

THE MAY 1932

RADIO INDEX

WHAT'S ON THE AIR TONIGHT?



25^c

"Ann Leaf at the Organ"
The Problem of Eliminating Hum
Chain Programs on Daylight-Saving Time
World Broadcasting Stations by Frequencies

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MAY 1, 1932



RADIO INDEX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER

Editor and Publisher



HUM and ITS REMEDY

by B. Francis Dashiell

HUM in alternating current radio receivers is the most confusing subject before the service man; its annoyance has tested the wits of many puzzled radio engineers. But hum in an electric radio receiver is a perfectly natural thing—when it breaks loose, while it is unknown in battery-operated sets. Therefore, in the discussion of mysterious and uncontrolled hum, we are concerned only with broadcast sets that operate on the house alternating current.

Alternating current must be understood so that we may know what causes hum. This form of current is vastly different from direct current; it is more useful, and can be transmitted over unlimited distances. That is why we find alternating current out in the rural and suburban regions, while direct current is only in the downtown areas and can be carried but very short distances. But radio has the problem of using alternating current only after it has been converted into direct current.

Alternating current, in most cases, has a frequency of 60 cycles per second, which means there are 120 alternations between positive and negative polarities each second. For instance, the potential builds up from zero volts to 110 volts positive, back to zero volts, or neutral potential, then up again to 110 volts negative, and back down to zero volts. This operation completes one full cycle composed of two alternations—positive and negative. And sixty of these cycles

occur every second. Thus, at the very beginning we have an unquestionable source of electrical and mechanical vibration—hum.

All radio hum has a marked similarity of tone; the pitch and frequency of 60 cycles a second. The characteristic alternating current hum can be reproduced by a piano note or tuning fork having the same vibration period. When the house current is led to the power transformer which steps the standard 110-volt potential up as well as down so as to meet the many requirements of the radio set, we obtain several circuits with wide ranges of voltages. This transformed current from the transformer secondary coils also is alternating in character, and has the usual hum. Even the passage of the house current through the primary coil sets up a magnetic



Reyna Reyes, god-child of the late General Pancho Villa. After a colorful childhood on the plains of Mexico, she is now an NBC star

vibration or hum in the iron core of the transformer, which may be heard if the ear is placed close to the power device.

The transformed alternating current taken from the secondary coil is rectified, or changed, into a pulsating positive current by cutting off every other, or negative, alternation. This is the function of the rectifier tube, such as the -80 and -81 types. But even this rectified current will hum, for it is a steady current now broken into 60 tiny pulsations surging along each second. These little breaks in the flow cause vibrations which become audible buzzings in the radio set. But by the use of proper choke coils and filter condensers this surging voltage can be smoothed out into a steady flow with no interruptions or pulsations. It then becomes a direct current as perfect as that which flows from a storage or dry-cell B battery. The perfection of the power pack built in the radio set determines whether hum will be present in the speaker.

Introducing the Cathode

For many years radio tubes could not be made to operate on raw, or non-rectified, alternating current. The loud hum was more than the radio engineers dared offer the public. Someone then inserted the cathode into a tube. It was heated by a white-hot filament that was connected to an alternating current source. Since the cathode was electrically independent of the filament supply it was not under the influence of the raw a. c. source and therefore could not vibrate and caused no hum. Thus the flow of electrons from this negative cathode to the positive plate did not start and stop at the rate of 60 times a second. The emission was smooth and noiseless. But while raw alternating current could be used on the filament of an a. c. electron tube, its plate required a very smooth and perfectly rectified direct current of high voltage. About this hinges most of the question of 60-cycle hum in radio receivers.

So, then, with the advent of carefully filtered power packs and B eliminators, efficient rectifier tubes, and cathode heaters in a. c. tubes, hum has been eliminated as far as it is humanly pos-

sible. When hum appears, annoying and undesired, we know that either our set is poorly built, or it has one or more defective parts or circuits. Hum is the most difficult of all troubles to locate in the modern radio set.

When hum first appears it is natural to suspect its presence in the tubes. Radio tubes are very sensitive, and should one of them become a vibrating unit because of internal variations in voltage, temperature, or the magnetic field, all of which go hand in hand, it should be removed. Although a tube may check perfectly in every respect it still can hum badly. Replacement is the final solution.

Faults In the Speaker

Hum often appears in the dynamic speaker, and a simple reversal of the wires leading to the speaker has been known to stop a hum that was otherwise unfathomable. Imperfect rectification in the speaker power supply will cause hum, and induction in the speaker cable, if it passes near the a. c. wires in the set, is the cause of a hum that is otherwise difficult to locate.

Hum has been stopped by reversing the power cord plug in its wall socket. This is one of those freak situations, due to some peculiar method of grounding the chassis of the receiver during the process of manufacture.

Pickup, or inductive action between detector and audio tubes adjacent to the a. c. leads and power transformers may introduce serious hum in the circuit. Grounding and shielding of the power pack parts and metallic cable covers will be found very effective.

High tension electric wires parallel or close to the aerial will produce the annoying inductive hum of alternating current. The obvious solution is to relocate the aerial as far as possible from the power wires and suspend it at right angles instead of being parallel.

When a very strong hum is noticed in the radio set, yet the tubes and speaker have been carefully checked, the source of trouble will be found in the power pack circuits. An open filter condenser will cause the trouble, and

(Continued on page 25)

"ANN LEAF at the ORGAN"

ANN LEAF is just about as big as three and one-half healthy octaves or one athletic arpeggio. She could curl up for a nap in the center of the Wurlitzer keyboard without touching any of the red keys.

Danseuse, champion skater, tennis star—you visualize all of these when Ann, dainty, vital and dynamic, flashes across your horizon for the first time. Instead she is the girl of a thousand melodies from Bach to Berlin, under whose windblown bob cantatas crowd concertos, rhapsodies jostle the waltzes of Chopin and Strauss, and the melodies of Gershwin, Harry Warner, Donaldson and others, dozens of talented new composers, tumble over each other in a rush to the tips of her sensitive, facile hands. Ann averages several hundred tunes for each of her ten fingers—sometimes she thinks it is twice that many—and her mind is a giant mental keyboard for she must orchestrate each of these tunes

"She's Charming,"
Says Susie Sexton

and build them all into a harmonious whole each time she is on the air.

Ann, you know, plays the mighty Wurlitzer in Paramount's ninth floor studio in New York and broadcasts eight or nine times a week over the Columbia System. Usually she goes on the air between two and four in the afternoon although the Dixie network often hears her in the evening. On Wednesdays at 3:15 p.m. she is heard in a commercial with Ben Alley for Cheris Foundations.

Eight doors had closed after me in the magpie corridors of the huge Paramount building off Times Square as I went in search of Ann. Up three short flights of stairs, down two, and I stood in front of the thick steel barrier to the organ room. I could hear the murmur of the announcer's voice, then Ann playing something by Sinding. The door was locked. As I glanced back over the labyrinth of corridors I wondered about those useful maps in the Edgar Wallace mysteries.

The page who had unravelled the passages had disappeared.

"That's the only way out," he reassured me as I wondered about Ann's possibilities of escape. I had not seen Ann or I would have been worried about the keyhole.

She was eating caramels with Adele Vasa when I entered. And she danced up to meet me, a tiny, tomboy artist with tousled head and laughing brown eyes. She wore a round-necked sweater of Scotch mist and a tweed skirt. I thought I had run into Mitzi Green just returned from a stiff tennis match on the Central Park courts. Perhaps I thought out loud.

"Well, Mitzi's quite a woman in her own way. You'll have to admit that," said Ann with her sparkling, irrepresible smile. "Do you mind waiting a minute while I run over a song with Adele? Then I'll change and we'll go somewhere for tea."

Any of her admirers would have known



The Sinclair Wiener Minstrels—Gene Arnold, interlocutor, (left), Bill Childs (lower left) and Clifford Soubier (right) are heard Mondays at 9:00 p. m. EDST over NBC-WJZ network.

then that this was Ann herself. For she sat down at the organ and struck a few chords for Adele who is singing with her now and then. I noticed she wore dancing pumps for the footwork. That volume of warm, colorful sound, sure touch and smooth execution were Ann at her best—the leading woman organist of the air.

When the song was ended the phone rang. Ann took the call and another chocolate while she changed from pumps to low-heeled walking shoes, with one hand.

The girls arranged a tennis match for the next morning.

"Under the trees on the West Side courts without fail," insisted Ann, the interpreter of Chaminade and Ravel. "I'm going to play tomorrow no matter what happens."

"How Old Is Ann?"

"Just how old are you?" I asked when everyone had gone. Ann pulled a jaunty, brown fabric sport hat down over her dark bob at a chic angle and threw on a beige sport coat and scarf.

"Oh, about twenty-three or four," she laughed. I tried to believe her. We went down to Forty-third street. The traffic had halted obligingly. I hoped nobody would blow a whistle as I held Ann firmly by the arm. One hearty blast would have sent her whirling away through the subway entrance like one of her own elusive measures of Macdowell or Greig. At last we could talk over tea, toast and marmalade.

"Usually I practice three hours a day," Ann told me. "My broadcasts usually come between two and four, then I rest a while and get back at five to arrange my future programs, which are usually made up three weeks in advance. I must add new selections to my repertoire continually and there are any number of young composers coming to the front all the time whose work must be given consideration. No, the classics are more popular than jazz and are getting to be more so every day. Composers? Tschai-kowski is one of the greatest favorites on the air. More so than Gershwin or Berlin, in fact. The selections most often requested I think are "Monastery Bells" and "Trees."

"One thing about the classics—they seem to endure forever. The life of a new popular song is probably three months. After that it dies down. If it has been unusually popular it may be revived again after several months. Then a year or so passes before you hear it again. That is the end usually except in very rare cases.

"My repertory? It contains between one and two thousand selections. These I must be able to play at all times. When I first started to play professionally a repertory of two hundred pieces was considered enough for any performer. Now a pianist or organist must have many more than that at her command.

"I try to keep my programs in tune with the times. Many of my selections you will notice, picture the seasons, flowers, or are adapted to holidays or birthdays."

"Is it hard to keep up with the requests of your audiences?" I asked.

"No," she said, "So many ask for the same numbers over and over. I am usually worried because a request comes in just after I have played a number. Then I cannot repeat for a long time. I remember I was anxious for weeks over a woman who sent in a doily. I have no special need for doilies but this woman was very particular that she would not send the ornament unless that tune was forthcoming. The doily arrived in due course, but to save my life, I cannot remember whether I ever played the tune she fancied."

A Star at Four

Although she learned to play without instruction, Ann studied music in Omaha, Nebraska, where she was born. Her first public appearance was in a kindergarten out there. At the time her age was exactly four. The selection was Marche Militaire. It ushered her classmates out of the schoolroom. After that she became the local child prodigy.

Her sister, Sheila, was indirectly responsible for her career. She would not play the piano her parents bought for her so Ann used to climb up and run baby fingers over the keys, just to see how it sounded.

Originally Ann had intended to become
(Continued on page 25)

A PAGE of HARD NUTS

Some Puzzles In Radio

THE Puzzle Editor is running dry of ideas for new problems and unless he gets help quickly from some of the fans, this page may be missing from some future issue. Our puzzlers have contributed generously in the past, but the file is almost like Mother Hubbard's cupboard. SOS.

At this writing the returns for the April puzzles are just beginning to come in. The cross-call doesn't seem to be giving much trouble and No. 3 is proving capable of being filled in several ways. Evidently it is No. 2 which is giving our readers a run for their money. This was the palindrome puzzle designed by Carl Schmidt, Scranton, Pa.

The Solution

The key to this puzzle lay in the letter L, it being the only letter not duplicated. This indicated that L must be the middle letter. The middle blank was the last letter of a three-letter call. As the letter before and the letter after the L must be alike the letter W was indicated. This gave us -WL W—. Another W is now indicated giving us WWL WW—. With this start, the puzzle gradually worked itself out. The answer is as follows:

XFG KROW CMCG WKA V WWL
WWVA KWG CMC WOR KGFX.

"Puzzle No. 2, the palindrome, is my idea of a dandy puzzle," says Arthur L. Robb, 1338 Mulvane St., Topeka, Kansas. "It was a lot better than the 'magic square' of last month. The editor's method of solving the magic square was quite cumbersome. My first step was to divide the total of 3540 by 3 in order to find the average frequency. This came out on an even multiple of ten—1180. Looking up the stations on 1180 keys. I found that WINS fitted right into the center square. From then one it was a mere matter of matching in other stations which were located on channels equidistant from and on oppo-

site sides of 1180. In all it took about five minutes."

In No. 3, one of the several possible solutions is as follows:

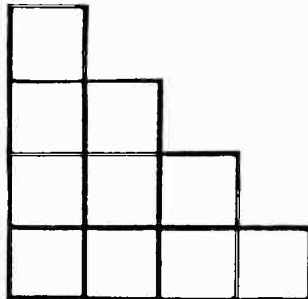
WACO
IBMC
CMJF
CWHC

The May Problems

Our No. 1 this month is for our "math" sharps. George Raba, of Stevensville, Mich., has made the momentous discovery that the square root of RADEX is FAN! Here is the demonstration. George submitted this problem in the form of an example in square root, but as the Editor had forgotten his square root, we had to change the problem to one in long division. Each of the letters used stands for one of the ten digits. The problem is to change these letters into the figures for which they stand.

		FAN
FAN	|	RADEX
		FAN
		FAXE
		FZND
		FYNX
		FYNX

No. 2 was designed by another of our Master Puzzlers, T. J. Johnson, Bowlegs, Okla. Several readers complained that T. J.'s last puzzle had them "bow-legged." We shudder to think what this one is going to do to them. Fill in ten letters in the ten squares to give six station calls. The two horizontal calls



read left to right; the two vertical and the two diagonal read down. No call is used twice. If anyone can find a second solution of this problem, we'll give him a special prize of a rubber aerial.

In No. 3 it is required to fill letters in the eight blanks in such a way that eight station calls will be shown, all reading left to right and no calls duplicated. Each call must have four letters.

□ □ □ □
□ □ □ □

The cross-call this month (No. 4) was designed by Russell Overman, San

Fernando, Calif. It seems that errors in the key just will slip in but we hope none will occur this month. These puzzles frequently must be held over several months after they are received from our readers and in bringing them up to date, both horizontally and vertically, mistakes occur.

The April issue of this magazine should be used in calls for these puzzles as changes in the May edition may be made after this writing.

Get the correct answers to all four of these problems to us by May 20th and receive a copy of the June RADEX free.

Across

- 1- 12 Chicago, Milwaukee & St. Paul (all reversed).
- 13- 15 Most powerful in the state (reverse).
- 16- 19 500-watts daytime (reverse).
- 19- 21 The Bee, Inc.
- 22- 24 Weather reports.
- 25- 26 Same as 25-35.
- 28- 30 A powerful blue
- 30- 33 Formerly WGBS.
- 36- 38 1000-watts daytime (reverse).
- 39- 40 Seventeen calls begin with these.
- 41- 43 One k.w. Columbia.
- 46- 48 A twin station.
- 49- 51 A palindrome.
- 53- 55 Cape Town (reverse).
- 56- 58 Two Columbias in this town (reverse).
- 58- 61 Near ends of dial and alphabet.
- 62- 64 Five NBC on this wave.
- 65- 68 Three in this state share time (reverse).
- 69- 72 300-watts.
- 73- 76 Four stations synchronize.
- 77- 80 Five stations in this city (reverse).
- 81- 84 1 plus X.
- 85- 88 Deleted in Steubenville.
- 89- 91 Reverse a Cuban and get 10.
- 92- 94 An old-timer (reverse)
- 94- 97 Now WTEL.
- 98-100 Last three of Dn station (reverse).
- 102-104 A Washington station.
- 105-107 Call is abbreviation of another state (reverse).
- 110-112 Recently changed wave (reverse).
- 113-114 First two of seven.
- 115-117 In a negro republic (reverse).
- 119-120 Last two of a newspaper.
- 122-124 Five CBS in this state.
- 127-128 Middle letters of 10 stations.
- 129-131 On a split frequency (reverse).
- 132-134 Only 500-watt in the state.
- 135-137 In Iowa (reverse).
- 138-140 In the Northwest.
- 141-144 One of two calls.
- 145-148 Former Gold Medal Station (reverse).
- 149-152 On 1200 (reverse).

- 7- 40 The "Big Noise" of the South (reverse).
- 8- 31 5000-watt daytime.
- 11- 33 In Karlsruhe.
- 12- 44 Shares with Wisconsin.
- 27- 46 Unity School (reverse).
- 32- 51 A wave to itself (reverse).
- 38- 56 5 k.w. but no chain.
- 41- 61 In Washington.
- 45- 66 On a Canadian-shared wave.
- 48- 69 An NBC station (reverse).
- 52- 75 CBS in the Southwest (reverse).
- 53- 89 Last three stand for city and state (reverse).
- 55- 79 Synchronizes (reverse).
- 58- 94 Another palindrome.
- 59- 95 Two daytime on this wave.
- 60- 96 In Movieland (reverse).
- 62- 98 Last three letters are an ad.
- 64-100 On 1200.
- 75-108 On 1310 (reverse).

- 78-101 Same owners as 75-108.
- 81-104 A Columbia with only 100 watts.
- 92-112 Only CBS in the state (reverse).
- 97-115 No chain in the state (reverse).
- 102-121 7500-watts.
- 107-126 Frequency is one-fifth the power.
- 109-141 In the smallest province (reverse).
- 113-146 In Jersey.
- 114-147 Last three letters leave a headache.
- 118-152 Only CBS in the state (reverse).
- 120-142 Biggest in the state (reverse).
- 122-145 West Coast.
- 125-148 Last station in the state (reverse).
- 127-151 American Radio Tel. Co.

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34		
35	36	37	38	39	40	41	42	43	44		
45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68
69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92
93	94	95	96	97	98	99	100	101	102	103	104
105	106	107	108	109	110	111	112	113	114	115	116
117	118	119	120	121	122	123	124	125	126	127	128
129	130	131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150	151	152

Down

- 1- 35 In Manhattan (reverse).
- 2- 26 Twenty k.w. (reverse).
- 5- 28 First three of two (reverse).
- 6- 39 On 1370 (reverse).

WHEN THINGS GO AWRY

Set Burns Out Tubes

My model 27 Super-Zenith burns out its -99 tubes, or they appear to become deadened and useless. This set also tunes too broadly. Is there anything you can suggest which will correct these faults?

This is an old model set, and has been exceeded in selectivity by newer models. The wiring of the 27 model is peculiar, in that the -99 tubes are arranged in connected sets of series and subject to overloading of current in the delicate filaments. The type of filament used causes it to become paralyzed when the current becomes too great. Try using an Amperite voltage ballast tube in series with the 110-volt house supply to guard against the excessive surges in the line. When -99 tubes seem deadened they frequently can be renewed by the reactivating process.

Headphones on Philco Receiver

How can I connect headphones to my Philco receiver model 70? Must I remove the speaker from the cabinet?

See page 30 of the December RADEX for instructions and data as to the colors of the wires in the speaker unit assembly. It is best to remove the speaker and separate the wires at the connection plugs. It is difficult to make the connections to the short leads between the transformer and voice coil when the speaker is in place.

Using the Air Cell Battery

Can a three-tube regenerative set using the new two-volt tubes, types -30 and -31, be used with the Air Cell "A" battery? After purchasing one of these batteries it seems to me that it can be used only in sets specially designed for it. Would the filament rheostats in my set injure the Air Cell in any way? At present I am using two dry cells until I get more definite information.

The Air Cell battery may be used in any set that does not require more than two volts. The development of the new -30 series of tubes brought the Air Cell battery into being. It is simply a form of carbon cell of long life and constant voltage. The rheostats in your present

Suggestions by The Technical Editor

set control the volume by increasing or decreasing the filament current. This is not good practice in these times, and such tends to shorten the life of the tubes and the battery. Set the rheostats to a point that feeds exactly two volts across the filament terminals of the tube sockets as measured by a voltmeter. Operate the set by turning the switch on, and if more volume control is needed it is best to install a potentiometer to control the



Blue-eyed Mildred Hunt, contralto and one of Radio's pioneer artists—a CBS star.

grid ("C" battery) voltage on the last power tube.

Broad Tuning and Weak Reception

I have a Sparton model 620 receiver that tunes broadly and does not bring in distant stations until after 9 o'clock at night. My aerial is about 50 feet long and 45 feet high. The ground is a single copper rod driven into the ground. What do you suggest?

Perhaps the set tunes broadly because it needs readjusting. This model has three equalizing condensers connected to the radio frequency amplification unit, and they are numbered 1, 2 and 3. The last one is next to the dial drum. They should be adjusted with an insu-

lated handle screw-driver, or one made of a stick of hardwood. First, tune in some distant station operating on 600 kilocycles. Adjust the three condensers very carefully until the incoming signal is at its loudest, and the tuning of the dial seems sharper. Then turn to another station at about 1200 keys., and repeat the readjusting and tuning until the signal is loudest. Repeat the operation several times until the adjustment is perfect. Also adjust the antenna compensating condenser in the aerial circuit until the signals are loudest from a distant station.

The aerial and ground are of great importance with the Sparton. Your aerial seems as good as can be had, but the ground can stand some improvement. Try driving two addition six-foot lengths of new water pipe into the ground. Connect the tops of all grounds together with copper wire securely soldered. Pour water down the pipes to settle the earth and make better contacts. Then, too, your tubes must be tested and replaced if necessary, using good new standard makes, such as the -27s and -71As. Day-time reception is never as good as that after dark as far as distance is concerned.

Intensifying Weak Antenna Signals

The February issue of RADEX explained an amplifier that could be used with a loop antenna to boost up signals. Can I use the same device with my Philco model 20 receiver so as to intensify the antenna signal voltages?

It is possible to use a signal intensifying one-tube radio-frequency amplifier between the antenna and your present broadcast receiver. The set described in the February answer will suffice. The scheme may not always work because of the nature of the receiver, but, generally speaking, the device should aid greatly in increasing the signal voltage, and also sharpen tuning somewhat.

Adjusting Trimmers and Neutralizers

Should the three neutralizing condensers on my Fada model 22 set be adjusted in connection with the four trimmer condensers on the large gang condenser, considering each t. r. f. unit as a separate operation?

Your set has three small neutralizing

condensers each connected between the grid of a radio frequency tube and the neutralizing coil of the r. f. transformers. It also has four small compensating or trimmer condensers mounted by each of the large variable condensers. The three neutralizing condensers should be adjusted carefully, beginning with the first, until the set does not squeal.

The trimmers on the gang-condenser have no association with the neutralizing system and should be adjusted separately after the first operation is completed. Tune in some distant station that is not fading, and adjust the trimmers for maximum volume. But do not tamper with the trimmers until the gang condensers have been checked for misalignment of plates or two or more of the large condensers on the shaft. No amount of trimmer adjustment can balance two condensers if they are out of line, for the trimmer has a very small limit of capacity. Adjust the trimmers on two distant stations—one high and one low frequency. Use well-insulated or wooden instruments for turning the adjustments.

Substituting Two-Volt Tubes

Can I use the two-volt tubes in my Freed-Eiseman model NR6 radio set instead of the tubes now in use?

You do not say what tubes are now in use, but we presume them to be -01As. Substitute the type -30 2-volt amplifier-detector tubes in all of the sockets, but be careful to use exactly two volts "A" battery instead. This may be a "Air-Cell" battery made for the purpose. It may be necessary to reduce the 45-volt B battery now used on the detector tube to about 22½ volts in case the set shows a tendency to howl or distort with the -30 detector tube.

Telegraph Office Interference

Every time the telegraph office located in our railroad station sends a message the clicking of the instruments is heard in all the radio sets in our town. How can we stop this annoying form of radio interference?

The sparking of keys and relays when telegraph instruments are working can be a serious menace to good radio reception. If a heavy current is used the sparks

will be very strong. But we are surprised that this form of static clicking can be heard so far over the town.

The trouble can be remedied easily, but it calls for close cooperation by the railroad and telegraph company. Large fixed condensers will absorb the sparks and prevent the broadcasting of tiny radio static waves, but must be connected across the contacts of the troublesome keys and relays. The local company should do this work, but if the radio listeners are forced to supply the parts and do the work, they should be reimbursed. Write the Tobe Deutschman Company at Canton, Mass., for prices

ordinary signal coming through from the aerial. It is a very weak signal. If the t. r. f. set is sufficiently powerful, this weak signal will pass through the amplifier to the speaker with considerable volume.

Makers of short-wave converters do not hold to arbitrary frequencies. Some superheterodynes work best with converters when tuned to 650-700 kilocycles. One, the Philco, must be set at 1000 kc. when used with its own converter. Tuned radio frequency receivers operate best with converters when tuned to the high wave end of their dials—approximately 550 kilocycles.



The Pickens Sisters from Georgia—Jane, Helen and Maria (left to right) have been signed to an exclusive contract although they had never appeared on the air. The girls are all finished musicians and play several instruments as well as the piano. At 10:45 p.m. EDT, daily except Saturday and Sunday, NBC-WJZ network.

of the necessary filter devices. They specialize in this sort of trouble.

Short-Wave Converters

The article about short-wave converters in the March RADEX does not state that converter adds to the sensitivity of a tuned radio frequency broadcast receiver. Also, mention is made of two settings for the receiver—650 and 550 kilocycles; which is correct?

Short-wave converters do not add to the original sensitivity or selectivity of the broadcast receiver. They merely convert the received short-wave signal to a frequency that will pass through the tuning limits of the receiver. This converted radio frequency signal is simply passed into the antenna connection of the broadcast receiver as if it were an

Power Transformer Is Burned Out

I have a burned-out power transformer in my Bremmer-Tully model 26 receiver. Where can I get a new one, and how should it be described?

We believe that your set is the Bremmer-Tully model 7-70 which came on the market sometime in 1929. It has seven tubes—three -26s, two -27s, two -71As, and an -80 rectifier also. By power transformer you mean a transformer that takes the house a. c. power and changes it to the proper voltages for the radio set, or to operate the above tubes. Such transformers may be obtained at any place, but we suggest you write the Coast to Coast Company, 142 Liberty Street, New York City, who specialize in replacement parts.

Changing to Superheterodyne Circuit

Can I change the -26 tubes in my set to the -24 screen grids, and the -71As over to -45s? How can I change my Majestic model 91 receiver into a superheterodyne?

You cannot substitute the -24 screen grids for the -26s, and -45s for the -71As. The latter two may be interchanged with some slight changes in wiring but will not help your set. However, it might be wise to have all your present tubes tested, and replaced by new ones if they are old or inefficient. The Majestic model 91 receiver cannot be changed over to a superheterodyne circuit without being entirely rebuilt with many additional parts and a number of replacements.

Telephones On a Crosley Set

How can I use the -24 tubes in my Crosley model 42S receiver instead of the -27s? I wish to connect telephones to this set. Please tell me how to go about this.

You cannot use a -24 tube in the place of a -27 which is now used in your set. The -24s are screen grids while the -27s are not.

Telephones can be connected as follows: At the end of the cable leading to the dynacoil speaker terminals four wires will be found, two of which are brown in color. Place the tips of the phone cord to the two contacts to which these brown wires are connected and the phones should operate. But the speaker also works. A phone jack can be connected across the two wires and the phones plugged in the jack at will. If the speaker is not desired at the same time cut one of the short wires between the output transformer secondary coil and the voice coil of the cone, and place a small switch in this opening so that the coil in the speaker can be cut off when the phones are in use.

Locating Voice Coil Leads

How can I locate the voice coil lead wires in the speaker plug assembly of my Philco 112 broadcast set?

The model 112 has four wires leading to the speaker plug. None of these are voice coil leads. Two of the wires lead from the plates of the two push-pull power tubes to the primary of the output transformer, and the other two, green and yellow, lead to the field coil.

The voice leads are two short wires on the speaker unit itself. They connect the secondary coil of the output transformer to the voice coil of the cone. In most Philco sets the output transformer is a part of the speaker unit and the leads to the voice coil are very short.

Another Howling Set

My Crosley 42S broadcast set is noisy with howls after it is turned on. How can I stop this trouble?

The trouble is either microphonic or regenerative. The detector tube—the -27—perhaps is defective. Make sure the shielding over the tubes and coils is perfectly grounded to the chassis. Look also for poor contacts in the grid leads. Perhaps the plates of the detector or radio frequency tubes are getting too much plate voltage due to some fault in the voltage divider system.

Set Cuts On and Off

What causes my Atwater Kent model 90 set to give loud snapping sounds with occasional cutting on and off? The tubes have been tested and are perfect.

There are two models in this series, so we presume yours to be the one using three -24 tubes, two -27s, two -45s, and one -80. Look for a defect in the volume control and its resistor. Make sure all the tubes, especially the -45s, fit firmly in their sockets, for looseness will cause trouble. This sometimes comes after the tubes and contacts become hot when expansion of the parts will cause uneven contacts in the plate circuits and result in such noises. It makes the set cut on and off as well. The power pack may not be functioning perfectly. It should be tested for poor connections or punctured condensers. The various fixed bypass condensers and resistor may be defective or loose. They can cause this kind of trouble too. Are you sure the aerial is hanging tightly? It may occasionally touch some grounded object.

Changing the Tubes

I wish to change my Kolster 6D receiver over to the two-volt tubes and use screen grid tubes. Please explain how I can do this myself.

The set can be changed over if it is to be used entirely as a battery set. Substi-

(Continued on page 26)

READING THE EDITOR'S MAIL

MANY letters have been received in approval of the classified index to chain programs. It is gratifying to know that this feature is proving helpful. So far as we know this is the only publication presenting such an aid to program enjoyment. This, together with the present convenient and comprehensive arrangement of What's On the Air Tonight should make dialing a pleasure. Now that the newspapers generally have just about ruined their program information by deleting names by which the features may be identified, radio listeners everywhere are looking more and more to these pages of RADEX for their program information.

If this issue of your magazine reaches you a day or two late it will be because we held our forms beyond our regular date of publication in order to give you the many changes in programs that always come with the shift to daylight saving time. The clocks are moved ahead this year on Sunday, April 24th. Your favorite programs will now come to you, unless you live in the Eastern Daylight Zone, an hour later than usual although some old features will necessarily be moved to other "spots."

Now we'll open the mail. Do WFAA and WBAP use the same transmitter and, if so, why do they have different power ratings?

"RADEX listing for WFAA-WBAP is correct," writes Eugene Martin, 704 S. Green St., Wichita, Kansas. "The transmitters are separate. WFAA's 50 k.w. station is located 18 miles northwest of Dallas, 18 miles northeast of Fort Worth, near Grapevine, at the highest point in North Texas. WBAP's 10 k.w. transmitter is situated 8 miles northwest of Fort Worth at Lake Worth. I am a former Dallasite and have visited both transmitters numerous times. However, WBAP is on the air one hour per week over the Grapevine transmitter in a joint broadcast with WFAA, the Damosch Musical Appreciation Hour, which is partly on WBAP's time, partly on

Monthly Chats With the "Family"

WFAA's. In September, 1928, WFAA and WBAP were both granted C. P.'s for 50 k.w. On May 1, 1929, WFAA was changed from 1040 to 800. It was then planned to erect one 50 k.w. transmitter at Grapevine for both stations. Plans went along smoothly for a while, but when the time came to select transmitting equipment, a disagreement arose. WFAA wanted R. C. A., G. E. and Westinghouse units; WBAP wanted Western Electric. WBAP wanted to build a 50 k.w. station for as little as possible; WFAA wanted to build as fine a station as possible. So WBAP withdrew and it became a WFAA enterprise. On May 11, 1930, the first superpower station in the south and the first west of the Mississippi took the air—WFAA.

"The WFAA station cost \$300,000. There is no finer transmitter in existence. The 300-foot Milliken Radio towers are set 700 feet apart and can be seen at a distance of 25 miles. On December 16,



Jack Denny and his orchestra recently broadcast from a B. & O. train while speeding at seventy miles an hour.

