	630	Charlottetown, P. E. I.	CJOC	580	Lethbridge, Alta.	CKUA	580	Edmonton, Alta.
CFJC	1120	Kamloops, B. C.	CJOR	1210	Vancouver, B. C.	CKWX	1010	Vancouver, B. C.
CFLC	930	Prescott, Ont.	CJRM	880	Moose Jaw, Sask.	CKX	930	Brandon, Man.
CFNB	1210	Fredericton, N. B.	CJRW	880	Fleming, Sask.	CKY	910	Winnipeg, Man.
CFQC	890	Saskatoon, Sask.	CKAC	730	Montreal, Que.	CNRH*	815	Halifax, N. S.
CFRB	690	Toronto, Ont.	CKCD	1010	Vancouver, B. C.	CPRY*	840	Toronto, Ont.
CFRC	915	Kingston, Ont.	CKCI*	645	Quebec, Que.	CRCA	580	Moncton, N. B.
CHCH*	1200	Montreal, Que.	CKCK	1010	Regina, Sask.	CRCO	880	Ottawa, Ont.
CHCK	1310	Charlottetown, P. E. I.	CKCL	580	Toronto, Ont.	CRCV	1100	Vancouver, B. C.
CHGS	1120	Summerside, P. E. I.	CKCO	1010	Ottawa, Ont.	10-AB	1200	Moose Jaw, Sask.
CHLP	1120	Montreal, Que.	CKCR	645	Waterloo, Ont.	10-AK*	1200	Stratford, Ont.
CHLS*	730	Vancouver, B. C.	CKCV	1310	Quebec, Que.	10-AT*	1158	Trail, B. C.
CHMA	580	Edmonton, Alta.	CKFC	1410	Vancouver, B. C.	10-BT*	1200	Prince Albert, Sask.
CHML	890	Hamilton, Ont.	CKGW	840	Toronto, Ont.	10-BP*	1199	Wingham, Ont.
CHNC*	840	Toronto, Ont.	CKIK	1010	Wolfville, N. S.	10-BQ*	1200	Brantford, Ont.
CHNS	1050	Halifax, N. S.	CKLC*	840	Red Deer, Alta.	10-BU*	1200	Canora, Sask.
			CKLW	540	Windsor-London, Ont.		1210	Hull, Quebec

## TIME CONVERSION TABLE

Atlantic	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
Eastern	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
Central	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
Mountain	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Pacific	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00

# INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

## ALABAMA

	Watts		Keys.
Anniston O-21 tr	100	WAMC	1420
Birmingham O-21	5000	WAPI	N 1140
	500	WBRC	C 930
	100	WKBC	1310
Gadsden O-21	100	WJBY	1210
Huntsville N-21 c	100	WBHS	1200
Mobile Q-20	500	WODX	C 1410
Montgomery P-21	500	WSFA	C 1410
Troy P-21 rc	100	WHET	1210

## ALASKA

Anchorage	250	KFQD	1230
Juneau	100	KIFH	1310
Ketchikan	500	KGBU	900

## ARIZONA

Jerome M-6	100	KCRJ	1310
Phoenix N-6	500	KOY	C 1390
	500	KTAR	N 620
Prescott M-6	100	KPJM	1500
Tucson O-7	100	KGAR	1370
	500	KVOA	1260
Yuma O-5 tl	100	KUMA	1420

## ARKANSAS

Blytheville M-19	100	KLCN	1290
Fayetteville M-16	1000	KUOA	1260
Fort Smith N-16	100	KFPW	1210
Hot Springs N-17	10000	KTHS	N 1040
Little Rock N-17	250	KARK	890
	100	KGHI	1200
	1000	KLRA	C 1390
Paragould M-18	100	KBTM	1200
Texarkana O-17 bl	100	KCMC	1420

## CALIFORNIA

Bakersfield L-2 br	100	KERN	C 1200
Berkeley J-2	100	KRE	1370
Beverly Hills M-3 bl	500	KMPCC	710
Burbank M-3	500	KELW	780
El Centro N-4	100	KXO	1500
Eureka H-1 tc	100	KIEM	1210
Fresno K-2	500	KMJ	C 580
Glendale M-3	100	KIEV	850
Hollywood M-3	500	KMITR	570
	25000	KNX	1050
Long Beach M-3	1000	KFOX	C 1250
	1000	KGER	1360
Los Angeles M-3	1000	KECA	N 1430
	1000	KFAC	1300
	50000	KFI	N 640
	500	KFSG	1120
	250	KFVD	1000
	1000	KFWB	950
	100	KGfJ	1200
	1000	KHJ	C 900
	500	KRKD	1120
	500	KTM	780
Oakland J-1	250	KLS	1440
	1000	KLX	880
	500	KROW	930
	50	KPPC	1210
Pasadena M-3	100	KFBK	C 1310
Sacramento J-2	100	KFXM	1210
San Bernardino M-3	1000	KFSD	N 600
San Diego N-3	1000	KGB	C 1330
	1000	KFRC	C 610
San Francisco J-1	500	KFWI	930
	100	KGGC	1420
	7500	KGO	N 790
	100	KJBS	1070
	50000	KPO	N 680
	1000	KTAB	560
	1000	KYA	N 1230

	Watts		Keys.
San Jose J-1	500	KQW	1010
Santa Ana M-3	100	KREG	1500
Santa Barbara M-2	100	KDB	C 1500
Stockton J-2	250	KGDM	1100
	100	KWG	C 1200

## COLORADO

Colorado Springs K-11	1000	KVOR	C 1270
Denver K-11	500	KFEL	920
	500	KFXF	920
	1000	KLZ	C 560
	12500	KOA	N 830
	500	KPOF	880
Grand Junction K-9 1c	100	KFXJ	1200
Greeley J-11	500	KFKA	880
Lamar L-12 1c	100	KIDW	1420
Pueblo L-11	250	KGHF	1320
Trinidad L-11	100	KGIW	1420
Yuma J-12	100	KGEK	1200

## CONNECTICUT

Bridgeport H-27	250	WICC	C 600
Hartford H-27	500	WDRG	C 1330
	50000	WTIC	R 1060
Storrs H-28	250	WCAC	600

## DELAWARE

Wilmington J-26	250	WDEL	1120
	100	WILM	1420

## DISTRICT OF COLUMBIA

Washington J-26	10000	WJSV	C 1460
	250	WMAL	B 630
	500	WRC	N 950
	100	WOL	1310

## FLORIDA

Clearwater R-24	1000	WFLA	N 620
Gainesville Q-24	5000	WRUF	C 830
Jacksonville Q-24	1000	WJAX	N 900
Miami T-25	1000	WIOD	N 1300
	1000	WQAM	C 560
Orlando R-24	250	WDBO	C 580
Pensacola Q-21	500	WCOA	1340
St. Petersburg S-24	1000	WSUN	N 620
Tampa R-24	1000	WDAE	C 1320
	100	WMBR	1370

## GEORGIA

Americus P-22 c	100	WENC	1420
Athens N-23 bc	500	WTEF	1450
Atlanta O-22	250	WGST	C 890
	100	WJTL	1370
	5000	WSB	N 740
Augusta O-23	100	WRDW	1500
Columbus O-22	100	WRBL	1200
LaGrange O-22 1	100	WKEU	1500
Macon O-23	500	WMAZ	180
Rome N-22	100	WFDV	1500
Savannah O-24	500	WTOG	C 1260
Thomasville Q-22	100	WQDX	1210

## HAWAII

Honolulu	250	KGMB	C 1320
	1000	KGU	N 750

## IDAHO

Boise G-5	1000	KIDO	1350
Idaho Falls G-7	250	KID	1320
Nampa G-5	100	KFXD	1200
Pocatello H-7	250	KSEI	890
Sand Point E-5 rc	100	KGXX	1420
Twin Falls H-6	500	KTFI	1400

# INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

ILLINOIS		Watts	Keys.
Carthage J-18		50	WCAZ 1070
Chicago I-20		10000	KFKX 1020
		10000	KYW N 1020
		500	WAAF 920
		25000	WBBM C 770
		1500	WCFL R 970
		100	WCRW 1210
		100	WEDC 1210
		50000	WENR N 870
		500	WGES 1360
		25000	WCN C 720
		1000	WBO 560
		20000	WJJD 1130
		50000	WLS 870
		5000	WMAQ N 670
		5000	WMBI N 1080
		500	WPCC 560
		100	WSBC 1210
		100	WEHS 1420
		100	WHFC 1420
		100	WKBI 1420
		100	WJBL 1200
		100	WBO 1210
		100	WCLS 1310
		100	WKBB 1310
		100	WJBC 1200
		500	WMBD C 1440
		500	WTAD 1440
		500	KFLV 1410
		100	WHBF 1210
		100	WCBS 1210
		100	WTAX 1210
		100	WDZ 1070
		250	WILL 890
		5000	WCBD 1080

INDIANA		Watts	Keys.
Anderson J-21		100	WHBU 1210
Connersville K-21		100	WKBY 1500
Elkhart I-21 bc		100	WTRC 1310
Evansville L-20		500	WGBF 630
Fort Wayne J-21		100	WGL C 1370
		10000	WOWO C 1160
Gary I-20		1000	WJKS 1360
Hammond I-20 bc		100	WVAE 1200
Indianapolis J-21		1000	WFBM C 1230
		500	WKBF 1400
		500	WBA 1400
		50	WLB 1310
		100	WFAM C 1200
		500	WSBT C 1230
		100	WBOW 1310

IOWA		Watts	Keys.
Ames I-17		5000	WOI 640
Boone I-17		100	KFGQ 1310
Cedar Rapids I-18		100	KWCR B 1420
Council Bluffs J-16		10000	KOIL B 1260
Davenport I-18		50000	WOC R 1000
Decorah H-18		100	KGCA 1270
		100	KWLC 1270
		100	KSO B 1370
		50000	WHO R 1000
Iowa City I-18		500	WSU 880
Marshalltown I-17		100	KFJB 1200
Ottumwa J-17		100	WIAS 1310
Red Oak J-16		100	KICK 1420
Shenandoah J-16		500	KFNF 890
		500	KMA 930
Sioux City I-15		1000	KSCJ C 1330
Waterloo I-17		500	WMT C 600

KANSAS		Watts	Keys.
Abilene K-15 bl		5000	KFBI 1050
Coffeyville M-15 tr		500	KGGF 1010
Dodge City L-13		250	KGNO 1340
Kansas City K-16		100	WLBF 1420
Lawrence K-16		500	KFKU 1220
		1000	WREN B 1220
Manhattan K-15		500	KSAC 580
Topeka K-16		1000	WIBW C 580
Wichita L-15		1000	KFH C 1300

KENTUCKY		Watts	Keys.
Covington K-22		5000	WCKY N 1490
Hopkinsville M-20		1000	WFIW C 940
Louisville L-21		25000	WHAS C 820
		100	WLAP 1200
Paducah M-19		100	WPAD 1420

LOUISIANA		Watts	Keys.
Monroe P-18		100	KMLB 1200
New Orleans R-19		100	WBBX 1200
		1000	WDSU C 1250
		100	WJBO 1420
		100	WJBW 1200
		500	WSMB N 1320
		10000	WWL 850
Shreveport P-17		100	KRMD 1310
		1000	KTBS N 1450
		100	KWEA 1210
		10000	KWKH 850

MAINE		Watts	Keys.
Augusta F-28		100	WRDO 1370
Bangor F-29		100	WAB 1200
		500	WLBZ C 620
Portland F-28		1000	WCSH R 940
		250	WLEC 1340
Presque Isle D-29 lc		100	WAGM 1420

MARYLAND		Watts	Keys.
Baltimore J-26		10000	WBAL B 1060
		250	WCAO C 600
		100	WCBM 1370
		500	WFBR R 1270
Cumberland J-25		100	WTBO 1420
Hagerstown J-25 rc		100	WJEJ 1210

MASSACHUSETTS		Watts	Keys.
Babson Park G-28		500	WBSO 920
Boston G-28		500	WAAB C 1410
		25000	WBZ B 990
		1000	WEEI R 590
		1000	WHDH 830
		100	WLOE 1500
		1000	WNAC C 1230
		250	WSAR 1450
Fall River H-28		100	WLEY 1370
Lexington G-28		100	WNBH 1310
New Bedford H-28		1000	WBZA B 990
Springfield H-27		100	WMAS 1420
		100	WORC C 1200
Worcester G-28		250	WTAG R 580

MICHIGAN		Watts	Keys.
Battle Creek I-21		50	WELL 1420
Bay City H-22		500	WBGM C 1410
Calumet E-19		100	WHDF 1370
Detroit H-22		100	WJBK 1370
		10000	WJR B 750
		100	WMB 1420
		1000	WWJ R 920
		1000	WX YZ 1240
East Lansing H-21		1000	WKAR 1040

# INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

	Watts		Kcys.		Watts		Kcys.
<b>Flint H-22</b>	100	WFDF	1310	<b>NEVADA</b>			
<b>Grand Rapids H-21</b>	500	WASH	1270	Las Vegas L-5	100	KGIX	1420
	500	WOOD	1270	Reno I-3	500	KOH	C 1380
<b>Ironwood F-18 rc</b>	100	WJMS	1420	<b>NEW HAMPSHIRE</b>			
<b>Jackson I-21</b>	100	WBIM	1370	Laconia G-28 1c	100	WKAV	1310
<b>Kalamazoo I-21 tl</b>	1000	WKZO	590	Manchester G-28	500	WFEA	C 1430
<b>Lapeer H-22</b>	100	WMPC	1500	Portsmouth G-28 tc	250	WHEB	740
<b>Ludington H-20</b>	100	WKBZ	1500	<b>NEW JERSEY</b>			
<b>Marquette F-19</b>	100	WBEO	1310	Asbury Park I-27	500	WCAP	C 1280
<b>Royal Oak H-22</b>	50	WEXL	1310	Atlantic City J-27	5000	WPG	C 1100
<b>MINNESOTA</b>				Camden I-26	500	WCAM	1280
<b>Fergus Falls F-15</b>	100	KGDE	1200	Jersey City I-27	500	WAAT	940
<b>Minneapolis G-17</b>	5000	WCCO	C 810		250	WHOM	1450
	1000	WDGY	1180	Newark I-27	1000	WAAM	1250
	1000	WLB	1250		250	WGCP	1250
	1000	WRHM	1250		5000	WOR	710
<b>Moorhead F-15</b>	100	KGFK	1500	Paterson I-27	1000	WODA	1250
<b>Northfield G-17</b>	1000	KFMX	1250	Red Bank I-27	100	WJBI	1210
	1000	WCAL	1250	Trenton I-26	500	WTNJ	1280
<b>St. Paul G-17</b>	25000	KSTP	N 1460	Zarephath I-27	250	WAWZ	1350
<b>MISSISSIPPI</b>				<b>NEW MEXICO</b>			
<b>Greenville O-18</b>	100	WKFI	1210	Albuquerque N-7	250	KGGM	1230
<b>Gulfport Q-19</b>	100	WGCM	1210		2000	KOB	1180
<b>Hattiesburg Q-19</b>	100	WPFB	1370	Clovis O-11 tr	100	KICA	1370
<b>Jackson P-19</b>	1000	WJDX	N 1270	Roswell M-10	100	KGFL	1370
<b>Kosciusko O-19 bc</b>	100	WHEF	1500	<b>NEW YORK</b>			
<b>Laurel P-19 br</b>	100	WAML	1310	Albany G-27 bl	500	WOKO	C 1430
<b>Meridian P-20</b>	500	WCOC	880	Auburn H-25	100	WMBO	1310
<b>Vicksburg P-18</b>	500	WQBC	1360	Binghamton H-26	100	WNBF	1500
<b>MISSOURI</b>				Brooklyn I-27	500	WARD	1400
<b>Cp. Girardeau L-19</b>	100	KFVS	1210		500	WBBC	1400
<b>Columbia K-17</b>	500	KFRU	630		1000	WBBR	1300
<b>Grant City J-16</b>	100	KGIZ	1500		500	WFOX	1400
<b>Jefferson City L-17</b>	500	WOS	630		500	WLTH	1400
<b>Joplin M-16</b>	100	WMBH	1420		100	WMBQ	1500
<b>Kansas City K-16</b>	1000	KMBC	C 950		100	WMIL	1500
	100	KWKC	1370	Buffalo H-24	1000	WBNR	R 900
	1000	WDAF	R 610		100	WEBR	1310
	500	WHB	860		1000	WGR	C 550
	1000	WOQ	1300		5000	WKBW	C 1480
<b>St. Joseph K-16</b>	2500	KFEQ	680		50	WSVS	1370
<b>St. Louis L-18</b>	500	KFUO	550	Canton F-26	500	WCAD	1220
	100	KFWF	1200	Chester	50	WGN Y	1210
	5000	KMOX	C 1090	Elmira H-25 c	1000	WESG	1040
	500	KSD	R 550	Freeport I-27	100	WGBB	1210
	1000	KWK	B 1350	Hudson Falls G-27	50	WGLC	1370
	1000	WEW	760	Jamestown H-24	50	WOCL	1210
	100	WIL	1200	New York City I-27	50000	WABC	C 860
<b>Springfield M-17</b>	100	KGBX	1310		250	WBNX	1350
<b>MONTANA</b>					50000	WBOQ	860
<b>Billings F-9</b>	1000	KGHL	N 950		250	WCDA	1350
<b>Butte F-7</b>	500	KGIR	N 1360		50000	WEAF	R 660
<b>Great Falls E-8</b>	1000	KFEB	1280		500	WEVD	1300
<b>Kalispell D-7</b>	100	KGZZ	1310		1000	WFAB	1300
<b>Missoula E-7</b>	100	KGVO	1200		500	WINS	1180
<b>Wolf Point E-11</b>	100	KGCX	1310		250	WHN	1010
<b>NEBRASKA</b>					50000	WJZ	B 760
<b>Clay Center J-14</b>	1000	KMMJ	740		5000	WLWL	1100
<b>Kearney J-14 bc</b>	100	KGFW	1310		500	WMCA	570
<b>Lincoln J-15</b>	5000	KFAB	C 770		250	WMSG	1350
	100	KFOR	1210		500	WN YC	810
	500	WCAJ	590		1000	WOV	1130
<b>Norfolk I-15</b>	1000	WJAG	1060		250	WPAP	1010
<b>North Platte J-13</b>	500	KGNF	1430		500	WPCH	570
<b>Omaha J-15</b>	500	WAAW	660		250	WQAO	1010
	1000	WOW	R 590		250	WRNY	1010
<b>Scottsbluff I-11</b>	100	KGKY	1500	<b>Rochester G-25</b>	25000	WHAM	B 1150
<b>York J-15</b>	500	KGBZ	930		500	WHEC	C 1430

# INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

	Watts		Keys.
Saranac Lake F-26	50	WNBZ	1290
Schenectady G-27	5000	WGY	R 790
Syracuse G-25	1000	WFBL	C 1360
	250	WMAC	570
	250	WSYR	B 570
Troy G-27	500	WHAZ	1300
Tupper Lake F-26	100	WHDL	1420
Utica G-26	100	WIBX	1200
Woodside I-27	100	WWRL	1500
White Plains H-27 b1	100	WFAS	1210

## NORTH CAROLINA

Asheville M-23	1000	WBNC	N 570
Charlotte M-24	25000	WBT	C 1080
Gastonia M-24	100	WSOC	1210
Greensboro M-24	500	WBOG	C 1440
Raleigh M-25	1000	WPTF	N 680
Wilmington N-26	100	WRAM	1370
Winston-Salem M-24	100	WSJS	C 1310

## NORTH DAKOTA

Bismarck F-13	1000	KFYR	N 550
Devils Lake E-14	100	KDLR	1210
Fargo F-15	1000	WDAY	N 940
Grand Forks E-15	100	KFJM	1370
Mandan F-13	250	KGCU	1240
Minot E-13	250	KLPM	1240

## OHIO

Akron I-23	1000	WADC	C 1320
	100	WJW	1210
Canton I-23	10	WHBC	1200
Cincinnati K-22	100	WFBE	1200
	1000	WKRC	C 550
	5000	WLW	N 700
	500	WSAI	R 1330
Cleveland I-23	500	WGAR	B 1450
	1000	WHK	C 1390
	500	WJAY	610
Columbus J-22	5000	WTAM	R 1070
	500	WAIU	640
	500	WCAH	C 1430
	1000	WEAO	570
	100	WSEN	1210
Dayton J-22	200	WSMK	1380
Mount Orab K-22	100	WHBD	1370
Toledo I-22	1000	WSPD	C 1340
Youngstown I-23	500	WKBN	C 570
Zanesville J-23	100	WALR	1210

## OKLAHOMA

Chickasha N-14	250	KOCW	1400
Elk City N-13	100	KASA	1210
Enid M-14	100	KCRC	1370
Norman N-15	500	WNAI	1010
Oklahoma N-15	100	KFXR	1310
	100	KGFG	1370
	5000	KOMA	C 1480
	1000	WKY	N 900
Ponca City M-15	100	WBBF	1200
Shawnee N-15	100	KGFF	1420
Tulsa M-15	5000	KVOO	N 1140

## OREGON

Corvallis E-2	1000	KOAC	550
Eugene F-2	100	KORE	1420
Klamath Falls G-3 c	100	KFJL	1210
Marshfield F-1	100	KOOS	1370
Medford G-2	100	KMED	1310

	Watts		Kcys.
Portland E-3	500	KALE	C 1300
	5000	KEX	N 1180
	100	KBPS	1420
	500	KFJR	1300
	1000	KGW	N 620
	1000	KOIN	C 940
	500	KWJJ	1060
	100	KXL	1420

## PENNSYLVANIA

Allentown I-26	250	WCBA	1440
	250	WSAN	1440
	100	WFBG	1310
Altoona I-25	10	WNBW	1200
Carbondale H-26	500	WLBW	C 1260
Erie H-24	25	WIBG	930
Glenside I-26 rc	100	WSAJ	1310
Grove City I-24	1000	WBAK	1430
Harrisburg I-25	100	WCOD	1200
	500	WHP	C 1430
Hazleton I-26 lc	100	WAZL	1420
Johnstown J-24	100	WJAC	1310
Lancaster I-26	100	WGAL	1310
	100	WKJC	1200
	100	WJBU	1210
Lewisburg I-26	5000	WCAU	C 1170
Philadelphia I-26	100	WDAS	1370
	500	WFI	R 560
	100	WHAT	1310
	500	WIP	C 610
	500	WLIT	R 560
	100	WPEN	1500
	250	WRAX	1020
	100	WTEL	1310
Pittsburgh J-24	5000	KDKA	B 980
	500	KQV	1380
	1000	WCAE	R 1220
	1000	WJAS	C 1290
	100	WWSW	1500
Reading I-26	1000	WEEU	830
	100	WRAW	1310
Scranton H-26	250	WGBI	880
	250	WQAN	880
Washington J-24	100	WNBO	1200
Wilkes-Barre I-26	100	WBAX	1210
	100	WBRE	1310
Williamsport I-25	100	WRAK	1370
	100	WJEO	1370
York J-25 tr	1000	WORK	1000

## PHILIPPINES

Cebu	500	KZRC	937.5
Manila	1000	KZKA	1110
	5000	KZRM	618.5

## PORTO RICO

San Juan W-34	1000	WKAQ	1240
---------------	------	------	------

## RHODE ISLAND

Providence H-28	500	WEAN	C 780
	500	WJAR	R 890
	100	WPAW	1210
	100	WPRO	1210

## SOUTH CAROLINA

Charleston O-25	500	WCSC	1360
Columbia N-24	500	WIS	N 1010
Greenville N-23 tc	100	WFBC	1200
Spartanburg N-23	100	WSPA	1420



# INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

	Watts		Kcys.
Edmonton A-8	250	CHMA	580
	500	CJCA	730
	500	CKUA	580
Lethbridge C-8	100	CJOC	580
Red Deer A-8	1000	CKLC	840

## BRITISH COLUMBIA

Chilliwack B-3	100	CHWK	780
Kamloops B-5	100	CFJC	1120
Kelowna C-6 tl	100	CKOV	1200
Trail C-6 c	25	10-AT	1155
Vancouver B-3	100	CHLS	730
	500	CJOR	1210
	100	CKCD	1010
	50	CKFC	1410
	100	CKMO	1410
	100	CKWX	1010
	500	CRCV	1100
Victoria C-3	500	CFCT	1430

## MANITOBA

Brandon D-14	500	CKX	930
Winnipeg D-15	5000	CKY	910

## NEW BRUNSWICK

Fredericton D-29	100	CFNB	1210
Moncton D-30	500	CRCA	580
St. John D-30	500	CFBO	1030

## NOVA SCOTIA

Glace Bay C-32	2000	VAS	685
Halifax E-31	500	CHNS	1050
Sydney C-32	100	CJCB	880
Wolfville D-31	50	CKIC	1010

## ONTARIO

Brantford H-23 tr	15	10-BQ	1200
Chatham H-22	100	CFCO	1210
Cobalt E-23	100	CKMC	1210
Ft. William E-19 bl	100	CKPR	780
Hamilton H-24	50	CHML	890
	100	CKOC	1010
Kingston G-25	50	CFRC	915
North Bay F-23 c	100	CFCH	930
Ottawa F-25	100	CKCO	1010
	500	CRCO	880
Prescott F-25	100	CFLC	930
Preston H-23	100	CKPC	930
St. Catharines H-24 tl	1000	CKTB	635
Stratford H-23 tc	15	10-AK	1200
Toronto G-24	100	CFCA	1120
	10000	CFRB	C 690
	5000	CHNC	840
	100	CKCL	580
	5000	CKGW	N 840
	100	CKNC	1030
	5000	CPRY	840
Waterloo G-23	100	CKCR	645
Windsor I-22 tc	5000	CKLW	C 540
Wingham G-23	25	10-BP	1199

## PRINCE EDWARD ISLAND

Charlottetown C-31	500	CFCY	630
	100	CHCK	1310
Summerside C-31	100	CHGS	1120

## QUEBEC

Hull	100		1210
Montreal E-26	500	CFCF	N 600
	100	CHCH	1200
	100	CHLP	1120
	5000	CHYC	730
	5000	CKAC	C 730

	Watts		Kcys.
Quebec D-27	100	CHRC	645
	100	CKCI	645
	100	CKCV	1310

## SASKATCHEWAN

Canora B-13 tl	15	10-BU	1200
Fleming C-13	500	CJRW	880
Moose Jaw C-11	500	CJRM	880
	25	10-AB	1200
Prince Albert A-11 rc	25	10-BI	1200
Regina C-12	500	CHWC	1010
	500	CKKC	1010
Saskatoon B-11	500	CFQC	890
Yorkton B-13	500	CJGX	630

## NEWFOUNDLAND

St. Johns A-35	75	VOAS	810
	100	VOGY	890
	30	VOKW	1300
	100	VONF	1195
	500	VOWR	750

## CENTRAL AMERICA

### COSTA RICA

Cartago	7.5	TIFS	1441
	30	TIGA	1014
San Jose	15	TIC	882
	30	TICR	1180
	7.5	TIEA	833
	7.5	TIEP	1450
	30	TIFB	714
	75	TICP	666
	50	TISO	600
	75	TITR	1333
	7.5	TITV	999
	30	TIVL	860
	7.5	TIXA	614

### GUATEMALA

Guatemala City	250	TGW	1320
----------------	-----	-----	------

### HONDURAS

San Pedro Sula	7.5	JRL	1350
Tegucigalpa	2300	HRB	1370

### SALVADOR

Salvador CC-19 br	500	RUS	664
-------------------	-----	-----	-----

## MEXICO

### AGUASCALIENTES

Aguascalientes W-11 bc	350	XFC	805
------------------------	-----	-----	-----

### BAJA CALIFORNIA

Mexicali O-4 tc	7.5	XEAO	560
Tijuana N-3 bc	2500	XEFD	855

### CHIHUAHUA

Chihuahua R-9	100	XEFI	1000
	250	XFF	915
Juarez P-9	5000	XEAN	750
	100	XEFV	1370
	500	XEJ	1015

### COAHUILA

Piedras Negras S-12 tr	100000	XEPN	585
Saltillo, Coah. U-12	10	XEL	1000
Torreón U-11 tl	125	XETB	1380
Villa Acuna R-12 c	75000	XER-XEF	735

### D. F.

Coyoacan Y-13	100	XEFZ	1500
Mexico City Y-13	250	XEAD	875
	100	XEAI	1090
	10000	XEB	1030

INDEX BY LOCATIONS WITH MAP KEY

	Watts	Keys.		Watts	Keys.
	500 XEFA	1250		50 CMJG	1050
	500 XEG	1075		300 CMJK	790
	100 XEK	990		50 CMJL	960
	1000 XEN	711		50 CMJN	1240
	5000 XEFO	940	Cardenas W-24	30 CMGE	1375
	1000 XEP	780	Ciego de Avila W-26	30 CMJH	1150
	250 XETA	1140		45 CMJI	1335
	1000 XETR	610		50 CMJO	1110
	500 XETW	830	Cienfuegos W-25	40 CMHJ	1125
	5000 XEW	910		20 CMHL	1290
	500 XEX	1210	Colon W-24	100 CMGA	834
	2000 XFG	638	Cruces	15 CMHK	1225
	1000 XFI	818	Guantanamo X-28 tc	20 CMKJ	1300
	5000 XFO	940	Havana W-23	1000 CMAF	680
	500 XFX	860		150 CMAY	965
Toluca Y-12	50 XEC	1000		150 CMBC	1270
<b>HIDALGO</b>				150 CMBD	965
Pachuca Y-13 rc	100 XETU	890		225 CMBG	1070
<b>JALISCO</b>				150 CMBJ	1140
Guadalajara, Ja. X-10	100 XEA	1000		15 CMBK	1485
	500 XED	1155		20 CMBL	1445
<b>MICHOACAN</b>				150 CMBN	1185
Morelia, Mich. Y-12	125 XEI	1310		40 CMBR	1485
<b>NUEVO LEON</b>				150 CMBS	780
Monterrey, N. L. U-13	100 XEFB	1315		150 CMBW	925
	100 XEFJ	1000		250 CMBY	1230
	250 XEH	1132		150 CMBZ	1010
	500 XET	690		500 CMC	840
<b>PUEBLA</b>				150 CMCA	1230
Puebla Z-13	100 XETH	840		150 CMCB	1070
<b>QUERETARO</b>				250 CMCD	1140
Queretaro X-12 br	40 XEFS	1000		250 CMCF	890
<b>SAN LUIS POTOSI</b>				50 CMCH	1405
San Luis Potosi W-12 bc	100 XEAC	1295		250 CMCI	1185
<b>TAMAULIPAS</b>				15 CMCM	1405
Matamoros U-14 tr	500000 XEM	660		250 CMCN	925
	150000 XETM	845		1000 CMCO	780
N. Laredo S-13	7.5 XEAB	1450		150 CMCR	1365
	100 XEFE	1000		150 CMCU	630
	150000 XENT	1115		150 CMCW	965
Reynosa, Tams. T-14	10000 XEAW	965		1000 CMCY	1325
Tampico, Tams. W-14	70 XEFW	1240		40 CMDB	1395
	250 XES	1055		3150 CMK	730
<b>VERA CRUZ</b>				500 CMQ	630
Jalapa Y-14	500 XFB	1290	Matanzas W-24	1400 CMW	600
Vera Cruz, Ver. Z-14	500 XETF	630		750 CMX	890
	100 XEU	1010		30 CMGB	1265
<b>YUCATAN</b>				30 CMGC	820
Merida, Yuc. X-19	10 XEFC	1020		100 CMGF	987
	105 XEY	546.8		15 CMGH	1040
<b>WEST INDIES</b>				7.5 CMJP	1360
<b>CUBA</b>				20 CMAB	1249
Caibarien W-25	250 CMHD	950	Morón	30 CMHI	1030
Camaguey W-26	150 CMJC	1382	Pinar del Rio W-22	150 CMKC	1034
	50 CMJE	1175	Santa Clara W-25	250 CMHC	790
	200 CMJF	930	Santiago X-28		
			Tuinucu W-25 rc		
			<b>DOMINICAN REPUBLIC</b>		
			San Pedro de Marcoris	15 HIH	1395
			Santo Domingo	15000 HIJK	1180
				1000 HIX	630
			<b>HAITI</b>		
			Port au Prince X-30	1000 HHK	920
			<b>MIQUELON ISLANDS</b>		
			St. Pierre	2000	572

Map Key: For locating cities not shown on the RADEX Map of North America, use the small letters following the square in which that city is located thus: tl top left, tc top center, tr top right, bl bottom left, bc bottom center, br bottom right, l left, c center, r right.

# INDEX BY COUNTRIES AND CITIES

## SOUTH AMERICA

### ARGENTINE

Azul	50	LU9	1470
Bahia Blanca	500	LU2	800
Buenos Aires	1000	LP4	670
	1500	LP6	590
	500	LR1	790
	5500	LR2	910
	7500	LR3	950
	20000	LR4	990
	1600	LR5	830
	2100	LR6	870
	1000	LR7	750
	3000	LR8	1150
	5000	LR9	1030
	5000	LS1	710
	5500	LS2	1190
	5000	LS5	1110
	1500	LS6	1350
	2000	LS8	1230
	3500	LS9	1270
	4500	LU3	630
	500	LV2	920
	350	LV3	620
LaPlata	1500	LP9	1430
Las Heras	350	LV10	860
Mar del Plata	50	LU6	1380
Mendoza	170	LT4	760
Punta Alta	200	LU7	1280
Rosario	4500	LT1	780
	250	LT3	1080
	350	LT8	840
	500	LV9	900
	100	LT9	1060
San Juan	1500	LV1	730
	500	LV5	1120
Santa Fe	100	LT10	1390
Tucuman	200	LV7	820

### BOLIVIA

La Paz	1000	CPX	1350
--------	------	-----	------

### BRAZIL

Curitiba	8	PRAN	789
Franca	50	PRAZ	1110
Juiz de Fora	200	PRAJ	789
Mogy das Cruzes	50	PRAY	789
Pelotas	50	PRAD	920
Pernambuco	300	PRAP	967
Porto Alegre	3000	PRAG	706
Ribeirao Preto	10	PRAI	857
Rio de Janeiro	2000	PRAA	750
	500	PRAB	937
	500	PRAC	857
	500	PRAK	1153
	2000	PRAX	1364
	1000	PRAE	921
	500	PRAR	1006
Sao Paula	1000	.....	1284

### CHILE

Rancagua	10	.....	1239
	10	.....	1388
Santiago	1000	CE62	625
	1000	CE70	705
	1000	CE74	745
	1000	CE78	785
	1000	CE82	825
	1000	CE86	865
	1000	CE90	905
	1000	CE94	945
	1000	CE98	980
	100	CE102	1025
	250	.....	985
	.....	.....	1105
	100	.....	1145
	100	.....	1185
	100	.....	1225

	20	.....	1265
	20	.....	1305
	100	.....	1345
Valparaiso	100	CE88	880
	50	.....	785
	20	.....	1045
	20	.....	1153
	50	.....	1249

### COLOMBIA

Bogota	2000	HJN	690
	20	HJ3ABD	881

### PARAGUAY

Asuncion	1000	ZP1	1135
	300	ZP3	1000
	150	ZP4	1275
	150	ZP5	1465

### PERU

Lima	5000	OAX	790
	12	OA4M	1428

### URUGUAY

Montevideo	1000	CX6	850
	1000	CX10	730
	500	CX12	770
	1000	CX14	810
	.....	CX16	850
	.....	CX18	890
	2000	CX20	930
	250	CX22	970
	1000	CX24	1010
	2000	CX26	1050
	250	CX30	1130
	200	CX32	1170
	500	CX34	1210
	250	CX36	1250
	100	CX38	1290
	100	CX40	1330
	500	CX42	1370
	20	CX44	1410
	100	CX46	1450
	50	CX48	1490
Paysandu	30	CW40	1340
	30	CW44	1420
Salto	30	CW32	1180
	50	CW34	1220
	30	CW36	1260
	30	CW38	1300
Tucuaembo	.....	CW30	1140
	20	CW46	1460

### VENEZUELA

Caracas	5000	YV1BC	960
	100	YV2BC	882
	50	YV3BC	1200

## EUROPE

### AUSTRIA

Graz	7000	.....	852
Innsbruck	500	.....	1058
Klagenfurt	500	.....	662
Linz	500	.....	1220
Salzburg	500	.....	1373
Vienna	15000	.....	581
	.....	.....	780

### BELGIUM

Antwerp	50	ON4EB	1455
Brussels	100	ON4FO	1219
	100	ON4GT	1375
	3600	ON4RB	589
	100	ON4RC	1448
	15000	No. 1	590
	15000	No. 2	887
Chatelineau	200	ON4CE	1388
Dampremy	25	ON4FG	1453
Ghent	400	ON4RG	1219

## INDEX BY COUNTRIES AND CITIES

Liege	200	ON4RW	1219	Freiburg	250	.....	527
Ottomont	100	ON4EX	1236	Gleiwitz	14000	.....	1184
Verviers	100	ON4CE	1388	Hamburg	1500	.....	806
<b>BULGARIA</b>				Hanover	250	.....	530
Sofia	1000	.....	941	Heilsberg	60000	.....	1085
<b>CZECHOSLOVAKIA</b>				Kaiserslautern	1500	.....	536
Bratislave	14000	OKR	1075	Kiel	1500	.....	1112
Brno	36000	OKB	878	Konigsberg	250	.....	1292
Kosice	2600	OKK	1022	Langenberg	500	.....	1085
Moravska-Ostrava	11000	.....	1137	Leipzig	500	.....	1382
Praha	120000	OKP	614	Magdeburg	60000	.....	635
<b>DANZIG</b>				Munich	120000	.....	770
Danzig	500	.....	662	Nurnberg	500	.....	1058
<b>DENMARK</b>				Stettin	60000	.....	563
Copenhagen	750	.....	1067	Stuttgart	2000	.....	1256
Kalundborg	7500	.....	1153	Trier	500	.....	1058
<b>ESTONIA</b>				Trier	60000	.....	832
Tallinn	11000	.....	1004	Trier	2000	.....	1157
Tartu	500	.....	644	<b>GREAT BRITAIN</b>			
	2200	.....	735	Aberdeen	1000	.....	1400
<b>FINLAND</b>				Bournemouth	1000	.....	1040
Bjorneborg	500	.....	662	Cardiff	1000	.....	968
Helsinki	10000	OFA	815	Falkirk	50000	SN	1040
Jacobstad	2500	OFC	960	London	50000	SR	797
Pori	500	OFD	622	London	50000	LN	1147
Tammersfors	700	.....	540	London	50000	LR	843
Tampere	1000	OFE	536	London	25000	MR	752
Turku	600	OFG	1220	Manchester	50000	NN	995
Viborg	13200	OFH	1031	Manchester	50000	NR	625
<b>FRANCE</b>				Newcastle	1000	.....	1420
Angers	250	.....	1091	Plymouth	200	.....	1373
Beziers	1500	.....	1250	Swansea	120	.....	1220
	1500	.....	1364	<b>GREECE</b>			
Biarritz	250	.....	1515	Thesalonik	.....	.....	1110
Bordeaux	13000	.....	986	<b>HOLLAND</b>			
Caen	3000	.....	1265	Amsterdam	6400	PH9	1013
Grenoble	2000	.....	1080	Bloemendaal	.....	.....	1220
Juan-les-Pins	800	.....	1328	Hague	350	.....	1000
Lille	1300	.....	530	Hilversum	20000	PFBI	1013
Limoges	700	.....	1205	<b>HUNGARY</b>			
Lyon	3000	YN	1022	Budapest	1200	HAE2	1430
Marseilles	500	YR	644	Magyarovar	20000	HAL2	545
Mont-de-Marsan	2500	.....	1030	Magyarovar	3000	HAE2	1428
Montpelier	250	.....	950	<b>ICELAND</b>			
Nimes	800	.....	750	Reykjavik	500	TFA	1200
Paris	1000	FPTT	1049	<b>IRELAND</b>			
	1500	F8GC	1250	Athlone	60000	.....	725
	1200	LL	1265	Belfast	1000	.....	1238
Radio-Agen	60000	PP	671	Cork	1500	6CK	1337
Rennes	500	.....	825	Dublin	1500	2RN	725
Rheims	1300	.....	810	Dublin	1200	.....	725
St. Etienne	250	.....	914	<b>ITALY</b>			
Strasbourg	6000	SPTT	662	Bari	20000	IIBA	1112
Toulon	500	.....	1103	Bolzano	1000	IIBZ	815
Toulouse	1500	MRD	777	Firenze	20000	IFI	598
<b>GERMANY</b>				Genoa	10000	IGE	959
Augsburg	250	.....	536	Milan	50000	IMI	905
Berlin	1500	.....	715	Naples	1500	INA	941
Bremen	500	.....	1058	Palermo	3000	IPA	558
	250	.....	950	Rome	50000	IIRO	680
Breslau	250	.....	1112	Trieste	10000	IITR	1211
Cassel	60000	.....	923	Turin	7000	IITO	1096
Dresden	250	.....	1220	<b>LATVIA</b>			
Flensburg	500	.....	941	Madonna	15000	.....	667
Frankfurt-am-Main	17000	.....	1319	Riga	15000	YLZ	571
			1157	Riga	10000	.....	1510
				<b>LUXEMBURG</b>			
				Luxemburg	10000	LOAA	1344

## INDEX BY COUNTRIES AND CITIES

### NORWAY

Aalesund	350	LKA	671
Bergen	1000	LKB	824
Bodo	500	LKD	662
Fredrikstad	700	LKF	815
	700		820
Hamar	700	LKH	536
	700		522
Kristianssand	500	LKK	1274
Notodden	50	LKN	671
Oslo	60000	LKO	1083
Porsgrund	700	LKP	662
Rjukan	180	LKR	671
Stavanger	500	LKS	1247
Tromsøe	110	LKM	662
Trondelag	1200	LKT	608
Trondheim	1200		605

### POLAND

Cracow	1500		959
Katowice	16000		734
Lodz	2000		1283
Lwow	16000		788
Poznan	1900		896
	1500		1098
Wilno	16000		533