1930, WFAA dedicated a half-hour program to Hawaii, and it was picked up and re-transmitted by KGU. I believe that's a record for long-wave stations. Has anyone of the RADEX family heard of an instance where any long-wave station was rebroadcast at a greater distance than 3800 miles? If anyone still doubts that WFAA-WBAP are separate stations, let him tune in some weekday night at 9 p.m. CST and listen to the changeover and note the difference in signal strength. In this part of the country WFAA comes in four or five times as loud."

Here Comes the Static!

The static season is approaching and our readers will be glad to learn how others have reduced this nuisance. Here's one method:

"Last night there was a snow storm brewing and the static was terrible," comments Edwin Barraclough, 320 East 3rd St., North Platte, Nebr. "I could get hardly anything at all on account of the noise. So I tried out the new headphones and adapter you sent me. The reduced volume cut out the noise and I was able to get most any station and I radioed until midnight. The phones and adapter are sure fine and I am well pleased with them." Mr. Barraclough has a Montgomery-Ward 1931 7-tube and has three aerials which he can cut in or out using any one, two or all three at will. One is a 75-foot straight aerial of twisted copper wire. The second is 45 feet long, running under the eaves of the house. The third is 25 feet of single wire heavily insulated, erected in the attic. "I do not notice much difference between the two outside aerials," reports Mr. Barraclough, "but am surprised at the difference between them and the one in the attic. The first night I used the attic aerial I found there was more volume and less noise than with either one of the outside aerials. I believe the insulated aerial is the stuff and am going to try out other theories with it."

And speaking of aerials. Frank A. Johnson, 59 West 66th St., Chicago, Ill., who has so many stations on his log that merely to name the total starts an argument, writes that he agrees with Roger

Causse and Samuel F. Owens regarding long aerials. With 80 verifications from European stations, Mr. Johnson has a right to speak regarding DX reception. "We all know that 25 to 40 feet of wire will pull in Canada, Cuba and Mexico when connected to a good Super. On a two-tube set such as Lilley's or a three-tube set like Causse uses, a long aerial is necessary. I've always found 160 feet plenty long enough for larger sets, but with a 2, 3, or 4-tube battery set 250 feet up to 1000 may be used." Mr. Johnson also agrees fully with Richard D. Caddell on grounds. Even in a location only eight miles from the Chidago loop, Mr. Johnson uses no ground, although he admits that a ground is wise when using a short aerial.

Here is a reader who has discovered that his filtered aerial is more satisfactory when one end only is grounded. Why this should be so, we cannot say. Others have gotten better results with both ends grounded. It only goes to show that aerials and grounds are something that must be tried in various ways to get the greatest efficiency.

Kinks In the Filtered Aerial

"Instead of using only one 60-foot filtered aerial wire with a special lead-in," reports Rudolph Kure, 3633 Vine St., Cincinnati, Ohio, "I soldered two 60-foot filtered aerial wires together, using half of the second wire as a horizontal aerial and the rest for a lead-in direct to the aerial post of my receiver (without splices). I am thus getting tremendous volume, but only if I ground the solid straight insulated core wire on but one (the farthest) end. The moment I ground the solid straight insulated core wire also on the other end (that is on both ends) near the receiver, my volume is immediately cut in half."

"What gauge wire makes the best antenna?" inquires Charles Rowland, 23 Myrtle Drive, Pontiac, Mich. "Do you recommend single or multi-strand wire?"

Technical experiments with multi-wire aerials show only a theoretical difference between a single wire, a braided wire and several wires. The difference between them has not proven

marked enough to detect in practice. Let us say once more that the "best" aerial for any set and any location can be found only by experiment. It cannot be calculated by mathematics nor technical data.

And Now the Cuban "Reds"!

Remember that time the communists broke in and took charge of a Mexican broadcasting station and put on a program of their own? Well, Robert R. Rawstron, Claremont, N. H., sends us a clipping indicating that the Reds of Cuba are following the example recently set for them by the Communists of Mexico. From the last paragraph it would seem that the authorities feel that it was an "inside job."

"HAVANA, Cuba, March 20 (A.P. — Radio fans of Havana had hardly tuned in Station CMCF this afternoon to hear the harmony of a popular trio, when there came the raucous cry: 'We are the Communists of Havana. Down with Machado! Strike on March 24!'"

"There followed six or eight minutes of harsh, fast and excited address to the 'people of Cuba and workmen in general,' the President was berated and the police were called assassins.

"Just as suddenly as it began the address stopped.

"When police got to the station they were told that seven men with pistols had rounded up everybody in the building, stopped the songsters and departed.

"All the station staff were arrested pending an investigation and Communications Department officials said the station probably would be closed."

How to Get WJSV

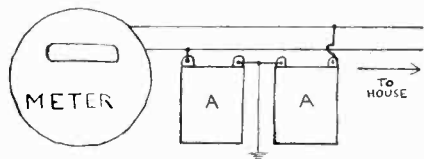
Who was it wanted to know when he could pick up WJSV when KSTP was silent?

"Those in the West who have never heard WJSV on account of interference, may now hear them with a morning revival from 6:00 to 7:00 a.m. EST," says William B. Brown, President of the Thomas A. Edison DX Club, 1822 Seventh St., N. W., Washington, D. C. William tried the tip given by one of our readers of writing a postcard to XED instead of a letter but even that failed to pass the eagle-eyed postal inspection.



Elizabeth Barthell, charming Southern singer, featured in her own program Tuesdays at 7:00 p.m. over the CBS-Dixie network (EDST). Photo by Mitchell, New York.

"I would like a question answered for me," he goes on. "Our next door neighbor has a Frigidaire and when his motor is running all the noise comes into our set evidently because our light line is grounded to a water pipe and so is his Frigidaire." The best answer to this problem is to induce the neighbor to put a filterette on his motor. Filterettes are manufactured by The Tobe Deutschmann Co., Canton, Mass. Away back in the September, 1929, RADEX, J. C. Weller, of Elyria, Ohio, described a method by which he eliminated similar interference. As shown in the sketch two condensers (marked A) with a capacity of two mfd. and a wiring voltage of D.C. 300, A. C. 200, are attached to the two power lines just inside the meter with a ground wire attached between the two condensers. This device, said Mr. Wel-



ler, "did away with the necessity of a ground wire from the set, in fact the set worked better without a ground." Be sure to throw the switch before making this installation.

Defends WFEA

"Upon reading the April issue and especially the letter of Mr. Zimmerman, I feel that a few words in defense of the stations, particularly WFEA are in order," comments Keith L. Freas, 17 Pullman Ave., Kenmore, N. Y. "When WFEA was testing, according to a letter received from them by our club, the Buffalo News DX Club, they were working with a staff of only the engineers, who were too much occupied to read and answer the many letters which they received. As soon as their tests were over, they verified very religiously, and I trust Mr. Zimmerman has by this time received his. Many other fans, I believe, expect too much of the stations. Do they always send in at least three selections (consecutive), the time, and date? Do they remember that when it is 2:00 a.m. EST, that it is only 11:00 p.m. PST of the day before? Thus the dates of information can very easily be mistaken for a time when they were not on the air. Do they allow enough time for reply?" Mr. Zimmerman writes that he realizes now he should have given WFEA more time to reply.

RADEX has recently been introduced into Newfoundland through the good offices of W. J. Fitzpatrick of St. John's. It takes ten days at the best for our shipments to reach that country. We marked the shipment of April copies "Rush" to catch a New York steamer. A day or two later we received a letter from Ralph H. Schiller, Hawthorne, N. J., who is in the foreign department of the New York post office that this package had passed through his hands and that he had made it his personal business to get it on the steamer. RADEX friends are everywhere. Mr. Schiller writes as follows: "The Transcontinental DX Club, located at Hawthorne, N. J., is composed of members residing in the countries of Australia, Canada, Ireland, Mexico, New Zealand, Porto Rico and 18 states in America. The 'DX News' is issued

monthly and contains a full page of schedules of DX stations."

How the NNRC Rates Them

Alfred W. Oppel, Assistant Executive Secretary of the Newark News Radio Club, writes as follows regarding the honors given by that club. "We have the Junior class with a requirement of 100 stations heard. The Master rating requires 200 stations with one 2000-mile verification. The Past-Master rating requires 300 stations with five 2000-mile verifications. The Ace class with 400 stations and ten 2000-mile verifications. The fifth class, the Super-Ace, requires 500 verifications with fifty at 2000 miles, included in the total, which must be sworn to before a notary public. For listeners in the middle West we have separate ratings. A resident of Chicago must have at least 500 verifications with 67 of them being 1500 miles from point of reception. Middle-west listeners may count all Australians, etc., their mileage being divided by 2000 and the total counting as that many 2000-mile verifications toward any of our certificates."

In the April issue, Robert Rosenberger, 17 Jansen Place, Kansas City, Mo., wrote regarding his anxiety to pick up Japan. Our reply was that it would require a combination of infinite patience, tuning at the right time and in the right place, and—luck. Now Robert writes: "Thank you for your sterling advice. A few nights ago when I just had that feeling that there wasn't a station left on the air that I hadn't received, I thought I would try to bring XEN on 710 a little better. All at once a phenomenal increase in volume occurred and for two periods of fifteen minutes each I was sitting there listening to JOJK in Kanazawa at 3000 watts! So you see I got my prize catch when I wasn't looking for it."

Gets Fifty More On His Scott

W. C. Everhart, 104 Front St., Fargo, North Dakota, has a new Scott All-Wave which has given him excellent results but he says his first copy of RADEX enabled him to add fifty new stations. On the short waves, he has received most of the police calls and the principal stations of the U. S. as well as England,

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STORIES of Your RADIO FRIENDS

Betty Writes of
the Celebrities

IN Hollywood, where she spent seven years as a radio favorite, they called June Pursell "the girl with the ballad voice." Now she is in New York singing old and new favorites for NBC audiences, although she never took a music lesson and embarked on a vocal career by accident.

A native of Indianapolis, June moved with her family to Chicago, where they remained long enough for her to graduate from high school. A week later they moved to California, where her father died five days after their arrival. It was necessary for June to go to work and her first big moment was a \$35 a week job singing in a Los Angeles cafe, but that job lasted only a week. Then came opportunity. "I just happened to sing one night, as a dare, in a Hollywood club," explains the platinum-haired and blue-eyed singer, "I borrowed a ukulele from a little boy and sang a number. You see the program was being broad-

cast over a local station. Well, I kept on singing for two hours and a half, and after it was all over I found I had a job with the radio people and I stayed seven years."

June's radio debut that night launched her on a career. One listener who called on her to say her singing was beautiful was Aimee Semple McPherson. Between radio engagements she became a vaudeville and club headliner. She traveled with Abe Lyman and his band and was headlined on the Keith-Orpheum circuit as "The Haunting Blues Singer." She did several shorts for Metro-Goldwyn-Mayer, and 1500 letters arrived from motion picture patrons. She signed a contract for a year to make phonograph records.

In 1930 June was acclaimed the most popular radio star on the west coast and won a trip to Hawaii. Then friends urged Miss Pursell to come east after her California success, and she arrived at the NBC for an audition. She was signed immediately. June's voice is peculiarly suited to the singing of ballads "with a swing." That is perhaps why she is often compared with the late Nora Bayes, whose low, rhythmical voice captivated American song lovers.

Five feet four inches tall, weighing 125 pounds, she stands easily before the microphone and whispers her songs. She gazes at the ceiling and prefers to be alone in the studio during a broadcast.

Tune in for June any Monday, Thursday or Saturday at 6:45 p.m. EDST, over the NBC-WEAF network.

Brokenshire Is Back

"Radio's playboy" and "Society's playboy" the studio folk call him, but actually there are few announcers who take their work as seriously as Norman Brokenshire. His familiar and resounding "How do you do, ladies and gentlemen, how *do* you *do*" is an air signature that has greeted listeners on every program he has introduced for the past eight years. Brokenshire is also an authority on program building and an excellent writer of radio continuity. In a



June Pursell

majority of cases he writes the programs he announces.

"Broke" was born in Murcheson, Ontario, June 10, 1898, and christened Norman Ernest. He was brought up in small Canadian towns to which his father, a Scotch Presbyterian missionary and school teacher, was assigned. Norman came to the States when his father became pastor of a church at Cambridge,



Norman Brokenshire

Mass. Later the family moved to Hal-
lowell, Maine, and Norman opened a
printing shop in the woodshed behind
the parsonage.

The war broke up the family. Nor-
man's father went to France as an
instructor in language and Y.M.C.A.
worker; his mother went to London to
join her son, Laurence, who was a war
casualty in a hospital there. Business
dwindled and young Brokenshire was
forced to give up his print shop. A suc-
cession of jobs followed, and he decided
to go to war. He got permission from his
mother, being still under age, and joined
the infantry. Before he had completed
his training, however, the Armistice was
signed. At the age of nineteen, he became
the youngest Y.M.C.A. hut secretary
among 3000. He was in charge of Fort
Totten and other Army post "Y" work,

and arranged entertainments, plays,
musicales and such. Other jobs followed,
and finally one Sunday morning when,
as usual, Brokenshire was running his
eye over the classified ad section, a
"blind" advertisement for a radio an-
nouncer caught his attention. "It listed
more qualifications than I ever imagined
any man possessed," he said, "but I had
nothing to lose, so I answered it."

When he arrived at "Broadcast
Central, formerly WJZ, 400 other men
were waiting their turn. Norman and
three others were selected. Brokenshire
soon became an idol with listeners
everywhere. He was transferred to
Washington, D. C., and back to New
York. He resigned to become a free
lance and traveled this country and
Europe, and finally joined the Columbia
Broadcasting System. His fan mail still
breaks all records.

Norman Brokenshire announces many
programs, but you can hear him regu-
larly on the "Society's Playboy" program
on Wednesdays at 10:30 p.m. EDST,
over the CBS.

The Voice That Satisfies

"Music That Satisfies" is an apt
description of the sort of melody offered
by Ruth Etting. Her career embodies a
story more often encountered on the
screen or in the pages of a novel than in
real life. Born in a small town, Miss
Etting made her way not only to the
glamor surrounding a glorified "Follies"
personality, but to fame as a singer of
radio, the stage, screen, and recording.

Ruth was born in David City, Neb.,
where her father was head of the milling
business founded by her grandfather.
As a child she displayed considerable
talent for sketching, mimicry and danc-
ing. After graduation from her home-
town high school she decided to make
art her career and went to Chicago,
where she studied fashion design at the
Academy of Fine Arts. Her studies were
more costly than she has reckoned and
it became necessary to find a source of
additional revenue in order to continue
them.

She learned that several of her fellow-
students earned their tuition by dancing
in the choruses of local night clubs and

found that she could indulge another of her natural talents to this end. This proved to be the turning point of her career, for the plaintive note which is an intrinsic quality of her voice attracted the discriminating ear of her director. A principal in the show was taken ill and Ruth, as substitute, warbled her blues songs. When the art school reopened for the next term she was not present, for her newly discovered voice had won her engagements which took up all of her time, with personal appearances in local theatres and work in supper clubs.



Ruth Etting

Soon after she was chosen to record exclusively for the Columbia Phonograph Company, her discs were best-sellers throughout the country. Florenz Ziegfeld heard the records and signed her for his productions, on the advice of friends, without meeting her. This was in 1927.

Ruth is slim, blue-eyed, with soft blonde hair. She spends all vacations at her 150-acre farm near David City, Neb., and takes her hand at the daily chores. Still designs and makes most of her own clothes. Was picked by a jury of Chicago artists as the happiest combination of beauty and brains they had ever seen.

Has never taken a music lesson and never had a radio audition. Her voice is the answer to the radio control engineer's prayer—clear as a bell and so even in tone that the engineer rarely needs to touch his controls. She sings fluidly, with no apparent effort.

You can hear Ruth on the "Music That Satisfies" program every Wednesday and Saturday at 10 p.m. EDST, over the CBS.

An Artist from Mexico

From Mexico comes Tito Guizar, romantic young tenor whose appealing love songs have won him a large following. Tito's parents were horrified at his desire to go on the stage. His mother was a talented vocalist and pianist, and his father a skilled guitarist and mandolinist, but only as amateurs who played and sang for their own amusement. It was while attending the Mexican National University in Mexico City that Tito's fellow-students discovered and recognized his talents and became an admiring audience. This convinced Tito that he could be successful in the career for which he had always longed. In 1925 he went to his father and declared that he was through with medicine and academic studies forever. The next two years found him in Italy studying voice at St. Mark's Academy in Milan. In 1928 he returned to Mexico City to appear in opera. But Tito wanted something a little less formal than the role of Grand Opera hero. Thus he began to combine the classic technique he had

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Tito Guizar

RUNNING UP NEW RECORDS

Hobbying With Our DXers

THIS month we are giving you glimpses of some great records. Read 'em and weep. Think of records in three and even four figures being made right in Chicago and Pittsburgh, and Brooklyn. If it weren't for the darn verifications they have got to show for it, you'd say it just couldn't be done. And some of them have the audacity to make these records on old battery sets. There ain't no justice.

We have never been able to decide whether it encourages us or discourages us to read about some guy who borrows fifty dollars and stretches it into a million in a week or two. So it is with these big records. One minute they make us want to put the set up in the attic and try to forget it and the next we want to start at it again and see if we can't do it. Well, anyway, here they are, for better or for worse:

"I am the proud possessor of a very moderately priced nine-tube Silver-Marshall Super," says Roland L. Churchill, 4323 No. Tripp Ave., Chicago, Ill. "I use a six-foot cast-iron pipe one inch diameter for my ground and I have three aerials of varying lengths from one to three hundred feet all connected to a three-way inductance switch on the side of my cabinet so I may change at will. Since October 31, 1931—four and a half months—I have acquired a log of 517 stations with exactly 400 verified. I have paid for only one of these verifications—KWEA, Shreveport, La.—the others all replied for postage. On all stations heard I keep a card index arranged as to those verified, verifications requested and heard but not verified. Each card shows date, time and selections heard. It also shows date request was mailed and the date of verification. My RADEX map is worth much more to me than the 25 cents it cost. I have it mounted on a drawing board so I can hang it up on the wall as an everyday inspiration to spur me on in my efforts. Using Chicago as a

center I have drawn red circles at distances of 250 miles apart. Map tacks of various colors designate the power of the stations heard. You should see my map; it is crowded with tacks. In closing let me express my sincere appreciation for what I consider the finest of all radio logs and one of the finest of radio magazines—RADEX."

Bringing In the T-P's

"These last few months have been glorious for Trans-Pacific reception," reports Roy Cattell, R. F. D. No. 2, Paterson, N. J. "Since November 5th I've heard JOAK, JOBK, JOCK, JOGK and JOIK, besides an as yet unidentified Oriental which signed off at 5 a.m. EST, December 27th, on 760 kcys. In Australia I've heard 4QS on February 15th, 3LO on February 19th and 4RK and 2BL in March. I have 2YA verified over a year, in addition to KGMB and KGU. One week I heard KGU five times out of the seven mornings. If they are coming through they can clearly be heard even while KOIN is on and as soon as KOIN has definitely signed off, KGU is right there at practically the same volume. Now that they have moved from 940 kcys., or will soon, they will become easier to log. I still use the old Majestic 71 Neutrodyne and it's running rings around the high-powered supers with pentodes and whatnot."

The Distant Canadians

"For Fred W. Harp of Brantford, Ont.," suggests Roy, "He should try CKMO every day, except Wednesday and Saturday, from 11 p.m. to 3 a.m. PST, and CKWX on those two mornings from 11:30 p.m. PST on. Another is CKOV from 12 till 2 a.m. PST on Friday and Sunday mornings. CHWK comes on the first of each month at 11 p.m. PST for a test. I also verified CJCJ April 9, 1931, at 2:20 a.m. EST. They may still have the program. Perhaps Milford Voss would rather I did not answer his question, but he asked for it, so here goes. He asks who has more than 33 Californians as far as 1800 miles. I am handicapped by being at a greater

distance, yet I've logged 38 Californians as far as 2400 to 2500 miles, or 64 west coast stations. He beats me by two Mexicans, but I've got 25 Cubans and 44 Canadians. DX is a game where no matter how far your log goes it's nearly always possible to find someone just a bit better."

Best Even in Australia

Richard D. Caddell, Pittsburgh, Pa., wrote to Australia recently to find out something he already knew. Says he: "I wrote to Radio Station 3GL, Geelong, Australia, a couple of months ago for a verification and in my letter to them I asked 3GL if they could suggest a good log-book containing the radio stations in Australia and New Zealand. Well, I received my verification from 3GL today and Mr. E. J. Haipure, Director, informed me that the best log he knew of was—RADEX " Mr. Caddell has just received a verification of which he is proud—PRAX, Rio de Janeiro, Brazil, 1360 kcs. The Director of that station writes that Caddell is the first person in the U. S. to report PRAX, that is with a correct report of their broadcast. The time on the air for PRAX is as follows: Week days, 10:00 a.m. to 12:00 noon and 8:00 p.m. to 11:00 p.m. Sundays, 10:00 a.m. to 12:00 noon. The time is Brazilian—one hour ahead of EST. All mail should be addressed to S. A. Philips Do Brazil, Caixa Postal No. 954, Rio de Janeiro, Brazil, South America. This makes 30 verifications from South American or European stations which tell Mr. Caddell that he was the first to receive them from the U. S.—some record. Yet radio service men tell him that he is in the worst radio location in Pittsburgh. Nor does Mr. Caddell depend upon the Atlantic for his receptions for he has 12 Japanese verified.

2YA Interferes with WGN!

"I am not surprised that no one answered my inquiry as to a station on 720 kcs.," says R. H. Seidel, 2828 Washington St., Lincoln, Nebr. "At 4:30 a.m. today (April 3rd) I brought that signal up to an audible point and found it to be 2YA at Wellington, New Zealand. The signal has been coming in slightly stronger for the past two or three weeks,

this being the beginning of a short period each spring and summer when the stations from across the Pacific attain their maximum volume in this country. The complete sign-off was as follows: 'Station 2YA. The clock is just striking 10:00 o'clock. Station 2YA, Wellington, is closing down. Good night, everybody.' This announcement was followed by two bars of the British national anthem and the signal disappeared. Listeners in this part of the country with good receivers may expect to pick up these foreign countries at any time for the next few months between 2:00 and 8:00 a.m. CST."



Irene Taylor, NBC "bluesette" likes chili con carne and other dishes from her southern home. On all the late dance pick-ups from Edgewater Beach Hotel in Chicago. NBC.

"During a five weeks' period, from February 2nd, I DXed almost night and day with a new Majestic ten-tube super-heterodyne and tuned in 447 stations, including five Australian, 2YA, 1YA; 7 Japs; KGU and KGMB," reports Eugene Martin, 704 S. Green St., Wichita, Kansas. "Reception is much better here than it was in Dallas, where I DXed for five seasons. Although I am farther from Australia here, the Australians come in better, but Japanese reception

is not as good as it was in Dallas, 300 miles farther from Japan. Several radio men have told me that this section of Kansas is a dead spot for radio. If that is so, I would certainly like to DX in a live spot for a few days."

Only a 1926 Battery Set!

Of course a new, modern, steen-tube extra superheterodyne will bring them in but that that it isn't at all necessary is shown by the record of Earl R. Roberts, 712 South 9th St., Cambridge, Ohio, who has a six-year-old battery set with loop and outside aerials. Mr. Roberts reports that his log now stands at 785 stations with all but 48 U. S. stations as shown by the Index by Frequencies. The 785 includes 93 calls now deleted as well as the police and airport stations he has been able to pick up on his broadcast receiver. So cheer up, owners of last year's models, the signals of some 800 stations are right there in your room. All you have to do is tune them in

"Your article in the March RADEX on 'What Do You Mean by DX?' was just what I've been looking for and it's fine," writes R. B. Hemphill, 4931 Polk St., Chicago, Ill. "I've just got the DX fever and I have been trying to get some such information as you give in your article. Most radio books seem to assume that all their readers are old-timers and do not seem to consider newcomers. Congratulations on your foresight. At present I have 45 verifications from 27 states, so you can see I am just a starter in comparison with some of those who claim over 400 stations."

"You listed WPAW as deleted," points out Ray La Rocque, 135 Highland St., Worcester, Mass., "but I have been hearing it regularly operating in synchronism with WPRO. The announcement is WPRO-WPAW in Providence." Mr. La Rocque received the RADEX special DX program from 10BQ and thinks there should be more of these special programs. His log now stands at 490 from nine countries. He asks information regarding VE9LP which is evidently the test call of CKAC and would like to know their power. WSX in Boston has a number of frequencies, Mr. La Rocque, 230 and 266 on long waves and 3340,

3370, 5925 and 5940 on short waves. You will have to figure out your 795 harmonic from these.

Luther E. Grim, 505 S. Main St., Red Lion, Pa., was a "doubting Thomas" when he bought his first RADEX and read of some of the DX records. "Those that said they had three and four hundred stations were stretching the truth, to my mind, while those who claimed five, six, and seven hundred were out-and-out liars as I saw it," confesses Mr. Grim. "So I thought I would see just what could be done. The first week I logged 109 stations. Now my log is 359 stations in 46 states, Canada, Cuba and Mexico." And Luther is still going strong.

Found a Gold Mine

Maynard Fischer, 44 Barry Place, Buffalo, N. Y., found his first RADEX on the street, picked it up, took it home, used it on his set and became an enthusiastic DXer. He was an early member of the Buffalo Evening News DX Club and did much to bring about the almost universal use of RADEX among the members of that club. It might be a good idea for us to travel around the country dropping copies of this magazine on the streets! Mr. Fischer has a five-tube Echophone, not a powerful set, but even so has a log of 362 stations with 305 verified.

Those RADEX Specials

Thomas Brown, Manager, Station 10BQ, Brantford, Ont., writes as follows: "You will no doubt be pleased to hear that we had a successful broadcast Saturday morning, March 19th, on our DX courtesy program for readers of RADEX. We received many reports from several states, including one from California and one from New Brunswick. By the way, this is our second report from California this winter. Not too bad for 'the little station on the hill,' a 15-watter. We wish to express our sincere thanks to the many readers of RADEX who sent in reports. Some of the letters we received were wonderful. Accept our thanks for your splendid cooperation on this DX program."

"I surely got a kick out of the program from 10BQ, Brantford, Ont., which you put on for the readers of RADEX,"

comments Bob Brown, 413 30th St., McKeesport, Pa., and adds: "I have verifications from 44 states, 9 Mexicans, 7 Cubans, 8 Canadians, and WKAQ, Porto Rico. I have around 175 Ekko stamps, some beauties too. I am going to frame them on a heavy white blot paper mat with narrow black ebony frame later on. I expect with the help of RADEX to complete the states. Every stamp in the picture will carry some little bit of history with it. I think this will make a picture that money can't buy. What do you think of my idea?"

"Thanks to your kind information I was able to pick up and get a verification from station KXRO in Aberdeen, Wash.," says Rudolph Kure, 3633 Vine St., Cincinnati, Ohio, "I will welcome heartily your promise to arrange similar programs in the future. That would be swell. You are a real friend to radio fans. There is not even the very slightest doubt about it."

"From January 1st of this year to April 1st I have been successful in logging 375 stations with my RCA Victor Superette No. 7, 8-tube set. I have over 200 verifications. One from 10BQ on the special RADEX DX that I prize highly," writes Arthur G. Turner, 36 Arlington Ave., Beverly, Mass.

He Got Them Both

"I got the RADEX DX program from KXRO, Aberdeen, Wash., also 10BQ, Brantford," says Ray E. Everly, 102 W. Washington, St., Newton, Ill. "It's a fine thing. Let's have more RADEX programs on the hard to get 'wee' ones. They are reliable tests."

Edward Coristine, 5 Rosemount Ave., Montreal, Canada, has received his verification from KXRO covering his reception of the special RADEX program on March 13th, and hopes there will be other of these specials in the future.

"I pulled in the 10BQ program on March 19th," reports H. Burstrom, address not given; "thanks to RADEX or I would never have gotten them."

"Every morning when I am doing any DX work at all, I hear a station on 580 kcs. which plays phonograph records," says Wm. Ellis, P. O. Box 13, Hughson, Calif. "This station comes in weak but



Dorothea James, Mistress of Ceremonies, Movie Star Revue, CBS Tuesdays and Thursdays, 5:45 p.m. EDT.

clear and the music is louder than the announcer. I hear them from 3:30 to 4:00 a.m. PST. At 4:00 WIBW comes on and drowns it out. Is this WOBU or WSAZ? Which one is on 3:30 to 4:00 a.m. PST? I have both the filtered aerial and an earphone adapter," adds Mr. Ellis. "With the phones I am enabled to have many pleasant hours of radio while the other members of the family are asleep. As for the filtered aerial, well Japan is like a local with no noise nor distortion."

Here's Wyoming

KDFN, 1210, Casper, Wyoming, about which many fans have inquired, tests every Tuesday from 3:05 to 3:15 a.m. EST according to information from Ian Murdoch, 17 Main St., West, Grimsby, Ontario, who submits two queries of his own: "March 9th, on 1310 kcs. at 2:25 to 2:30 a.m. EST I heard a station which had its program cut quite frequently. I thought I picked up KGEZ. Did I get them on that date? On March 1st, on 1320 kcs., at 3:22 to 3:32 a.m. EST I heard the recording 'I Promise You.' KID is supposed to sign off at 2:00 a.m. EST, so did I by any chance get KGMB at Honolulu?"

From Porto Rico

"Since writing you last my log has grown a little bit," writes Benigno Contreras, Box 74, Marina Station, Mayaguez, Porto Rico. "Now I have 217 stations, with 115 verified. This season I added three good ones to my log. They are KPCB, Seattle, Wash., KG CX, Wolf Point, Mont., and KGFJ, Los Angeles. All three are verified. Outside of the broadcast band I have W3XX, W3XJ, Silver Spring, Md.; W5XA, and KG CY, Shreveport, La. The first two are television stations; the last one is a police broadcaster. Static has been very bothersome, as usual.

"At the present time I have 702 stations logged, with 670 verified and the rest to come," writes Milton P. Christa, 18092 Fairfield Ave., Detroit, Mich. "I have every station in twelve states, including Georgia, Louisiana, Nebraska, Nevada, Utah, North Carolina, Wyoming, Connecticut, Michigan, etc., and have five verifications or more from 34 states. I have no technical knowledge of radio other than knowing how to tune them in, with one hand on the dial and RADEX in the other hand. I have never used headphones and every station naturally was heard on the loudspeaker."

"The Round the World DX Club of Los Angeles has a weekly broadcast over KGER, Long Beach, Calif., 1360 kcs.,

every Friday commencing at 10:00 p.m. PST. At that time DX tips on both broadcast and short-wave bands are read with musical numbers interspersed," is the information from Stuart Walmsley, 1641 West 60th St., Los Angeles, Recording Secretary of the Club.

"Have had my Waverly five-tube set for the past ten months," reports Julius Kleinman, 1494 Brook Ave., Bronx, N. Y., "and have succeeded in pulling in nearly 350 stations, with the aid of a very novel aerial. Will be very glad to pass along this information if your readers would enclose a stamped addressed envelope. This aerial has aided me in bringing in police calls on the receiver from Ingram, Mich."

A Heavy Date

"Those DXers who failed to listen in on the mornings of March 19th and 20th missed an excellent opportunity to add many stations to their logs," remarks Stanely H. Bond, Keyser, W. Va. "Some of the stations that were on were: WIAS, WRBQ, KRKD, WHAZ, WIBX, KFOR, WPCH, KWLC, 10BQ, 10AK, WORK, KFWI, WEDC, WBOW, WMBC, WBAA. On the programs of 10BQ and 10AK, it was announced that they were for the benefit of readers of RADEX."

"Just received a verification from

INSURE YOUR RADIO ENJOYMENT
SEND THIS BLANK TODAY

The Radex Press,
 5005 Euclid Avenue,
 Cleveland, Ohio.

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

- One radio map of North America 25c
- One copy of the next RADEX 25c
- Trial subscription, next five issues of RADEX \$1.00
- One year's subscription to RADEX, 10 issues, and Radio Map free 1.75
- Two subscriptions to RADEX with one leatherette cover and Radio Map, both free 3.50
- One two-year subscription with leatherette cover and Radio map, both free 3.50
- Leatherette Cover 50

Write Name Plainly.....