### PORTUGAL

Lisbon	2000	CT1AA	1056
	10	CT1AN	1056
	50	CT1BM	1056
	150	CT1BO	936
	50	CT1BP	1275
	10	CT1DH	952
	10	CT1DS	1058
	50	CT1EB	1056
	50	CT1GK	1062
	150	CT1GL	885
Oliveira de Azmeis	250		1304
Oporto	1000	CSIRS	1448
	1500	PRP1	1249
Parade	1500		696

### RUMANIA

Bucharest	12000		761
-----------	-------	--	-----

### SPAIN

Almeria	1000	EAJ18	1193
Barcelona	8000	EAJ1	860
	1000	EAJ15	1193
	5500		896
Cadiz	400		1220
Cartagena	750	EAJ2	708
Madrid	2000	EAJ7	707
	700	EAJ19	1121
Oviedo	1000	EAJ22	662
Salamanca	600	EAJ8	662
San Sebastian	1500	EAJ5	815
Seville	1500	EAJ3	1121
Valencia	1500		

### SWEDEN

Boden	600	SBE	1245
Boras	150	SCA	1450
Eskilstuna	200	SCB	1220
Falun	500	SCC	932
Goteborg	10000	SBB	932
Gavle	200	SCE	1470
Halmstad	200	SCE	1391
Halsingborg	200	SCG	1346
	200		1301
Horby	10000	SBH	1166
Hudiksvall	150	SCF	1355
Jonkoping	250	SCH	1490
Kalmar	200	SCI	1202
Karlstad	250	SCK	1382
Kiruna	200	SCL	1220
Kristinehamn	250	SCM	1480
Malmberget	250	SCN	689

Malmö	1250	SBC	1301
Norrköping	250	SCO	1301
	250		1292
Orebro	200	SCV	1265
Ornskoeldsvik	200	SCW	1460
Ostersund	600	SBF	747
Saffle	400	SCP	1220
Stockholm	75000	SBA	689
Sundsvall	10000	SBD	554
Trollhattan	250	SCQ	1301
	250		1193
Uddevalla	50	SCR	1301
Umea	200	SCS	1310
Upsala	150	SCT	662
Varberg	300	SCU	1220

### SWITZERLAND

Basle	500		1229
Berne	500		1220
Beromunster	60000		653
Sottens	25000		743

### U. S. S. R.

Alexandrovsk	1200	RW38	580
Astrakhan	10000	RW35	589
Dnepropetrovsk	3000	RW30	869
Engels	1000	RW55	959
Gomel	1000	RW40	621
Gorki	10000	RW42	598
Groznyi	1200	RW23	676
Ijevsk	4000	RW69	825
Ivanovo-Voznesensk	10000	RW31	625
Karaganda	10000	RW46	653
	1200	RW46	686.5
Kazan	10000	RW17	644
Kharkov	10000	RW20	815
Krasnodar	1000	RW33	650
Leningrad	10000	RW70	860
Magnitogorsk	10000		571
Makhatch-Kala	1200	RW27	689
	120000		563
Moskva	1000	RW37	792.5
Moskva Imeri Stalina	100000	RW39	707
Mourmansk	10000		743
Naltchik	1200	RW51	748.1
Nijni-Novgorod	10000		598
Odessa	10000	RW13	662
Oufa	10000	RW22	617
Penza	1200	RW56	640
Simferopol	4000	RW52	630.2
	10000	RW52	725
Smolensk	2000	RW24	531
Stalino	10000	RW26	779
Syktyvkar	1200	RW41	563
Techeboksary	1200	RW74	680
Tcheliabinsk	1500	RW68	824
Tiraspol	4000	RW57	838
Tomsk	1200	RW48	554
Vinnitza	10000	RW75	968
Vladikavkaz	10000	RW64	752
Vladivostok	700	RW28	635
	10000	RW28	725

### YUGOSLAVIA

Belgrade	2800		697
Ljubljana	7000		522
Zagreb	750		977

### ASIA

CEYLON			
Colombo	1750		600

### CHINA

Canton	1000	CMB	681.4
Hangchow	1000	XGOD	973.4
Hong Kong	12000	ZBW	845
Loyang	250	XGOB	1090

## INDEX BY COUNTRIES AND CITIES

Nanking	15000	XGOA	681.4	<b>MOROCCO</b>			
Peiping	100	XOPP	951.8	Casablanca	25	CNO	983
Tientsin	500	XOTN	624.6	Rabat	6000	.....	721
<b>FORMOSA</b>							
Taihoku	10000	JFAK	670	<b>TUNISIA</b>			
<b>INDIA</b>							
Bombay	3000	VUB	840	Tunis	500	TUA	1275
Calcutta	3000	VUC	810	<b>UNION OF SOUTH AFRICA</b>			
Lahore	100	VUL	882	Bloemfontaine	750	ZTB	588
Madras	200	VUM	770	Cape Town	1000	ZTC	810
Rangoon	350	2HZ	857	Durban	1000	ZTD	731
<b>INDO-CHINA</b>							
Saigon	12000	F3ICD	840	Johannesburg	15000	ZTJ	667
<b>JAPAN</b>							
Akita	300	JOUK	645	Pretoria	50	ZTP	1000
Asahikawa	300	JOCG	655	<b>OCEANIA</b>			
Fukui	300	JOFG	990	<b>AUSTRALIA</b>			
Fukuoka	500	JOLK	680	Adelaide	300	5AD	1310
Itakodate	500	JOVK	680		5000	5CL	730
Hiramatsuo	500	JODG	635		1000	5DN	960
Hiroshima	10000	JOFK	850		300	5KA	1200
Kanazawa	3000	JOJK	710	Albury	50	2AY	1480
Kochi	500	JORK	720	Ballarat	50	3BA	1300
Kokura	1000	JOSK	735	Bendigo	200	3BO	970
Kumamoto	10000	JOGK	790	Brisbane	600	4BC	1145
Kyoto	300	JOOK	960		600	4BH	1380
Maebashi	500	JOBG	970		200	4BK	1290
Matsuyae	500	JOTK	625		5000	4QG	760
Nagano	500	JONK	940	Canberra	50	2CA	1050
Nagasaki	500	JOAG	930	Corowa	7500	2CO	560
Nagoya	10000	JOCK-1	810	Crystal Brook	7500	5CK	635
	10000	JOCK-2	1175	Geelong	50	3GL	1400
Niigata	500	JOJK	920	Goulburn	50	2GN	1390
Okayama	500	JOJK	700	Gunnedah	50	2MO	1320
Osaka	10000	JOBK-1	750	Hamilton	200	3HA	1010
	10000	JOBK-2	1085	Hobart	50	7HO	890
Sapporo	10000	JOJK	830		3000	7ZL	580
Sendai	10000	JOHK	770	Kalgoorlie	100	6KG	1220
Shizuoka	500	JOPK	780	Launceston	200	7LA	1100
Tainan	1000	JFBK	720	Lismore	50	2XN	1340
Tokushima	500	JOJK	980	Mackay	100	4MK	1190
Tokyo	10000	JOAK-1	870	Maryborough	50	4MB	1060
	10000	JOAK-2	590	Melbourne	50	3AK	1500
<b>KOREA</b>							
Keijo	1000	JODK-1	690		5000	3AR	610
	10000	JODK-2	900		300	3AW	1425
<b>MANCHURIA</b>							
Dairen	500	JOAK	645	Newcastle	200	2HD	1110
Hoten	1500	JOAK	760		200	2KO	1415
		Z1LY	900		2000	2NC	1245
<b>SIAM</b>							
Bangkok	2500	HSPI	857	Perth	300	6ML	1135
<b>AFRICA</b>							
<b>ALGERIA</b>							
Algiers	13000	.....	824		200	6PR	880
<b>EGYPT</b>							
Alexandria	200	.....	780		5000	6WF	690
Cairo	500	.....	1080	Port Pirie	50	5PI	1041
	500	.....	710	Rockhampton	2000	4RK	910
Port Said	300	.....	780		250	4RO	1330
	500	.....	1080	Sale	50	3TR	1280
<b>KENYA</b>							
Nairobi	1000	VQ7LO	750	Swan Hill	50	3SH	1080
				Sydney	5000	2BL	855
					1000	2CH	1210
					5000	2FC	665
					3000	2GB	950
					1500	2KY	1070
					1000	2SM	1270
					1000	2UE	1025
					1500	2UW	1125
				Toowoomba	50	4GR	1000
				Townsville	100	4TO	1170
				Ulverstone	200	7UV	1465
				Wagga	50	2WG	1155
				Wangaratta	50	3WR	1260
				Woollongong	50	2WL	1435

100 BEST S. W. STATIONS

NEW ZEALAND

Auckland	500	1YA	820
	20	1ZB	1420
	26	1ZJ	1320
	10	1ZM	1260
	25	1ZQ	1190
	80	1ZR	1090
	5	1ZS	1420
Christchurch	500	3YA	980
	250	3ZC	1200
	100	3ZM	1450
Dunedin	500	4YA	650
	20	4ZB	1080
	10	4ZF	1080
	100	4ZL	1220
	45	4ZM	1080
	40	4ZO	1080
	50	4ZW	1080
Eketahuna	10	2ZE	1210
Gisborne	75	2ZJ	1150

Greymouth	110	2ZM	1150
	45	3ZE	1300
	80	3ZR	1300
Hamilton	45	1ZH	630
Hastings	15	2Z1	1330
	20	2ZL	1400
Invercargill	8	4Z1	1160
	125	4ZP	1160
Napier	7.5	2ZB	1290
	65	2ZH	1290
Nelson	50	2ZR	1360
New Plymouth	100	2YB	1230
Otago	20	4ZC	1280
	5	4ZK	1340
Palmerston North	150	2ZF	1050
	200	2ZO	1050
Wairoa	105	2ZK	900
Wanganui	120	2ZP	600
Wellington	5000	2YA	720
	400	2ZW	1120

# One Hundred Best Short Wave Stations

## By Frequencies and Wave Lengths

Submitted by our readers as being most regularly received. Times are given in Eastern Standard. First column gives frequency in megacycles (for kilocycles read the decimal point as a comma) and the second column, wave-lengths in meters.

For complete lists of short-wave stations see the following issues of this magazine:

September: Foreign stations arranged by countries.

November: American stations by states.

December: Canadian stations by provinces and Complete list by call letters.

April: Complete list by frequencies and waves.

Stations marked with an asterisk (\*) will not verify.

		Broadcast B. Phone P.					
4.174	71.82	British Ships	P	6.140	48.83	W8XX, Pittsburgh, Pa.	Relays KDKA 4-11 p.m. B
4.174	71.82	German Ships	P	6.246	48.00	*HJ3ABF, Bogota, Colombia,	8-11 p.m. B
4.283	70.00	Italian Ships	P	6.272	47.80	H11A, Santiago de los Caballeros, S. Domingo, 1:40-4:40 p.m., Sunday	B
4.513	68.43	VPN, Nassau, Bahamas, Phones Hialeah	P	6.378	47.00	*HJ5ABB, Cali, Colombia	B
4.753	63.08	*WOO, Ocean Gate, N. J. Phones Ships	P	6.618	45.31	PRADO, Riobamba, Ecuador, Thur. 9-11 p.m.	B
5.045	59.42	*VRT-ZFA Hamilton, Bermuda. Phones WNB-GMBJ nights	P	6.618	45.30	WVD, Seattle, Wash. Phones Ketchikan, night	P
5.766	52.00	XAM Merida, Yucatan. Tests XDA 10 a.m.-8 p.m. irreg.	P	6.662	45.00	WXH, Ketchikan, Alaska. Phones Seattle, night	P
5.879	51.00	*XDA Mexico City. Tests XAM 10 a.m.-8 p.m. irreg.	P	6.675	44.91	DGK, Nauen, Germany. Heard 9 p.m. with WEJ	P
5.925	50.60	HJ4ABE, Medellin, Colombia. Mon., Wed., Fri., 7:30 to 10:30 p.m.; Tues., Thur., Sat., Sun., 6-8 p.m.	B	6.752	44.41	*WOA, Lawrenceville, N. J. Phones Eng. land	P
5.996	50.00	RV59, Moscow, USSR. 3-6 p.m. B HJ1ABB Barranquilla Colombia. 8-10 p.m.	B	6.888	43.54	*KEQ, Kahuku, Hawaii. Phones California nights	P
6.005	49.93	VE9DR, Montreal, Quebec. Daily, 7:30 a.m.-mid. Sunday, noon-11 p.m.	B	7.139	42.00	HJ4ABB, Nanizales, Colombia, Sat. 10 p.m.-mid.	B
6.017	49.83	DJC, Zeesen, Germany	B	7.396	40.54	*WEM, Rocky Point, N. Y.	P
6.040	49.64	W1XAL, Boston, Mass. Irregular	B	7.402	40.50	*HJ3ABD, Bogota, Colombia. 9-11 p.m. daily	B
6.050	49.56	GSA, Daventry, England. To Canada 6-8 p.m.	B	7.465	40.16	*HJP, Bogota, Colombia. Phones Hialeah	P
6.057	49.50	W3XAU, Philadelphia, Pa., irreg.	B	7.518	39.89	*KDK-KKH, Kahuku, Hawaii, 9 p.m. and 2 a.m.	P
6.070	49.39	VE9CS, Vancouver, B. C., Fri. 12:30-1:45 a.m.; noon to mid.	B	7.562	39.65	*KWY, Dixon, Calif. Phones Hawaii and Manila	P
6.090	49.23	VE9BJ, St. John, N. B., 5 p.m. and 11 p.m.	B	7.605	39.42	*KWX, Dixon, Calif. Phones Hawaii and Manila	P
6.092	49.22	VE9GW, Bowmanville, Ont. VE9GW, Bowmanville, Ont. 11 a.m.-3 p.m.; Sun., 7-8 p.m.	B	7.685	39.01	TIR, Cartago, Costa Rica. Phones Hialeah	P
6.095	49.18	W9XF, Chicago, Ill., 4:30-8 p.m.; 9:30 p.m.-2 a.m.	B	7.790	38.49	HBP, Geneva, Switzerland, Sun. 5-5:45 p.m.	B
6.096	49.17	W3XAL, Boundbrook, N. J., Sat. 4:30 p.m.-1 a.m.	B	8.103	37.00	HCB, Quito, Ecuador, 7:30-9:45 p.m. B Except Monday.	B
6.116	49.02	W2XE, Wayne, N. J., 6-11 p.m.	B	8.328	36.00	German Ships	P
6.119	49.00	YV1BC, Caracas, Venez. Relays 960 kes. 10:30 a.m.-1 p.m.; 5:15-10 p.m.	B	8.464	35.42	DAF, Norden, Germany. Phones Ships	P
6.121	48.98	VE9HX, Halifax, N. S. Sat. and Sun., 5:30-10:30 p.m.	B	8.562	35.02	*WOO, Ocean Gate, N. J. Phones Ships	P