Street and Number.....

City and State.....

W6XI, Bolinas, Calif., on short-wave. This on a three-tube home-made battery set, at 6:30 p.m. I would like to know if anyone has ever received a verification from WODA, Paterson, N. J. Can anyone tell me when to DX for WNBW, Carbondale, Pa.?" inquires John M. Lennon, 122 Linden St., Camden, N. J.

"I have a log of which I am very proud," boasts Geo. T. Hudson, 2545 99th St., East Elmhurst, N. Y. "566 broadcast stations logged; 214 amateur stations (from all nine districts); 41 U. S. short-wave stations; 43 police stations; 41 short-wave stations from 21 countries. I use a G. E. Super and Baird short-wave converter."

Another Battery Record

"Speaking of records, how is this for a six-tube battery set (Crosley 6-60)?" asks Blaine Menth, 1003 E. Union Ave., Olympia, Wash. "WJTL, 100 watts, verified; KMAC, 100 watts, and WGL, 100 watts, both verified. I have a total of 250 stations and would like to find out if anyone else in Washington has that many."

James L. Goldwater, Adams Hall, University of Wisconsin, reports that he had logged 27 of the stations on the 1500 channel, a real record for 100 watters. He has had 44 out of the 50 on 1310. He has been helped greatly by the frequency checks of the past few weeks, thus catching stations he would otherwise have had great difficulty in ever getting.

"I have been DXing since February 11, 1923," writes Frank S. Macolly, 4408 Mitchell St., Roxborough, Philadelphia. "I have heard 764 stations with over 600 verified with either letters, cards or Ekko stamps. I now have over 600 stamps. My present set is a Bosch seven-tube using no ground. Would be glad to hear from others."

Karl J. Halpern, 1435 Coney Island Ave., Brooklyn, N. Y., reports his foreign catches for this season as follows: HIX, HRB, LR3, 1ZB, VPB, 2ZI, 6ML, 4BC, JOPK, 3YA, 2ZF and 2VE. The New Zealand stations 2ZI and 2ZF advise Mr. Halpern that he has the long distance record in hearing their stations.

"Without RADEX I would be lost as far as DXing is concerned," confesses

Charles Rowland, 23 Myrtle Drive, Pontiac, Mich. "I have logged 480 stations since October of this year. Almost all my good catches are verified."

"Pulled in HIX, Santo Domingo, March 13th, on their special test DX program for the Newark News Radio Club. Came in fine," reports Philip R. Nichols, P. O. Box 82, East Hartford, Conn.

"Three months ago I didn't know what DX meant; then I got a RADEX. To date I have brought in 344 stations on my 11-tube Philco." This from Howard J. Sites, 114 Chestnut St., Covington, Va.

Only 23 stations east of the Mississippi left unverified, is the boast of Harry C. Rose, 140 Overlook Ave., Boonton, N. J., who says he has verified 78 percent of all the active stations in the U. S., or a grand total logged of 658.

"In the past seven months I have logged 301 U. S. stations, and several in Canada, Mexico and Cuba," reports W. H. Lewis, Y.M.C.A., Ft. Leavenworth, Kansas. "I think my best catches are WFEA, WWRL, CJOR, KPQ and KRKD, all verified."

Charles F. Kyle, 392 Preble St., South Portland, Maine, now has 439 for a total in his log. He would like to know the best time to get Nevada, Wyoming and New Mexico.



Petite Dorothy Brent sang one song as a Chase & Sanborn guest and got a regular job. Will soon be heard on regular weekly program.

"On February 21, 1932, I brought in 18 new stations," reports Louis Alexander, Jr., 10 So. Ridgewood Road, South Orange, N. J. "I now have a grand total of 301."

Some DX Targets

A letter from WKBZ, Ludington, Mich., says they will broadcast every Sunday morning from 2:00 to 3:00 a.m. EST during May, reports A. J. Parfitt, 1933 East 69th St., Cleveland, Ohio, who also has a letter from NAA saying they broadcast on 690 kcs. a weather report at 10:10 a.m., 3:45 p.m. and 10:00 p.m. EST.

"Here is a tip for some fans who have not had this station yet," suggests Louis Rewald, 483 Wilmot Ave., Burlington, Wis. "KDFN, Casper, Wyo., is on the air every Tuesday morning from 2:05 to 2:15 CST, with a short test."

WIBX, at Utica, sends out a post card signed "The Old Tom Cat from WIBX," which says: "The Tom Cat program goes on the air every weekday morning at 4:00 a.m. (EST)." This program continues until local sunrise.

CMBT, Havana, gives a DX program every Sunday morning from 1:00 to 3:00 a.m. EST on 790 kcs., reports Chas. F. Brown, 1 Rock Ave., Worcester, Mass.

"I see that 1RO, Rome, is still listed as 7,500 watts," points out Eugene Martin, 704 S. Green St., Wichita, Kans. "I wrote to 1RO last October and asked them the power of their station and they replied '75,000 watts' which corroborated information I already had. So if 1RO is 75,000 watts every DXer should know it."

From Richard E. Williams, 607 Main St., Dickson City, Pa. "Tell the Transcontinental DX Club that I wrote WODA February 14th and received a very nice card from them on February 16th." So it goes; stations that are one fan's poison are another fan's meat.

Arlie W. Crabbe, 33 Brehl Ave., Columbus, Ohio, had his own reception blanks printed and finds them a big help in getting verifications.

A cry for help comes from Harlan W. Newell, 1629 Centre St., Newton Highlands, Mass. "A station heard February 25th on approximately 1410 at 1:00 a.m.

EST. From 1:00 to 1:10 world wide news flashes were broadcast. At 1:10 a program from the — Hotel by Anson Weeks and his orchestra was introduced. The call sounded like KOIC. Thanks a lot."

Oliver W. Todd, 1619 N. Conestoga St., Philadelphia, Pa., would like to hear from DXers, particularly broadcast band fans in Great Britain, who receive American stations often. Will our readers in the United Kingdom write Mr. Todd?

"With my Atwater Kent 60 I have logged 486 stations," reports I. B. Stewart, R. R. 14, Box 350, Indianapolis, Ind. "I have all states but Rhode Island and Wyoming. When can I catch KDFN?"

Elmore Bostwick, 31 West 12th St., New York City, heard a station testing at 4:00 p.m. March 14th. They were counting, 1-2-3-4, *in German*. Did anyone else catch this one?

L. Howard Donaghay, 222 Irving Ave., Bridgeton, N. J., thinks it would be a fine thing to form a correspondence club of DXers, pairing up those who want to write about some particular set or in some certain state or portion of the country. He states he will undertake this job and asks DXers to write to "The DX Listeners Correspondence Club, 222 Irving Ave., Bridgeton, N. J."

Correspondence Wanted

Glenn Anderson, 5640 South Jay St., Tacoma, Wash.

James P. Coristine, 5 Rosemount Ave., Westmount, Quebec.

Wm. Ellis, P. O. Box 13, Hughson, Calif. Reginald Ogan, 1005 Star Pine Road, Carpinteria, Calif.

Louis Alexander, Jr., 10 South Ridgewood Road, South Orange, N. J.

Ian Murdoch, 17 Main St., W., Grimsby, Ontario.

Thomas Welch, R. R. 3, Box 54, Ottumwa, Iowa.

Joe H. Ziglinsky, 37 River Ave., Natrona, Pa.

H. A. Whittier, R. F. D. 147, Mansfield, Mass.

The Short Wave World Stations will appear in June issue.

The Problem of Hum

(Continued from page 2)

replacement of this troublesome unit is the only remedy. Such tests are best made by experienced service men who have the proper meters and instruments for making a quick examination.

Open ground leads from the cores and cases of the power transformers will cause hum. Condensers that are too small or imperfectly constructed produce an inherent hum in the receiver, but which should be noticed when the set is purchased.

A defective rectifier tube will produce serious hum. The first part of the test should embrace the substitution of the questionable rectifier with a good tube. Replacement is the only remedy if the hum is found to be due to this cause.

Faulty Eliminators

The rectifying units in "A" and "B" eliminators frequently cause hum in the set. Failure of the filter choke coils and filter condensers creates a hum just as much as similar trouble in the self contained unit of an a. c. broadcast receiver. Trouble can always be looked for in the voltage divider section; where a number of resistances are connected between the negative "B" and the maximum "B" voltage output, so as to provide the various plate voltages. Also examine the associated shunt filter-condensers.

Frequently the choke coils of the power unit become short circuited—not in the coil itself—but between the terminals so that the coil is not in the circuit. This can be easily tested.

Besides the hum in defective tubes, other causes may be found in the filament circuits. And these are rather commonplace. For instance, many sets have a shunt resistance across the filament of the tube, and a center connection that is grounded through another resistance. If this resistor is incorrectly adjusted, has poor electrical contacts, or the grounded resistor is broken or loosely attached, a serious hum will develop. Still again, across the secondary coil supplying the raw alternating current to the tube filaments, there is a shunt resistance which may be defective,

or the center tap from the secondary that is grounded through a resistance may be open. A grounding of a filament at either side will cause noticeable hum. All of these causes produce an annoying hum in the filament circuits.

In the grid circuits hum may be due to open bypass condensers, insufficient grid bias voltage, open secondary coil windings leading to tube grids, grounded radio and audio transformer secondaries, and pickup from adjacent a. c. circuits.

In the plate circuits hum will come from low plate voltage, open primary coil windings, induction from other a. c. sources, and poorly functioning "B" eliminators.

External hum can be reduced by inserting a small filter unit in the a. c. cord leading to the radio power transformer. This worthy device also removes most of the power line static and other noises which are seriously amplified after entering the broadcast receiver.

Ann Leaf at the Organ

(Continued from page 4)

a pianist. Then her family moved to Los Angeles and she began to consider finances. Playing the organ in a theatre was a good job, but managers were prejudiced against women. Just about that time too every young woman in Los Angeles was determined to become an organist. Ann could not find any place to practice unless she went to the churches at six in the morning.

(If there is one thing that terrifies Ann it is a big building, particularly an empty one. The Gothic postoffice in Omaha used to send chills down her spine. So you can imagine the effect of an empty church at dawn and a little girl climbing alone to the organ loft to practice.)

But she went to work in the first theatre into which she ventured. Her salary was raised five dollars at the end of the first week. After that she progressed steadily to the two largest theatres in Los Angeles, the Paramount Publix and the Fox West Coast, before coming to New York.

"How do you get such a volume of tone from your instrument?" I asked.

Ann doubled up her fist, bent an elbow and squeezed the hard muscles of her forearm.

"It takes muscle and I have it," she laughed.

Ann adores her sister, Esther, who also broadcasts now and again, her brother Maury, who is a musician and inventor, and Ben, who is not a professional. Her greatest ambition is to live in Los Angeles and have unlimited leisure to paint, travel and write. Ann is a true daughter of the sun and is never so happy as when she is running down a long stretch of white sandy beach or hitting the ball on golf course or tennis court.

And she reads Wasserman and Balzac in large dusty volumes almost as tall as she is, not forgetting, of course, the smart magazines relating to Broadway.

Her greatest thrill on the air came when she played "Mother's Marriage Music" as Mrs. Leaf was leaving Omaha for Los Angeles. Ann doesn't know the name of the selection but it was her lullaby as a child.

You'd like Ann Leaf as much as you do her music.

You will find Ann's picture on the front cover. It will make you like her music more than ever.

When Things Go Awry

(Continued from page 10)

tute the -01A tubes with -30s, and the -71A power tube with a -31. Remove the small 1-ohm resistance between the plus A and tube filaments of the last three tubes and replace with a length of wire, as this resistance must be removed from the circuit. Connect a two-volt "Air-Cell" battery to the two A battery terminals. Or two dry cells in series may be used if an additional 15 ohm rheostat is connected in series and adjusted so that exactly two volts is applied across the sockets when all the tubes are in place. Screen grid tubes cannot be used. You may need less negative C battery on the first audio tube, but more ($22\frac{1}{2}$) volts on the -31 tube instead of the -9 volts now being furnished the present -71A tube.

B Eliminator Causes Hum

My Philco "B" eliminator seems to cause a loud hum in my radio set. Can this be true, and if so, how can I correct the trouble?

The resistances in the eliminator, both the fixed and adjustable, frequently are the source of such trouble. They should be tested and replaced if necessary. Next examine the choke coils and condensers in the filter portion of the power pack. There may be breakdowns or short circuits through the coils. The special Philco-tron cells, or electrolytic units may require replacing. The material composing the internal parts is subject to trouble. When the little jars are replaced they quickly rejuvenate the weakened eliminator and reduce the hum. See that the electrolyte comes well above the ends of the electrodes in the jars.

Improving Volume Control

Can I improve on the volume control of my Grimes six-tube receiver?

The several models of Grimes "Inverse Duplex" receivers use a simple rheostat in series with the filaments of all the tubes. It controls the volume by regulating the temperature of the filaments. This is a very poor method of volume control, but is one that was used on all of the older sets. The best thing to do is to set the rheostat permanently at a position that will allow the proper filament voltage to be applied across the terminals of the sockets as measured by a voltmeter with all the tubes in place. Then place a potentiometer across the C battery and vary the grid bias of the first audio tube for volume.

Improper Volume Control

The volume control on my set does not increase the signal strength after it has been turned beyond the midway position. Why does it reach its maximum with only a half turn?

Some controls just turn so far and then reach their full operating resistance. After that point has been reached the change of resistance cannot increase the volume of the receiver for it has already reached its maximum. Perhaps the maker has not put in a control of the proper resistance having a uniform range of

increase throughout its entire length of variation.

Changing Loud Speakers

Can I use the speaker from an RCA model 46 outfit on a new Midwest set instead of the speaker that came with the latter set?

The RCA speaker has four wires leading to the audio amplifier unit. Two are brown and come from the cone voice coil to connect to the two red and green wires that go to the secondary of the output push-pull transformer. Two other wires from the speaker come from the field coil of the unit. The Midwest speaker has a five-wire arrangement, and while some of them are similar to the RCA four-wire unit the former speaker cannot be substituted for the latter, or vice versa, without a considerable change in the wiring of the set in order to take care of the fifth wire built into the Midwest circuit and speaker arrangement.

Short Wave Converter

Do you believe that any of the short-wave converters mentioned in the article in the March issue of RADEX will operate with my Edison model C2 tuned radio frequency receiver?

We see no reason why a good converter should not work well with your set for it is rather sensitive. It should be remembered that a converter does nothing else but take the incoming short-wave signals (which are usually very weak) and convert them by the heterodyne principle to wave lengths that fit the tuning limits of the broadcast receiver. The more powerful the receiver the better the weak signals come through in an audible manner.

The broadcast receiver is adjusted to 550 kilocycles, which is the high end of the dial, and all tuning is done by the converter. If the receiver is not very selective there is apt to be a background of talk or music which will interfere with the weak short-wave signals. However, you should be able to get nearby short-wave stations with a high degree of loudness, and perhaps a number of weaker and foreign ones. Enough, at any rate, to provide quite some short-wave entertainment.

Changing First Audio Tube to a -27

I am thinking of changing the first audio tube, a -26, over to a -27 in my model 86 Philco receiver. I have no diagram, so will you advise me with the necessary details.

A diagram of the audio portion of the circuit has been mailed to you. There should be no difficulty in changing the tube, but we do not think the results will be very remarkable. The -27, of course, is a good detector, and usually is used as such. The -26 is strictly an amplifier tube. It will be necessary to install a five-prong socket, change the filament voltage connections, and connect the cathode of the -27 to the circuit. Use -4.5 volts on the grid of the -27 with 90 volts on the plate. The cathode should preferably be connected to the movable arm of a 50 ohm potentiometer connected across the power secondary of the transformer supplying the filament heater voltage of 2.5 volts. This arrangement may help to reduce hum and balance the circuit. This should prove an interesting experiment and may give you a better control over amplification with a good tone adjustent, but little, if any, additional volume.

Local Station in Background

I have a Dayton short-wave adapter, but when I use it a local station—WCAE—is heard faintly in the background. Why is this, and how can I tune it out?

Your experience is not unusual. Short-wave adapters plug into a tube socket of the regular broadcast set and do not use the radio frequency tuning circuit of the receiver. The adapter has, in most cases, two tubes, which represent the entire tuning circuit, and the audio amplifier of the large set is used to intensify the short-wave signals. Therefore the short-wave adapter is not as selective in tuning out nearby powerful stations as the broadcast receiver.

You might try using a short aerial on the adapter, and the regular aerial for the broadcast set. Also, a very small fixed condenser in series with the aerial will not interfere with short-wave reception, but will tend to keep out the longer wave signals. Such a condenser should be about .0001 mfd. capacity.

The Editor's Mail

(Continued from page 14)

Italy and South America. He says he had a world of "dope" on short-wave stations which he would be glad to exchange with other DXers. He asks for the millenium, however, when he says: "I would like to see the question settled as to aeriels and grounds, filtered aeriels, umbrella type and plain straight line." As we have said before, there is no "best" aerial or ground except as it is found for a particular set in a particular location by constant experiment.

For the information of Mr. Durand, of Wheaton, Ill., and others, Clement Van Velsor, 1033 Sanford Ave., Irvington, N. J., reports that WWAC is an aeronautical station sending out aviation reports, located in Nashville, Tenn. For another reader, Mr. Van Velsor states that WFK is in Frankfort, Mich., owned by the Wabash Radio Corp. Mr. Van Velsor has a Lincoln SW-22 All-Wave Super. It has eleven tubes, one dial, a three-gang condenser, a low-high power switch and a trimmer condenser to bring each signal to its peak. It has no plug-in coils. He describes the selectivity as being razor-edged. Broadcast band reception is excellent with great volume. He states that European stations with the exception of G5SW roar in."

A New One in Mexico

From Manuel Angel Fernandez, Manager, Cia Difusora Mexicana, Mexico City, comes this interesting information: "It is our pleasure to advise you that our broadcasting station XETF 'La Voz de Mexico' started operating at this city March 9th, on a frequency of 610 kcs., and a power of 2500 watts. The equipment is of the Western Electric type and we hope that our signal is clearly heard in your country. This company also owns XETF 'La Voz de Veracruz' operating at 630 kcs. and 500 watts antenna power. Please also take notice that the slogan 'La Voz de Mexico' or the translation 'The Voice of Mexico' is registered in the trade-mark and patent office of this country and is owned by this company."

"I believe I may be able to clear up the mystery relative to the station in Detroit known as GZ7," informs Frank Wilkes, 25 Maurice Ave., Ossining, N. Y. "This is one of the many National Guard transmitters scattered throughout the United States. These stations are not subject to the F. R. C. and hence may use any frequency they choose. Their calls consist of any two letters and then a number, the number, I suppose, designates the district in which the station is located. A good number of these stations use frequencies of about 630 kcs."

Some New Ones Coming?

Louis Alexander, Jr., 10 South Ridge-wood Road, South Orange, N. J., clips the following prophecies of new stations from the Club notes of the Newark News: WBRL, Tilton, N. J., 500 watts, 1430 kcs., will probably share time with WFEA. WCOT, Providence, R. I., 100 watts, 1320 kcs., will probably share time with WORC. WINR, Bay Shore, L. I., 100 watts, 1210 kcs., will probably share time with WCOH, etc. WMBL, Lakeland, Fla., 100 watts, 1310 kcs. WQBC, Weirton, W. Va., 60 watts, 1420 kcs. We have noted no construction permits by the Commission for any of the above stations.

"I have a complaint to lodge against the Mexican and Cuban stations," says F. Rouse, 34 Cuyler Ave., Albany, N. Y. "I never hear some of them announce in English." (!) This seems to be a common fault with stations in other countries, the Japanese particularly. We'll have to take it up with the League of Nations. Mr. Rouse also heard one station on two waves—WSM on 1070 and 1460. Must have been harmonics, of course, but it is pretty hard to figure this out.

"While DXing last night or rather early this morning (March 13th) I picked up WBBR, Brooklyn, on 1300 kcs., their assigned frequency, and then picked them up again at 3:30 a.m. on 1030 kcs. Is it possible for a station to broadcast on two frequencies at the same time?" queries Willard K. Jennings, 45 Thorn St., Rahway, N. J.

The copy for the next issue of each RADEX goes to the printer on the 5th

of the preceding month and it is necessary for us to have data regarding special DX programs by that date. Unfortunately last month information regarding a number of specials came to us too late to be included in the April issue. Among these were special DX programs, some of them to be dedicated to readers of RADEX, from CMGF, Matanzas, Cuba; CHGS, Summerside, P. E. I.; WJTL, Oglethorpe University, Ga., and several others.

Vancouverites Moving

The Vancouver stations on 730 have moved to 725 in an effort to get away from interference by XER, so Richard D. Caddell, 605 Ridge Ave., N. S., Pittsburgh, Pa., reports. Mr. Caddell asks: "I wonder if any others have heard WYPC, The Voice of Muscle Shoals, located at Sheffield, Ala., evidently an unlicensed station operated by a negro preacher, Rev. L. W. Michael. This station has finally been put off the air by the authorities."

"I notice an error in RADEX," points out D. G. Powers (no address given), "You list WHDH, Boston, as daytime only but I have received this station up to 8:00 p.m. EST three or four times." Many daytime stations are permitted to remain on the air until sunset in the city in which is located the principal night station on that wave. Thus WHDH may remain on the air until sunset in Denver. Mr. Powers asks what Columbia station broadcasts on 830 kcs. None to our knowledge.

WBOQ is Moving Around

What is WBOQ doing on 800 kcs.? A number of readers report hearing it at that point on tests. A letter to WABC about this matter has brought no reply. We have seen nothing in Federal Commission reports authorizing tests on this frequency. Who can give us the inside of this? Robert R. Rawstron, Claremont, N. H., says: "I picked him up this morning on 790 kcs. Oddly enough his transcriptions were on 790 kcs. but when the records stopped the wave switched to 800 kcs. What's the answer? I heard the same records and announcer testing WABC on 860 kcs. after WBOQ signed off." Mr. Rawstron got stuck for a long

while on the 699 peg but finally the 700th station came in and then got 701, WSAJ, Grove City, Pa., for good measure.

"On page 19 of your February issue, I note some comment about WPCH being heard sometimes on 570 kcs.," says Donald S. Miles, 378 Stuyvesant Ave., Irvington, N. J. "May I say that since WPCH and WMCA are located in the same building, the WMCA Building, and since they are operated by the same company, there may be some inductive or capacitive effects between lines from nearby studios, as any studio may be used by either station."

For several years we carried a phantom station at Toronto, Ont., CKOW on 840 kcs., but deleted it when advised that the call had never been used. Now John T. Hill, 1432 Nott St., Schenectady, N. Y., writes that he heard this station in March. A new list just received from the Dominion Government does not show it and we ask some of our Toronto readers to let us know definitely if CKOW is now on the air.

The Toronto Stations

E. L. Near, 32 Northcliffe Blvd., Toronto 10, Ont., thinks "it is a shame that a pioneer station like CFCA should be moved to such a rotten wave-length as 1120." CFCA probably moved of their own desire and a wave-length that may be "rotten" in one locality may be very good everywhere else.

"On March 17th I heard the announcer say: 'CFCT, Toronto,' whereas RADEX lists this station at Victoria, B. C.," reports Charles Kneer, 94 Maplewood Terrace, Rochester, N. Y. CFCT is certainly in Victoria and none of the Toronto calls sounds like it. How come the Toronto announcement?

On April 1st, CFRB, Toronto, will begin to use 10,000 watts power, says Selwyn A. Adamson, The Canadian Press, Toronto 2, Ont. Also, CKGW, Toronto, will use 10,000 shortly after. A report just received from the Dominion Government still gives the old rating however.

"I have heard CKWX every Sunday on 880 kcs.," reports Blaine Menth, 1003 E. Union Ave., Olumpia, Wash.

"They go there to accommodate CKCD for their church service. CKWX signs off at about 1:30 p.m. and reappears later in the evening at their assigned frequency of 730."

"Tell Wm. Armstrong that the station he heard on January 12th at about 3:45 a.m. EST with the Corn Cob program was KGDA, 1370, Mitchell, S. Dak.," suggests Eugene Giglio, R. F. D. 1, Rockville, Conn. Mr. Giglio would like to know from owners of Crosely 1932 Supers what results they have had on distance.

"What do you make of this, Watson?" F. Barker, Jr., 435 So. Marguerita Ave., Alhambra, Calif., writes: "On the night of March 19th, at 11:00 p.m., I heard KFXV and WAGM sign off together, that is the announcer said 'KFXV in Flagstaff, Arizona, and WAGM in Presque Isle, Maine, now signing off.'"

Miss M. Stannard, 522 Sunset Ave., Rockford, Ill., is anxious to identify "The Four Horsemen," an orchestra. "I want to know what time they come on and over what station and if they come direct from Chicago or through a network." No record of this feature on the networks. Who can help Miss Stannard?

"WCGU, Brooklyn, N. Y., is no longer connected with WBBC of the same city," states Mac Plung of Brooklyn. "They have a new transmitter and their studios are located at 47 Flatbush Ave., Extension, Brooklyn, N. Y. They answer all requests for verification promptly."

Mexican Correspondent Wanted

Through the kindness of Rolando Martorell, of Matanzas, Cuba, a reader of RADEX, we are enabled to check the accuracy of our Cuban list and make several corrections in this issue. Now if some of our readers in Mexico would offer to perform similar kindly offices in that country, our readers would certainly appreciate it.

Earl Jackson, Sergeant, Q. M. Corps, stationed at Schofield Barracks, Hawaii, writes that he has a General Electric Super and since last July has heard 125 stations "on the mainland" as far east as New York City. He reports that leakage from the 6600-volt power lines

in his locality gives him a lot of interference.

"Has there been an increase in power for KFPM, Greenville, Texas?" asks John R. Carter, 1119 West 9th St., Erie, Pa. "I picked them up this morning and they came in altogether too loud, it seemed to me, for 15 watts." No notice of any official change in power for KFPM. Mr. Carter has now passed the 400 mark on his log.

"The information from R. Rawstron, of Claremont, N. H., regarding the use of the call WABO by WHEC is correct," writes R. Brady, Jr., 47 Eastman Ave., Rochester, N. Y. "I was told by one of the engineers that the call WABO is still in their license and is used for test programs only."

Was it W8XAR?

"WHAR is now signing off at exactly 4:10 EST. We have been broadcasting on a frequency of 980 kcs." This announcement was heard at 1:10 PST on the morning of March 8th by A. Colver, 147 Walk Circle, Santa Cruz, Calif., who is anxious to identify his catch. Anybody know of WHAR?

"KWCR in Cedar Rapids, and WIAS in Ottumwa, Iowa, have exchanged their frequencies. KWCR now broadcasts on 1420 kcs. and WIAS on 1310," reports Rudolph Kure, 3633 Vine St., Cincinnati, Ohio. Lacking any official confirmation of this shift, we are continuing the old data, but including these stations in "Heard on Other Waves."

Fred Litwitz, Jr., 2137 Lewis Street, Chicago, is secretary of a new club, the Northern States DX Radio League. L. Cooper, 1818 Nevada St., Muskegon, Mich., is the president.

Last Minute Items

WBAA will test May 27th from midnight to 3:00 a.m. CST.

CKWO will take the air on May 31st., 1000 watts on 540.

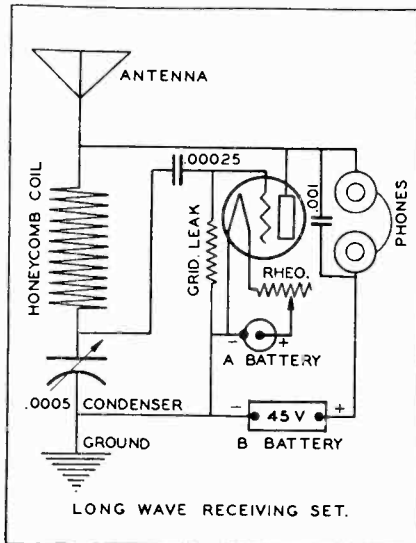
W8XAR now testing on 980 between 1:00 and 6:00 a.m. EDST.

The CNR stations have network broadcast 9:30 p.m. Mondays, probably Eastern Daylight Time.

THE February issue of RADEX told of a long wave receiver that would reach out beyond the normal radio broadcast band—as high as 20,000 meters. The circuit was simple and intended to bring in the long wave (damped) voice, spark, and arc code signals, that are broadcast only from modulated transmitters.

An improved circuit is presented this month. It will tune in also the many great continuous wave (undamped) tube and arc transmitters which are replacing many of the old modulated stations throughout the world.

This circuit is a modification of the old Colpitt's oscillator, and is necessary to make audible the otherwise continuous flow of high radio frequency current that would fail to operate the slowly moving telephone diaphragms. There is but one tuning operation—the variable condenser controlling the local oscillations which produce the slower audio-frequency beat notes. These cause the plate current of the detector tube to vibrate and rise and fall in a periodic manner with the passage of each train of dash and dot code signals. The tuning inductance is a single honeycomb coil. The sizes were given in the March issue of RADEX.



Classified Index to Programs

Time in Eastern Daylight Standard

CHILDREN

Lady Next Door, 4:45 p.m., Daily, except Sunday, R.
 Little Orphan Annie, 5:45 and 6:45 p.m., Daily, ex. Sun., B.
 Skippy, 5:15 p.m., Daily, except Sunday, R.

CONCERTS

Artists Service Musicale, 10:30 p.m., Wednesday, R.
 Howard Barlow, 11:15 p.m., Tuesday and Thursday, C.
 Major Bowes, 11:30 a.m., Sunday, R.
 Cities Service, 8 p.m., Friday, R.
 Civic Concerts Service, 8:15 p.m., Saturday, R.
 Evening Melodies, 11:30 p.m., Sunday, C.
 Gauchos, 11 p.m., Sunday, C.
 L'Heure Exquise, 10:20 p.m., Sunday, R.
 Walter Logan, 1:45 p.m., Sunday, R.
 Mobiloil, 9:30 p.m., Wednesday, R.
 Orchestra Genes, 7:30 p.m., Sunday, R.
 Pastorale, 5 p.m., Sunday, C.
 Quiet Harmonies, 6 p.m., Sunday, C.
 Toscha Seidel, 9 p.m., Friday, C.
 Through Opera Glass, 11:30 p.m., Thursday, B.
 Troika Bells, 12:30 p.m., Sunday, R.
 Waldorf-Astoria, 6 p.m., Daily, except Sunday, R.

DANCE BANDS

Ben Bernie, 9 p.m., Tuesday, C.
 Cab Calloway, 11:45 p.m., Mon. and Thurs., R; 12 mid.
 Wed. and Fri., B.
 Lew Conrad, 11:15 p.m., Thursday, R.
 Countess d'Orsay, 8:30 p.m., Saturday, B.
 Jack Denny, 9 p.m., Sunday, C; 11:15 p.m., Mon., R.
 Chas. Dornberger, 11:30 p.m., Tues., R; 11:35 p.m., Fri., B.
 Eddie Duchin, 12 mid., Sunday, C.
 Snooks Friedman, 6:30 p.m., Monday and Friday, C.
 Larry Funk, 12 mid., Sunday, 6:45 p.m., Friday, R.
 Alex Haas, 11 p.m., Monday, C.
 Johnnie Hamp, 12 mid., Tues., Thurs., Fri.; 11:30 p.m.,
 Sat., R.
 Isham Jones, 12 mid., Mon and Fri.; 9:30 p.m., Sat., C.
 Wayne King, 3 p.m., Sunday; 5:30 p.m., Wed., R.
 Guy Lombardo, 10 p.m., Mon.; 12 mid., Thurs.; 7:30 and
 12 mid., Sat., C.
 Vincent Lopez, 11:30 p.m., Wed.; 11:15 p.m., Fri., R.
 Abe Lyman, 8:15 p.m., Tues., Thurs. and Sat., C.
 Enrie Madriguera, 11:45 p.m., Saturday, C.
 Don Redman, 11:45 p.m., Wed. and Fri.; 11 p.m., Sat. C.
 Buddy Rogers, 12 mid., Mon., Wed. and Sat., R.
 B. A. Rolfe, 8:30 p.m., Thursday and Friday, B.
 Noble Sissle, 6:30 p.m., Sun.; 11:45 p.m., Mon. and Tues., C.
 Rudy Vallee, 8 p.m., Thursday, R.
 Paul Whiteman, 10 p.m., Friday, B.

DIALOG

Amos, 'n' Andy, 7 and 11 p.m., Daily, except Sunday, B.
 Big Time, 8 p.m., Wednesday, R.
 Burns and Allen, 10 p.m., Monday, C.
 Clara, Lu and Em, 10:15 a.m. Daily, ex. Sat. and Sun., B.
 Cuckoos, 5:30 p.m., Saturday, R.
 Easy Aces, 7:30 p.m., Monday, Wednesday and Friday, C.
 Gene and Glenn, 8 a.m., Daily, except Sunday, R.
 Goldbergs, 7:45 p.m., Daily, except Sunday, R.
 Jones and Hare, 7:45 p.m. and 12:30 a.m., Daily, except
 Saturday and Sunday, B.
 Making Movies, 9:45 p.m., Sunday, B.
 Myrt and Marge, 7 and 10:45 p.m., Daily, except Saturday
 and Sunday, C.
 Joe Palooka, 6:45 and 11 p.m., Tues. and Thurs., C.
 Ray Perkins, 6:30 p.m., Tuesday, B.
 Reis & Dunn, 6:15 p.m., Tuesday and Thursday, C.
 Sisters of Skillet, 8:45 p.m., Tues., Thurs. and Fri., B.
 Snoop and Peep, 10:15 p.m., Saturday, B.
 Standing Room Only, 8:15 p.m., Sunday, B.
 Stebbins Boys, 7:30 p.m., Daily, except Sat. and Sun., B.

Col. Stoopnagle and Budd, 8:45 p.m., Sunday, Monday and Wednesday, C.

Tasty Yeast Jesters, 7:15 p.m., Monday and Saturday, B. Ward Wilson, 6:30 p.m., Mon., Wed. and Fri., B.

DRAMA

Careless Love, 12:30 p.m., Sunday, B.
Danger Fighters, 8 p.m., Saturday, B.
Death Valley Days, 8:30 p.m., Monday, B.
Eno Crime Club, 9:30 p.m., Tuesday and Wednesday, C.
First Nighter, 9:30 p.m., Saturday, B.
Friendship Town, 9 p.m., Friday, B.
Sherlock Holmes, 9 p.m., Wednesday, B.
K-7, 6:30 p.m., Sunday, B.
Rudyard Kipling Stories, 12 mid., Monday, R.
Love Story, 9:30 p.m., Thursday, C.
Moonshine and Honeysuckle, 2:30 p.m., Sunday, R.
Photoplay, 8:30 p.m., Saturday, C.
Rin-Tin-Tin, 8:15 p.m., Thursday, B.
Soconyland Sketches, 8 p.m., Monday, R.
Thompkins Corners, 9:30 p.m., Thursday, B.
Today and Yesterday, 8:30 p.m., Friday, C.
True Story, 8:30 p.m., Tuesday, R.

ORGAN

Jesse Crawford, 11:30 p.m., Sunday, R.
Ann Leaf, 2 p.m., Mon.; 3 p.m., Tues.; 3:15 p.m., Wed., C.
Archer Gibson, 1:45 p.m., Sunday, B.

PIANO

Fray-Braggiotti, 9:15 p.m., Saturday, C.
Ernest Hutcheson, 8 p.m., Sunday, C.
Lee Sims, 11:30 p.m., Mon., Tues. and Sat., B.
Twenty Fingers Harmony, 10:45 p.m., Saturday, B.
Willys Overland, 8:15 p.m., Wednesday, B.

POPULAR PROGRAMS

A & P Gypsies, 9 p.m., Monday, R.; 10 p.m., Thursday, B.
Album of Familiar Music, 9:15 p.m., Sunday, R.
Armour Program, 9:30 p.m., Friday, B.
Bath Club, 8 p.m., Daily, except Sat. and Sun., C.
Beau Bachelor, 10 p.m., Friday, C.
Big Six, 9 p.m., Thursday, R.
Blue Coal Revue, 5:30 p.m., Sunday, C.
Buick Revelers, 9:45 p.m., Sunday, R.
Chase & Sanborn, 8 p.m., Sunday, R.
Clicquot Club, 9 p.m., Friday, R.
Coca-Cola Program, 10 p.m., Wednesday, R.
Edgeworth Program, 8 p.m., Thursday, B.
Euna Jettick, 8 p.m., Sunday, B.
Emma Revue, 9 p.m., Monday and Thursday, C.
Evening in Paris, 9:30 p.m., Monday, C.
Farm and Home, 1:30 p.m., Daily, except Sunday, B.
Four Boys and a Girl, 9:30 p.m., Monday, B.
Jack Frost Melody, 8:30 p.m., Wednesday, B.
G.E. Circle, 5:30 p.m., Sunday; 12 n., Daily, except Sunday, Monday and Saturday, R.
Gerardine, 8:45 p.m., Tuesday, C.
Great Personalities, 9:30 p.m., Tuesday, B.
H.M.S. Trumpeters, 10 p.m., Thursday, C.
Hinds Romance, 7:15 p.m., Thursday, B.
Hollywood Nights, 10:30 p.m., Thursday, B.
Edna Wallace Hopper, 10 p.m., Sunday, C.
Jodent Program, 4 p.m., Sunday, R.
Judy Willie, 7:15 p.m., Tuesday, B.
Lucky Strike, 10 p.m., Tues., Thurs. and Sat., R.
Marxell House, 7:15 and 11:15 p.m., Mond., Wed. and Fri., C.
Musical Fast Freight, 10:15 p.m., Tues.; 9 p.m., Wed., C.
Musical Program, 8 p.m., Friday, B.
Parade of States, 9:30 p.m., Monday, R.
Paris Night Life, 10:30 p.m., Tuesday, B.
Pennzoil Parade, 9:30 and 11:30 p.m., Sunday, C.
Pond's Program, 9:30 p.m., Friday, R.
Rexall Party, 7:15 p.m., Sunday, R.
Sampler Orchestra, 10 p.m., Friday, R.
San Felician Serenade, 9:45 p.m., Mon. and Wed., B.
Sheaffer Revue, 4:30 p.m., Sunday, B.
Silver Flute, 1:30 p.m., Sunday, R.
Simoniz Guardsmen, 5:30 p.m., Sunday, B.
Sinclair Wiener Minstrels, 9 p.m., Monday, B.
Society's Playboy, 10:30 p.m., Wednesday, C.
Songs of Home, 4 p.m., Sunday, B.

Swift Garden, 3:30 p.m., Sunday, B.
Three Bakers, 7:30 p.m., Sunday, B.
Club Valspar, 9:30 p.m., Saturday, R.
Waves of Melody, 10:30 p.m., Monday, B.
Yardley, 2 p.m., Sunday, B.
Yeast Foamers, 2:30 p.m., Sunday, B.
Ziegfeld Show, 10:30 p.m., Sunday, C.

QUARTETS

Bayuk Stags, 9:15 p.m., Sunday, B.
Carnation Contented, 8 p.m., Monday, B.
Frigidarians, 7:15 p.m., Sunday, B.
Heel Huggers, 8:30 p.m., Tuesday, B.
Mills Bros., 7:15 p.m., Tuesday and Thursday, C.
Sylvanians, 7:45 p.m., Sunday, C.

RELIGIOUS

Cathedral Hour, 1 p.m., Sunday, C.
Catholic Hour, 6 p.m., Sunday, R.
Chicago Knights, 5:30 p.m., Sunday, C.
Church of the Air, 2:30 p.m., Sunday, C.
Hymn Sing, 7 p.m., Tuesday, R.
National Vespers, 5 p.m., Sunday, B.
National Youth, 3 p.m., Sunday, B.
Seth Parker, 10:45 p.m., Sunday, R.

SINGERS

Belle Baker, 9 p.m., Sunday, C.
Connie Boswell, 6 p.m., Wed.; 5:45 p.m., Sat., C.
Boswell Sister, 10:30 p.m., Monday and Thursday, C.
Russ Columbo, 11:15 p.m., Sunday; 11 p.m., Daily, except Sunday and Wednesday, R.
Bing Crosby, 6:45 p.m., Mon., Wed. C.
Vaughn DeLeath, 6:15 p.m., Monday; 9 p.m., Saturday, C.
Kay Donna, 10:30 p.m., Monday, R.
Morton Downey, 7:45 and 11:30 p.m., Daily, except Sun., C.
Ruth Etting, 10 p.m., Wednesday and Saturday, C.
Jane Froman, 11:35 p.m., Wednesday, B.
Sylvia Froos, 7:30 p.m., Tuesday and Thursday, C.
Funnyboners, 10:45 p.m., Tuesday and Friday, C.
Alex Gray, 10:30 p.m., Tuesday and Friday, C.
Tito Guizar, 9:30 p.m., Friday, C.
Wm. Vincent Hall, 7:15 p.m., Saturday, C.
Elsie Janis, 7:15 p.m., Wednesday and Friday, B.
Arthur Jarrett, 10:45 p.m., Monday and Thursday, C.
McCravy Bros., 10:45 p.m., Monday and Tuesday, B.
Jack Miller, 6:30 p.m., Tues., Thurs. and Sat., C.
Modern Male Chorus, 7:30 p.m., Sun.; 9:15 p.m., Thurs., C.
Grace Moore, 9 p.m., Wednesday, R.
Old Singing Master, 10:15 p.m., Sunday, B.
Pickens Sister, 10:45 p.m., Wed., Thurs. and Fri., B.
June Pursell, 6:45 p.m., Mon., Thur., and Sat., R.
Sanderson-Crumit, 8 p.m., Tues., R.; 9 p.m., Thurs., B.
Singing Sam, 8:15 p.m., Mon., Wed. and Fri., C.
Kate Smith, 8:30 p.m., Mon., Tues., Wed. and Thurs., C.
Sons of Eli, 2 p.m., Sunday, C.
Street Singer, 12:45 p.m., Sun.; 9:15 p.m., Mon.; 10:45 p.m., Wed. and Sat., C.
Lawrence Tibbett, 8:30 and 11:30 p.m., Monday, R.
Gus Van, 9:45 p.m., Friday, C.
Voice 1000 Shades, 10 p.m., Tuesday, C.

TALKS

Adventures in Health, 10:15 p.m., Wed. and Fri., C.
Back of News, 6:45 p.m., Tuesday, R.
Dr. S. Parkes Cadman, 3:30 p.m., Sunday, R.
Cheerio, 8:30 a.m., Daily, except Sunday, R.
Ely Culbertson, 4:30 p.m., Mon. and Wed.; 8 p.m., Sat., R.
International Broadcast, 12:30 p.m., Sunday, C.
Kaltenborn, 6 p.m., Monday and Friday, C.
Laboratory Experiments, 8 p.m., Saturday, C.
David Lawrence, 9 p.m., Sunday, R.
Laws Safeguard, 7:15 p.m., Saturday, R.
Angelo Patri, 8:45 p.m., Sunday and Thursday, C.
Public Affairs, 10:15 p.m., Saturday, C.
Radio in Education, 7:30 p.m., Sat., R.; 8 p.m., Tues., B.
Nellie Revell, 11 p.m., Wednesday, R.
Taxpayers' League, 8 p.m., Wednesday, B.
Lowell Thomas, 6:45 p.m., Daily, except Sat. and Sun., B.
Frederick William Wile, 7 p.m., Saturday, C.
World Today, 6:30 p.m., Thursday.

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 Saving; E Eastern Standard; C Central Standard; M Mountain Standard.
For Pacific Time subtract one hour from Mountain.

MONDAY

ED-8:00 a.m., E-7:00, C-6:00, M-5:00
R—Gene and Glenn

WBEN WCAE WCSH WEAF WEEI
WFBR WFI WGY WIOD WJAR WRC
WSAI WTAG WTAM WTIC WWJ

ED-8:30 a.m., E-7:30, C-6:30, M-5:30
R—Cheerio

CFCE CKGW KPRC KTBS WAPI
WBEN WCAE WCFI WCKY WCSH
WDAF WEAF WEEI WFBR WFI
WFLA WGY WHAS WIOD WIS
WJAR WJAX WJDX WKY WQAI
WOW WPTF WRC WRVA WSB
WSM WSMB WTAG WTAM WTIC
WWJ WWNC

ED-10:15 a.m., E-9:15, C-8:15, M-7:15
B—Clara, Lu and Em

KDKA KFYR KOA KOIL KPRC
KSL KVOO KWK WAPI WBAL
WBAP WBZA WCKY WDAY WDBC
WFLA WGAR WHAM WHAS WIBA
WIOD WIS WJAX WJDX WJR
WJZ WKY WMC WQAI WPTF
WREN WRVA WSB WSM WSMB
WTMJ WWNC

ED-1:30 p.m., E-12:30, C-11:30, M-10:30
B—National Farm and Home Hour

KDKA KFYR KOA KOIL KPRC
KSTP KTHS KTHS KVOO KWK
KYW WAPI WBAL WCKY WDAF
WDAY WIBC WFLA WGAR WHAM
WHAS WHO WIBA WIOD WIS WJAX
WJDX WJR WJZ WKY WMC WQAI
WOC WOW WPTF WRC WREN
WRVA WSB WSM WSMB WWNC

ED-2:00 p.m., E-1:00, C-12:00, M-11:00
C—Ann Leaf at Organ

CFRB WAAB WABC WADC WBCM
WBRC WBT WCAO WCAU WDAE
WDHJ WDDO WDRC WDSU WFBL
WFBA WGR WHP WLAC WLWB
WMAL WNOX WOKO WORC WOWO
WPG WQAM WREC WSBT WSFA
WSPD WTAR WTOC WXYZ

ED-4:30 p.m., E-3:30, C-2:30, M-1:30
R—Ely Culbertson, Bridge

CFCE CKGW WBEN WCAE WCSH
WDAF WEAF WEEI WENR WFBR
WGY WHO WJAR WLIT WOC
WRC WSAI WTAG WTAM WTIC
WWJ

ED-4:45 p.m., E-3:45, C-2:45, M-1:45
R—Lady Next Door

WCSH WEAF WJAR WTAG WTAM
WWJ

ED-5:15 p.m., E-4:15, C-3:15, M-2:15
R—Skippy

WBEN WCAE WCSH WEAF WEEI
WFBR WGY WJAR WLIT WRC
WSAI WTAG WTAM WTIC WWJ
ED-5:45 p.m., E-4:45, C-3:45, M-2:45

B—Little Orphan Annie
KDKA WBAL WBZA WCKY WGAR
WHAM WJZ

ED-6:00 p.m., E-5:00, C-4:00, M-3:00
C—Current Events, Kaltenborn

KDYL KFAB KLRA KLZ KMRC
KMOX KOH KRDL KSCJ KTRH
KVOR WAAB WABC WACO WBRB
WBT WCAO WDDA WDBJ
WDBO WDDO WDRC WDSU WFBL
WFBA WFIW WIP WISN
WKBH WLAC WLAP WLWB WMAL
WMT WNOX WOKO WORC WOWO
WQAM WREC WSBT WSFA WSPD
WTAG WTAR WTOC WWVA WHP
R—Waldorf-Astoria Orchestra

KFI KFSD KOA KSD KSL WAPI
WBEN WCAE WEAF WEEI WFI
WHAS WJAR WKY WPTF WSM
WWNC

ED-6:15 p.m., E-5:15, C-4:15, M-3:15
C—Vaughn De Leath

CFRB KDYL KFII KLRA KLZ
KMBC KMOX KOH KRDL KSCJ
KTRH KVOR WAAB WABC WACO
WBRB WBT WCAO WDDA WDBJ
WDBO WDDO WDRC WDSU
WEAN WFBA WFIW WGR WHP
WIBW WIP WISN WKBN WLAC
WLAP WLWB WMT WNOX WOKO
WORC WOWO WQAM WREC WSBT
WSFA WSPD WTAG WTAR WTOC
WWVA

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
C—Snooks Friedman and Orchestra

KLRA KMOX WAAB WABC WBRB
WBT WCAO WDAE WDBJ WDBO
WDDO WDRC WDSU WEAN WFBL
WFIW WGR WHEC WHP WKBH
WLAC WLWB WNOX WOKO WORC
WOWO WQAM WREC WSBT WSFA
WSPD WTAR WTOC WXYZ

B—Royal Vagabonds, Ward Wilson

KOIL KWK WAPI WBAL WBZA
WCKY WFAA WGAR WHAM WJZ
WMAQ WQAI WREN WRVA WSB
WTMJ

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

CFRB KFAB KFH KFPY KLRA
KLZ KMBC KMOX KOH KOIN
KSCJ KTRH KVOR WAAB WABC
WACO WBRB WBT WCAH WCAO
WCO WDAE WDBJ WDBO WDDO
WDDC WDSU WEAN WFBA WFIW
WHEC WHP WIP WISN WKBH
WKEN WKBW WLAC WLAP WLWB
WMT WNOX WOKO WORC WOWO
WQAM WREC WSBT WSFA WSPD
WTAG WTAR WTOC WWVA WXYZ

R—June Pursell, Ballads

KOA KSD WCAE WEAF WFI WIOD
B—Literary Digest, Lowell Thomas
KDKA WBAL WBZA WHAM WJZ
WLW WMAQ

B—Little Orphan Annie
KEX KFYR KOIL KPRC KSTP
KWK WDAY WEBC WENR WKY
WQAI WREN

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
C—Myrt and Marge

KMOX WABC WADC WCAO WCAU
WDRB WEAN WFBL WGR WJAS
WKRK WMAL WNAC WOKO WSPD
WWVA

B—Amos 'n' Andy

CFCE CKGW KDKA WBAL WBZA
WFLA WIOD WJAX WJZ WPTF
WRC WRVA WHAM

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C—Maxwell House Tune Blenders

WABC WCAU WDRB WEAN WGR
WJAS WNAC WROC

B—Tasteyest Jesters

KDKA KOIL WBAL WBZA WCKY
WENR WJZ WREN

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

KMBC KMOX WABC WCAO WCCO
WFBM WGN WGR WHK WJAS
WKRK WNAC WOKO WXYZ WCAU

B—Stebbins Boys

KDKA KFI KGO KGW KHQ KOA
KOIL KOMO KPRC KSL KSTP
KWK WBAL WBZA WCKY WENR
WJAX WGAR WHAM WJR WJZ
WKY WMC WQAI WSB WSM WSMB
WTMJ WREN

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C—Camel, Morton Downey

WABC WADC WBIG WBT WCAH
WCAO WCAU WDAE WDBJ WDRB
WEAN WFBL WGR WHEC WHP
WHP WJAS WKBH WKRK WLBZ
WNAC WOKO WORC WQAM WRUF
WSJS WSPD WTAR WTOC WWVA
WXYZ

R—The Goldbergs

KSD WBEN WCAE WCSH WDAF
WEAF WENR WGY WHO WJAR
WLIT WOC WOW WSAI WTAG
WTAM WTIC WWJ

B—Billy Jones and Ernie Hare

KDKA KOIL KPRC KWK WAPI
WBAL WBZA WCKY WFAA WFLA
WGAR WHAM WHAS WIOD WIS
WJAX WJDX WJR WJZ WKY
WMAQ WMC WQAI WPTF WREN
WRVA WSB WSM WSMB WWNC

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

CFRB KMBC KMOX WABC WADC
WBCM WCAO WCAU WCCO WDRB
WDSU WEAN WFBL WFBM WGN
WGR WHK WISN WJAS WKRK
WMAL WNAC WOKO WSPD WXYZ
R—Soconyland Sketches
WBEN WCSH WEAF WEEI WGY
WJAR WTAG WTIC

Monday—Continued

B — Carnation Contented Program
 CFCF CKGW KDKA KOIL KPRC
 KSTP KVOO KWK WVAL WCKY
 WDAY WEBC WFAA WFLA WHAM
 WHAS WIOD WJAX WJR WJZ WFL
 WLS WMC WOAI WPTF WREN
 WRVA WSB WSM WTMJ

ED-8:15 p.m., E-7:15, C-6:15, M-5:15
C — Singing Sam, Barbasol
 KMBC KMOX WABC WADC WCAO
 WCAU WCCO WDRR WEAN WFBL
 WFBM WGN WGR WHK WJAS
 WKRC WMAL WNAC WOKO WSPD
 WXYZ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — La Palina, Kate Smith
 KMBC KMOX WABC WADC WBCM
 WCAU WCAO WCCO WFBL
 WFBM WGN WGR WHAC WHK
 WISN WJAS WKRC WLAB WMAL
 WSPD WXYZ

R — Firestone, Lawrence Tibbett
 CFCF CKGW KPRC KTBS KTHS
 WBEN WCAE WCSH WEAF WEEI
 WFAA WFBW WFLA WGY WHAS
 WIOD WIS WJAR WJAX WJDX
 WKY WLIT WMC WOAI WPTF
 WRC WRVA WSM WBSM
 WWSB WTAG WTAM WTC WWJ
 WWNC KVOO

B — Death Valley Days, Drama
 KDKA KFI KFSD KFYR KGH
 KGO KGW KHQ KOA KOMO KSL
 KSTP KTAI KWK WBAL WBZA
 WCKY WEBC WGAR WHAM WIBA
 WJZ WLS WREN

ED-8:45 p.m., E-7:45, C-6:45, M-5:45
C — Col. Stoopnagle and Budd
 KLZ KMBC KMOX WABC WADC
 WCAO WCAU WCCO WDRR WEAN
 WFBL WGN WGR WHK WJAS
 WKRC WMAL WNAC WOKO WWO
 WSPD WXYZ

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Eugene International Revue
 KMBC KMOX KRLD WABC WADC
 WCAO WCAU WCCO WDRR WDSU
 WEAN WFBL WFBM WGN WGST
 WHK WJAS WKBW WKRC WMAL
 WNAC WOKO WWO WREC WSPD
 WXYZ

R — A. & P. Gypsies
 KSD WBEN WCAE WCSH WDAF
 WEAF WEEI WGY WHO WJAR
 WLIT WMAQ WOC WOV WRC
 WSAI WTAG WTAM WTC WWJ

B — Sinclair Wiener Minstrels
 KDKA KFYR KPRC KSTP KTBS
 KTHS KVOO KWK WBAL WBZA
 WDAY WEBC WFAA WFLA WGAR
 WHAM WIBA WIOD WIS WJAX
 WJDX WJR WJZ WKY WLS WMC
 WOAI WPTF WREN WRVA WSM
 WWSB WTMJ WWNC

ED-9:15 p.m., E-8:15, C-7:15, M-6:15
C — Street Singer
 KMBC KMOX WABC WADC WCAO
 WCAU WCCO WDRR WEAN WFBL
 WGN WHK WJAS WKBW WKRC
 WMAL WNAC WOKO WWO WSPD
 WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — Evening in Paris
 KMBC WABC WADC WBT WCAO
 WCAU WCAE WFBL WGN WHEC
 WHK WJAS WKBW WKRC WMAL
 WMT WNAC WWO WSPD WXYZ
R — Parade of the Stars
 KFI KFYR KGO KGW KHQ KOA
 KOMO KPRC KSD KSL KSP

WBEN WCAE WCSH WDAF WEAF
 WEEI WFAA WFBW WGY WHAS
 WHO WJAR WJAX WKY WLIT
 WMC WOAI WOC WOV WRC
 WSAI WSB WSM WTAG WTAM
 WTTIC WTMJ WJZ
B — Four Boys and a Girl
 KOIL WBAL WHAM WJR WJZ
 WREN

ED-9:45 p.m., E-8:45, C-7:45, M-6:45
B — San Felician Serenade
 KDKA KOIL KWCR WBAL WGAR
 WHAM WJR WJZ WMAQ WREN

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Guy Lombardo and Orchestra
 KDYL KFJF KFPY KPRC KHJ
 KLZ KMBC KMOX KOIN KOL
 KRLD KTRH KTSa WABC WADC
 WBBM WCAO WCAU WCCO WDRR
 WEAN WFBL WFBM WHK WJAS
 WKBW WKRC WMAL WNAC WOKO
 WWO WSPD WXYZ

R — National Radio Forum
 KFYR KSD KTBS WCSH WDAY
 WEAF WEBC WENR WFBW WFLA
 WLA WIOD WIS WJAR WJDX
 WMC WRC WRVA WSAI WSB WSM
 WWSB WTAG WTAM WWJ WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
C — Music That Satisfies
 KDB KDYL KERN KFAB KFBK
 KFH KFJF KFPY KPRC KGB KGMB
 KHJ KLRA KLZ KMBC KMJ KMOX
 KOH KOIN KOL KOY KRLD KSCJ
 KTRH KTSa KYOR KWG WAAB
 WABC WACO WADC WBBM WBCM
 WBIG WBRC WBT WCAH WCAO
 WCAU WCCO WDAE WDBJ WDRB
 WDOD WDRR WDSU WEAN WFBL
 WFBM WFIW WGST WHAD WHEC
 WHK WHP WIBW WJAS WKBW
 WKBW WKRC WLAC WLAB WLWB
 WLZB WMAL WMBD WMBG WMT
 WNAX WNOX WOKO WORC WWO
 WPG WQAM WREC WSPD WTAR
 WTCO WXYZ

R — Kay Donna, Contralto
 KFYR KSTP KTBS WBEN WCAE
 WCSH WDAF WEAF WENR WFLA
 WGY WHO WIOD WIS WJAR WJDX
 WKY WLIT WOAI WOC WRC WSAI
 WSB WWSB WTAG WWJ WWNC

B — Waves of Melody
 KDKA KOIL KWK KYW WBAL
 WBZA WCKY WGAR WHAM WJR
 WJZ WREN

ED-10:45 p.m., E-9:45, C-8:45, M-7:45
C — Arthur Jarrett
 CFBP KLTB WAAB WABC WADC
 WBRB WBT WCAO WCAU WDAE
 WDBJ WDBO WDOD WDRR WDSU
 WFBL WFEA WFIW WHEC WHP
 WLAC WLWB WMAL WNOX WNO
 WORC WPG WQAM WREC WTAR
 WTCO

C — Myrt and Marge
 KDYL KFBK KFPY KPRC KHJ
 KLZ KMBC KMJ KOIN KOL WBBM
 WCCO WLAB WXYZ

B — McCravy Brothers
 KDKA KOIL WBAL WGAR WHAM
 WJR WJZ WREN

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
C — Alex Haas and Orchestra
 KDYL KFAB KFBK KFPY KLRA
 KLZ KMBC KMOX KOH KOL
 KSCJ KTRH KYOR WAAB WABC
 WADC WBCM WBRC WBT WCAH
 WCAO WCCO WDAE WDBJ WDBO
 WDOD WDRR WDSU WEAN WFBL
 WFBM WFEA WFIW WHEC WHK
 WHP WIBW WIP WKBW WKBW

WLAC WLAB WLWB WMAL WMBD
 WMT WNAX WNOX WOKO WORC
 WWO WQAM WREC WSBT WSPA
 WSPD WTAR WTCO WXYZ

R — Russ Colombo and Orchestra
 WEAF WFI WIOD WJAR WOV
 WRC WTC WTV WWNC

B — Amos 'n' Andy
 KFI KFSD KGO KGW KHQ KOA
 KOIL KOMO KPRC KSL KSTP
 KTHS KWK WBAP WDAF WEBC
 WENR WGAR WHAS WIBA WJDX
 WJR WKY WMAQ WMC WOAI
 WREN WSB WSM WSMB WTMJ

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
C — Maxwell House Blenders
 KFAB KFH KFJF KLRA KMBC
 KMOX KTRH KTSa WABC WACO
 WABC WBT WCAO WCCO WDAE
 WDBJ WDBO WDOD WFBL WFIW
 WGN WGST WHK WKRC WLAC
 WLAB WMAL WNOX WWO WQAM
 WREC WRR WSPD WTAR WTCO
 WXYZ

R — Jack Denny and Orchestra
 KSD WCAE WEAF WGY WTAM WWJ

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
C — Camel, Morton Downey
 KDB KDYL KERN KFAB KFBK
 KFH KFJF KFPY KPRC KGB KHJ
 KLRA KLZ KMBC KMJ KMOX KOH
 KOIN KOL KOY KSCJ KTRH KTSa
 KWG WACO WABC WCCO WDOD
 WDSU WFBM WGST WIBW WISN
 WLAB WLAB WMAL WMBD WMT
 WNAX WNOX WWO WREC WRR
 WGN

R — Firestone, Lawrence Tibbett
 KFI KFSD KFYR KGH KGR KGO
 KGO KGW KHQ KOA KOMO KSL
 KSTP KTAI WDAY WEBC WIBA
 WTMJ

B — Piano Moods
 KPRC KTBS WBAL WJZ WLW
 WMAQ WREN

ED-11:45 p.m., E-10:45, C-9:45, M-8:45
C — Noble Sissle and Orchestra
 CFBP KDYL KFAB KFPY KLRA
 KLZ KMBC KOH KOL KRLD KSCJ
 KTRH KYOR WAAB WABC WACO
 WADC WBCM WBRC WBT WCAH
 WCAO WCAU WCCO WDAE WDBJ
 WDBO WDOD WDRR WDSU WEAN
 WFBL WFBM WFEA WFIW WHEC
 WHP WISN WKBW WKBW WKBW
 WLAC WLAB WLWB WMAL WMBD
 WMT WNAX WNOX WOKO WORC
 WWO WPG WQAM WREC WSBT
 WSPA WSPD WTAR WTCO WXYZ

R — Cab Calloway and Orchestra
 KSD WBEN WCKY WEA WJAR
 WMAQ WRC WTC WWJ

ED-12:00 m., E-11:00, C-10:00, M-9:00
C — Isham Jones and Orchestra
 KDYL KFAB KFH KFPY KLRA
 KLZ KMBC KOH KOL KRLD KSCJ
 KTRH KYOR WABC WACO WADC
 WBBM WBCM WBRC WBT WCAH
 WCAO WCAU WCCO WDAE WDBJ
 WDBO WDOD WDSU WEAN WFBL
 WFBM WFEA WFIW WHEC WHK
 WHP WIBW WISN WKRN WKBW
 WLAB WLWB WMAL WMBD WMT
 WNAX WNOX WOKO WWO WQAM
 WREC WSBT WSPA WSPD WTAR
 WTCO WXYZ WNAX

R — Rudyard Kipling's Stories
 KFI KFSD KGO KGW KHQ KOA
 KOMO KSL KTAI

ED-12:05 a.m., E-11:05, C-10:05, M-9:05
R — Buddy Rogers and Orchestra
 WCAE WDAF WEEL WGY WRC

Monday—Continued

ED-12:30 a.m., E-11:30, C-10:30, M-9:30
 B—Billy Jones and Ernie Hare
 KEI KFSD KGO KGW KHQ KOA
 KOMO KSL KTRAR

TUESDAY

ED-8:00 a.m., E-7:00, C-6:00, M-5:00
 R—Gene and Glenn, See Monday.