100 BEST S. W. STATIONS

8.566	35.00	Italian Ships	P	13.219	22.68	British Ships	P
8.831	33.95	British Ships	P	13.296	22.55	CGA, Drummondville, Que.	9 a.m.-2 P
9.012	33.27	*KEJ, Bolinas, Calif. Tests irregularly	P			p.m.	P
9.273	32.33	GCB, Rugby, England. Phones Canada nights	P	13.337	22.48	*YVQ, Maracay, Venezuela. Phones Hialeah, days	P
9.290	32.27	Rabat, Morocco. Sun., 2:30-5 p.m.	B	13.500	22.09	GBB, Rugby, England. Talks Canada daytimes	P
9.340	32.10	CGA, Drummondville, Quebec. Phones England, nights	P	13.816	21.70	SUZ, Cairo, Egypt. 7 a.m. and 3:30 p.m.	P
9.410	31.86	PLV, Bandoeng, Java. Irregular	P				P
9.480	31.63	PLW, Bandoeng, Java. Phones Australia 3-8 a.m. irreg	P	14.450	20.75	GBW, Rugby, England. 6 a.m. and 6 p.m.	P
9.500	31.56	YV3BC, Caracas, Venezuela. 4:30-10 p.m.; Sun., 7:30-9:30 p.m.	B	14.480	20.70	YMA, Managua, Nicaragua. Phones Hialeah, days	P
9.503	31.55	VK3ME, Melbourne, Australia. Wed., 5-6:30 a.m.; Sat., 5-7 a.m.	B			TIR, Cartago, Costa Rica. Phones Hialeah, days	P
9.510	31.53	GSB, Daventry, England. To S. Africa 1-5:30 p.m. To Canada 6-8 p.m.	B	14.545	20.69	RXF, Panama City, Panama. Phones Hialeah, days	P
9.520	31.49	OXY, Skamlebaek, Denmark, 2-6:30 p.m.	B			TGA, Guatemala City, Guatemala. Phones Hialeah, days	P
9.530	31.46	W2XAF, Schenectady, N. Y., 7 to 11 p.m.	B	14.930	20.08	*HJB, Bogota, Colombia. Phones Hialeah days	P
9.552	31.38	DJA, Zeelen, Germany, 2 p.m.-6:30 p.m.	B	14.980	20.01	KAY, Manila, P. I. 3-7 a.m.	P
9.560	31.36	W1XAZ, Springfield, Mass., 7 a.m.-1 a.m.	B	15.055	19.91	*WNC, Hialeah, Florida. Phones Pan-American stations, days	P
9.580	31.30	HLB, Geneva, Switzerland, Sun., 5-5:45 p.m.	B	15.120	19.83	HVJ, Vatican City, 10-10:30 a.m.	B
9.585	31.28	GSC, Daventry, England, 4:30-6:30 a.m.; 8:30 a.m.-12:30 p.m.; 1-5:30 p.m.; 6-8 p.m.	B	15.140	19.81	GSF, Daventry, England. 4:30-6:30 a.m. 1-5:30 p.m.; 6-8 p.m.	B
9.585	31.28	W3XAU, Philadelphia, Pa., irregular	B	15.190	19.73	DJB, Zeelen, Germany. 8 a.m.-noon	B
9.585	31.28	VK2ME, Sydney, Australia. Sun., 12-2 a.m.; 5-9 a.m.; 11:30 a.m.-1:30 p.m.	B	15.204	19.72	W8XX, Pittsburgh, Pa. Relays KDKA 9 a.m.-4 p.m.	B
9.592	31.25	CT1AA, Lisbon, Portugal. Tues.-Fri., 5-7 p.m.	B	15.234	19.68	Pontoise, France. 8 a.m.-11 a.m.	B
9.67	31.00	TI4NRH, Heredia, Costa Rica. Daily, 5:30-6:30 p.m.	B	15.258	19.65	W2XE, Wayne, N. J. 11 a.m.-1 p.m.	B
9.702	30.90	LQA, Buenos Aires, Argentina.	P	15.320	19.57	W2XAD, Schenectady, N. Y. Daily 1-3 p.m.; Sat.-Sun., to 4	B
9.862	30.40	EAQ, Madrid, Spain, 5:30-7 p.m.	B	15.410	19.46	*KWQ, Dixon, Calif. Phones Hawaii 2-7 p.m.	P
9.895	30.30	LSN, Buenos Aires, Argentina, 6 p.m. and 6 a.m.	P	15.863	18.90	FTK, Ste. Assise, France. Phones Saigon, mornings	P
9.990	30.01	KAZ, Manila, P. I. 3-7 a.m.	P	16.024	18.71	*KKP-KKU, Kahuku, Hawaii. Phones Dixon, days.	P
10.060	29.80	*VRT-ZFB, Hamilton, Bermuda. Phones WNB days	P	17.512	17.12	DFB, Nauen, Germany. Phones Venezuela, mornings	P
10.163	29.50	German Ships	P	17.770	16.90	GSG, Daventry, England. To India 9:30-11:30 a.m.	B
10.212	29.35	PSH, Rio de Janeiro, Brazil. Tests W2XBJ evenings	P	17.761	16.88	PHI, Huizen, Holland. 5:40-11:40 a.m.	B
10.246	29.26	DIQ, Nauen, Germany	B	17.772	16.87	DJE, Koenigswusterhausen, Germany B W3XAL, Boundbrook, N. J. 8 a.m.-4 p.m.	B
10.520	28.50	VK2ME, Sydney, Australia. Irreg.	P	17.830	16.82	PCV, Kootwijk, Holland. 6-9 a.m.	P
10.830	27.68	*KWV, Dixon, Calif. Phones Hawaii and Manila	P	18.116	16.55	LSY, Buenos Aires, Argentina	P
11.530	26.00	XAM, Merida, Yucatan	P	18.296	16.39	*YVR, Maracay, Venezuela. Heard about 10 a.m.	P
11.710	25.60	VE9JR, Winnipeg, Manitoba, Tues., 6:30-8:30 p.m.; Fri., to 9	B	18.444	16.25	*HJY, Bogota, Colombia. 11 a.m. and 4 p.m.	P
11.710	25.60	Pontoise, France. 4-7 p.m.	B	18.611	16.11	GAU, Rugby, England. Phones N. Y., days	P
11.725	25.57	PHOHI, Eindhoven, Holland	B	18.670	16.06	*OCI, Lima, Peru. 2 p.m.	P
11.750	25.51	GSD, Daventry, England. To Oceania 4:30-6:30 a.m.; 1-5:30 p.m.	B	18.820	15.93	PLE, Bandoeng, Java. Tues.-Fri., 5:40-10:40 a.m.	P
11.753	25.51	DJD, Koenigswusterhausen, Germany. 1-6 p.m.	B	18.856	15.90	ZSS, Capetown, South Africa. Phones Rondon, mornings	P
11.760	25.50	*XDA, Mexico City. Tests XAM 1 p.m. and 6 p.m.	P	18.958	15.82	LSR, Buenos Aires, Arg. 11 a.m. and 4 p.m.	P
11.800	25.40	I2RO, Rome, Italy. 11 a.m.-12:30 p.m.; 1-6 p.m.	B	19.282	15.55	FTM St. Assise, France. 10 a.m.-2 p.m.	P
11.823	25.36	W2XE, Wayne, N. J. 3-5 p.m.	B	19.678	15.24	*CEC, Santiago, Chile. 11 a.m. and 4 p.m.	P
11.865	25.27	GSE, Daventry, England. To India 8:30 a.m.-12:30 p.m.	B	19.684	15.23	EAQ, Madrid, Spain. Phones	P
11.872	25.25	W8XK, Pittsburgh, Pa. Relays KDKA 4-10 p.m.	B	19.895	15.07	LSG, Buenos Aires, Argentina. 10:30 a.m.-3:30 p.m.	P
11.898	25.20	Pontoise, France. 11:30 a.m.-2:30 p.m.	B	21.020	14.27	LSN, Buenos Aires, Argentina. 8 a.m. and 4 p.m.	P
12.148	24.68	GBS, Rugby, England. Phones N. Y. afternoon	P	21.054	14.24	*WKA, Lawrenceville, N. J. 8 a.m.-4 p.m.	P
12.241	24.41	GBU, Rugby, England. Phones N. Y. nights	P	21.069	14.23	PSA, Rio de Janeiro, Brazil. 8 a.m.	P
12.394	24.19	DAF, Norden, Germany. Phones Ships	P	21.400	14.01	*WKK, Lawrenceville, N. J. 8 a.m.-4 p.m.	P
12.820	23.38	CNR, Rabat, Morocco. Sun., 7:30 a.m.-6 a.m.	B	21.470	13.96	GSH, Daventry, England	B
12.839	23.36	WOO, Ocean Gate, N. J. Phones Ships	P	21.451	13.93	W8XK, Pittsburgh, Pa. 9 a.m.-2 p.m.	B
13.035	23.00	German Ships	P				

## The Hundred Best S. W. Stations by Calls . . .

British Ships 13.219 22.68 8.831 33.95 4.174 71.82	P	GSE Daventry, England 11.865 25.27	B	LSN Buenos Aires, Arg. 8.895 30.30 6 p.m.-6 a.m. 21.020 14.27 8 a.m.-4 p.m.	P
*CEC Santiago, Chile 19.678 15.24 11 a.m.-4 p.m.	P	GSF Daventry, England 15.140 19.81 4:30-6:30 a.m.; 1-5:30 p.m.; 6-8 p.m.	B	LSR Buenos Aires, Arg. 18.958 15.82 11 a.m.-4 p.m.	P
CGA Drummondville, Que. 13.296 22.55 9 a.m. to 2 p.m.	P	GSG Daventry, England 17.770 16.90	B	LSY Buenos Aires, Arg. 18.116 16.55	P
9.340 32.10 Nights CNR Rabat, Morocco 12.820 23.38	P	GSB Daventry, England 21.470 13.96	B	*OCI Lima, Peru 18.670 16.06 2 p.m.	P
CT1AA Lisbon, Portugal 9.592 31.25 Tues.-Fri. 5-7 p.m.	P	GHJ Daventry, England 9.580 31.30 Sun. 5-5:45 p.m.	B	OXY Skamleback, Denmark 9.520 31.49 2-6:30 p.m.	B
DAF Norden, Germany 12.394 24.19	P	HBL Geneva, Switzerland 7.790 38.49 Sun. 5-5:45 p.m.	B	PCV Kootwijk, Holland 17.830 16.82 6-9 a.m.	P
8.464 35.42	P	HBP Geneva, Switzerland 7.790 38.49 Sun. 5-5:45 p.m.	B	PHI Huizen, Holland 17.761 16.88 Irregular	B
DFB Nauen, Germany 17.512 17.12 Tues.-Fri. 5-7 p.m.	P	P HCJB Quito, Ecuador 8.103 37.0	B	PHOHI Huizen, Holland 11.725 25.57	B
DGK Nauen, Germany 6.675 44.91	P	HI1A Santiago de los Caballeros, Santo Domingo 6.272 47.80 1:40-4:40 p.m., Sun.	B	PLE Bandoeng, Java 18.820 15.93 Tues., Fri., 10:40 a.m.	P
DIQ Nauen, Germany 10.246 29.26	B	*HJB Bogota, Colombia 14.930 20.08	P	PLV Bandoeng, Java 9.410 31.86	P
DJA Zeesen, Germany 9.552 31.38 2 p.m.-6:30	B	*HJP Bogota, Colombia 7.465 40.16	P	PLW Bandoeng, Java 9.480 31.63	B
DJB Zeesen, Germany 15.190 19.73 8 a.m.-noon	B	*HJY Bogota, Colombia 18.444 16.25 11 a.m.-4 p.m.	P	Pontoise, France 15.234 19.68 8-11 a.m. 11.898 25.20 11:30 a.m.-2:30 p.m. 11.710 25.60 4-7 p.m.	B
DJC Zeesen, Germany 6.017 49.83 Irregular	B	HJABB Barranquilla, Colombia 5.996 50.0 8-10 p.m.	B	PRADO Riobamba, Ecuador 6.618 45.31 Thurs., 9-11 p.m.	B
DIJ Zeesen, Germany 11.753 25.51	B	*HJ3ABD Bogota, Colombia 7.402 40.50 9-11:15 p.m.	B	PSA Rio de Janeiro, Brazil 21.009 14.23 8 a.m.	P
DJE Zeesen, Germany 17.761 16.88	B	*HJ3ABF Bogota, Colombia 6.246 48.00 8-11 p.m.	B	PSH Rio de Janeiro, Brazil 10.212 29.35	P
EAQ Madrid, Spain 9.882 30.40 5:30-7 p.m.; Sat. 1-3 p.m.	B	HJ4AB Manzales, Colombia 7.139 42.00 Sat. 10 p.m.-mid.	B	Rabat, Morocco 9.290 32.27 Sun., 3-5 p.m.	P
19.684 15.23 Phones FTK Ste. Assise, France 15.863 19.80 Phones Saigon	P	HJ4ABE Medellin, Colombia 5.925 50.60 Mon., Wed., Fri., 7:30-10:30 p.m.; Tues., Thurs. Sat. and Sun., 6-8 p.m.	B	RAU Tashkent, USSR 15.104 19.85 Phones Moscow	B
FTM Ste Assise, France 19.282 15.55 10 a.m.-2 p.m.	P	HJ5AB Cali, Colombia 6.378 47.00	B	RV59 Moscow, USSR 5.996 50.0 3-7 p.m.	B
German Ships 13.035 23.00 10.163 29.50 8.328 36.00 4.174 71.82	P	HVJ Vatican City 15.120 19.83 10-10:30 a.m.	B	*RXP Panama City, Panama 14.485 20.69	P
GAU Rugby, England 19.611 16.11 Phones N. Y., days	P	I2RO Rome, Italy 11.800 25.40 11 a.m.-12:30 p.m.; 2:30-5:30 p.m.	B	SUZ Cairo, Egypt 13.816 21.70 7 a.m.-3:30 p.m.	P
GBB Rugby, England 13.500 22.09	P	Italian Ships 8.566 35.00 4.283 70.00	B	TGA Guatemala City, Guatemala 14.545 20.69	B
GBS Rugby, England 12.148 24.68 Phones N. Y., days	P	KAY Manila, P. I. 14.980 20.01	P	TIR Cartago, Costa Rica 14.484 20.7 7.985 39.01	P
GBU Rugby, England 12.241 24.41 Phones N. Y., nights	P	KAZ Manila, P. I. 9.990 30.01	P	TIANRH Heredia, Costa Rica 9.670 31.00 5:30-6:30 p.m.	B
GBW Rugby, England 14.450 20.75 6 a.m.-6 p.m.	P	*KDK-KKH Kahuku, Hawaii 7.518 39.89 9 p.m.-2 a.m.	P	VE9BJ St. John, N. B. 4.000 49.23 5 p.m.-11 p.m.	B
GCB Rugby, England 9.273 32.33 Phones Canada nights	P	*KEJ Bolinas, Calif. 9.012 33.27	P	VE9CS Vancouver, B. C. 6.070 49.39 Daily 8-10 p.m.	B
GSA Daventry, England 6.950 49.50 Broadcasts for Canada 6-8 p.m.	B	*KKP Kahuku, Hawaii 16.024 18.71	P	VE9DR Montreal, Que. 6.005 49.93 7:30 a.m.-mid.; Sun. noon to 11:15 p.m.	B
GSB Daventry, England 9.510 31.53 Broadcasts for South Africa 1:00-3:00 p.m.; West Africa 3:00-5:30 p.m.; Canada 6-8 p.m.	B	*KWO Dixon, Calif. 15.410 19.46 2-5 p.m.	P	VE9GW Bowmanville, Ont. 6.092 49.22 11 a.m.-3 p.m.; Sun., 7-8 p.m.	B
GSC Daventry, England 9.585 31.28 4:30-6:30 a.m.; 8:30 a.m.-12:30 p.m.; 1-5:30 p.m.; 6-8 p.m.	P	*KWX Dixon, Calif. 7.605 39.42	P	VE9HX Halifax, Nova Scotia 6.121 48.98 Sat. and Sun., 5:30- 10:30 p.m.	B
GSD Daventry, England 11.750 25.51 Broadcasts for Aus- tralia 1:30-6:30 a.m.; 1-5:30 p.m.	B	LQA Buenos Aires, Argentina 9.702 30.90	P	VE9JR Winnipeg, Man. 6:30-8:30 p.m. Fri. to 9.	B
	P	LSG Buenos Aires, Arg. 14.895 15.07 10:30 a.m.-3:30 p.m.	P	VK2ME Sydney, Australia 19.520 28.50 9.585 31.28 Sun., 12-2 a.m.; 5-9 a.m.; 11:30 a.m.	B
	P		P	VK3ME Melbourne, Australia 9.503 31.55 Wed. 5-6:30 a.m.; Sat. 5-7 a.m.	B

100 BEST S. W. STATIONS

VPN Nassau, Bahamas 4.508 66.50 Phones WNC	P	W1XAZ Springfield, Mass. 9.560 31.36 7:00 a.m.-1:00 a.m.	B	W9XF Chicago, Ill. 6.095 49.18 4:30-8 p.m.; 9:30-2 a.m.	B
*VRT-ZFA Hamilton, Bermuda 5.045 59.42	P	W2XAD Schenectady, N. Y. 15.320 19.57 Daily 1-3 p.m.; Sat., Sun. to 4.	B	XAM Merida, Yucatan 5.766 52.00	P
*VRT-ZFB Hamilton, Bermuda 10.060 29.80	P	W2XAF Schenectady, N. Y. 9.530 31.46 Daily, 7-11 p.m.	B	*XDA Mexico City 5.879 51.00	P
*WEM Rocky Point, N. Y. 7.396 40.54	P	W2XE Wayne, N. J. 15.258 19.65 11 a.m.-1 p.m.	B	YMA Managua, Nicaragua 14.480 20.70	P
*WKA Lawrenceville, N. J. 21.054 14.24 8 a.m.-4 p.m.	P	11.823 25.36 3-5 p.m.		*YVQ Maracay, Venezuela 13.337 22.48	P
*WKK Lawrenceville, N. J. 21.400 14.01 8 a.m.-4 p.m.	P	6.116 49.02 6-11 p.m.		*YVR Maracay, Venezuela 18.296 16.39	P
*WNC Hialeah, Florida 15.051 19.92 Phones Pan-American stations	P	W3XAL Boundbrook, N. J. 6.098 49.17 Sat. 4:30 p.m.-1 a.m. 17.772 16.87 8 a.m.-4 p.m.	B	YV1BC Caracas, Venez. 6.119 49.00 Relays 960 kcs.; 10:30 a.m.-1 p.m.; 5:15-10 p.m.	B
*WOO Ocean Gate, N. J. 12.839 23.36 Phones Ships 8.561 35.02 4.749 63.13	P	W3XAU Philadelphia, Pa. 9.585 31.28 Irregular 6.057 49.50	B	YV3BC Caracas, Venezuela 9.500 31.56 4:30-10 p.m.; Sun., 7:30-9:30 p.m.	B
WVD Seattle, Wash. 6.618 45.30	P	W8XK Pittsburgh, Pa. 6.140 48.83 Relays KDKA 4-11 p.m.	B	ZSS Capetown South Africa 18.856 15.90 Phones London	P
WXH Ketchikan, Alaska 6.662 45.00	P	11.872 25.25 15.204 19.72 Relays KDKA 9 a.m.-4 p.m.			
W1XAL Boston, Mass. 6.040 49.64 Irregular	B	21.451 13.93 9 a.m.-2 p.m.			

## Stations Caught

(Continued from page 34)

grand superhet. I have stations in 42 states and D. of C. Also 21 in Canada, 8 in Mexico, and 3 in Cuba. I cannot understand why I have not as yet been able to receive stations outside of continental North America. Will some reader with a set like mine comment on their success along this line?"

"Just a note to let RADEX know how DXing is in Schenectady now," comments George B. Holland, Jr., 1340 Baker Ave., Schenectady, N. Y. "Pacific 100-watters are coming in fine. Have KPCB, KJBS, CKWX, KERN, KGFJ, KWG, KFXM, with CKWX, KWG verified, and the others yet to be heard from. My set goes from 540 keys. to 1725, and the following are my results: 540 to 1500 keys., 568 with 283 verified; 1500 to 1725 keys., 8 experimental with 3 verified, 76 amateurs with 13 verified, 18 police with one verified. Where is Z2BA? Heard him calling CQ at 3:37 a. m. EST February 1st. I can't locate anything like it in Call Book. Have had KGU the last two mornings but not good enough for a veri."

ZL2BA is an amateur in Welling-

ton, N. Z. Does anyone know of a Z2BA?

## HJN, Please Verify

"During the last ten months I have logged 275 stations on my 9-tube Radiola," remarks George W. Haskell, Box 58, So. Paris, Maine, "and have verifications from 206. I heard the much discussed HJN, Bogota, Colombia, program on the morning of December 17th and have written them two letters without response so far. I don't know as my record is anything remarkable, as I have logged the most of these stations in the evening, or early morning, and have not 'burned the midnight oil' to any great extent. Among my verifications I have WTOG, WIOD, CHNS, KFI, KNX, WDAE, CFCN, KPO, 10-BP, 10-BQ, CMCY, KTM, WEXL, WCOC, KGRS, WKAQ and WGST."

"Nothing exciting happened in the increasing of my log to 583 stations, nine of which have already been deleted," remarks Luther E. Grim, 505 S. Main St., Red Lion, Pa. "KDB, KXL, KLX, XEJ, KREG and KPJM are the only exceptionally good ones logged. I received my verification from VONF. If anyone else who lives more than 1000 miles from St. John's has logged and verified this

station, I'd like to hear from him or her. Doesn't look like the heavy static will help me boost my log to 600 before the end of April."

"My set is a 5-tube Lafayette, with a 100-foot aerial under the roof," advises Delbert C. Thomas, Triangle Fraternity, State College, Pa. "Have been DXing only a few months, having received my set in September, but so far have a b.c. log of 280 stations, including HJN and YV1BC. Have also received 10-BQ and 10-AK, with 10-BQ verified. Have received 11 California stations with four 500-watters. By transposing my aerial lead-in to the grid of the first detector tube, I can receive short-wave stations and have a log of 39 police and airport stations and 30 amateur stations. Not a bad log for only a few months."

#### His First Year

"This is my first year at DXing," says Kenneth Korstian, 2407 Club Blvd., Durham, N. C. "It began about January 1st. As I have done no DXing after about 11:00 p. m., I have only a list of 125 stations on the b. c. band and ten on the beginning of short wave up to 1750 keys. My best catch was WAAW, a 500-watter, Omaha, Nebr. Another 500-watter that I can get easily is WCOC of Meridian, Miss. I would like to hear from someone on building a short-wave converter and a transmitter. I am using a Colonial 10-tube superhet."

"I am writing to tell you my results at DXing this season," says Charles Leboeuf, Box 222, North Grosvenordale, Conn. "I have been able to log 167 stations, making a total of 473. My best catches are: WKAQ, 10-BQ, VONF, CMJK, KGEK, HIX, HJN, and XEK, a 100-watt station in Mexico. All verified. I have also logged YV1BC and Poste Parisien, verifications on the way. Besides these stations I have logged and verified 46 states, North Dakota and Wyoming being the exceptions. I logged all 473 on an 8-tube Majestic Model 91."

"Well, I have boosted my log to 541 and 358 verified. My best verified include: 10-BQ, KGFJ, KERN, KJBS, KFXM, WGCM, CMCU, XEN, CHCK, WIBG, VONF, KDFN, KOB, KGEK, KGKL, KFXR, KGCR and CHLP," reports \*Clarence Burnham, 147 East Main St., Gloucester, Mass. "Have requests for verification out to YV1BC, WKAQ, CHCO, KLPM, WSVS, KOH, KGIR, CMJK, and KALE, which I consider good catches. Have also heard HHK, KGFI, KVL, KREG, and VOAS. On my log I have 164 100-watters or less, with 132 verified. Have 28 on the Pacific coast with 14 verified."

"Last night I logged my 800th station, and decided to celebrate by sending a line to RADEX, the thing that started me on this hobby of DXing in January, 1932," declares Ivor Nixon, 265 Pacific Ave., Toronto, Ont. "This total includes 439 shortwave stations (mostly amateurs) and 361 broadcast. The latter includes 35 2000-milers, and among them are such stations as CJOR, KGFJ, KFVD, KXL, KVL, KJBS, YV1BC, KERN, KWG and KPCC. This last I consider my best. The receiver is the same old one-peanut-tuber."

#### From an Arizona Airport

"I started in DXing about last December with a Majestic 11-tube pentode 307 model, which is a product of 1933, very new," comments Henry Castano, Yuma Airport, Yuma, Ariz. "This place where the field is located is about six and a half miles from the city of Yuma, which I think is a very good location for getting real distance. Mr. Redondo, who is the proud owner of this radio, is also manager of this field, and myself, his DXer, have received stations from 50 watters to 100,000 watters."

"On November 20, 1930, I bought a 7-tube battery Crosley radio, and to date have tuned in 399 stations, from 6 provinces, 1 from Newfoundland, from all U. S. states, except Mississippi, Nevada and Washington, WKAQ, Porto Rico, 7 Cubans, 6

Mexicans, HJN and YV1BC from South America," reports K. Hildebrand, Doaktown, N. B. "The three provinces that I still need are Saskatchewan, Alberta and British Columbia. During February added 35 new stations to my log. My best catches are WHBC, 10 watts; 10-BQ, 15 watts; 10-BP, 25 watts; WCAZ, KBTM, KCMC, KGFJ, KMLB, KDFN, XEJ, CMCW, HJN and YV1BC."

"I have had my 11-tube Majestic for two months and have had 247 stations in the U. S., 11 in Canada, 3 in Cuba, 7 in Mexico, and KGU, in Hawaii," reports Wm. McDaniel, The Gazette, Charleston, W. Va. "Of the 247 in the U. S., 27 are on the Pacific Coast and are in 42 states. I also have had 3 police stations, and a station announced as W2XAR, New York. These come in above 1500 kcys., as I have some extra space on my dial. W2XAR is on from 5:00 to 6:00 p. m. on weekdays."

"I have been getting the 'good old reliable' for the last two years," declares \*Frank Frazier, 225 Menomonee St., Chicago, Ill., "and have had 247 stations verified since, including Porto Rico, Mexico and Canada. My best stations are WOCL, 25 watts; KGCX, WGNV, KRMD, 50 watts; KFPL, KGFF and WJBY, 50 watts. Received verification from WCSC today that they are on from 7:00 a. m. to 2:00 p. m. and 5:00 to 10:00 p. m. CST. I have a Graybar 310."

#### Gets 24 from Oceania

"Through the DX calendar I have been able to pick up close to 40 new stations since the first of January," admits F. L. Biss, Brittmount, Minn. "The first issue I bought was January, 1933. I have picked up 123 new stations this year, 24 of them are in Australia and New Zealand. KGU, KGMB, YV1BC, HJN, CFBO, and scores of others. This certainly has been an excellent season. I would like to correspond with a DXer in Delaware."

"Since my last report I have received 20 more stations, bringing my

total up to 305," remarks L. A. Brodhecker, Box 82, Brownstown, Ind. "In this total are five ship stations at 600 meters, two police calls below the 1500 band, two stations from Mexico City, one from Porto Rico, 24 stations in California. The total also represents 45 states; 15 out of Canada, including 10-AB, 6 stations from Havana, and 7 from Mexico. Am headed now for the 350 mark. My first report was 165 stations."

"I use a little Clarion AC-61 model, 6 tubes, and in less than two years have a log of 529 calls, all at present on the air—deletions don't count with me—only live ones," boasts Stanley A. Schmuck, 94 Otis St., East Cambridge, Mass. "My list includes stations in U. S., Canada, Cuba, Mexico, Porto Rico, Venezuela, and France. Among them are 10-BI, CKOV, YV1BC and Poste Parisien. All heard on the regular b.c. band, and a few a little below 200 meters."