ED-8:30 a.m., E-7:30, C-6:30, M-5:30
 R—Cheerio, See Monday

ED-10:15 a.m., E-9:15, C-8:15, M-7:15
 B—Clara, Lu and Em, See Monday

ED-12:00 n., E-11:00, C-10:00, M-9:00
 R—G. E. Circle

KFI KFSD KFYP KGO KGW KHQ
 KOA KOMO KPRC KSD KSL KTRAR
 KTHS KVoo WAPI WBEN WCAE
 WCSH WDAF WDAY WFAF WEEI
 WENR WFBR WFLA WGY WHAS
 WHO WIBA WIOD WIS WJAR
 WJAX WJDX WKY WLT WMC
 WQAI WOC WPTF WRG WRVA
 WSAI WSB WSM WSMBWTAG
 WTAM WVIC WTMJ WYJ WYWC

ED-1:30 p.m., E-12:30, C-11:30, M-10:30
 B—Farm and Home, See Monday

ED-4:45 p.m., E-3:45, C-2:45, M-1:45
 R—Lady Next Door, See Monday

ED-5:15 p.m., E-4:15, C-3:15, M-2:15
 R—Skippy, See Monday

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-6:15 p.m., E-5:15, C-4:15, M-3:15
 C—Reis and Dunn

CFRB KDYL KFH KLRA KLZ
 KMBC KOH KRLD KSCJ KTRH
 KVOR WAAB WABC WACO WBRC
 WBT WCAO WCCO WDAE WDBJ
 WDBO WDDO WDRC WDSU WFBL
 WFIW WGR WHP WIBW WISN
 WKBN WKBN WLAC WLPW WLWB
 WMT WNOX WOKO WORC WOWO
 WQAM WRBC WSBT WSPA WSPD
 WTAQ WTAR WTOC WYVA

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
 C—Jack Miller and Orchestra

KDYL KFAB KFH KLRA KLZ
 KMBC KMOX KOH KSCJ KTRH
 KVOR WAAB WABC WACO WBBM
 WBRC WCAO WCCO WDAE WDBJ
 WDBO WDDO WDRC WDSU WFEA
 WFIW WGR WHEC WHP WISN
 WKBN WKBN WLAC WLPW WLWB
 WMT WNOX WOKO WORC WOWO
 WQAM WRBC WSBT WSPA WSPD
 WTAQ WTAR WTOC WYVA WXYZ

B—Ray Perkins

KDKA KOA KOIL KPRC KSL
 KWK WAPI WBAL WBZA WKY
 WGAR WHAM WHAS WJDX WJZ
 WMAQ WMC WMO WREN WSB
 WSM WSMB

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

KFAB KSCJ KTRH WAAB WABC
 WADC WBBM WCAH WCAO WCAU
 WDAE WDBO WDRC WDSU WEAU
 WFBL WGST WHP WISN WJAX
 WKBW WKRC WLAC WLPW WMT
 WNOX WOKO WOWO WQAM WRBC
 WRR WSPD WTAR WTOC WXYZ

R—Back of News in Washington

KFI KFSD KGW KOA KTRAR WDAF
 WFAF WFBR WFI WGY WIOD WIS
 WPTF WRC WSAI WTAG WVIC
 WYWC

B—Lowell Thomas, See Monday
 B—Orphan Annie, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
 C—Myrt and Marge, See Monday

B—Amos 'n' Andy, See Monday
 R—Mid-Week Federation Hymn Sing

KEX KGA KJR KPO KTBS WDAF
 WFAF WJAR WJDX WREN WSAI
 WTAG WVIC

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
 C—Mills Brothers

KMBC KMOX WABC WADC WBBM
 WCAO WCAU WDRG WEAN WFBL
 WFBM WGR WHK WJAX WKRC
 WMAL WNAC WOKO WSPD
 B—Just Willie

KDKA KOIL WBZA WENR WJZ
 WREN

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
 C—Richman Bros., Sylvia Froos

KMBC KMOX WABC WADC WBBM
 WCAO WCAU WDRG WEAN WFBL
 WFBM WGL WGR WHK WISN
 WJAX WKBN WKRC WLPW WSPD
 WYVA WXYZ

B—Stebbins Boys, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
 C—Morton Downey, See Monday

R—Goldbergs, See Monday
 B—Jones and Hare, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
 C—Bath Club, See Monday

R—Blackstone, Sanderson-Crumit
 KSD KSTP KYW WCAE WCSH
 WDAF WFAF WFCB WFEI WFI
 WGY WHO WJAR WOC WOW
 WRC WSAI WTAG WTAM WVIC
 WYJ WYWC

B—Radio in Education

KECA KFSD KGA KGHL KGIR
 KJR KOA KOIL KSL KTRAR KTBS
 KYOO KWK KYA WBAI WCKY
 WFLA WGAR WIOD WIS WJDX
 WJZ WLS WPTF WREN WSMB
 WYWC

ED-8:15 p.m., E-7:15, C-6:15, M-5:15
 C—Abe Lyman and Orchestra

KMBC KMOX WABC WADC WBCM
 WCAH WCAO WCAU WCCO WFBL
 WFBM WGN WGR WHEC WHK
 WISN WJAX WKBN WKRC WLPW
 WMAL WSPD WXYZ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
 C—Kate Smith, See Monday

R—True Story

KSD KYW WBEN WCSH WDAF
 WFAF WFEI WFBR WFI WGY
 WHO WJAR WOC WOW WRC WSAI
 WTAG WTAM WVIC WYJ

B—Heel Hutter Harmonies

KFI KFSD KGW KHQ KOA KOIL
 KOMO KPO KSL KTRAR KWK
 WBZA WHAM WJZ WLS WREN
 ED-8:45 p.m., E-7:45, C-6:45, M-5:45
 C—Gerardine, Ed Sullivan

KMBC KMOX WABC WADC WCAO
 WCAU WDRG WEAN WFBL WFBM
 WGN WGR WHK WJAX WKRC
 WMAL WNAC WOWO WSPD WXYZ
 B—Sisters of the Skillet

KDKA KFYP KOIL KPRC KSTP
 KTBS KVoo KWK WBAI WBZA
 WDAY WFCB WGAR WHAM WIBA
 WJZ WKY WLS WLW WQAI WREN
 WTMJ

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
 C—Ben Bernie and Orchestra

KDYL KFBC KFH KFYP KFRC
 KHJ KLZ KMBC KMJ KOIN KOL
 KRLD KTRH KYI WABC WADC
 WBRC WBT WCAO WCAU WCCO

WDRC WDSU WEAN WFBL WGN
 WHK WJAS WKBW WKRC WLAC
 WMAL WNAC WNAX WOKO WORC
 WOWO WSPD WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
 C—Eno Crime Club

CFRB KMBC KMOX WABC WADC
 WCAO WCAU WDRG WEAN WFBL
 WGN WHK WJAS WKBW WKRC
 WMAL WNAC WOWO WSPD WXYZ
 B—Great Personalities

KDKA KOIL KWCR KWK WBAL
 WBZA WENR WGAR WHAM WJR
 WJZ WLW WREN

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
 C—Voice of 1000 Shades

CFRB CKAC KDB KDYL KERN
 KFBC KFRC KHJ KLZ KMBC
 KMJ KMOX KOIN KOL KSCJ
 KTRH KWG WAAB WABC WBBM
 WBT WCAH WCAO WCAU WCCO
 WDRG WEAN WFBL WFBM WGST
 WHEC WHK WHP WISN WJAX
 WKBW WKRC WLPW WMAL WMT
 WOKO WXYZ

R—Lucky Strike Dance Hour

KFSD KFYP KGO KGW KHQ
 KOA KOMO KPRC KSD KSL KSTP
 KTRAR KTBS WAPI WBEN WCAE
 WCSH WDAF WDAY WFAF WFCB
 WFEI WENR WFAA WFBR WFI
 WFLA WGY WHAS WHO WIBA
 WIOD WIS WJAR WJAX WJDX
 WKY WMC WQAI WOC WPTF
 WRC WRVA WSAI WSB WSM
 WSMB WTAG WTAM WVIC WTMJ
 WYJ WYWC KFI

ED-10:15 p.m., E-9:15, C-8:15, M-7:15
 C—Musical Fast Freight

KFH KFJF WABC WCAU WDBJ
 WFBM WJAS WMAL WOKO

ED-10:30 p.m., E-9:30, C-8:30 M-7:30
 C—Music That Satisfies See Monday

B—Paris Night Life

KDKA KOIL KWK KYW WBAL
 WBZA WKY WGAR WHAM WJR
 WJZ WREN

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

CFRB KLRA WAAB WABC WADC
 WBT WCAO WCAU WDAE WDBJ
 WDBO WDDO WDRC WDSU WEAN
 WFBL WFIW WHEC WHK WHP
 WKBN WRBW WLAC WLWB WMAL
 WNOX WOKO WORC WPG WQAM
 WRC WTOC

C—Myrt and Marge, See Monday
 B—McCravy Bros. See Monday

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

KDB KDYL KERN KFBC KFYP
 KFRC KGB KHJ KLZ KMJ KMOX
 KOIN KOL KYI KWG WBRC WCCO
 WFBM WMAL

R—Russ Columbo See Monday
 B—Amos 'n' Andy See Monday

ED-11:15 p.m., E-10:15 C-9:15 M-8:15
 C—Howard Barlow and Orchestra

KDYL KFAB KFBC KFH KFYP
 KLRA KLZ KMBC KMOX KOH
 KOIN KSCJ KTRH KVOR WAAB
 WABC WADC WBCM WBRC WBT
 WCAH WCAO WCCO WDAE WDBJ
 WDBO WDDO WDRC WDSU WEAN
 WFBL WFBM WFEA WFIW WHEC
 WHK WHP WIBW WKBN WKBN
 WKBW WLAC WLPW WLWB WMAL
 WMBD WMT WNAX WNOX WOKO
 WORC WOWO WQAM WRC WSPA
 WSPD WTAR WTOC WXYZ

Tuesday—Continued

ED-11:30 p.m. E-10:30 C-9:30 M-8:30
C—Morton Downey, See Monday
R—Chas. Dornberger and Orchestra
 CFCF KCGW KFYR KOA KPRC
 KSD KTBS KTHS WBBN WCKY
 WCAF WENR WFBR WFLI WIBA
 WIOD WJAR WJAX WOAI WRC
 WTAM WVIC WWJ
B—Piano Moods, See Monday
 ED-11:45 p.m. E-10:45 C-9:45 M-8:45
C—Noble Sissale, See Monday
 ED-12:05 p.m. E-11:05 C-10:05 M9:04
R—Johnnie Hamp and Orchestra
 KTHS WBBN WCAF WGY WRC
 WSM WSMB WVIC
 ED-12:30 a.m. E-11:30 C-10:30 M-9:30
B—Jones and Hare, See Monday

WEDNESDAY

ED-8:00 a.m. E-7:00 C-6:00 M-5:00
R—Gene and Glenn, See Monday
 ED-8:30 a.m. E-7:30 C-6:30 M-5:30
R—Cherio, See Monday
 ED-10:15 a.m. E-9:15 C-8:15 M-7:15
B—Clara Lu and Em, See Monday
 ED-12:00 n., E-11:00, C-10:00, M-9:00
R—G.E. Circle, See Tuesday
 ED-1:30 p.m., E-12:30, C-11:30, M-10:30
B—Farm and Home, See Monday
 ED-4:30 p.m., E-3:30, C-2:30, M-1:30
R—Ely Culbertson, See Monday
 ED-4:45 p.m., E-3:45, C-2:45, M-1:45
R—Lady Next Door, See Monday
 ED-5:15 p.m., E-4:15, C-3:15, M-2:15
R—Skippy, See Monday
 ED-5:30 p.m., E-4:30, C-3:30, M-2:30
R—Wayne Kins and Orchestra
 KFI KFYR KGO KGW KHQ KOA
 KOMO KSD KSL KSTP WBBN
 WCAE WCHS WDAF WDAY WCAF
 WENR WFBR WGY WHO
 WIBA WJAR WLIT WOC WOI
 WRC WSAI WTAG WTAM WVIC
 WTMJ WWJ
 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—Connie Boswell
 CFRB KDYL KFAB KFBK KFJF
 KLRA KLZ KMBC KMOX KOH
 KRLD KSCJ KTRH KYI WAAB
 WABC WACO WBIG WBCB WBT
 WCAO WCCO WDAF WDBJ WDBO
 WDDO WDRC WDAF WFEA WFIW
 WHP WIBW WIP WISN WKBH
 WLAC WLAP WLWB WMAL WMT
 WNOX WOOD WORC WOWO WQAM
 WREB WRSB WSPA WTAQ WTAR
 WTOC WWVA KVOR
R—Waldorf-Astoria, See Monday
 ED-6:30 p.m., E-5:30, C-4:30, M-3:30
B—Royal Vagabonds, See Monday
 ED-6:45 p.m., E-5:45, C-4:45, M-3:45
C—Bing Crosby, 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
C—Myrt and Marge, See Monday
B—Amos 'n' Andy, See Monday
 ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C—Maxwell House, See Monday
B—Esso Program, Elsie Janis
 KDKA KTBS WBAL WBZA WIS
 WJZ WMC WPTF WRVA WSM
 WSMB WNNC
 ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C—Easy Aces, See Monday
B—Stebbins Boys, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C—Morton Downey, See Monday
R—Goldbergs, See Monday
B—Jones and Hare, See Monday
 ED-8:00 p.m., E-7:00, C-6:00, M-5:00
C—Bath Club, See Monday
R—Big Time
 KSD WBBN WCHS WCAF WEEI
 WFBR WGY WHO WJAR WLIT
 WIS WOC WOW WRC WSAI WTAM
 WWJ
B—Taxpayers' League
 KFSB KFYR KGHL KGIR KGO
 KGW KHQ KOA KOIL KOMO
 KPRC KTRT KTBS KVOO KWK
 WBAL WDAY WFLA WHAM WIBA
 WIS WJDX WJZ WLS WLW WMC
 WOAI WPTF WREN WNNC
 ED-8:15 p.m., E-7:15, C-6:15, M-5:15
C—Singing Sam, See Monday
B—Willys Overland Program
 KDKA KFSB KFYR KGHL KGIR
 KGO KGW KHQ KOA KOIL KOMO
 KPRC KSL KSTP KTRT KTBS
 KVOO KWOR KWK WAPI WBAL
 WBZA WCKY WDAY WECB WFAA
 WGAR WHAM WHAS WIBA WJDX
 WJR WJZ WKY WMAQ WMC WOAI
 WREN WSB WSM WSMB WTMJ
 ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C—Kate Smith, See Monday
R—Halsey Stuart Program
 KSD KSTP WBBN WCAE WCHS
 WCAF WEEI WFBR WGY WHO
 WJAR WLIT WMAQ WOC WOW
 WRC WSAI WTAG WTAM WTMJ
 WWJ
B—Jack Frost Melody Moments
 KDKA WBAL WGAR WHAM WJR
 WJZ WLS WLW
 ED-8:45 p.m., E-7:45, C-6:45, M-5:45
C—Col. Stoopnagle, See Monday
 ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C—Musical Fast Freight
 KFJF KFJF WABC WCAU WDBJ
 WFBM WJAS WMAL WOKO
R—Goodyear, Grace Moore
 KFYR KPRC KSD KSTP KTHS
 KVOO KYW WBBN WCAE WCHS
 WDAY WCAF WECB WEEI WFAA
 WFBR WFLA WGY WHAS WHO
 WIBA WIOD WIS WJAR WJAX
 WJDX WKY WLIT WMC WOAI
 WOC WOW WRC WRVA WSAI
 WSB WSM WSMB WTAG WTAM
 WTMJ WWJ WNNC
B—Sherlock Holmes Drama
 KDKA KWK WBAL WBZA WGAR
 WHAM WJR WJZ WLW WMAQ
 WREN
 ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C—Eno Crime Club, See Tuesday
R—Mobiloil Concert
 KFI KFYR KGO KGW KHQ KOA
 KOMO KPRC KSD KSL KSTP
 KTRT KVOO WBBN WCAE WCHS
 WDAF WDAY WCAF WECB WEEI
 WENR WFAA WFBR WFLA WGY
 WHAS WHO WIBA WIOD WIS
 WJAR WJDX WKY WLIT WMC
 WOAI WOC WOW WRC WSAI WSB
 WSM WSMB WTAG WTAM WVIC
 WTMJ WWJ WNNC WJAX
 ED-9:45 p.m., E-8:45, C-7:45, M-6:45
B—San Felice, See Monday
 ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C—Music That Satisfies, Ruth Eiting
 KDB KDYL KERN KFBK KFJF
 KFJF KFPY KFRC KGB KHJ KLRA
 KLZ KMBC KMJ KMOX KOH
 KOIN KOL KOY KRLD KSCJ KTRH

KTSA KVI KVOR KWG WABC
 WACO WADC WBBM WBCM WBIG
 WBT WCAH WCAO WCAU WCCO
 WDAE WDBJ WDBO WDRG WFAN
 WFLB WFLM WFIW WGST WHEC
 WHR WIP WIRW WISN WJAS
 WKBH WKBW WKRC WLAP WLWB
 WLZ WMAL WMBD WMGB WMT
 WNAC WNAX WOKO WORC WOWO
 WPG WQAM WSPD WTAR WTOC
 WXYZ
R—Coca-Cola Program
 KFI KFSB KGO KGU KGW KHQ
 KOA KOMO KPRC KSD KSL KSTP
 KTRT WAPI WCAF WBBN WCAE
 WCHS WDAF WCAF WEEI
 WENR WFBR WFLA WGY WHAS
 WHO WIOD WIS WJAR WJAX
 WJDX WKY WLIT WMC WOAI
 WOC WOW WRC WRVA WSAI
 WSB WSM WSMB WTAG WTAM
 WVIC WTMJ WWJ WNNC
 ED-10:15 p.m., E-9:15, C-8:15, M-7:15
C—Adventures in Health
 KMBC KMOX WAAB WABC WADC
 WBBM WCAO WCAU WCCO WHDC
 WEAN WFLB WHK WJAS WKBW
 WKRC WMAL WOKO WOWO WSPD
 WXYZ
 ED-10:30 p.m., E-9:30, C-8:30, M-7:30
C—Society's Playboy
 CFRB CKAC KDB KDYL KERN
 KFBK KFPY KFRC KGB KHJ KLZ
 KMBC KMJ KMOX KOIN KOL
 KRLD KTRH KVI KWC WAAB
 WABC WADC WBBM WBT WCAO
 WCAU WCCO WDRG WFLB WFBM
 WGST WHK WJAS WKBW WKRC
 WLAP WMAL WMT WOKO WOWO
 WSPD WXYZ
R—NBC Artists' Service Musicale
 KGO KOA KSD KSTP KTHS WBBN
 WCAE WCHS WCAF WENR WHO
 WIS WJAR WQAI WOC WOW WRC
 WSB WSMB WTAG WTAM WWJ
 WNNC WGY
 ED-10:45 p.m., E-9:45, C-8:45, M-7:45
C—Street Singer
 CFRB KLRA WAAB WABC WBIG
 WBCB WBT WCAO WCAU WDAE
 WDBJ WDDO WDRG WDSU WEAN
 WFLB WFLA WFIW WHEC WHP
 WKBW WLAC WLWB WMAL WNOX
 WOKO WORC WPG WQAM WREC
 WTAR WTOC WADC
C—Myrt and Marge, See Monday
B—Pickens Sisters
 KDKA KOIL WBAL WGAR WHAM
 WJR WJZ
 ED-11:00 p.m., E-10:00, C-9:00, M-8:00
R—Nellie Revell
 KSD WCHS WCAF WGY WJAR
 WOW WRC WTAM WWJ
B—Amos 'n' Andy, See Monday
 ED-11:15 p.m., E-10:15, C-9:15, M-8:15
C—Maxwell House, See Monday
 ED-11:30 p.m., E-10:30, C-9:30, M-8:30
C—Morton Downey, See Monday
R—Vincent Lopez and Orchestra
 KFYR KPRC KTHS KTHS WAPI
 WBBN WCBF WCKY WDAF WCAF
 WECB WGY WIBA WJAR WOW
 WRC WTAM WVIC WTMJ WWJ
B—Jane Froman and Orchestra
 WBAL WGAR WJZ WMAQ
 ED-11:45 p.m., E-10:45, C-9:45, M-8:45
C—Don Redman and Orchestra
 KDYL KFAB KFJF KFPY KLRA
 KLZ KMBC KOH KOL KRLD KSCJ
 KTRH KVOR WAAB WABC WADC
 WBCM WBIG WBCB WBT WCAH
 WCAO WCAU WCCO WDAE WDBJ

Wednesday—Continued

WDBO WDDO WDRC WDSU WFBN
WFEA WFIW WHEC WHF WISM
WKBH WKBW WLAC WLAP WLWB
WMAL WMBD WMT WNAX WNOX
WOKO WORC WOWO WPG WQAM
WSBT WSPA WSPD WTAR WTOC
WXYZ

ED-12:00 p.m., E-11:00, C-10:00, M-9:00
B — Cab Calloway and Orchestra
KDKA KOIL KWK KGAR WHAM
WJZ WLS WLW WREN WBZA

ED-12:05 a.m., E11-05, C-10:05, M-9:05
R — Buddy Rogers, See Monday

ED-12:30 a.m., E-11:30, C-10:30, M-9:30
B — Jones and Hare, See Monday

THURSDAY

ED-8:00 a.m., E-7:00, C-6:00, M-5:00
R — Gene and Glenn, See Monday

ED-8:30 a.m., E-7:30, C-6:30, M-5:30
R — Cheerio, See Monday

ED-10:15 a.m., E-9:15, C-8:15, M-7:15
B — Clara Lu and Em, See Monday

ED-12:00 n., E-11:00, C-10:00, M-9:00
R — G. E. Circle, See Tuesday

ED-1:30 p.m., E-12:30, C-11:30, M-10:30
B — Farm and Home, See Monday

ED-4:45 p.m., E-3:45, C-2:45, M-1:45
R — Lady Next Door, See Monday

ED-5:15 p.m., E-4:15, C-3:15, M-2:15
R — Skippy, See Monday

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-6:15 p.m., E-5:15, C-4:15, M-3:15
C — Reis and Dunn, See Tuesday

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
C — Jack Miller, See Tuesday

R — World Today
KFSD KFYP KGHL KGIR KGO
KOA KOMO KSD WFAE WFAA
WFI WBA WJAR WJAX WJDX
WMAQ WSAI WTIC WWJ WNNC

ED-6:45 p.m., E-5:45, C-4:45, M-3:45
C — Joe Palooka, See Tuesday

R — June Pursell, 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
C — Myrt and Marge, See Monday

B — Amos n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C — Mills Brothers, See Tuesday

B — Hinds Romance Exchange
KOIL KVOO KWK WAPI WBAP
WBZA WHAS WJDX WJZ WLW
WMC WOAI WREN WSB WSM
WSMB

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C — Richman Bros., See Tuesday

B — Stebbins Boys, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C — Morton Downey, See Monday

R — Goldbergs, See Monday

B — Jones and Hare, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
C — Bath Club, See Monday

R — Fleischmann, Rudy Vallee
CFCE CKGW KFI KFSD KFYP
KGO KGW KHQ KOA KOMO KPRC
KSD KSL KSTP KTAR WAPI WBAP
WBEA WCAE WCHS WDAF WDAY
WFEA WFCB WFEI WFBR WFI
WFLA WGY WHAS WHY WIOD
WJAR WJAX WJDX WKY WMAQ
WMC WOAI WOC WOW WPTT

WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WVIC WWJ
B — Edgewood Program
KDKA KOIL KWK KBAL WBZA
WKCY WGAR WHAM WJZ WLS
WREN

ED-8:15 p.m., E-7:15, C-6:15, M-5:15
C — Abe Lyman, See Tuesday

B — Rin-Tin-Tin Thriller
KDKA KOIL KWK KGAR WHAM
WJZ WLS WLW WREN WBZA

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Kate Smith, See Monday

B — B. A. Rolfe and Orchestra
KDKA KOIL KWK WBZA WJZ
WLS WLW WREN

ED-8:45 p.m., E-7:45, C-6:45, M-5:45
C — Angelo Patri, See Sunday

B — Sisters of Skillet, See Tuesday

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Eugene Revue, See Monday

R — Big Six of the Air
KFI KFSD KGHL KGIR KGO KGW
KHQ KOA KOMO KPRC KSD KSL
KSTP KTAR KTBS WBAP WBEA
WCAE WCHS WDAF WFEA WFEI
WFBR WFI WGY WIBA WJAR
WKY WMAQ WOAI WOC WOW
WRC WSAI WTAG WTAM WVIC
WTMJ WWJ WHO

B — Blackstone, Sanderson-Crumit
KDKA WBAL WBZA WCKY WHAM
WJZ

ED-9:15 p.m., E-8:15, C-7:15, M-6:15
C — Modern Male Chorus
CFRB KDYL KFAB KFH KFJF
KFYF KLRA KMBC KMOX KOH
KSCJ KTRH KVI KVOR WAAC
WABC WBCM WBGW WBRG WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO WDDO WDRC WDSU
WEAN WFBM WFEA WFIW WGL
WHB WIBV WISN WKBW WLAC
WLAP WLWB WMT WNAC WNOX
WOKO WORC WOWO WQAM WREC
WSTP WSPA WSPD WTAQ WTAR
WTOT WWVA WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — Love Story Hour
KMBC KMOX WAAC WADC WCAO
WCAU WDRC WEAN WFBL WGN
WHK WJAS WKBW WKRC WMAL
WNAC WOWO WSPD WXYZ

B — Thompkins' Corners
KDKA KFI KFSD KGO KGW KHQ
KOA KOIL KOMO KPRC KSL
KSTP KTAR KWCH KWK KYW
WAPI WBAL WBAP WBZA WFCB
WFLA WGAR WHAM WHAS WIOD
WJAX WJDX WJR WJZ WKY WLW
WMC WOAI WREN WRVA WSB
WSM WSMB WTMJ WNNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — H.S.M. Trumpeters
KFJF KLZ KMBC KMOX KRLD
KSCJ WAAB WABC WADC WBBM
WCAO WCAU WCCO WDRC WBEA
WFBL WFBM WGST WBK WJAS
WKBW WKRC WLAP WMAL WMT
WOWO WSPD WXYZ

R — Lucky Strike, See Tuesday

B — A. & P. Dance Gypsies
KDKA KWK KBAL WBZA WGAR
WHAM WJR WJZ WLW WMAQ
WREN

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
C — Music That Satisfies, See Monday

B — Hollywood Nights
KDKA KOIL KWK KYW WBAL
WBZA WCKY WGAR WHAM WJR
WJZ WREN

ED-10:45 p.m., E-9:45 C-8:45 M-7:45
C — Arthur Jarrett, See Monday

C — Myrt and Marge, See Monday

B — Pickens Sisters, See Wednesday

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
C — Joe Palooka, See Tuesday

R — Russ Columbo, See Monday

B — Amos n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
C — Howard Barlow, See Tuesday

R — Lew Conrad's Orchestra
KSD WKCY WDAF WFEA WENR
WFBR WFI WHO WJAR WOC WRC
WVIC

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
C — Morton Downey, See Monday

B — Through the Opera Glass
CKGW KECA KEX KFYP KGA
KGHL KJR KOIL KPO KSTP KTBS
WBAL WENR WIBA WJR WJZ
WRC WREN WSB

ED-11:45 p.m., E-10:45, C-9:45, M-8:45
C — Bing Crosby
CFRB KDYL KFAB KFJF KIPY
KLRA KMBC KOH KOIN KOL
KRLD KSCJ KTRH KVOR WAAB
WABC WADC WBCM WBGW WBRG
WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDBO WDDO WDRC
WDSU WEAN WFBM WFBM WFEA
WFIW WHEC WHK WHP WISN
WKBN WKBW WLAC WLAP WLWB
WMAL WMBD WMT WNAX WNOX
WOKO WORC WOWO WPG WQAM
WREC WSBT WSPD WTAR WTOC
WXYZ

R — Cab Calloway, See Monday

ED-12:00 p.m., E-11:00, C-10:00, M-9:00
C — Guy Lombardo and Orchestra
KDYL KFAB KFH KFJF KIPY
KLRA KLZ KMBC KOH KOL KRLD
KSCJ KTRH KVOR WABC WADC
WBCM WBRG WBT WCAH WCAO
WCAU WCCO WDAE WDBJ WDBO
WDDO WDSU WEAN WFBM WFEA
WFIW WHEC WHP WHP WISN
WKBN WKBW WLAC WLAP WLWB
WMAL WMBD WMT WNAC WNAX
WNOX WOKO WOWO WQAM WREC
WSBT WSPD WTAR WTOC WXYZ

ED-12:05 p.m., E-11:05, C-10:05, M-9:05
R — Johnnie Hamp, See Tuesday

ED-12:30 a.m., E-11:30, C-10:30, M-9:30
B — Jones and Hare, See Monday

FRIDAY

ED-8:00 a.m., E-7:00, C-6:00, M-5:00
R — Gene and Glenn, See Monday

ED-8:30 a.m., E-7:30, C-6:30, M-5:30
R — Cheerio, See Monday

ED-10:15 a.m., E-9:15, C-8:15, M-7:15
B — Clara, Lu and Em, See Monday

ED-12:00 n., E-11:00, C-10:00, M-9:00
R — G. E. Circle, See Tuesday

ED-1:30 p.m., E-12:30, C-11:30, M-10:30
B — Farm and Home, See Monday

ED-4:45 p.m., E-3:45, C-2:45, M-1:45
R — Lady Next Door, See Monday

ED-5:15 p.m., E-4:15, C-3:15, M-2:15
R — Skippy, See Monday

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 — Kallenborn, See Monday

R — Waldorf-Astoria, See Monday

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
C — Snooks Friedman, See Monday

B — Royal Vagabonds, See Monday

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

C — Bing Crosby, See Monday
B — Lowell Thomas, See Monday
B — Orphan Annie, See Monday
R — Larry Funk and Orchestra
KGO KOA WCAE WCSH WEAF
WFI WRC WTAG WWJ

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C — Maxwell House, See Monday
B — Elsie Janis, See Wednesday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C — Easy Aces, See Monday
B — Stebbins Boys, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C — Morton Downey, See Monday
R — Goldbergs, See Monday
B — Jones and Hare, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
C — Bath Club, See Monday
R — Cities Service Concert
CKGW KFI KGO KGW KHQ KOA
KOMO KPRC KSD KSL KSTP
KTHS KTHS KYW WBEN WCAE
WCSH WDAF WEAF WIBC WEAF
WFAA WFBW WGY WHO WJAR
WKY WLIT WQAI WOC WWR
WRC WSAI WTAG WTAM WVIC
WTMJ WWJ

B — Nestle's Program
KDKA KOL KWK WBAL WRZA
WCKY WGAR WHAM WJZ WLS
WREN

ED-8:15 p.m., E-7:15, C-6:15, M-5:15
C — Singing Sam, See Monday

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Today and Yesterday
KFJF KMBC KMOX KTRH WABC
WADC WBT WCAO WCAU WCCO
WDRG WEAN WFBL WGN WGR
WGST WHK WJAS WKRC WMAL
WNAC WOKO WOW WREC WRR
WSPD WXYZ

B — B. A. Rolfe, See Thursday

ED-8:45 p.m., E-7:45, C-6:45, M-5:45
B — Sisters of Skillet, See Tuesday

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Toscha Seidel, Violinist
CFRB KFAB KFBC KFH KFJF
KLRA KMBC KMOX KOH KOIN
KSCJ KTRH KVI WABC WADC
WBCM WBIG WBRB WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDOB WDRG WDSU WFBM WFEA
WFIW WIBW WISN WKBW WLAC
WLAP WLWB WMAL WMT WNAX
WNOX WOKO WORC WOMO WQAM
WREC WSEA WSPD WTAQ WTAR
WTOC WWVA WXYZ

R — Cliequot Club
KSD WBEN WCAE WCSH WDAF
WEAF WEEL WFBW WGY WHO
WJAR WLIT WLS WOC WOV WRC
WSAI WTAG WVIC WWJ

B — Friendship Town
CFCE CKGW KDKA KFI KFSD
KFYR KGO KGW KHQ KOA KOLL
KOMO KPRC KSL KSTP KTAR
KTHS KWK KYW WAPI WBAL
WBZA WDAY WIBC WFLA WGAR
WHAM WHAS WIBA WIOD WIS
WJAX WJDX WJR WJZ WKY WMC
WOAI WREN WRVA WSB WSM
WSMB WTMJ WWNC

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — To the Ladies, Tito Guizar
KMBC KMOX KRLL WABC WADC
WCAO WCAU WCCO WDRG WEAN

WFBL WFBM WGN WHK WJAS
WKBW WKRC WMAL WNAC WOKO
WOWO WSPD WXYZ

R — Pond's Program
KSD WBEN WCAE WCSH WDAF
WEAF WENR WFBW WGY WHO
WJAR WLIT WOC WOV WRC
WSAI WTAG WTAM

B — Armour Program
KDKA KFI KGO KGW KHQ KOA
KOMO KPRC KSL KSTP WAPI
WBAL WBZA WIBC WFAA WGAR
WHAM WHAS WIOD WJAX WJZ
WKY WMAQ WMC WOAI WRVA
WSB WSM WSMB WWNC

ED-9:45 p.m., E-8:45, C-7:45, M-6:45
C — Van Heusen, Gus Van
KMBC KMOX KRLL WABC WADC
WCAO WCAU WDRG WEAN WFBL
WFBM WGN WHK WJAS WKBW
WKRC WMAL WNAC WOKO WSPD
WXYZ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Beau Bachelor
KDB KDYL KERN KFBC KFJF
KFYR KHI KLZ KMI KMOX KOIN
KOL KRLL KWG WAAB WABC
WADC WBBM WBT WCAO WCAU
WCCO WDRG WEAN WFBL WHK
WJAS WKBW WKRC WMAL WOKO
WOWO WREC WSPD WXYZ KFRC
R — Sampler, Andy Sanella
KSD WBEN WCAE WCSH WEAF
WEEL WFBW WGY WHO WJAR
WLIT WMAQ WOC WOV WRC
WSAI WTAG WTAM WWJ

B — Paul Whiteman's Chieftains
KDKA KFI KFSD KFYR KGH
KGR KGO KGW KHQ KOA KOLL
KOMO KPRC KSL KSTP KTAR
KVOO KWK WBAL WBAW WFLA
WCKY WDAY WIBC WENR WJAZ
WJAR WHAM WHAS WIBA WIOD
WIS WJAX WJDX WJR WJZ WKY
WMC WOAI WPTT WREN WRVA
WSB WSM WSMB WTMJ WWNC

ED-10:15 p.m., E-9:15, C-8:15, M-7:15
C — Adventures in Health, See Wed.

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
C — Music That Satisfies, See Monday

ED-10:45 p.m., E-9:45, C-8:45, M-7:45
C — Myrt and Marge, See Monday
C — Funnyboners, See Tuesday
B — Pickens Sisters, See Wednesday

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

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
C — Maxwell House, See Monday
R — Vincent Lopez and Orchestra
KSD WCKY WDAF WEAF WEEL
WJAR WOV WRC WTAM WWJ

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
C — Morton Downey, See Monday

B — Chas. Dornberger's Orchestra
CFCE KDKA KFYR KPRC KSTP
WBAL WCKY WIBC WENR WIBA
WIS WJR WJZ WJW WRC WREN
KOA

ED-11:45 p.m., E-10:45, C-9:45, M-8:45
C — Don Redman, See Wednesday

ED-12:00 m., E-11:00, C-10:00, M-9:00
C — Isham Jones, See Monday

B — Cab Calloway, See Wednesday

ED-12:05 a.m., E-11:05, C-10:05, M-9:05
R — Johnnie Hamp, See Tuesday

ED-12:30 a.m., E-11:30, C-10:30, M-9:30
B — Jones and Hare, See Monday

SATURDAY

ED-8:00 a.m., E-7:00, C-6:00, M-5:00
R — Gene and Glenn, See Monday

ED-8:30 a.m., E-7:30, C-6:30, M-5:30
R — Shero, See Monday

ED-1:30 p.m., E-12:30, C-11:30, M-10:30
B — Farm and Home, See Monday

ED-4:45 p.m., E-3:45, C-2:45, M-1:45
R — Lady Next Door, See Monday

ED-5:15 p.m., E-4:15, C-3:15, M-2:15
R — Skippy, See Monday

ED-5:30 p.m., E-4:30, C-3:30, M-2:30
R — Blue Moon Cuckoos
KSD KSTP WBEN WCAE WCSH
WDAF WEAF WEEL WENR WFBW
WGY WHO WJAR WLIT WOC WOV
WRC WSAI WTAG WTAM WVIC
WTMJ WWJ

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
C — Jack Miller, See Tuesday

ED-6:45 p.m., E-5:45, C-4:45, M-3:45
R — June Pursell, See Monday

B — Orphan Annie, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
C — Political Situation, Wile

KFAB KFJF KFJF KLZ KOH KOL
KRLL KSCJ KTRH KVI KVOR
WABC WACO WADC WBBM WBCM
WBIG WBRB WCAO WCAU WCCO
WDAE WDBJ WDOB WDOO WDRG
WDSU WDEAN WFIW WGR WHP
WIBW WISN WLAC WLAP WLWB
WMAL WMT WNAC WNOX WOKO
WOWO WQAM WREC WSEA WTAQ
WTAR WTOC WWVA

B — Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C — Wm. Vincent Hall, Baritone

CFRB KFAB KFBC KFH KFJF
KOH KOL KRLL KSCJ KTRH
KVI KVOR WABC WACO WADC
WBCM WBIG WBRB WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDOB WDRG WDSU WEAN WFBL
WFIW WGR WHEC WHP WIBW
WISN WLAC WLAP WLWB WMAL
WMT WNAC WNOX WOKO WORC
WQAM WREC WSEA WTAQ WTOC
WWVA

R — Laws That Safeguard Society
KECA KEX KFSD KFYR KGA KJR

KOA KPO KPRC KTAR KTHS
WAPI WBEN WCSH WDAY WEAF
WIBC WENR WFI WFLA WGY
WHO WIOD WJAR WJDX WOC
WOW WPTT WRVA WSAI WTAG
WVIC

B — Tastyest Jesters, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C — Guy Lombardo and Orchestra

KMBC KMOX KRLL WABC WADC
WCAO WCAU WCCO WDRG WRC
WFBL WGN WGR WHK WJAS
WKRC WMAL WNAC WOKO WSPD
WXYZ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C — Morton Downey, See Monday

R — Goldbergs, See Monday

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

CFRB KDYL KFBC KFH KFJF
KFYR KLZ KMOX KOH KOL KRLL
KSCJ KTRH KVI KVOR WABC
WACO WADC WBCM WBIG WBT

WCAH WCAO WCAU WCCO WDBJ
 WDHO WDOD WDRG WDSU WFBM
 WFIV WGL WHEC WHK WHP
 WTBW WISN WKBW WLAC WLAP
 WLWB WMT WNAC WNAX WNOX
 WPG WQAM WREC WSFA WSPD
 WTAQ WTAR WTOG WVVV WXYZ
R — Ely Culbertson, Bridge
 CFCE CKGW KSD WBEN WCSH
 WDAF WEAF WEEL WFER WFI
 WGY WHO WJAR WMAQ WOC
 WOW WRC WSAI WTAG WTAM
 WVIC WWJ
B — Danger Fighters, Drama
 KDKA KFI KPSD KFYR KGO KGW
 KOA KOIL KOMO KPRC KSL KSTP
 KTAR KWK WBAL WBAP WCKY
 WDAY WFCB WGAR WHAM WJIA
 WJR WJZ WKY WLS WQAI WREN
 WTMJ

ED-8:15 p.m., E-7:15, C-6:15, M-5:15
C — Abe Lyman, See Tuesday
R — Civic Concerts Program
 KSD WCAE WCSH WDAF WEAF
 WEEL WFER WFI WHO WIOD WIS
 WJAR WJAX WMAQ WOC WOW
 WRC WVIC WWJ WVNC

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Photoplay's Movie Stars
 KMBC KMOX WABC WCAO WCAU
 WFBL WGN WGR WHK WJAX
 WKRC WMAL WNAC WSPD WXYZ
R — Radio in Education
 KFI KPSD KFYR KGHL KGIR
 KGW KHQ KOA KOMO KPRC KSD
 KSL KSTP KTAR KYW WAPI WBEN
 WCAE WCSH WDAF WDAY WEAF
 WEAF WEEL WFER WFI WFLA
 WGY WHAS WHO WJIA WIOD
 WIS WJAR WJAX WJZ WKY WMC
 WQAI WOC WOW WPTF WRC
 WRVA WSAI WSB WSM WSMB
 WTAG WTAM WVIC WTMJ WWJ
 WVNC

B — Dance with Countess D'Orsay
 CFCE CKGW KDKA KWK WBAL
 WBZA WGAR WHAM WJZ WLW
 WMAQ WREN

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Vaughn DeLeath
 CFRB KFAB KFBK KFH KFIJ
 KFPY KLRA KMBC KMOX KOH
 KOL KSCJ KTRH KVI KVR WAAB
 WABC WADC WBCM WBIG WBRC
 WBT WCAH WCAU WCCO WDAE
 WDBJ WDBO WDOD WDRG WDSU
 WEAN WFBL WFBM WFEA WHEC
 WHK WHP WIBW WISN WKBW
 WLAC WLAP WLWB WMAL WMT
 WNAX WNOX WOKO WORC WOWO
 WPG WQAM WREC WSBT WSFA
 WSPD WTAQ WTAR WTOG WVVV
 WXYZ

ED-9:15 p.m., E-8:15, C-7:15, M-6:15
C — Fray and Braggiotti, Piano
 CFRB KDYL KFAB KFBK KFH
 KFIJ KFPY KLRA KLZ KMBC
 KMOX KOH KSCJ KTRH KVI
 KVR WAAB WABC WADC WBCM
 WBIG WBRC WBT WCAH WCAU
 WCCO WDAE WDBJ WDHO WDOD
 WDRG WDSU WEAN WFBL WFBM
 WFEA WHEC WHK WHP WIBW
 WISN WKBW WLAC WLAP WLWB
 WMAL WMT WNAX WNOX WOKO
 WORC WOWO WQAM WREC WSBT
 WSFA WSPD WTAQ WTAR WTOG
 WVVV WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — Isham Jones and Orchestra
 CFRB KDYL KFBK KFH KFIJ
 KFPY KLRA KLZ KMBC KMOX

KOH KSCJ KTRH KVI KVR WAAB
 WABC WADC WBCM WBIG WBRC
 WBT WCAH WCAU WCCO WCOO
 WDAE WDBJ WDBO WDOD WDRG
 WDSU WEAN WFBL WFBM WFEA
 WFIW WHEC WHK WHP WIBW
 WISN WKBW WLAC WLAP WLWB
 WMAL WMT WNAX WNOX WOKO
 WORC WOWO WQAM WREC WSBT
 WSFA WSPD WTAQ WTAR WTOG
 WVVV WXYZ

R — Club Valpar
 CFCE CKGW KSD WBAP WBEN
 WCAE WCSH WDAF WEAF WEEL
 WFER WFI WGY WHO WJAR
 WMAQ WOC WOW WRC WSAI WSB
 WSMB WTAG WTAM WVIC WWJ

B — First Nighter, Drama
 KDKA KFI KPSD KGO KGW KHQ
 KOA KOIL KOMO KSL KSTP KTAR
 KWK WBAL WBZA WECB WGAR
 WHAM WJR WJZ WLS WREN
 WTMJ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Ruth Etting, See Wednesday
R — Lucky Strike, See Tuesday

ED-10:15 p.m., E-9:15, C-8:15, M-7:15
C — Public Affairs Institute
 KDYL KFBK KFH KFIJ KFPY
 KLRA KLZ KMBC KMOX KOH KOL
 KSCJ KTRH KVI KVR WAAB
 WABC WACO WADC WBCM WBIG
 WBT WCAH WCAU WCCO WDAE
 WDBJ WDHO WDOD WDSU
 WEAN WFBL WFBM WFIW WGL
 WHEC WHK WHP WIBW WKBW
 WLAC WLAP WLWB WMAL WMBD
 WMT WNAX WNOX WOKO WORC
 WPG WQAM WREC WSBT WSFA
 WSPD WTAQ WTAR WTOG WXYZ

B — Snoop and Peep
 CFCE CKGW KOIL KWK WGAR
 WHAM WJR WJZ WREN

ED-10:45 p.m., E-9:45, C-8:45, M-7:45
C — Street Singer, See Wednesday
B — Twenty Fingers of Harmony
 CKGW KDKA WBAL WBZA WHAM
 WJZ

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
C — Don Redman and Orchestra
 CFRB KDYL KFAB KFBK KFH
 KFIJ KFPY KLRA KLZ KMBC
 KMOX KOH KOL KSCJ KTRH
 KVI KVR WAAB WABC WACO WADC
 WBCM WBIG WBRC WBT WCAH
 WCAO WCCO WDAE WDBJ WDHO
 WDOD WDRG WDSU WFBL WFBM
 WFEA WFIW WGL WGR WHEC
 WHK WHP WIBW WIP WKBW
 WLAC WLAP WLWB WMBD WMT
 WNAX WOKO WORC WQAM WREC
 WSBT WSPD WTAR WTOG WVVV
 WXYZ WNOX

C — Morton Downey, See Monday
R — Russ Columbo, See Monday
B — Amos 'n' Andy, See Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
R — Johnnie Hamp and Orchestra
 KECA KEX KGA KGHL KJR KPO
 KTAR WEAF WEEL WFER WFI
 WGY WJAR WRC WTAM WVIC
B — Piano Moods, See Monday

ED-11:45 p.m., E-10:45, C-9:45, M-8:45
C — Enric Madriguera's Orchestra
 CFRB KDYL KFAB KFBK KFH
 KFIJ KFPY KLRA KLZ KMBC KOH
 KOIN KOL KRLL KSCJ KTRH
 KVI KVR WAAB WABC WADC WBCM
 WBIG WBRC WCAH WCAO WCCO
 WDAE WDBJ WDHO WDOD WDRG
 WDSU WFBM WFIW WGL WHEC

WHP WFEA WISN WKBW WLAC
 WLAP WLWB WMBD WMT WNAX
 WNOX WOKO WORG WPG WQAM
 WREC WSBT WSPD WTAR WTOG
 WVVV WXYZ

ED-12:00 m., E-11:00, C-10:00, M-9:00
C — Guy Lombardo and Orchestra
 KDYL KFAB KFBK KFIJ KFPY
 KLRA KLZ KMBC KOH KOIN KOL
 KRLL KSCJ KTRH KVI KVR WAAB
 WADC WBCM WBRC WBT WCAH
 WCAO WCAU WCCO WDAE WDBO
 WDOD WDSU WEAN WFBL WFBM
 WFEA WFIW WGL WHEC WHP
 WIBW WISN WKBW WLAC WLAP
 WLWB WMBD WMT WNAC WNAX
 WNOX WOKO WQAM WREC WSBT
 WSPD WTOG WVVV WXYZ

ED-12:05 a.m., E-11:05, C-10:05, M-9:05
R — Buddy Rogers, See Monday

SUNDAY

ED-11:30 a.m., E-10:30, C-9:30, M-8:30
R — Major Bowes' Family
 KEX KFYR KGA KJR KOA KPO
 KPRC KSTP WGSB WDAF WEAF
 WENR WFER WHAS WHO WJAR
 WKY WMC WOC WPTF WRC
 WSM WSMB WTAM WVIC WVNC

ED-12:30 p.m., E-11:30, C-10:30, M-9:30
C — International Broadcast
 CFRB KDYL KFAB KFBK KLRA
 KLZ KMBC KMOX KOIN KOL
 KRLL KSCJ KTRH KVI KVR
 WAAB WABC WBRC WCAH WCAU
 WCCO WDAE WDOD WDOD WDRG
 WDSU WEAN WFBL WFEA WFIW
 WGR WHP WIBW WISN WKBW
 WLAP WLWB WMAL WMBD WMT
 WOKO WORC WPG WQAM WREC
 WSBT WSFA WSPD WVVV WXYZ

R — Troika Bells
 CKGW WCSH WDAF WEAF WFER
 WFI WGY WHO WJAR WOC WRC
 WTAG WTAM WVIC WWJ
B — Careless Love, Drama
 KEX KGA KGIR KJR KOA KOIL
 KPO KPRC KSL KTAR WCKY
 WHAM WJZ

ED-12:45 p.m., E-11:45, C-10:45, M-9:45
C — Street Singer
 CFRB KDYL KFAB KFBK KLRA
 KLZ KMBC KMOX KOIN KOL
 KRLL KSCJ KTRH KVI KVR
 WAAB WABC WBRC WCAH WCAU
 WCCO WDAE WDBO WDOD WDRG
 WDSU WEAN WFBL WFEA WFIW
 WGR WHP WIBW WISN WKBW
 WLAP WLWB WMAL WMBD WMT
 WNOX WOKO WORG WPG WQAM
 WSBT WSFA WSPD WTOG WVVV
 WXYZ

ED-1:00 p.m., E-12:00, C-11:00, M-10:00
C — Cathedral Hour
 CFRB KDYL KFAB KFBK KFPY
 KLZ KMBC KOH KOIN KOL KSCJ
 KVR WAAB WABC WADC WBCM
 WCAO WCCO WDAE WDBJ WDBO
 WDOD WDRG WFBL WGR WHEC
 WHP WIBW WKBW WKBW WLAC
 WLAP WLWB WMAL WMBD WMT
 WNOX WOKO WPG WQAM WSBT
 WSPD WTAQ WTAR WTOG WVVV
 WXYZ

ED-1:30 p.m., E-12:30, C-11:30, M-10:00
R — Silver Flute
 KSD WBEN WCAE WDAF WEAF
 WGY WJAR WRC WTAG WVIC

ED-1:45 p.m., E-12:45, C-11:45, M-10:45
R — Pop Concert, Walter Logan
 KFYR KGO KGW KPRC KSD KSL

KTAR KVOO WBEW WCAE WCSH
WDAF WEAF WEEI WFAA WFI
WGY WHAS WIOD WIS WJAR WJAX
WRVA WSB WSM WTAG WTAM
WTIC WTMJ WWJ WUNC WRC

ED-2:00 p.m., E-1:00, C-12:00, M-11:30

C — Eight Sons of Eli
KFAB KMBC KMOX KRLD WABC
WADC WBBM WBRC WBT WCAO
WCAU WCCO WDRG WDSU WEAN
WGR WHK WJAS WKRC WLAC
WMAL WNAC WOKO WOVO

B — Yardley Program
KOIL KWK WBAL WBZA WGAR
WJZ WLW WMAQ WREN

ED-2:30 p.m., E-1:30, C-12:30, M-11:30

C — Church of the Air
CFRB KDYL KFBK KFPY KGB
KLZ KMOX KOH KOI KSCJ KTRH
KVI KVOR WAAB WABC WACO
WADC WBCM WBT WCAO WCCO
WDBJ WDBO WDDO WDRG WDSU
WFBL WGL WHEC WHP WIBW
WKBB WKRN WKWB WLAC WLAP
WLWB WMAL WMT WNOX WOKO
WORC WPG WQAM WREC WTAQ
WTAR WTOC WXYZ

R — Moonshine and Honeysuckle
WCAE WCKY WCSH WDAF WEAF
WEEI WFBR WGY WJAR WMAQ
WRC WTAG WTAM WTIC WWJ

B — Yeast Foamers
KDKA KFI KFSD KFYR KGHL
KGIR KGO KGW KHQ KOA KOIL
KPRC KSL KSTP KTAR KTHS
KVOO KWK KYW WAPI WBAL
WBZA WDAY WECB WFAA WFLA
WGAR WHAM WHAS WIBA WIOD
WIS WJAX WJDX WJR WJZ WKY
WLW WMC WOAI WPTF WREN
WRVA WSB WSM WTAM WTMJ
WUNC

ED-3:00 p.m., E-2:00, C-1:00, M-12:00

C — N.Y. Philharmonic Symphony
CFRB KDYL KFAB KFBK KFH
KFPY KGB KLRA KLZ KMBC KOH
KGIN KOL KSCJ KTRH KVI KVOR
WAAB WABC WACO WADC WBCM
WBRC WBT WCAH WCAO WCAU
WCCO WDAE WDEJ WDBO WDDO
WDRG WDSU WFBL WFBM WFEA
WFIW WGL WHP WIBW WIP WISN
WKBB WKBN WKWB WLAC WLAP
WLWB WMAL WMBD WMT WNOX
WOKO WORC WQAM WREC WSBT
WSFA WSPD WTAQ WTAR WTOC
WWVA WXYZ

R — Wayne King and Orchestra
KSD KYW WBEW WCAE WCSH
WDAF WEAF WEEI WFBR WGY
WHO WJAR WLIT WOC WOV WRC
WSAI WTAG WTAM WTIC WWJ

B — National Youth Conference
KFSD KFYR KGHL KGIR KGO
KGW KHQ KOA KOMO KPRC KSL
KTHS KTHS KVOO KWK WAPI
WBAL WCKY WDAY WECB WFAA
WFLA WGAR WHAM WIBA WIOD
WIS WJAX WJDX WJZ WKY WMAQ
WMC WOAI WPTF WREN WRVA
WSB WSMB WUNC

ED-3:30 p.m., E-2:30, C-1:30, M-12:00

R — Dr. S. Parkes Cadman
KFSD KFYR KGO KGW KHQ KOA
KOMO KPRC KSD KSL KSTP
KTAR KTHS KTHS KVOO KYW
WBEW WCAE WCSH WDAF WDAY
WEAF WECB WEEI WFAA WFBR
WFLA WGY WHAS WIOD WIS
WJAR WJAX WJDX WJZ WMC
WOAI WOV WPTF WRC WRVA
WSAI WSB WSM WSMB WTAG
WTAM WTIC WWJ WUNC

B — Swift Garden Party
KDKA KOIL KWK WBAL WBZA
WGAR WJR WJZ WLW WMAQ
WREN

ED-4:00 p.m., E-3:00, C-2:00, M-1:00

R — Iodent, Jane Froman
KFI KFSD KFYR KGIL KGIR KGO
KGW KHQ KOA KOMO KPRC KSD
KSTP KTAR KTHS KTHS KVOO
KYW WAPI WRAP WBEW WCAE
WCSH WDAF WDAY WFAF WECB
WEEI WFBR WFLA WGY WHAS
WHO WIBA WIOD WIS WJAR WJAX
WJDX WKY WMC WOAI WOC
WOW WPTF WRC WRVA WSAI
WSB WSM WSMB WTAG WTAM
WTIC WTMJ WWJ WUNC

B — Songs of Home Sweet Home
KDKA KOIL KWCRC KWK WBAL
WBZA WGAR WHAM WJR WJZ
WLS WREN

ED-4:30 p.m., E-3:30, C-2:30, M-1:30

B — Shaeffer Lifetime Revue
KDKA KFI KFSD KFYR KGHL
KGIR KGO KGW KHQ KOA KOIL
KOMO KPRC KTAR KTHS KVOO
KWK WAPI WBAL WBAW WBZA
WCKY WDAY WECB WHAM WHAS
WIBA WJDX WJZ WKY WMC WOAI
WREN WSB WSM WSMB WTMJ

ED-5:00 p.m., E-4:00, C-3:00, M-2:00

C — Pastoral
CFRB KDYL KFAB KFBK KFH
KFPY KGB KLRA KLZ KMBC
KMOX KOH KOI KSCJ KTRH KVI
KVOR WAAB WABC WADC WBCM
WBRC WBT WCAH WCAO WCAU
WCCO WDAE WDBJ WDDO WDRG
WDSU WEAN WFBL WFBM WFEA
WGL WGR WHP WIBW WIP WISN
WKBB WLAC WLWB WLBZ WKBB
WMT WNOX WOKO WOC WOV
WQAM WREC WSAF WSPD WTAQ
WTAR WTOC WWVA WXYZ

B — National Vespers
KFSD KFYR KGIR KGO KHQ
KOMO KPRC KSTP KTAR KTHS
KTHS KVOO KWK WBAL WBZA
WCKY WDAY WECB WFAA WFLA
WGAR WHAM WIBA WIOD WIS
WJDX WJZ WMAQ WOAI WPTF
WREN WRVA WSB WSM WSMB
WUNC

ED-5:30 p.m., E-4:30, C-3:30, M-2:30

C — Blue Coal Revue
CFRB WAAB WABC WCAO WCAU
WDRG WEAN WFBL WGR WHEC
WHP WOKO WORC

C — Chicago Knights
KDYL KFAB KFBK KFH KFPY
KGB KLZ KMBC KMOX KOH
KGIN KOL KRLL KSCJ KVI KVOR
WADC WBBM WCAH WCCO WFBM
WKBB WLAP WMT WSBT WTAQ
WWVA WXYZ

R — G.E. Circle
KEI KFSD KFYR KGO KGW KHQ
KOA KOMO KPRC KSD KSL KSTP
KTAR KVOO WAPI WBAW WBEW
WCAE WCSH WDAF WDAY WEAF
WECB WEEI WENR WFBR WFI
WFLA WGY WHAS WHO WIBA
WIOD WIS WJAR WJAX WJDX
WKY WMC WOAI WOC WOW
WPTF WRC WRVA WSAI WSB
WSM WSMB WTAG WTAM WTIC
WTMJ WWJ WUNC

B — Simoniz Guardsmen
KOIL KWK KYW WBAL WBZA
WGAR WHAM WJR WJZ WLW
WREN

ED-6:00 p.m., E-5:00, C-4:00, M-3:00
C — Quiet Harmonies
KLRA WBIG WBRC WBT WDAE
WDBJ WDBO WDDO WDSU WFIW
WGST WIP WLAC WNOX WODX
WPG WQAM WREC WSAF WTAR
WTOC

R — Catholic Hour
KEX KFYR KGA KGHL KGIR KJR
KOA KPO KPRC KSD KSTP KTAR
KTHS KVOO WBAW WBEW WCAE
WCSH WDAF WDAY WEAF WERC
WEEI WENR WFBR WFLA WGY
WHO WIBA WIOD WJAR WJAX
WJDX WKY WLIT WMC WOAI
WOC WOW WRC WRVA WSAI
WSB WSM WSMB WTAG WTAM
WTIC WWJ WUNC

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

C — Noble Sissle and Orchestra
KLRA WBRC WBT WDAE WDBJ
WDBO WDSU WIP WLAC WNOX
WQAM WSAF WTAR WTOC

R — Our American School
KSD WBEW WCAE WCSH WDAF
WEAF WEEI WENR WFBR WGY
WHO WJAR WOC WOW WRC
WTAG WTIC WWJ

B — K-7, Drama
CFRC KECA KFX KFYR KGA KGHL
KGIR KJR KOA KPO KPRC KSL
KTAR KTHS KWK WBAL WCKY
WDAY WECB WFLA WHAS WIBA
WIOD WJDX WJZ WKY WREN
WRVA WSMB WUNC

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

C — Radio in Education
KFAB KFBK KFH KFPY KGB
KLZ KMBC KOH KOIN KOL KRLL
KSCJ KTRH KVI KVOR WABC
WACO WADC WBCM WBT WCCO
WDAE WDBJ WDBO WDDO WDRG
WDSU WEAN WFBL WFEA WFIW
WGL WGR WHEC WHP WIP WISN
WKBB WLAP WLWB WMAL WMT
WNOX WNOX WOKO WORC WQAM
WREC WSBT WSAF WTAQ WTAR
WTOC WWVA WIBW WPG

ED-7:15 p.m., E-6:15, C-5:15, M-4:15

R — Real Radio Party
KFI KFSD KFYR KGHL KGIR KGO
KGW KHQ KOA KOMO KPRC KSD
KSL KSTP KTAR KVOO WAPI
WBEW WCAE WCSH WDAF WDAY
WEAF WECB WFBR WFLA WGY
WHO WIBA WIOD WIS WJAR WJAX
WJDX WKY WLIT WMAQ WMC
WOAI WOC WPTF WRC WRVA
WSAI WSB WSM WSMB WTAG
WTAM WTIC WTMJ WWJ WUNC

B — Frigidarians, Male Quartet
KDKA KOIL KWK KYW WBAL
WBZA WGAR WHAM WJZ WLW
WREN

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

C — Modern Male Chorus
KFAB KFBK KFH KFPY KGB
KLZ KMBC KMOX KOH KOIN
KOL KRLL KSCJ KVI KVOR WABC
WACO WADC WBCM WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO WDDO WDRG WDSU
WFBL WFEA WFIW WGL WGR
WHEC WHK WHP WISN WKBB
WKBB WLAP WLWB WMAL WMT
WNAC WNOX WOKO WORC WQAM
WREC WSBT WSAF WSPD WTAQ
WTAR WTOC WWVA WXYZ

R — Orchestral Gems, Symphony
KSD WCAE WDAF WEAF WFBR
WGY WHO WLIT WLS WOC WSAI
WTAG WTIC WWJ

B—Three Bakers

CFCF KDKA KFI KFSD KFYR
KGO KGW KHQ KOA KOIL KOMO
KPRC KSL KSTP KTR KTVOO KWK
KYW WAPT WBAL WBZA WDAY
WBCB WFAA WFLA WGAR WHAM
WHAS WBZA WIOD WJDX WJR
WJZ WKY WLW WMC WOAI WPTF
WREN WRVA WSB WSM WSMB
WTMJ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C—Sylvanians
KMBC KMOX WABC WCAO WCCO
WFBL WGN WGR WHK WHP WJAS
WKRC WLAP WNAC WOKO WPG
WXYZ

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
C—Ernest Hutcheson, Pianist
KDYL KFAB KFBK KFH KFPY
KLRA KLZ KMBC KMOX KOH
KOLN KOL KSCJ KTRH KVI KVOR
WABC WACO WADC WBCM WBHC
WBT WCAH WCAU WCCO WDAE
WDBJ WDBO WDRD WDSU WEAN
WFBL WFBM WFEA WFIW WGL
WGR WHEC WHK WHP WIRW
WISN WKBH WKBN WLAC WLAP
WLWB WMAL WMT WNAC WNAX
WNOX WORC WREC WSPA WSPD
WTAR WTTC WVA

R—Chase & Sanborn Hour

CFCF CFGW KFI KFSD KFYR KGO
KGW KHQ KOA KOMO KPRC KSD
KSL KSTP KTR KTHS KVOO
WBEN WCAE WCSH WDAF WDAY
WEAF WIBC WFAA WFBW WFLA
WGY WHAS WHO WIOD WIS WJAR
WJDX WKY WLT WLS WMC WOAI
WOC WOW WPTF WRC WSAI WSB
WSMB WTAM WTTC WTMJ WJW
WVNC

B—Enna Jettick Melodies

CFCF CKGW KDKA KFI KFSD
KFYR KGHJ KGIR KGO KGW KHQ
KOA KOIL KOMO KPRC KSL KSTP
KTR KTBBS KTHS KVOO KWCR
KWK KYW WBAL WBZA WDAY
WBCB WFAA WFLA WGAR WHAM
WHAS WBZA WIOD WIS WJDX WJR
WJZ WKY WLW WMC WOAI WPTF
WREN WRVA WSB WSM WSMB
WTMJ WVNC

ED-8:15 p.m., E-7:15, C-6:15, M-5:15
C—Standing Room Only, Comedy
KDKA KFI KGW KHQ KOA KOIL
KOMO KSL KWK KYW WBAL
WBZA WGAR WHAM WJR WJZ
WLW WREN WGO

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C—Highway Travelers
KMBC KMOX KTRH KTHS WABC
WADC WBRC WBT WCAH WCAO
WCAU WCCO WDDO WDRD WEAN
WFBL WFBM WGN WGR WGST
WHEC WHP WKBH WKBN WLAC
WLWB WMAL WNAC WNOX WOKO
WREC WRR WSPD WXYZ

ED-8:45 p.m., E-7:45, C-6:45, M-5:45
C—Angelo Patri, Your Child
KDYL KFAB KFBK KFPY KFRC
KGB KHJ KLZ KMBC KMJ KMOX
KOLN KOL WABC WADC WCAO
WCAU WCCO WDRD WEAN WFLB
WGN WGR WHK WJAS WKRC
WMAL WNAC WNOX WSPD WXYZ

C—Col. Stoopnagle and Budd
KLRA WBHC WBT WDAE WDBJ
WDBO WDDO WDSU WFIW WLAC
WREC WTAR WTTC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C—Ever-Ready Gaeties
KDB KDYL KERN KFBK KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOLN KOL KVG WABC
WADC WBT WCAO WCAU WCCO
WDRD WDSU WEAN WFBL WFBM
WGN WGR WGST WHK WJAS
WKRC WMAL WNAC WOKO WWOV
WRR WSPD WXYZ

R—Our Government, David Lawrence
KSD KTBBS KTHS KVOO WCSH
WEAF WENR WFAA WFBW WFLA
WGY WHO WIOD WIS WJAR WJDX
WOC WOW WPTF WRC WSAI
WVNC