"During a period of less than a month I have received 163 stations in the U. S., Canada, Mexico and Cuba," comments C. E. Bryant, Jr., Booneville, Ark. "I have received 40 states in the U. S. I also have received a station on every kilocycle between 540 and 1500 with some long-wave stations, about 520. We have a 10-tube long-wave Clarion which gives excellent service. I have no trouble at all separating stations on different kilocycles."

#### Completes State Roster

"Since I last wrote you," advises Ralph V. Caldwell, R. D. 1, Clarksville, Pa., "I have received a few new stations. Up to the last day of January, I had 572 stations. I added up to February 25th fourteen stations, or a total of 586. Among the best I heard during February were KPJM, KDB, KECA, KID, and XES. My best in January, KG EK, KGIR, WAGM, and KXO, and, thanks to RADEX, I got the one station that I have been hunting for, KDFN, Casper, Wyo., completing my list of the states."

"DX is exceptionally good here in

Baltimore," reports B. L. Ahman, Jr., 3313 Westerwald Ave., Baltimore, Md. "I just listened to HJN (685 kcys.) Bogota, Colombia, on Sunday morning at 3:45 a.m. Their signals were very loud and clear. I am waiting for a verification. I have just received verifications from CKMO, CJRM, WKAQ, CMBY, KFVD, 10-BQ, WELL and WGNV. Also others to raise my veris to 294 to date, with 470 even logged. I logged for four years before verifying."

"I have only been DXing during the past season," admits Raymond A. Mitchell, 921½ Fourth Ave. So., Nashville, Tenn., "and with a Zenith 7-tuber I have heard 265 stations on the 97 channels of the b.c. band. Have heard a station on 95 of the channels. I have 146 of these verified. My best catches are KFPM, a 15-watter, in Greenville, Texas; 10-BP, a 25-watter in Wingham, Ont.; WKAQ, San Juan, P. R., and YV1BC, Caracas, Venezuela, all four of which are verified."

"My log of stations on the broadcast band, at the present time, contains 641 stations," declares Raleigh A. Biss, 129 W. Lake St., Chisholm, Minn., "including 12 Mexicans, 3 Cubans, and WKAQ, San Juan. A few of the best catches are WRAM, KCMC, WOPI, WDRC, WALZ, WINS, KXO, KABC, WAWZ, WJEJ, WKBC, KGGM, WSIX, XEX, XEE, XEJ, KGAR, KGDM, KWSC, CMBD, CKCI, CJOC and CJOR. I have heard all states with the exception of Vermont, New Hampshire, Delaware and South Carolina."

#### Some Brief Reports

"I just started DXing three months ago, and now have 137 stations," writes Cameron Greenleaf, Hewlett, L. I., N. Y. "I am a boy of 13 and therefore can't stay up late. Some of my best catches are: WBAP, WFAA, WOAI, -KMOX, KWK, WOWO, WHO, WOC, KSL, KDYL, XER, XEAW, KTHS, KVOR, WMAL, KIDO, KFAB, 6 in Canada and 5 in Florida. I have had short-wave stations W1XAU, W1XAZ,

W1XAL, and police stations WRDS and WMP."

"I have a Silvertone 6-tube superheterodyne," remarks \*Victor Jason, 25 Greenman Ave., N. Y. Mills, N. Y. "I have had it for about a month. So far I have logged about 143 stations and some of my farthest stations are WKAQ, CMK, CMC, CMAF, CMCY, XEW, XEO, XER, XEPM, XEAW, XENT, KFI, KGO, KSL, KOA and WLBC, a 50-watter from Muncie, Ind."

"My present log stands at 370 with 44 of 100 watts or less," reports Clarence Markel, Jr., 622½ N. 7th St., Quincy, Ill. "A few of the best are WJBK, WEXL, CHML, 10-AB, WBHS, KTFI, WWRL, XET and XES. This list includes 43 states with 20 police calls and 24 s. w. My best police calls are WMP, WPED, WPEH, and KGPL."

"I have had good luck with my DeForest Crosley, 8-tube set," reports Oliver Stevens, 1835 Gerrard St. E., Toronto, Ont., "and have received some excellent catches, such as KGKO, KFSD, WBAC, XEK, XEU, KFVD, WBBZ, WABL, KTFI, KDYL, XEM, WSMB, WQBC, KGFG, WSFA, and here's a peach, CKWX, 100 watts, Vancouver, B. C. Try and beat that!"

Mrs. L. P. Ayres, 9 Fern Ave., Carbondale, Pa., reports a total log of 626 stations on her RCA-60 with all states except Wyoming and Nevada. She has 25 stations of from 5 to 50 watts in 15 states and Canada and 150 stations 100-watts in 38 states, Canada, Mexico and Cuba.

"I have a two-tube Crosley receiver and have had 360 broadcasting stations, 80 police calls, and 2 Canadian s. w. stations," comments Charles Muffly, RFD No. 3, Grafton, Ohio. "My best DX is KTFI, Twin Falls, Idaho, using 500 watts. My farthest distance is KGA, Spokane, Wash., using 5000 watts."

#### His Pet "Pestations"

"I have a 5-tube Gloritone receiver," comments Edward Bond, 318

## THE RADEX MARKET PLACE

### Classified Advertising

*A Department for the Use of Advertisers and Readers in bringing Used Sets and Parts, Merchandise, Books or Services to the Attention of the Public.*  
Rate : 10 cents a word; minimum charge, \$4.00.

---

**EARPHONE LISTENING NOW POSSIBLE ON ANY RECEIVER WITHOUT PHONE-JACK.** Our PHONE RECEPTOR, consisting of small metal box, 5-foot cable and special adapters, AUTOMATICALLY SILENCES SPEAKER when phone-plug inserts into jack on front of box. Installed in two minutes without tools; NO SOLDERING, NOT EVEN TOUCHING RECEIVER WIRING. ABSOLUTELY SAFE. RECEIVER POSITIVELY NOT UNBALANCED. Money-back guarantee. When ordering, mention receiver make. Complete \$3.95.

Baldwin Type C Earphone, \$3.75; LYNCH Noise-Reducing Antenna System, \$3.00

AMPLIVOX LABORATORIES, 82 East 95th St., Brooklyn, N. Y.

---

Power St., Akron, Ohio. "Since May, 1932, I have heard 338 identified stations, including five s.w. heard on the regular b.c. set. My best catch is KFIO. All of these are on the air at the present time or listed in RADEX. I would like to nominate for pestations (pests) such stations as WFIW and WEXL, who are on the air too much of the time."

"I have not written to RADEX for a long time, so here goes," salutes Kazimir Nowotarski, 2484 Thurman Ave., Cleveland, Ohio. "My log has been increased to 611 stations, all of which have been received on my two-tube receiver. My best verified catches are: 2YA, CKMO, KPQ, KXO, KFXM, KPCB, 10-AB, 10-AK, 10-BI, 10-BP, 10-BQ, KGFU, CHGS, WKAQ, KFPM, KFXD and YV1BC. I have 53 stations on the Pacific coast, of which 40 are verified."

"I am only 13 years old and as I go to school I have no time to DX, except on Friday, Saturday and Sunday," comments Don Martinez, 1469 26th Ave., San Francisco, Calif., "but I managed to get around 211 stations in about six months, with 94 verified, which includes 18 Japanese, one Chinese in Nanking; 2CO in Corowa; 2YA in Wellington, KGU in Honolulu, and KGBU, Ketchikan, and a number of Canadians and Mexicans. I am still trying for Europe and South America and hope to get them soon."

"I have 351 stations, but they are darn hard to get now," complains

Clarence Wakefield, Wiarion, Ont. "I only DX some Sunday mornings. I usually get to bed about 10:30 and get up a little after two, but some Sundays I roll over and go to sleep again instead."

Well, maybe the Editor can get a little sleep during the next two months. Cheerio, until September.

\*Names marked with an asterisk would like to hear from other Radexers, particularly those owning the same kind of set.

---

## Final DX Reports

*(Continued from page 30)*

keys. I also logged an hour of 2YA's program on Sunday morning, March 12, from 3:30 to 4:30 CST. This program came in very good through the speaker with very little fading. I have sent for verifications from both of these stations."

"I have been DXing since August, 1932, and in that short time I have heard 319 stations," writes Morton Meehan, 563 Adams Ave., Elizabeth, N. J. "My best are: HJN (awfully loud), KVI, KTM, CMQ, XES, 10-BP, 10-AK, NAA, KGNO, WHET, WKAQ, CKY, WABZ, KOY, WJBW, KMLB, KTFI, KHQ, CMX, CMC, and a flock of others. About 10:00 p. m. when the weather is good for DXing, I have heard CMC between KOA and CKGW. You have them listed as being on CKGW's channel. I heard

WMMN on a test program one morning, by turning the dial up toward 880 kcys. I heard CMX. You have WMMN and CMX both on 890 kcys. CMX was on 885 or 880 kcys. when I heard them. I would like to hear from DXers from the Southern and New England states."

### Little Radex Clubs

"Three of us, all RADEX readers, have started a little gathering," announces R. E. Moran, 1309 Wellington St., Ottawa, Ont., "and we meet every Sunday afternoon at each other's homes and review the weekend activities in DXing. I have a log around 475. Ernest Ball a log of 500 or more, and Fred Wakerell over 600. The three of us heard a station on 1180 kcys. on Sunday a. m. March 26, playing band selections. I heard it again on Monday, the 27th, at 4:29 a. m. EST, playing band selections again, but no announcements. I wonder if any other RADEX reader has had similar experience. If so, would he please get in touch with me."

"I think that I can consider myself very fortunate during the past month," boasts Charles Meyer, Jr., 411 Blake St., St. Joseph, Mo. "On March 26 I was very agreeably surprised to hear a voice on 720 kcys., state that my station was 2YA, Wellington, New Zealand. I listened to them from 4:00 until they signed off at 4:25 a. m. The reason I was so amazed was because I am not using an aerial but a Muter aerial eliminator, grounded to a pipe driven about two feet in the ground in the furnace room where the ground is as dry as a bone. Among my better catches in 1933 are: KPCB, KFXM, WJEJ, KGFG, KXL and XEFB (100-watters); WSVS, WGNV, XEFV, WEXL and WGLC (50-watters)."

With a three-tube receiver of his own design, Gilbert Van Vranken, Jr., 2230 N. El Molino Ave., Pasadena, Calif., has achieved some remarkable results. His total log of 299 stations, loud-speaker reception, includes stations in Argentine, Colombia, Venezue-

la, New Zealand, Australia, China, Japan, Porto Rico, Alaska, Hawaii, as well as continental North America. He has verifications from 4BH, 2YA, YV1BC, two Honolulu stations and many others. Gilbert says that 2B1, 4RK, 2YA and 4BH come in exceptionally well quite often but that 5CK with more power is very difficult. The set operates on batteries.

### Verifying Locals

"The following will prove a DXer should verify locals," suggests Karl J. Halpern, 495 E. 3rd St., Brooklyn, N. Y. "WPAP, WHN and WRNY are to be under one call, WHN, transmitter 750 watts. WQAO on Sundays only for church programs. WMSG, WBNX, WCDA, all to WYNN. Yes, good old Ed Wynn, owner. Transmitter 500 watts. WAWZ, early mornings 5:00 to 8:00 a. m. and special Sunday services. WYNN on from 8:00 a. m. to 1:00 a. m. What will a local fan do about WPAP, WHN (500 watts), WRNY, WMSG, WBNX and WCDA? How can he prove he heard those stations when he hasn't a veri?"

"The Australian, New Zealand and Japanese stations have been exceptionally good the past month," records E. N. Luken, Crooks, S. Dak. "4BC, 2BL and 2CO seem to be the best and to put on the best programs although the last few mornings 2UE in Sydney has been real strong. I consider my best catch down that way to be 2GN, Goulburn, Australia, as they claim only 50 watts power though that doesn't seem possible. These stations come in strongest here between 4:00 and 5:00 a. m. CST; however I can usually hold 4BC and 2UE till 6:00 a. m."

"I own a Phileo 7-tube set and have a total of 463 stations," informs\* Russell McCoy, 432 Madison St., Gary, Ind. "Although a DXer since early radio, have not done so awfully much DXing this winter, due to illness, but my first night at the set this fall brought me my two prize catches since radioing. They were YV1BC

and WKAQ, the latter with plenty of volume. Although I have this list of stations, have yet to hear from six states: Vermont, Maine, Delaware, New Mexico, Nevada and Wyoming, and would appreciate tip on them."

"On Sunday, April 9th, around 9:30 p. m. EST, I tuned my set below the broadcast band, at about 1530 kecs. and heard chimes being played," remarks Tony Lima, 185 St. Patrick St., Toronto, Ont. "There were three different kinds, each lasting about one to one and a half minutes. I heard the announcer say 'W1X' or some other letters which I did not hear on account of the static. I also heard him say 'Boston' which I think is the location. They signed off at 9:40 p. m. Will you please try to identify this station for me."

#### East Versus West

"I believe that 100-watters on the east coast come in much better than 100-watters on the best coast," thinks Allan E. Knain, Northwood, N. Dak. "I'd like to hear from others in the center line of the U. S. and what they think about it. I would also like to hear from all DX clubs; also Midwest 16-tube owners. My best catch, I believe, is 4BH and 4BC. Also had 2CO, 3AR, 5CK, 6WF, 2YA, 4QG, KGU, YV1BC; CKPR at noon, and 50-watters on both coasts, Canada and Mexico."

"In the April issue of your magazine there was a correspondent from Texas who wanted to know of some Texan who had received a station of some distance," writes Mrs. Oscar Duncan, 531 W. Munson St., Denison, Texas. "On our radio map which my late husband made, I found our farthest stations were CKMO, Vancouver, B. C., 730 kecs., and CNRV, Vancouver, 1030 kecs. From Denison that is a distance over 1600 miles. Hope this will be of interest to the inquirer."

"I've owned two radios and DXing is to me half the pleasure of owning a set," declares Ed Cash, 9915 Yosemite, Detroit, Mich. "On my first ma-

chine, a Brandeis, I logged 118 stations in about a year and a half. With my present radio, a Kennedy, I've logged 210 stations in one year and one month. On the long wave the Kennedy's selectivity is wonderful, at least one station has been logged on every channel. The short wave section has been a disappointment."

Of his Midwest 16-tube set, J. A. Shanks, Box 2, Route 4, Russellville, Tenn., writes: "It has a very low noise level and plenty of power even on the 15-watt Canadians. It is excellent on the short waves also." He reports a grand total of 2309 stations between 14 meters to 200 meters. He has received 606 stations in the broadcast band.

#### Off Frequency

"It was the night of Saturday, April 8th, at about 9:30," remarks John C. Greenleaf, Jr., Meadowview Ave., Hewlett, N. Y., "I was listening to KOIL, Council Bluffs, when in the background I heard, 'This is station WNBW, Carbondale,' or words to that effect. I turned the dial and it suddenly came louder. That was on 1230 kecs., and WNBW is on 1200 kecs. Then it died away and I haven't heard it since."

"JOAK uses two transmitters, one on 590 kecs. and one on 860 kecs.," advises R. R. Rawstron, 296 Main St., Claremont, N. H. "JOCK now has a wave of 810 kecs. and 1180 kecs. So these calls count as two stations or four stations. Personally I lean to the four-station status, as they are really four transmitters, if my information is correct."

"I tuned in a station on about 690 kecs. at 3:15 a.m. EST, April 16th," reports Russel Hicks, 105 Navarre St., Monroe, Mich. "I heard an orchestra playing a symphony. It lasted until 3:41 a.m. and at 3:41½ I heard three blasts from a trumpet and the station signed off. Could it have been HJN?"

"I wish you would print in one of your issues," urges R. S. Seaward, 4650 Post St., Jacksonville, Fla.,

"that I would like to hear from At-water Kent Model 480 owners and the results and kinds of aerials they are using."

"Reception has been very freakish the past week," declares Robert Rosenberger, 17 Janssen Place, Kansas City, Mo. "I have pulled in LR8, LS8 Viborg, Finland, and Poste Parisien, also LR2. LR2 is now on 910 and can be caught before XEW comes on strong in the evening."

"About 4 a.m. this morning I heard KGBU after a couple of years' occasional trying for them," remarks J. A. Ringness, Morris, Minn. "Also XEFV, WDRC, WRDW and WEEU."

Editor's Note: When a name is preceded by an asterick (\*) it indicates the writer would like to hear from others, preferably those owning the same kind of set.

#### Some DX Tips

"I have been DXing since the fall of 1929, and have to date logged 478 stations, using a Radiola 18," reports Sidney R. Steele, 3606 Homewood Ave., Toledo, Ohio. "All states, except Nevada, have been logged and I have nine states and the District of Columbia complete. Some of my best catches are KFXM, KGFK, CKPR, KRMD, the last three using 50 watts; KXA, KID, WAGM and KDFN. But the greatest thrill of all was VONF, St. John's, Nfld., received March 15th at 3:57 a.m. Following is from VONF's verification: 'Regular Broadcast Schedule, Newfoundland time 1½ hours later than EST. Daily 12:00 to 2 p.m., except Sunday when the broadcast begins at 12:30 p.m. Daily, except Sunday, 6:00 to 8:00 p.m. continuing some nights until 9:00 p.m. Sunday 8:00 to 9:00 p.m. The latest news concerning Newfoundland's sealing fleet is broadcast daily at 10:00 p.m.'"

"Here is some information on CHGS," advises Stewart Hunter, Box 200, Kensington, P.E.I. "Weekdays 7:30 a.m. to 9:00 a.m. Musical Clock program; 10:30 to 11:30 a.m. Home Hour; 11 to 12:30 Rural Program;

12:30 to 2:00 p.m. other programs; on again at 4:00 p.m. and sign off at 8:00 p.m. They also broadcast all the Canadian Radio Commission programs and hockey matches. Saturday evenings George Wade and his Corn Huskers 9 to 10:00 p.m. Sunday mornings on at 11:00 a.m. church broadcast till 12:00 and recordings until 1:00 p.m. Time and weather reports, sign off. On again at 2:30 p.m. to 8:15 p.m. CFCY, Charlotte-town, has a shortwave transmitter on 49 meters. VE9EH has about 250 watts. Am not sure about the power."

Radio Normandie, Fecamp, France, puts on a special DX every night until 10:30 EST, says Robert Rosenberger, 17 Janssen Place, Kansas City, Mo. He has received one of them on 1345 kcs. FQN on 565 kcs. is on until 8:30 EST Wednesday evenings. Robert recently tuned in 6CK, Cork, Irish Free State.

Gustave Solomon, 404 Bon Accord Block, Winnipeg, Man., gives us some interesting information in regard to CKY. He gives their time on the air as follows: Sundays, 11:00 a.m. to 5:30 p.m. and 7:00 to 11:00 p.m. Weekdays on at 8:30 a.m. until 2:00 p.m. and 3:30 to 11:00 p.m.

Rudolph Kuré of Cincinnati, who thinks that "RADEX is getting more helpful every month and that the May issue is a marvel" gives the time on the air of HJN as follows: 12:45 p.m. until 2:00 p.m. and 7:30 p.m. until 10 p.m. We assume that these times are those of Bogota standard.

"Those listeners in the east who have not heard WSAR, Fall River, Mass., can try for him on Monday nights until 9:00 o'clock, when WHOM comes on," suggests Samuel Klink, 844 So. 16th St., Newark, N. J.

---

*In September there will be complete new data from broadcasting stations with their time on the air, a new and enlarged DX Calendar, and a new plan for securing short-wave station information. Watch for it.*

# The Most Friendly Station

(Continued from page 11)

defects in modulation. But nevertheless, TI4NRH is working every afternoon on 31 meters, in mid-ocean, hi, hi, or between Schenectady and Madrid. Its power is marvellous, as hundred of reports estate to be like local stations anywhere from Canada to Peru.

The wave is very steady, with little fading, and the music, either recordings or spanish talent, distinguished by bugle calls between numbers, known the world thruout.

## The Verifications

The station verifies each report, by sending a beautiful certificate printed in five colors, the only and most unique demonstration of its kind, ardently desired by fans.

The station publishes a Magazine in spanish entitled URA, which is sent to Members which also have a beautiful Diploma of Membership and a lapel button in 3 enamel colors. The URA has special stationery and lovely seals to go in accordance with the biggest aim to develop a most friendly Club, already represented in the Madrid last Convention, and having Delegates in all the American Continents. All that, has been the conclusion of pure amateurship in radio, developed with the aim to please in the land of Heredia, a name which was put in the map, by the station TI-4-NRH.

---

## Fading and Other Troubles

(Continued from page 10)

spects, and you will obtain every bit of efficiency that it is possible to give. The -80 rectifier need not be replaced with a newer type because it now gives as much amperage and poten-

tial as is necessary to run your set.

## Phones on Kolster

*How shall I attach headphones to my Kolster K-140 receiver, and where are the speaker wires? The maker advises against the operation of this set with the speaker disconnected as it may ruin the receiver.*

Phones are connected to this receiver as shown in Figure 4, of the February issue of RADEX, on page 3. Use two 1.0 mfd. fixed condensers, 500 volt test, and a 50,000 ohm resistor. Two wafer adapters for -47 tubes will be needed.

The manufacturer's caution about operating the set with the speaker disconnected means with the entire speaker cable plug pulled out of its socket. Place your speaker silencing switch in either the green or brown wire leading to the smaller of the dual speakers from the *second* speaker plug leading to the speaker voice coils. This cuts out the voice coils of both speakers and renders them inoperative, but permits the rest of the speaker field coils and unit to remain in the circuit so as to not damage the power pack of the set. Be careful about your wiring insulation, for the -47 tubes operate on 400 volts, a potential seriously high if carelessly handled.

## Using Old Tubes

*Can I modernize my Atwater Kent model 40 receiver? I have the original tubes, except the -27, which came in the set in 1930.*

You state you are using the original tubes, except the -27. Old tubes pull down the efficiency of the set, and we are sure that if you retube the receiver the results will be greatly satisfactory. Although the tubes may seem to test well, they are too far gone to be useful further. You might try replacing the -27 with a 56. The -71A can be replaced with a -45 if a suitable voltage reducing adapter is used in the socket for more power and volume. Your present -27 is the

detector tube. The -26s in the set cannot be replaced with newer types.

If this set is noisy it might be well to test the by-pass condenser located on the right-hand side of the volume control. This condenser by-passes the choke of the speaker, the terminals connecting to one speaker post and to the plate of the -71A tube. Frequently this trouble occurs in the AK 40 receiver. And of course, the condenser plates should be cleaned to remove all traces of dust.

### Short-Wave Signals Cut Off

*I have a Pilot Super-Wasp battery model k-110. The set was noisy and I took it apart and resoldered every connection. It now cuts off and on rapidly as if a wire still is loose. The regeneration control will not increase the volume even if pulled down until it falls into oscillation. There is no gradual increase in volume. The position where the set oscillates very loud is where the antenna condenser is set around 50 to 65, and the other around 50 to 90. At other points there is no oscillation. What do you think is wrong?*

It is hardly ever possible to state definitely the cause of signal cut-off. In most cases this has been found due to some defect in a filter or by-pass condenser which shorts for a time and then heals automatically for a short time. Sometimes connections to condensers will open for a time due to some expansion or contraction of the material of which the condenser is made.

Critical performance of the regeneration control is usually due to excessive detector plate potential, too large a plate coil, too large a throttle condenser, too large a choke coil in the detector plate circuit, or failure properly to by-pass the detector plate supply lead. It must be realized that trouble may develop from any combination of these factors. The remedy usually applied to such circuits is to provide a resistance-capacity filter at the detector plate input. This consists of a 1.0 mfd. condenser con-

nected between the plate input lead and the ground or cathode, and a 50,000 to 100,000 ohm resistor in series with the plate lead. Sometimes a  $\frac{1}{4}$  to  $\frac{1}{2}$  megohm resistor across the primary or secondary of the first audio transformer will correct the trouble.

### Wiring Up AK Model 20

*My Atwater Kent model 20 battery set is now being used after a long period of rest. Having lost the wiring hook-up diagram I wish to verify the wiring to the batteries, for the set only brings in nearby stations of great power.*

The red wire of the battery cable connects to the positive A and negative B battery terminals; the black wire to negative A; the blue wire to the  $4\frac{1}{2}$  volt C battery, negative terminal; the yellow wire to the  $22\frac{1}{2}$  volt B battery; the white wire to the  $66\frac{1}{2}$  volt B battery; and the brown wire to the 90-volt B and also one side of the loud speaker. Your tubes should be tested and replaced if weak. Clean the set carefully to free it of all dust, especially between the variable condenser leaves. If it persists being weak test the transformers for burned-out primaries, or open fixed condensers or broken wires in the r.f. coils.

## QUICK INDEX to STATION DATA

### Broadcasting Stations

Verification Information.....	April No. 68
Time on the Air	
Sunday .....	Sept. No. 61
Monday .....	Oct. No. 62
Tuesday .....	Nov. No. 63
Wednesday .....	Dec. No. 64
Thursday .....	Jan. No. 65
Friday .....	Feb. No. 66
Saturday .....	Mar. No. 67
European Time on the Air.....	Mar. No. 67
Trans-Pacific Time on the Air.....	Feb. No. 66
Call Letter Index.....	May No. 69
Slogans, Addresses, etc.....	May No. 69

### Short Wave Stations

Foreign by Countries.....	Sep. No. 61
World by Calls.....	Dec. No. 64
World by Frequencies.....	Apr. No. 68
United States by States.....	Nov. No. 63
Canada by Provinces.....	Dec. No. 64
Police Broadcasters of U. S.....	Mar. No. 67
Sunday on the Short Waves.....	Mar. No. 67
Canadian Police.....	May No. 69

## A RADIO PROGRAM "SLATE"

"Breathes there a man with soul so  
dead

Who never to himself hath said—"

"Darn it! I wanted to hear that pro-  
gram."

Use the Radio "Slate" and you  
won't forget to tune in those favorite  
features.

Four pages; printed on fine Bristol  
board so entries may be erased and  
kept up-to-date.

Spaces for each 15-minute period for  
every evening of the week and Sun-  
day afternoons.

Price, 10 cents each, two for 15c  
four for a quarter.

## A MAP OF THE WORLD with Time Converting Dial

Everyone interested in short waves  
or foreign programs must be able to  
convert their time into his own.

Just turn the dial to the time in your  
zone and—Presto: Change—there is  
the time for every other place in the  
world.

No adding; no subtracting; no try-  
ing to figure which is yesterday, to-  
day or tomorrow. The dial does it  
all.

Big map of the world showing all  
principal cities and their time zones.

Only a Quarter  
Postpaid to any country.

## A New Leatherette Cover for your RADEX

We have just this week received a  
new supply of those beautiful, brown  
leatherette slip covers for your RA-  
DEX. A simple new device for hold-  
ing the latest copy without tucking in  
the covers.

Just slip the copy under the silk cord  
and there it is with all pages includ-  
ing the covers in plain view.

Adds to the beauty of the finest set.

Price 50 Cents

## Use Phones on Your Radio During the Static Season

We have a supply of those wafer  
adapters for slipping under your  
tubes so that you may use headphones  
during periods when static is too  
great for the speaker or when the  
rest of the family want to sleep.

See our February issue for full de-  
tails for using phones with adapters.

Either four-hole or five-hole (depend-  
ing upon the tube you use) for fifty  
cents each postpaid.

**THE RADEX PRESS, INC.**  
HANNA BUILDING CLEVELAND, OHIO



**At Last . . .**

## **A REAL WORLD GLOBE**

*within reach of every radio fan!*

Right up to the minute and so large every state in the U. S. A. and all the principal cities are plainly shown. Twelve inches in diameter—almost 39 inches in circumference—beautifully printed in many colors. Ball is substantial metal.

Only with a globe can you get a true picture of the relation of one country to another and distances between cities.

*Which is nearer New York—Moscow, Russia, or Rio de Janeiro, Brazil? Caracas, Venzuela, or Mexico City? Honolulu or Santiago, Chile? You'll be surprised!*

PRICE ONLY  
**\$5.50**  
POSTPAID  
ANYWHERE

**The Radex Press Inc.**

HANNA BUILDING  
CLEVELAND, OHIO