ED-9:15 p.m., E-8:15, C-7:15, M-6:15
R—American Album Familiar Music
KFSD KFYR KGHJ KGIR KGO
KGW KHQ KOA KOMO KPRC KSD
KSL KSTP KTR KTHS WAFI
WBEN WCAE WCSH WDAY WEAF
WIBC WENR WFBW WFI WFLA
WGY WHAS WHO WIBA WIOD
WJAR WJAX WJDX WKY WOAI
WOC WOW WRC WRVA WSAI
WSB WSM WSMB WTAG WTAM
WTMJ WJW

B—Bayuk Stag Party
KDKA KWK KYW WBAL WBZA
WGAR WJR WJZ WLW WREN

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C—Pennzoil Parade
KFJF KLRA KMBC KMOX KTSB
WABC WADC WBT WCAO WCAU
WCCO WDRD WEAN WFBL WGN
WGR WGST WHK WJAS WKRC
WMAL WNAC WNOX WOKO WWOV
WSPD WXYZ

ED-9:45 p.m., E-8:45, C-7:45, M-6:45
R—Buick Revelers
KFYR KSD WBEN WCAE WCSH
WDAF WEAF WENR WFBW WDFE
WFI WGY WHO WJAR WKY WOC
WOW WPTF WRC WSAI WTAG
WTAM WTTC WJW

B—Making Movies, Ray Knight

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

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

C—Edna Wallace Hopper Variety
KDB KDYL KFBK KFH KFJF
KFYR KFRC KGB KHJ KLZ KMBC
KMOX KOLN KOL KRLD KTSB
KVG WAAB WABC WADC WBBM
WCAO WCAU WCCO WDRD WDSU
WFBL WFBM WGST WHEC WHK
WISN WJAS WKWB WKRC WLAP
WLWB WMAL WOKO WORC WWOV
WREC WSPD WXYZ

ED-10:15 p.m., E-9:15, C-8:15, M-7:15
B—Old Singing Master
KDKA KFI KGO KGW KHQ KOA
KOIL KOMO KWK WBAL WBZA
WGAR WHAM WJZ WLW WMAQ
WREN

ED-10:20 p.m., E-9:20, C-8:20, M-7:20
R—L'Heure Exquise
KSTP KTBBS WBEN WCAE WCSH
WEAF WIBC WEEI WFBW WFI
WGY WJAR WRC WTAG WTAM
WTTC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
C—Ziegfeld Radio Show
KDB KDYL KERN KFBK KFJF
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOLN KOL
KRLD KSCJ KTSB KVI KWG

WAAB WABC WADC WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO WDDO WDRD WDSU
WFBL WFBM WFIW WGN WGR
WGST WHEC WHK WIBW WISN
WJAS WKHB WKRC WLAC WLAP
WLWB WMAL WMT WNOX WOKO
WOWO WQAM WREC WSPD WTAQ
WTAR WTOC WXYZ

ED-10:45 p.m., E-9:45, C-8:45, M-7:45
R—Sunday at Seth Parker's
CKGW KFSD KFYR KGHJ KGIR
KGO KGW KOA KOMO KPRC KSL
KSTP KTR KTBBS WAFI WBEN
WCAE WDAF WDAY WEAF WIBC
WEEI WENR WFBW WFI WFLA
WGY WHAS WHO WIBA WIOD WIS
WJAR WJAX WJDX WKY WMC
WOAI WOC WOW WRC WRVA
WSAI WSB WSM WSMB WTAM
WTMJ WJW

B—Archer Gibson, Organist
KOIL WBAL WENR WGAR WHAM
WJR WJZ WREN

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
C—The Gauchos
KDYL KFAB KFH KLRA KLZ
KMBC KMOX KOH KRLD KTRH
KVOR WAAB WABC WADC WBCM
WBRC WBT WCAH WCAO WCCO
WDAE WDBJ WDBO WDDO WDRD
WDSU WEAN WFBL WFBM WFEA
WFIW WGL WGR WHEC WHP
WIBW WISN WKBH WKBN WLAC
WLAP WLWB WMAL WMBD WMT
WNOX WOKO WPG WQAM WREC
WSPA WSPD WTAR WTOC WXYZ

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
R—Russ Columbo and Orchestra
KGHJ KGO KOA KOMO KPRC
KTBBS WKY WEAF WFBW WFI
WGY WHO WIBA WOC WOW WRC
WSMB WJW

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
C—Evening Melodies
KLRA WABC WADC WBCM WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDDO WDRD WDSU WEAN
WFBL WFEA WFIW WGL WGR
WHEC WHP WKBH WKBN WLAC
WLWB WMAL WMT WNAC WNOX
WOKO WPG WQAM WREC WSPA
WSPD WTAR WTOC WXYZ

C—Pennzoil Parade
KDYL KERN KFBK KFPY KFRC
KGB KHJ KLZ KMJ KGH KOLN
KOL KOY KWG

R—Jesse Crawford, Organ
WCAE WKY WDAF WEAF WFBW
WGY WHO WJAR WMAQ WOC
WOW WRC WTAM WJW

ED-11:45 p.m., E-10:45, C-9:45, M-8:45
B—Sam Herman, Xylophone
KDKA KFYR KOIL KFRC KTBBS
KWK WAPI WBAL WIBC WGAR
WJR WJZ WKY WMAQ WSMB
WVNC

ED-12:00 m., E-11:00, C-10:00, M-9:00
C—Eddie Duchin and Orchestra
KFAB KFH KLRA KMBC KMOX
KOH KTRH WABC WADC WBCM
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDDO WDRD
WEAN WFBL WFBM WFEA WFIW
WGL WGR WHEC WHP WIBW WISN
WKBN WLAP WLWB WMAL WMT
WNAC WNAX WOKO WQAM WREC
WRET WSPA WSPD WTTC

R—Larry Funk and Orchestra
WCAE WEAF WGY WOW WRC
WTAM

INDEX BY FREQUENCIES AND DIAL NUMBERS

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KEY

Frequency in kilocycles. Wavelengths in meters. Night power in watts in third column. Second column symbols: *Verifies reception for postage or sends station stamp for 10c. †Verifies for postage; no stamp. ‡ Stamp only. † Does not verify. § Does not reply. \$ Verification 25c, reply card 10c. Fourth column symbols: D, Daytime only. Dn, Daytime but may use some evening hours. S, Sunday only. X, Has permit to increase power. + Uses greater power in daytime. CP, Has construction permit only. Z, Has permit to change frequency. Y, has permit to change location. □ These stations are synchronized. 1-2-3, Small figures indicate stations sharing time. a-b-c, Small letters indicate stations with two sets of calls. Some Canadian, Cuban and Mexican stations have odd frequencies; correct frequency shown in fourth column. Dashes (---) Official information not received.

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

540 kilocycles 555.6 meters

CKWO -- 1000 --- Windsor, Ontario

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Essex Broadcasters, Ltd.

550 kilocycles 545.1 meters

KFDY	†	500	1+	Brookings, S. D.
KFUO	*	500	2+	St. Louis, Mo.
KFYR	†	1000	1+N	Bismarck, N. D.
KOAC	†	1000	---	Corvallis, Ore.
KSD	†	500	2R	St. Louis, Mo.
WGR	*	1000	C	Buffalo, N. Y.
WKRC	†	1000	C	Cincinnati, Ohio

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S. D. State College
Concordia Theological Seminary
Meyer Broadcasting Co.
State Agricultural College
Pulitzer Publishing Co.
Buffalo Broadcasting Co.
WKRC Incorporated

560 kilocycles 535.4 meters

KFDM	*	500	X+	Beaumont, Texas
KLZ	*	1000	C	Denver, Colo.
KTAB	*	1000	---	San Francisco, Cal.
WFI	*	500	1R	Philadelphia, Pa.
WIBO	*	1000	3+	Chicago, Ill.
WLIT	†	500	1R	Philadelphia, Pa.
WNOX	*	1000	X+C	Knoxville, Tenn.
WPCC	*	500	3S	Chicago, Ill.
WQAM	*	1000	C	Miami, Fla.

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Magnolia Petroleum Co.
Reynolds Radio Co., Inc.
Associated Broadcasters
Strawbridge & Clothier
Nelson Bros. Bond & Mortgage Co.
Lit Brothers
WNOX, Inc.
North Shore Congregational Church
Miami Broadcasting Co.

570 kilocycles 526.0 meters

KGKO	*	250	+	Wichita Falls, Texas
KMTR	*	500	---	Hollywood, Cal.
KVI	*	500	C	Tacoma, Wash.
TGW	---	50	---	Guatemala
WEAO	†	750	1	Columbus, Ohio
WKBN	*	500	1C	Youngstown, Ohio
WMAC	---	250	2a	Syracuse, N. Y.
WMCA	*	500	3	New York City
WNAX	*	1000	C	Yankton, S. D.
WNYC	†	500	3	New York City
WSYR	---	250	2a	Syracuse, N. Y.
WWNC	*	1000	N	Asheville, N. C.

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Wichita Falls Broadcasting Co.
KMTR Radio Corp.
Puget Sound Broadcasting Co., Inc.

Ohio State University
WKBN Broadcasting Corp.
Clive B. Meredith
Knickerbocker Broadcasting Co., Inc.
House of Gurney, Inc.
Dept. of Plants and Structures
Clive B. Meredith
Citizens Broadcasting Co., Inc.

580 kilocycles 516.9 meters

CFCL	---	500	Sa	Toronto, Ont.
CFCY	---	500	---	Charlottetown, P. E. I.
CHMA	---	250	4S	Edmonton, Alta.
CKL	---	500	a	Toronto, Ont.
CKUA	†	500	4	Edmonton, Alta.
KSAC	†	500	2+	Manhattan, Kans.
WIBW	*	1000	2+C	Topeka, Kansas
WOBW	*	250	1+	Charleston, W. Va.
WSAZ	*	250	1	Huntington, W. Va.
WTAG	*	250	R	Worcester, Mass.

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Dominion Battery Co.
The Island Radio Co.
Christian and Missionary Alliance
The Dominion Battery Co.
University of Alberta
State Agricultural College
Topeka Broadcasting Assn., Inc.
WOBW, Inc.
WSAZ, Inc.
Telegram Publishing Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

590 kilocycles 508.2 meters

CMW -- 2000 588
 KHQ -- 1000 +N
 WCAJ * 500 1
 WBEI † 1000 R
 WKZO * 1000 D
 WOW * 1000 1R

Havana, Cuba
 Spokane, Wash.
 Lincoln, Nebr.
 Boston, Mass.
 Kalamazoo, Mich.
 Omaha, Nebr.

70
 Columbus Commercial & Radio Co.
 Louis Wasmer, Inc.
 Nebraska Wesleyan University
 Edison Elec. Illuminating Co.
 WKZO, Inc.
 Woodmen of the World

KCYS.
 670

MTRS.
 447.5

DIAL

600 kilocycles 499.7 meters

CNRO † 500 ---
 KFSD * 500 +N
 WCAC † 250 2+
 WCAO * 250 C
 WICC * 250 2+
 WMT * 500 C
 WRBC * 500 +C

Ottawa, Ont.
 San Diego, Cal.
 Storrs, Conn.
 Baltimore, Md.
 Bridgeport, Conn.
 Waterloo, Iowa
 Memphis, Tenn.

Canadian National Railways
 Airfan Radio Corp.
 Conn. Agricultural College
 Monumental Radio, Inc.
 Bridgeport Broadcasting Station, Inc.
 Waterloo Broadcasting Co.
 WREC, Inc.

610 kilocycles 491.5 meters

KFRG * 1000 C
 VFN * 500 ---
 WDAF -- 1000 N
 WFAN * 500 Ca
 WIP * 500 Ca
 WJAY † 500 D
 XETR -- 2500 ---

San Francisco, Cal.
 Nassau, Bahama
 Kansas City, Mo.
 Philadelphia, Pa.
 Philadelphia, Pa.
 Cleveland, Ohio
 Mexico City, Mexico

Don Lee, Inc.
 Development Board
 Kansas City Star Co.
 Keystone Broadcasting Co., Inc.
 Gimbel Bros. Co.
 Cleveland Radio Broadcasting Corp.
 Cia. Difusora Mexicana S. A.

620 kilocycles 483.6 meters

KGW * 1000 +N
 KTAR * 500 +N
 KZRM -- 1000 618.5
 WFLA * 1000 +Na
 WLBZ † 500 C
 WSNW * 1000 +a
 WTMJ * 1000 +N

Portland, Ore.
 Phoenix, Arizona
 Manila, P. I.
 Clearwater, Fla.
 Bangor, Maine
 St. Petersburg, Fla.
 Milwaukee, Wis.

Oregonian Publishing Co
 KTAR Broadcasting Co.
 Erlanger & Galinger, Inc.
 Chamber of Commerce
 Maine Broadcasting Co., Inc.
 Chamber of Commerce
 Milwaukee Journal

630 kilocycles 475.9 meters

CFCT * 500 ---
 CJGX * 500 ---
 CKOK * 500 +aZ
 CKTB * 500 +aZ
 CMCJ * 250 ---
 CNRA * 500 ---
 HIX * 1000 ---
 KFRR * 500 1
 KGFX * 200 D
 WGBF † 500 1
 WMAL * 250 +C
 WOS * 500 1
 XETF -- 500 ---

Victoria, B. C.
 Yorkton, Sask.
 Hamilton, Ont.
 St. Catharines, Ont.
 Havana, Cuba
 Moncton, N. B.
 Santo Domingo
 Columbia, Mo.
 Pierre, S. D.
 Evansville, Ind.
 Washington, D. C.
 Jefferson City, Mo.
 Veracruz, Ver.

Victoria Broadcasting Association
 Winnipeg Grain Exchange
 Wentworth Radio Broadcasting Co.
 Taylor & Bate, Ltd.
 Rafael Rodriguez
 Canadian National Railways
 Dominican Republic
 Stephens College
 Dana McNeil
 Evansville on the Air, Inc.
 M. A. Leese Radio Corp.
 Missouri State Marketing Bureau
 Cia. Difusora Mexicana S. A.

640 kilocycles 468.5 meters

CHRC * 100 645a
 CKCI † 100 645a
 CKCR -- 100 645
 CMHJ -- 40 645
 KFI * 50000 N
 WAU * 500 Dn
 WOI * 5000 D

Quebec, Que.
 Quebec, Que.
 Waterloo, Ont.
 Cienfuegos, Cuba
 Los Angeles, Cal.
 Columbus, Ohio
 Ames, Iowa

E. Fontaine
 Le "Soleil," Ltd.
 Mitchell & Liddle
 Arturo Hernandez
 Earle C. Anthony, Inc.
 Associated Radiocasting Corp.
 State College of Agriculture

650 kilocycles 461.3 meters

KPCB * 100 Dn
 WSM * 5000 NX

Seattle, Wash.
 Nashville, Tenn.

Queen City Broadcasting Co.
 National Life & Accident Ins. Co.

660 kilocycles 454.3 meters

CHWK † 100 665
 CJRM † 500 665
 CJRW † 1000 665
 CMCO -- 250 ---
 CMDC -- 500 ---
 RUS -- 500 664
 WAAW * 500 D
 WEAJ † 50000 R
 WTIC * 5000 R

Chilliwack, B. C.
 Moose Jaw, Sask.
 Fleming, Sask.
 Havana, Cuba
 Havana, Cuba
 Salvador
 Omaha, Nebr.
 New York City
 Hartford, Conn.

Chilliwack Broadcasting Co., Ltd.
 Jas. Richardson & Sons, Ltd.
 Jas. Richardson & Sons, Ltd.
 J. L. Stowers
 Juan Fernandez de Castro
 Republic of El Salvador
 Omaha Grain Exchange
 National Broadcasting Co., Inc.
 Travelers Broadcasting Service, Inc.

670 kilocycles 447.5 meters

VOWR -- 500 675
 WMAQ * 5000 N

St. Johns, N. F.
 Chicago, Ill.

Wesley United Church
 National Broadcasting Co.

CUT OUT ON DOTTED LINES

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680 kilocycles 440.9 meters

KFEQ	*	2500	D	St. Joseph, Mo.
KPO	†	5000	NX	San Francisco, Cal.
WPTF	*	1000	N Dn	Raleigh, N. C.
XFG	--	2000	683.3	Mexico, Mex.

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Scroggin & Co., Bank
Hale Bros. & The Chronicle
Durham Life Insurance Co.
Sria. de Guerra y Marina

690 kilocycles 434.5 meters

CFAC	--	500	1	Calgary, Alta.
CFRB	*	7000	Ca	Toronto, Ont.
CJCR	*	500	1	Calgary, Alta.
CNRX	*	4000	a	Toronto, Ont.
NAA	--	1000		Arlington, Va.
VAS	†	2000	685	Glace Bay, N. S.
XET	†	500	---	Monterrey, Mexico
VCX	--	100	---	Halifax, N. S.

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The Calgary Herald
Rogers-Majestic Corp., Ltd.
Albertan Publishing Co., Ltd.
Canadian National Railways
U. S. Navy
Canadian Marconi Co.
Mexico Music Co., S. A.
Sambro Lightship

700 kilocycles 428.3 meters

WLW	*	50000	B	Cincinnati, Ohio
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Crosley Radio Corp.

710 kilocycles 422.3 meters

KMPC	*	500	Dn	Beverly Hills, Cal.
WOR	*	5000	X	Newark, N. J.
XEN	†	1000	711	Mexico City

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R. S. MacMillan
Bamberger Broadcasting Service, Inc.
Cia. Civil de Inversiones

720 kilocycles 416.4 meters

WGN	†	25000	C	Chicago, Ill.
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Chicago Tribune

730 kilocycles 410.7 meters

CHLS	--	100	1b	Vancouver, B. C.
CHYC	*	5000	Sa	Montreal, Que.
CKAK	†	5000	Ca	Montreal, Que.
CKCD	--	100	1b	Vancouver, B. C.
CKFC	†	50	1	Vancouver, B. C.
CKMO	--	100	1	Vancouver, B. C.
CKWX	†	100	1	Vancouver, B. C.
CMK	--	3150	---	Havana, Cuba
CNRM	*	5000	a	Montreal, Que.
XER	--	75000	735	Villa Acuna, Mex.

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W. G. Hassell
Northern Electric Co., Ltd.
La Presse Publishing Co., Ltd.
Vancouver Daily Province
United Church of Canada
Sprott-Shaw Radio Co.
Western Broadcasting Co., Ltd.
Cuban Broadcasting Co., Hotel Plaza
Canadian National Railways
Dr. John R. Brinkley

740 kilocycles 405.2 meters

CJCA	*	500	745	Edmonton, Alta.
KMMJ	*	1000	Dn	Clay Center, Nebr.
WSB	--	5000	NX	Atlanta, Ga.
WHEB	--	250	CPD	Portsmouth, N. H.

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The Edmonton Journal, Ltd.
The M. M. Johnson Co.
Atlanta Journal Co.
Granite State Broadcasting Corp.

750 kilocycles 399.8 meters

KGU	†	1000	RX	Honolulu, Hawaii
WJR	†	10000	BX	Detroit, Mich.
XEQ	--	5000	---	Juarez, Chih.

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Marion A. Mulrony
WJR, The Goodwill Station, Inc.
Feliciano Lopez Islas

760 kilocycles 394.5 meters

KXA	*	250	+	Seattle, Wash.
WBAL	*	1000	B□	Baltimore, Md.
WEW	*	1000	D	St. Louis, Mo.
WJZ	†	30000	B□	New York City

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American Radio Tel. Co.
Consolidated Gas, Elec. & Power Co.
St. Louis University
National Broadcasting Co., Inc.

770 kilocycles 389.4 meters

KFAB	*	5000	1XC	Lincoln, Nebr.
WBBM	*	25000	1C	Chicago, Ill.

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KFAB Broadcasting Co.
WBBM Broadcasting Corp.

780 kilocycles 384.2 meters

CKY	--	5000	a	Winnipeg, Manitoba
CNRW	--	5000	a	Winnipeg, Manitoba
KELW	--	500	2	Burbank, Cal.
KTM	*	500	2+	Los Angeles, Cal.
WEAN	*	250	+C	Providence, R. I.
WMC	--	500	+N	Memphis, Tenn.
WPOR	--	500	1b	Norfolk, Va.
WTAR	*	500	1Cb	Norfolk, Va.
XEZ	*	500	---	Mexico, Mex.

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Manitoba Telephone System
Canadian National Railways
Magnolia Park, Ltd.
Pickwick Broadcasting Corp.
Shepard Broadcasting Service, Inc.
Memphis Commercial-Appeal, Inc.
WTAR Radio Corp.
WTAR Radio Corp.
Joaquin Capilla

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790 kilocycles 379.5 meters

CMBS	--	150	---	Havana, Cuba
CMBT	--	500	---	Havana, Cuba
CMHC	--	100	---	Tuinucu, Cuba
KGO	†	7500	N	San Francisco, Cal.
WGY	†	50000	R	Schenectady, N. Y.

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Enrique Artalejo
Emilio Perera
Frank H. Jones
National Broadcasting Co., Inc.
General Electric Co.

800 kilocycles 374.8 meters

WBAP	†	10000	IXN	Fort Worth, Texas
WFAA	†	50000	1N	Dallas, Texas

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Carter Publications, Inc.
News & Journal

810 kilocycles 370.2 meters

CHNS	*	500	Za815	Halifax, N. S.
CNRH	--	500	Za815	Halifax, N. S.
WCCO	*	5000	CX	Minneapolis, Minn.
WPCH	*	500	D	New York City
XFC	--	250	---	Aguascalientes, Mexico
VOAS	--	75	---	St. John's, N. F.

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Maritime Broadcasting Co., Ltd.
Canadian National Railways
Northwestern Broadcasting, Inc.
Eastern Broadcasters, Inc.
Gobierno del Estado de Aguascalientes
Ayre & Sons, Ltd.

KCYS.

880

MTRS.

340.7

DIAL

820 kilocycles 365.6 meters

CMGC	--	30	---	Matanzas, Cuba
WHAS	†	10000	NX	Louisville, Ky.
XFI	--	1000	818	Mexico City

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Oscar S. Mechoso
Courier-Journal & Times
Sria. de Ind., Comercio y Trabajo

830 kilocycles 361.2 meters

KOA	†	12500	NX	Denver, Colo.
WEEU	--	1000	D	Reading, Pa.
WHDH	--	1000	D	Boston, Mass.
WRUF	*	5000	DnC	Gainesville, Fla.

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National Broadcasting Co., Inc.
Berks Broadcasting Co.
Matheson Radio Co., Inc.
University of Florida

840 kilocycles 356.9 meters

CKGW	*	5000	Na	Toronto, Ont.
CKLC	†	1000	b	Red Deer, Alta.
CMC	*	500	842	Havana, Cuba
CNRD	†	1000	b	Red Deer, Alta.
CPRY	--	5000	b	Toronto, Ont.
XEFD	--	300	845	Tijuana, B. C.

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Gooderham & Worts, Ltd.
Alberta Pacific Grain Co., Ltd.
Cuban Telephone Co.
Canadian National Railways
Canadian Pacific Railways
Carlos de la Sierra

850 kilocycles 352.7 meters

KWKH	*	10000	1	Shreveport, La.
WWL	*	10000	1	New Orleans, La.

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Hello World Broadcasting Corp.
Loyola University

860 kilocycles 348.6 meters

KMO	†	500	ZDn	Tacoma, Wash.
WABC	*	50000	Ca	New York City
WBOQ	--	50000	a	New York City
WHB	*	500	D	Kansas City, Mo.
XFX	--	500	867	Mexico City, Mexico

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KMO, Inc.
Atlantic Broadcasting Corp.
Atlantic Broadcasting Corp.
WHB Broadcasting Co.
Secretaria de Educacion Publica

870 kilocycles 344.6 meters

WENR	--	50000	1N	Chicago, Ill.
WLS	†	50000	1N	Chicago, Ill.
XFF	--	500	875	Chihuahua, Chih.

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National Broadcasting Co., Inc.
Agricultural Broadcasting Co.
Gobierno del Estado de Chihuahua

880 kilocycles 340.7 meters

CHML	*	50	4	Hamilton, Ont.
CJCB	*	50	---	Sydney, N. S.
CKCV	†	50	a	Quebec, Que.
CKPC	†	100	4	Preston, Ont.
CNRQ	†	50	a	Quebec, Que.
KFKA	†	500	2+	Greeley, Colo.
KLX	*	500	---	Oakland, Cal.
KPOF	*	500	2	Denver, Colo.
WCOC	*	500	+	Meridian, Miss.
WGBI	*	250	1	Scranton, Pa.
WQAN	†	250	1	Scranton, Pa.
WSUI	*	500	---	Iowa City, Iowa

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Maple Leaf Radio Co., Ltd.
N. Nathanson
G. A. Vandry
Cyrus Dolph
Canadian National Railways
Midwestern Radio Corp.
Tribune Publishing Co.
Pillar of Fire, Inc.
Mississippi Broadcasting Co., Inc.
Scranton Broadcasters, Inc.
Scranton Times
University of Iowa

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

890 kilocycles 336.9 meters

CFBO	*	500	---	St. John, N. B.
CKCO	†	100	3	Ottawa, Ont.
CKPR	†	50	3	Ft. William, Ont.
CMCF	+	250	---	Havana, Cuba
CMX	*	1000	885	Havana, Cuba
KARK	*	250	---	Little Rock, Ark.
KFNF	---	500	2+	Shenandoah, Iowa
KUSD	*	500	2	Vermillion, S. D.
WGST	*	250	+C	Atlanta, Ga.
WILL	†	250	2+	Urbana, Ill.
WJAR	*	250	+R	Providence, R. I.
WKAQ	*	250	---	San Juan, P. R.
WMMN	*	250	+	Fairmont, W. Va.
XES	\$	500	---	Tampico, Mexico

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C. A. Munro, Ltd.
 Dr. G. M. Geldert
 Dougall Motor Car Corp.
 Raoul Karman
 Francisco Lavin
 Arkansas Radio & Equipment Co.
 Henry Field Co.
 University of South Dakota
 Georgia School of Technology
 University of Illinois
 The Outlet Co.
 Radio Corp. of Porto Rico
 Holt-Rowe Broadcasting Co.
 Difusora Portena XES

900 kilocycles 333.1 meters

KGBU	†	500	---	Ketchikan, Alaska
KHJ	*	1000	C	Los Angeles, Cal.
KSEI	*	250	---	Pocatello, Idaho
WBEN	*	1000	R	Buffalo, N. Y.
WJAX	*	1000	N	Jacksonville, Fla.
WKY	*	1000	N	Oklahoma City
WLBL	†	2000	D	Stevens Point, Wis.

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Alaska Radio & Service Co.
 Don Lee, Inc.
 Radio Service Corp.
 WBEN, Inc.
 City of Jacksonville
 WKY Radiophone Co.
 Wisconsin Dept. of Markets

910 kilocycles 329.6 meters

CFLC	*	100	915	Prescott, Ont.
CFQC	---	500	a	Saskatoon, Sask.
CJGC	---	5000	b	London, Ont.
CNRL	*	5000	b	London, Ont.
CNRS	---	500	a	Saskatoon, Sask.
TICR	---	50	911	San Jose, Costa Rica
XEW	†	5000	---	Mexico City

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Radio Association
 The Electric Shop, Ltd.
 Free Press Printing Co., Ltd.
 Canadian National Railways
 Canadian National Railways

Mexico Music Co.

920 kilocycles 325.9 meters

HHK	*	1000	---	Port au Prince, Haiti
KFEL	†	500	1	Denver, Colo.
KFXF	*	500	1	Denver, Colo.
KOMO	†	1000	N	Seattle, Wash.
KPRC	*	1000	+N	Houston, Texas
WAAF	---	500	D	Chicago, Ill.
WBSO	---	500	D	Needham, Mass.
WWJ	†	1000	R	Detroit, Mich.

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Republic of Haiti
 Eugene P. O'Fallon, Inc.
 Colorado Radio Corp.
 Fisher's Blend Station, Inc.
 Houston Printing Co.
 Drivers' Journal Publishing Co.
 Babson Service Organization, Inc.
 The Detroit News

930 kilocycles 322.4 meters

CFCH	---	100	3	North Bay, Ont.
CFRC	---	50	3+	Kingston, Ont.
CKX	†	500	---	Brandon, Man.
CMGD	---	250	925	Havana, Cuba
CMCN	---	250	925	Havana, Cuba
CMJF	---	50	---	Camaguey, Cuba
KFWI	†	500	1	San Francisco, Cal.
KGBZ	---	500	2+	York, Nebr.
KMA	*	500	2+	Shenandoah, Iowa
KROW	*	500	1+C	Oakland, Cal.
WBRC	*	500	+C	Birmingham, Ala.
WDBJ	*	250	+C	Roanoke, Va.
WIBG	*	25	D	Elkins Park, Pa.

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Northern Supplies, Ltd.
 Queen's University
 Manitoba Telephone System
 Angel Bertematy
 Antonio Ginard
 John L. Stowers
 Radio Entertainments, Inc.
 Dr. George R. Miller
 May Seed & Nursery Co.
 Educational Broadcasting Corp.
 Birmingham Broadcasting Co., Inc.
 Times-World Corp.
 WIBG, Inc.

940 kilocycles 319.0 meters

KOIN	*	1000	C	Portland, Oregon
KZRC	---	500	937.5	Cebu, P. I.
WAAT	---	300	D	Jersey City, N. J.
WCSH	*	1000	R+	Portland, Maine
WDAY	*	1000	N	Fargo, N. D.
WFIW	*	1000	C	Hopkinsville, Ky.
WHA	---	750	D+	Madison, Wis.
XEO	---	5000	---	Mexico City

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KOIN, Inc.
 Erlanger & Galinger, Inc.
 Bremer Broadcasting Corp.
 Congress Square Hotel Co.
 WDAY, Inc.
 WFIW, Inc.
 University of Wisconsin
 National Revolucionario Party

950 kilocycles 315.6 meters

CMHD	---	250	---	Caibarien, Cuba
KFWB	*	1000	---	Hollywood, Cal.

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Manuel Alvarez
 Warner Bros. Broadcasting Corp.

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KGHL	--	1000	B	Billings, Mont.	Northwestern Auto Supply Co., Inc.
KMBC	*	1000	C	Kansas City, Mo.	Midland Broadcasting Co., Inc.
VONA		30		St. John's, N. F.	Lane, Gillard & Avery
WRC	†	500	R	Washington, D. C.	National Broadcasting Co., Inc.

960 kilocycles 312.3 meters

CHCK	--	100	---	Charlottetown, P. E. I.	W. E. Burke & J. E. Gesner
CHWC	*	500	3	Regina, Sask.	R. H. Williams & Sons, Ltd.
CJBR	--	500	3a	Regina, Sask.	Cooperative Wheat Producers, Ltd.
CKCK	†	500	3a	Regina, Sask.	Leader-Post, Ltd.
CKNC	*	500	---	Toronto, Ont.	Canadian National Carbon Co., Ltd.
CMBC	--	150	965	Havana, Cuba	Domingo Fernandez
CMBD	--	250	965	Havana, Cuba	Luis Perez Garcia
CNRR	--	500	3a	Regina, Sask.	Canadian National Railways
XED	*	10000	965	Reynosa, Mexico	International Broadcasting Co.

970 kilocycles 309.1 meters

CMGF	--	50	977	Matanzas, Cuba	Bernabe R. de la Torre
KDKA	*	5000	N	Seattle, Wash.	Northwest Broadcasting System, Inc.
WCFL	--	1500	R Dn	Chicago, Ill.	Chicago Federation of Labor

980 kilocycles 305.9 meters

CFCN	--	10000	985	Calgary, Alta.	W. W. Grant & H. G. Love
KDKA	--	50000	B	Pittsburgh, Pa.	Westinghouse Elec. & Mfg. Co.
TI4NRH	--	15	---	Heredia, C. R.	Armando Cespedes

990 kilocycles 302.8 meters

WBZ	†	25000	B□X	Boston, Mass.	Westinghouse Elec. & Mfg. Co.
WBZA	†	1000	B□X	Springfield, Mass.	Westinghouse Elec. & Mfg. Co.
XEK	--	101	---	Mexico City	Arturo Martinez

1000 kilocycles 299.8 meters

KFVD	*	250	DnY	Culver City, Cal.	Los Angeles Broadcasting Co.
WHO	*	5000	R□X	Des Moines, Iowa	Central Broadcasting Co.
WOC	*	5000	R□X	Davenport, Iowa	Central Broadcasting Co.
WORK	--	1000	D	York, Pa.	York Broadcasting Co.
XEA	--	100	---	Guadalajara, Jal.	Alberto Palos Sauza
XEC	--	50	---	Toluca, Mex.	Jesus R. Benavides
XEE	*	105	---	Oaxaca, Oax.	Alfonso Zorilla B.
XEFE	--	100	---	N. Laredo, Tams.	Rafael T. Carranza
XEFI	--	100	---	Chihuahua, Chih.	Feliciano Lopez Islas
XEFS	--	40	---	Queretaro, Oro.	Salvador Sanchez
XEI	*	101	---	Morelia, Mexico	Carlos Gutierrez M.
XEJ	*	100	---	Juarez, Chih.	Juan G. Buttner
XEL	--	25	---	Salttillo, Coah.	Antonio Garza Castro
XETC	--	100	---	Jalapa, Ver.	Juventino Sanchez
XETG	--	100	---	Torreon, Coah.	Feliciano Lopez Islas
XEU	--	100	---	Veracruz, Ver.	Fernando Pazos
XEV	--	100	---	Puebla, Pue.	Ciro Molina
XEY	--	105	---	Merida, Yuc.	Partido Socialista S. E.

1010 kilocycles 296.8 meters

CKIC	--	50	---	Wolfville, N. S.	Acadia University
CMBW	--	150	---	Havana, Cuba	Modesto Alvarez
CMZB	--	150	---	Havana, Cuba	Manual y G. Salas
KGGF	†	500	2	Coffeyville, Kans.	Powell & Platz
KQW	*	500	---	San Jose, Cal.	Pacific Agricultural Foundation, Ltd.
WHN	*	250	1	New York City	Marcus Loew Booking Agency
WIS	*	500	+N	Columbia, S. C.	South Carolina Broadcasting Co., Inc.
WNAD	*	500	2	Norman, Okla.	University of Oklahoma
WPAP	*	250	1	New York City	Palisades Amusement Park
WQAO	--	250	1	New York City	Calvary Baptist Church
WRNY	--	250	1	New York City	Aviation Radio Station, Inc.

1020 kilocycles 293.9 meters

CMJH	--	15	1017	Ciego de Avila, Cuba	Luis Marauri
KFKX	*	10000	a	Chicago, Ill.	Westinghouse Elec. & Mfg. Co.
KYW	*	10000	Na	Chicago, Ill.	Westinghouse Elec. & Mfg. Co.
WRAX	†	250	D	Philadelphia, Pa.	WRAX Broadcasting Co.

KCYS.
1020

MTRS.
293.9

DIAL

CUT OUT ON DOTTED LINES

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1030 kilocycles 291.1 meters

CFCF	--	500	N	Montreal, Que.
CMKC	*	150	1034	Santiago de Cuba
CNRV	†	500	---	Vancouver, B. C.
XEB	†	1000	---	Mexico City, Mexico

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Canadian Marconi Co.
M. P. Martinez
Canadian National Railways
El Buen Tono, S. A.

1040 kilocycles 288.3 meters

KRLD	*	10000	C1	Dallas, Texas
KTHS	†	10000	N1	Hot Springs, Ark.
WKAR	*	1000	D	East Lansing, Mich.

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KRLD Radio Corp.
Chamber of Commerce
Michigan State College

1050 kilocycles 285.5 meters

CMGH	--	150	---	Matanzas, Cuba
KFBI	*	5000	Dn	Milford, Kansas
KNX	*	5000	---	Hollywood, Cal.
XEFC	--	10	---	Merida, Yuc.

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Alberto Alvarez
Farmers & Bankers Life Insurance Co.
Western Broadcast Co.
Hugo Molina Font.

1060 kilocycles 282.8 meters

KWJJ	*	500	Dn	Portland, Ore.
WBAL	*	10000	1B	Baltimore, Md.
WJAG	*	1000	Dn	Norfolk, Nebr.
WTIC	*	50000	1R	Hartford, Conn.

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KWJJ Broadcast Co., Inc.
Consolidated Gas Elec. & Pwr. Co.
Norfolk Daily News
Travelers Broadcasting Service Corp.

1070 kilocycles 280.2 meters

CMBG	--	150	---	Havana, Cuba
CMCB	--	150	---	Havana, Cuba
KJBS	*	100	D	San Francisco, Cal.
WCAZ	*	50	D	Carthage, Ill.
WDZ	†	100	D	Tuscola, Ill.
WTAM	**	50000	R	Cleveland, Ohio
XEG	--	250	---	Mexico City, Mexico

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Francisco Garrigo
Antonio Capablanca
Julius Brunton & Sons Co.
Superior Broadcasting Service
James L. Bush
National Broadcasting Co., Inc.
Miguel Yarza

1080 kilocycles 277.6 meters

WBT	*	5000	CX	Charlotte, N. C.
WCBD	*	5000	1 Dn	Zion, Ill.
WMBI	*	5000	1 Dn	Chicago, Ill.

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Station WBT, Inc.
Wilbur Glenn Voliva
Moody Bible Institute

1090 kilocycles 275.1 meters

KMOX	*	50000	C	St. Louis, Mo.
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Voice of St. Louis, Inc.

1100 kilocycles 272.6 meters

KGDM	*	250	DX	Stockton, Cal.
WLWL	*	5000	1	New York City
WPG	*	5000	1C	Atlantic City, N. J.

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E. F. Peffer
Missionary Society of St. Paul
WPG Broadcasting Corp.

1110 kilocycles 270.1 meters

CMHI	--	15	---	Santa Clara, Cuba
KSOO	*	2500	Dn	Sioux Falls, S. D.
KZKA	--	1000	---	Manilla, P. I.
WRVA	*	5000	N	Richmond, Va.

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Laviz y Paz
Sioux Falls Broadcasting Assn., Inc.

1120 kilocycles 267.7 meters

CFOA	†	500	a	Toronto, Ont.
CFJC	--	100	---	Kamloops, B. C.
CHGS	*	500	---	Summerside, P. E. I.
CJOC	†	100	---	Lethbridge, Alta
CNRT	*	500	a	Toronto, Ont.
KFIO	†	100	D	Spokane, Wash.
KFSG	*	500	3	Los Angeles, Cal.
KRKD	*	500	3	Los Angeles, Cal.
KRSC	†	50	D	Seattle, Wash.
KTRH	*	500	2C	Houston, Texas
WDBO	*	250	+C	Orlando, Fla.
WDEL	†	250	+X	Wilmington, Del.
WHAD	*	250	1	Milwaukee, Wis.
WISN	†	250	1C	Milwaukee, Wis.
WTAW	*	500	2	College Station, Texas

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Star Pub. & Ptg. Co.
N. S. Dalgleish & Sons
R. T. Holman, Ltd.
Harold R. Carson
Canadian National Railways
Spokane Broadcasting Corp.
Echo Park Evang. Assn.
Dalton's, Inc.
Radio Sales Corp.
Rice Hotel
Orlando Broadcasting Co., Inc.
WDEL, Inc.
Marquette University
Evening Wisconsin Co.
Agricultural & Mech. College

1130 kilocycles 265.3 meters

KSL	*	5000	NX	Salt Lake City
WJJD	*	20000	Dn	Mooseheart, Ill.
WOV	--	1000	D	New York City
XEH	--	1000	1132	Monterrey, N. L.

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Radio Service Corp. of Utah
WJJD, Inc.
International Broadcasting Corp.
Constantino Tarnava

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1140 kilocycles 263.0 meters

KVOO * 5000 INX Tulsa, Okla.
 WAPI * 5000 INX Birmingham, Ala.
 XETA -- 500 --- Mexico City

Southwestern Sales Corp.
 Alabama Polytechnic Institute
 Manuel Espinosa Tagle

1150 kilocycles 260.7 meters

CMCQ -- 600 --- Havana, Cuba
 CMGI -- 30 --- Colon, Cuba
 CMQ † 250 --- Havana, Cuba
 WHAM * 5000 BX Rochester, N. Y.
 10-AT -- 25 1155 Trail, B. C.

Andres Martinez
 Armando Lizama
 Jose Fernandez
 Stromberg-Carlson Tel. Mfg. Co.
 Trail Amateur Radio Assn.

1160 kilocycles 258.5 meters

WOWO * 10000 1C Ft. Wayne, Ind.
 WWVA * 5000 1C Wheeling, W. Va.

Main Auto Supply Co.
 West Virginia Broadcasting Corp.

1170 kilocycles 256.3 meters

WCAU * 10000 CX Philadelphia, Pa.

Universal Broadcasting Co.

1180 kilocycles 254.1 meters

CMJE -- 20 --- Camaguey, Cuba
 KEX * 5000 2N Portland, Ore.
 KOB * 20000 2 State College, N. M.
 WDGY * 1000 Dn Minneapolis, Minn.
 WINS * 500 --- New York City
 WMAZ † 500 --- Macon, Ga.

Manuel Fernandez
 Western Broadcasting Co.
 College of Agriculture & Mech. Arts
 Dr. George W. Young
 American Radio News Corp.
 Southeastern Broadcasting Co., Inc.

1190 kilocycles 252.0 meters

WOAI * 50000 N San Antonio, Texas

Southern Equipment Co.

1200 kilocycles 249.9 meters

CKOV -- 100 --- Kelowna, B. C.
 CMGB -- 30 1205 Matanzas, Cuba
 CMJG -- 30 --- Camaguey, Cuba
 KBTM -- 100 D Paragould, Ark.
 KERN -- 100 C Bakersfield, Cal.
 KFJB † 100 + Marshalltown, Iowa
 KFWF -- 100 5+ St. Louis, Mo.
 KGDE * 100 + Fergus Falls, Minn.
 KGDY -- 100 --- Huron, S. D.
 KGEK † 100 9 Yuma, Colo.
 KGEW † 100 9 Fort Morgan, Colo.
 KGFJ * 100 --- Los Angeles, Cal.
 KGHJ * 100 --- Little Rock, Ark.
 KGY † 100 + Olympia, Wash.
 KMLB -- 100 D Monroe, La.
 KVOS * 100 --- Bellingham, Wash.
 KWG * 100 --- Stockton, Cal.
 WABI † 100 --- Bangor, Maine
 WABZ * 100 1 New Orleans, La.
 WBBZ * 100 --- Ponce City, Okla.
 WBHS -- 50 10CP Huntsville, Ala.
 WCAT † 100 --- Rapid City, S. D.
 WCAX * 100 2 Burlington, Vt.
 WCLO † 100 --- Janesville, Wis.
 WCOD † 100 3 Harrisburg, Pa.
 WFAM * 100 8 South Bend, Ind.
 WFBC * 50 10 Knoxville, Tenn.
 WFBE -- 100 + Cincinnati, Ohio
 WHBC † 10 --- Canton, Ohio
 WHBY † 100 --- Green Bay, Wis.
 WIBX * 100 + Utica, N. Y.
 WIL * 100 5+ St. Louis, Mo.
 WJBC * 100 6 La Salle, Ill.
 WJBL † 100 6 Decatur, Ill.
 WJBW † 100 1 New Orleans, La.
 WKJC * 100 3 Lancaster, Pa.
 WLAP † 250 C Louisville, Ky.
 WLBG * 100 + Petersburg, Va.
 WNB0 * 100 --- Washington, Pa.
 WNBW † 10 --- Carbondale, Pa.
 WNBX † 10 2 Springfield, Vt.
 WORC * 100 CX Worcester, Mass.
 WRBL † 50 X Columbus, Ga.
 WWAEE * 100 8 Hammond, Ind.
 10-AB -- 25 --- Moose Jaw, Sask.
 10-BP † 15 --- Wingham, Ont.
 10-BQ -- 15 --- Brantford, Ont.

J. W. B. Browne
 Jose Anorga
 Pedro Nogueras
 W. J. Beard's Temple of Music
 Bee Bakersfield Brdcastg Co.
 Marshall Electric Co., Inc.
 St. Louis Truth Center, Inc.
 Jaren Drug Co.
 Voice of South Dakota
 Beehler Elec. Equipment Co.
 City of Fort Morgan
 Ben S. McGlashan
 O. A. Cook
 KGY, Inc.
 Liner's Broadcasting Station, Inc.
 KVOS, Inc.
 Portable Wireless Tel. Co., Inc.
 First Universalist Society
 Samuel D. Reeks
 C. L. Carrell
 The Hutchens Co.
 State School of Mines
 Burlington Daily News
 WCLO Radio Corp.
 Keystone Broadcasting Corp.
 South Bend Tribune
 Virgil V. Evans
 Post Publishing Co.
 St. John's Catholic Church
 St. Norbert's College
 WIBX, Inc.
 Missouri Broadcasting Corp.
 Kaskaskia Broadcasting Co.
 Commodore Broadcasting, Inc.
 Charles C. Carlson, Jr.
 Lancaster Brdcastg. Service Inc.
 American Broadcasting Corp. of Ky.
 WLBG, Inc.
 John Brownlee Spriggs
 Home Cut Glass & China Co.
 First Congregational Church
 Alfred Frank Kleindienst
 WRBL Radio Station, Inc.
 Hammond-Calumet, Broad. Corp.
 Moose Jaw Radio Assn.
 W. T. Cruickshank
 Thomas Brown, Mgr.

KCYS.
1200
 MTRS.
249.9
 DIAL

CUT OUT ON DOTTED LINE

INDEX BY FREQUENCIES AND DIAL NUMBERS

1210 kilocycles 247.8 meters

CFCO	--	250	8	Chatham, Ont.
CFNB	*--	50	---	Fredericton, N. B.
CJOR	*	500	---	Vancouver, B. C.
CKMC	*	100	8	Cobalt, Ont.
KDFN	†	100	XZ	Casper, Wyo.
KDLR	†	100	---	Devil's Lake, N. D.
KFJI	††	100	---	Klamath Falls, Ore
KFOR	*	100	+	Lincoln, Nebr.
KFVS	*	100	6	Cape Girardeau, Mo.
KFXM	†	100	9	San Bernardino, Cal.
KGCR	†	100	---	Watertown, S. D.
KCMP	*	100	---	Elk City, Okla.
KGNO	*--	100	---	Dodge City, Kansas
KMJ	*	100	---	Fresno, Cal.
KPPC	§	50	9	Pasadena, Cal.
KWEA	*	100	---	Shreveport, La.
WALR	*	100	---	Zanesville, Ohio
WBAX	*	100	1	Wilkes-Barre, Pa.
WBBI	†	100	7S	Richmond, Va.
WCBS	*	100	2	Springfield, Ill.
WCDH	*	100	3	Yonkers, N. Y.
WCRW	*	100	4	Chicago, Ill.
WEBQ	*	100	6	Harrisburg, Ill.
WEDC	*	100	4	Chicago, Ill.
WGBB	*--	100	3	Freeport, N. Y.
WGCM	*	100	XZ	Gulfport, Miss.
WHBF	*	100	---	Rock Island, Ill.
WHBU	†	100	---	Anderson, Ind.
WIBU	*	100	---	Poynette, Wis.
WJBI	*	100	3	Red Bank, N. J.
WJBU	*--	100	1	Lewisburg, Pa.
WJBY	*	100	---	Gadsden, Ala.
WJW	*	100	---	Mansfield, Ohio
WLGI	*	50	---	Ithaca, N. Y.
WMBG	*	100	7C	Richmond, Va.
WMRJ	*	100	3	Jamaica, N. Y.
WOCL	*	50	---	Jamestown, N. Y.
WOMT	*	100	---	Manitowoc, Wis.
WPRO	*	100	5	Providence, R. I.
WQDX	*	100	---	Thomasville, Ga.
WRBQ	†	100	+	Greenville, Miss.
WSBC	*	100	4	Chicago, Ill.
WSBN	*	100	---	Columbus, Ohio
WSIX	*	100	---	Springfield, Tenn.
WSOC	†	100	---	Gastonia, N. C.
WTAX	†	100	2	Springfield, Ill.
XEX	--	500	---	Mexico City

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Western Ontario "Better Radio" Club
 James S. Neill & Sons, Ltd.
 G. C. Chandler
 R. L. MacAdam
 Donald Lewis Hathaway
 KDLR, Inc.
 KFJI Broadcasters, Inc.
 Howard A. Shuman
 Hirsch Battery & Radio Co.
 J. C. & E. W. Lee
 Greater Kampeska Radio Corp.
 Bryant Radio & Electric Co.
 Dodge City Broadcasting Co.
 James McClatchy Co.
 Pasadena Presbyterian Church
 Hello World Broadcasting Corp.
 Roy W. Waller
 John H. Stenger, Jr.
 Grace Covenant Pres. Church
 H. L. Dewing & Chas. Messer
 Westchester Broadcasting Corp.
 Clinton R. White
 First Trust & Savings Bank
 Emil Denmark, Inc.
 Harry H. Carman
 Great Southern Land Co., Inc.
 Beardsley Specialty Co.
 Anderson Broadcasting Corp.
 Wm. C. Forrest
 Monmouth Broadcasting Co.
 Bucknell University
 Gadsen Broadcasting Co., Inc.
 Mansfield Broadcasting Assn.
 Lutheran Assn. of Ithaca
 Havens & Martin, Inc.
 Peter J. Prinz
 A. E. Newton
 Francis M. Kadow
 Cherry & Webb Broadcasting Co.
 Stevens Luke
 J. Pat. Scully
 World Battery Co., Inc.
 Columbus Broadcasting Co.
 638 Tire & Vulcanizing Co.
 WSOC, Inc.
 WTAX, Inc.
 Excelsior, Cia Editorial S. A.

1220 kilocycles 245.8 meters

CMBY	--	350	1225	Havana, Cuba
KFKU	†	500	1	Lawrence, Kansas
KTW	--	1000	2	Seattle, Wash.
KWSC	*	1000	+2	Pullman, Wash.
WCAD	*	500	D	Canton, N. Y.
WCAE	*	1000	R	Pittsburgh, Pa.
WDAE	*	1000	C	Tampa, Fla.
WREN	*	1000	1B	Lawrence, Kansas

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Callejas-Coscolluela
 University of Kansas
 First Presbyterian Church
 State College of Washington
 St. Lawrence University
 Pittsburgh Sun-Telegraph
 Tampa Publishing Co.
 Jenny Wren Co.

1230 kilocycles 243.8 meters

CMCA	--	150	1235	Havana, Cuba
KFQD	†	100	---	Anchorage, Alaska
KGGM	†	250	---	Albuquerque, N. Mex.
KYA	†	1000	B	San Francisco, Cal.
WBIS	*	1000	a	Boston, Mass.
WFBM	*	1000	1C	Indianapolis, Ind.
WNAC	*	1000	aC	Boston, Mass.
WNSC	*	500	D	State College, Pa.
WSBT	†	500	1C	South Bend, Ind.
XETQ	--	100	---	Mexico, Mex.

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Manuel Cruz
 Anchorage Radio Club
 New Mexico Broadcasting Co.
 Pacific Broadcasting Corp.
 Shepard Broadcasting Service, Inc.
 Indianapolis Power & Light Co.
 Shepard Broadcasting Service, Inc.
 Pennsylvania State College
 South Bend Tribune
 Carlos G. Caballero

1240 kilocycles 241.8 meters

CMAB	--	20	1249	Pinar del Rio, Cuba
KGCU	--	250	3	Mandan, N. D.
KLPM	†	250	3	Minot, N. D.
KTAT	†	1000	1	Ft. Worth, Texas
KTFI	†	250	1+	Twin Falls, Idaho
WACO	†	1000	1C	Waco, Texas
WXYZ	†	1000	C	Detroit, Mich.

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Francisco Martinez
 Mandan Radio Assn.
 John B. Cooley
 Texas Air Transport
 Radio Broadcasting Corp.
 Central Texas Broadcasting Co., Inc.
 Kunsky-Trendle Broadcasting Corp.

INDEX BY FREQUENCIES AND DIAL NUMBERS

1250 kilocycles 239.9 meters

KFMX	↑	1000	2	Northfield, Minn.
KFOX	*	1000	---	Long Beach, Cal.
WAAM	*	1000	1+X	Newark, N. J.
WCAL	*	1000	2	Northfield, Minn.
WDSU	↑	1000	C	New Orleans, La.
WGCP	--	250	1	Newark, N. J.
WLB	↑	1000	2	St. Paul, Minn.
WODA	--	1000	1	Peterson, N. J.
WRHM	*	1000	2	Minneapolis, Minn.
XEFA	--	250	---	Mexico City

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Carleton College
Nichols & Warinner, Inc.
WAAM, Inc.
St. Olaf College
Jos. H. Uhalt
May Radio Broadcast Corp.
University of Minnesota
Richard E. O'Dea
Minnesota Broadcasting Corp.
Manuel F. Murguia

1260 kilocycles 238.0 meters

KOIL	*	1000	B	Council Bluffs, Iowa
KRGV	*	500	1	Harlingen, Texas
KVOA	↑	500	D	Tucson, Arizona
KWWG	*	500	1	Brownsville, Texas
WLBW	*	500	C+	Oil City, Pa.
WTOC	*	500	C	Savannah, Ga.

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Mona Motor Oil Co.
KRGV, Inc.
Robert M. Riculfi
Herald Pub. Co.
Radio-Wire Program Corp.
Savannah Broadcasting Co.

1270 kilocycles 236.1 meters

CMCU	--	250	---	Havana, Cuba
KGCA	↑	50	2D	Decorah, Iowa
KOL	↑	1000	C	Seattle, Wash.
KVOR	*	1000	C	Colorado Springs, Colo.
KWLC	*	100	2D	Decorah, Iowa
WASH	*	500	a	Grand Rapids, Mich.
WEAI	*	1000	D	Ithaca, N. Y.
WFBR	--	500	R	Baltimore, Md.
WJDX	*	1000	N	Jackson, Miss.
WOOD	↑	500	a	Grand Rapids, Mich.

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Jorge Garcia Serra
Charles W. Greenley
Seattle Broadcasting Co., Inc.
Reynolds Radio Co., Inc.
Luther College
Kunsky-Trendle Broadcasting Corp.
Cornell University
Baltimore Radio Show, Inc.
Lamar Life Insurance Co.
Kunsky-Trendle Broadcasting Corp.

1280 kilocycles 234.2 meters

CMCW	--	150	1285	Havana, Cuba
KFBB	*	1000	+	Great Falls, Mont.
WCAM	*	500	1	Camden, N. J.
WCAP	*	500	1	Asbury Park, N. J.
WDDO	*	1000	+C	Chattanooga, Tenn.
WIBA	*	500	+N	Madison, Wis.
WOAX	--	500	1	Trenton, N. J.
WRR	↑	500	C	Dallas, Texas

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Jose Lorenzo
Buttrey Broadcast, Inc.
City of Camden
Radio Industries Broadcast Co.
WDDO Broadcasting Corp.
Badger Broadcasting Co.
WOAX, Inc.
City of Dallas

1290 kilocycles 232.4 meters

KDYL	↑	1000	C	Salt Lake City
KFUL	--	500	1	Galveston, Texas
KLCN	*	50	D	Blytheville, Ark.
KTSA	↑	1000	1+C	San Antonio, Texas
WEBC	*	1000	+N	Superior, Wis.
WJAS	*	1000	C+	Pittsburgh, Pa.
WNBZ	--	50	D	Saranac Lake, N. Y.

--	--	--

Intermountain Broadcasting Corp.
News Publishing Co.
C. L. Lintzenich
Lone Star Broadcast Co.
Head of Lake Broadcasting Co.
Pittsburgh Radio Supply House
Smith & Mace

KCYS.

1310

MTRS.

228.9

DIAL

1300 kilocycles 230.6 meters

KFAC	*	1000	4	Los Angeles, Cal.
KFH	*	1000	C	Wichita, Kansas
KFJR	*	500	3	Portland, Ore.
KTBR	--	500	3	Portland, Ore.
WBRR	*	1000	1	Brooklyn, N. Y.
WEVD	*	500	1	New York City
WFAB	*	1000	1	New York City
WHAZ	*	500	1	Troy, N. Y.
WIOD	*	1000	N	Miami, Fla.
WOQ	*	1000	---	Kansas City, Mo.
XEM	↑	250	---	Tampico, Tams.

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Los Angeles Broadcasting Co.
Radio Station KFH Co.
Ashley C. Dixon—KFJR, Inc.
M. E. Brown
People's Pulpit Association
Debs Memorial Radio Fund, Inc.
Defenders of Truth Society, Inc.
Rensselaer Polytechnic Institute
Isle of Dreams Broadcasting Corp.
Unity School of Christianity
Maria T. de Gutierrez

CUT OUT ON DOTTED LINES

1310 kilocycles 228.9 meters

KCRJ	↑	100	D	Jerome, Arizona
KFBK	↑	100	---	Sacramento, Cal.
KFGQ	↑	100	7	Boone, Iowa
KFPL	↑	100	---	Dublin, Texas
KFFM	*	15	---	Greenville, Texas

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Chas. C. Robinson
Jas. McClatchy Co.
Boone Biblical College
C. C. Baxter
The New Furniture Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

KFXJ	†	100	---	Grand Junction, Colo.	Western Slope Broadcasting Co.
KFXR	†	100	+	Oklahoma City	Exchange Ave. Baptist Church
KGBX	*	100	---	St. Joseph, Mo.	KGBX, Inc.
KGCX	†	100	+	Wolf Point, Mont.	First State Bank of Vida
KGEZ	†	100	---	Kalispell, Mont.	Donald C. Treloar
KGFW	†	100	---	Kearney, Nebr.	Central Nebraska Broadcasting Corp.
KJIT	†	100	---	Yakima, Wash.	Carl E. Haymond
KMED	†	100	---	Medford, Ore.	Mrs. W. J. Virgin
KRMD	†	50	X	Shreveport, La.	Radio Station KRMD, Inc.
KTLC	*	100	---	Houston, Texas	Houston Broadcasting Co.
KTSM	†	100	2	El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
KXRO	†	100	---	Aberdeen, Wash.	KXRO, Inc.
WBEO	---	100	---	Marquette, Mich.	Lake Superior Broadcasting Co.
WBOW	*	100	---	Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE	---	100	---	Wilkes-Barre, Pa.	Louis G. Baltimore
WCLS	---	100	1	Joliet, Ill.	WCLS, Inc.
WDAH	†	100	2	El Paso, Texas	Bledsoe & Blackwell
WEBR	*	100	+	Buffalo, N. Y.	Howell Broadcasting Co., Inc.
WEXL	†	50	---	Royal Oak, Mich.	Royal Oak Broadcasting Co.
WFBG	*	100	3X	Altoona, Pa.	Wm. F. Gable Co.
WFDF	*	100	---	Flint, Mich.	Frank D. Fallain
WGAL	*	100	5	Lancaster, Pa.	WGAL, Inc.
WGH	*	100	---	Newport News, Va.	Hampton Roads Broadcasting Corp
WHAT	†	100	4	Philadelphia, Pa.	Independence Broadcasting Co.
WIAS	†	100	7	Ottumwa, Iowa	Iowa Broadcasting Co.
WJAC	*	100	3	Johnstown, Pa.	Johnstown Automobile Co.
WJAK	*	50	6	Elkhart, Ind.	Truth Publishing Co., Inc.
WKAV	*	100	---	Laconia, N. H.	Laconia Radio Club
WKBB	*	100	1	Joliet, Ill.	Sanders Bros. Radio Station
WKBC	*	100	---	Birmingham, Ala.	R. B. Broyles Furniture Co
WKBS	*	100	---	Galesburg, Ill.	Permil N. Nelson
WLBC	†	50	6	Muncie, Ind.	Donald A. Burton
WMBO	†	100	---	Auburn, N. Y.	WMBO, Inc.
WNBH	*	100	---	New Bedford, Mass.	New Bedford Broadcasting Co.
WOL	*	100	---	Washington, D. C.	American Broadcasting Co.
WRAW	*	100	5X	Reading, Pa.	Reading Broadcasting Co.
WROL	†	100	---	Knoxville, Tenn.	Stewart Broadcasting Co.
WSAJ	*	100	---	Grove City, Pa.	Grove City College
WSJS	*	100	---	Winston-Salem, N. C.	Winston-Salem Journal Co.
WTFL	*	100	4	Philadelphia, Pa.	Foulkrod Radio Engineering Co.
WTJS	†	100	+	Jackson, Tenn.	Sun Publishing Co.
WTSL	---	100	---	Laurel, Miss.	G. A. Houseman
XEFB	---	50	1315	Monterrey, N. L.	Quintanilla y Stevenson

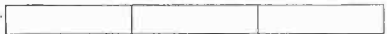
1320 kilocycles 227.1 meters

KGHF	†	250	+	Pueblo, Colo.	
KGMB	†	250	C	Honolulu, Hawaii	C. P. Ritchie & J. E. Finch
KID	*	250	+	Idaho Falls, Idaho	Honolulu Broadcasting Co., Ltd.
WADC	†	1000	C	Akron, Ohio	KID Broadcasting Co.
WSMB	*	500	N	New Orleans, La.	Allen T. Simmons
					WSMB, Inc.



1330 kilocycles 225.4 meters

KGB	*	500	C	San Diego, Cal.	Don Lee, Inc.
KSCJ	*	1000	1+C	Sioux City, Iowa	Perkins Bros. Co.
WDRG	*	500	C	Hartford, Conn.	WDRG, Inc.
WSAI	*	500	R+	Cincinnati, Ohio	Crosley Radio Corp., Lessee
WTAQ	*	1000	1C	Eau Claire, Wis.	Gillette Rubber Co.



1340 kilocycles 223.7 meters

CMCG	---	30	1345	Havana, Cuba	Jose Justo Moran
CMCR	---	150	1345	Havana, Cuba	Aurelio Hernandez
CMCY	---	50	1345	Havana, Cuba	M. D. Autran
KFPW	†	50	D	Fort Smith, Ark.	Southwestern Hotels Co.
KFPY	*	1000	C	Spokane, Wash.	Symons Broadcasting Co.
WCOA	*	500	---	Pensacola, Fla.	Pensacola Broadcasting Co.
WSPD	*	1000	C	Toledo, Ohio	Toledo Broadcasting Co.



1350 kilocycles 222.1 meters

KIDO	†	1000	---	Boise, Idaho	Boise Broadcasting Station
KWK	*	1000	B	St. Louis, Mo.	Greater St. Louis Brdctg Corp.
WAWZ	*	250	1	Zarephath, N. J.	Pillar of Fire
WBNX	---	250	1a	New York City	Standard Cahill Co., Inc.
WCDA	---	250	1	New York City	Italian Educ. Broadcasting Co., Inc.
WEHC	*	500	D	Emory, Va.	Emory & Henry College
WMSG	---	250	1a	New York City	Madison Sq. Garden Brdctg. Corp.



INDEX BY FREQUENCIES AND DIAL NUMBERS

1360 kilocycles 220.4 meters

KGFR	*	1000	---	Long Beach, Cal.
KGIR	†	500	N	Butte Montana
WCSC	*	500	---	Charleston, S. C.
WFBL	*	1000	CX	Syracuse, N. Y.
WGES	*	500	1+	Chicago, Ill.
WJKS	*	1000	1+Z	Gery, Ind.
WQBC	†	500	D	Vicksburg, Miss.

Consolidated Broadcasting Corp. KGIR, Inc. South Carolina Broadcasting Co., Inc. Onondaga Radio Broadcasting Corp. Oak Leaves Broadcasting Station, Inc. Johnson-Kennedy Radio Corp. Delta Broadcasting Co., Inc.		

1370 kilocycles 218.7 meters

CMGE	--	30	1375	Cardenas, Cuba
HRB		2300		Tegucigalpa, Hond.
KCRC	†	100	2+	Enid, Okla.
KFBL	*	50	3	Everett, Wash.
KFJM	†	100	---	Grand Forks, N. D.
KFJZ	*	100	---	Ft. Worth, Texas
KFLX	†	100	---	Galveston, Texas
KGAR	*	100	+	Tucson, Arizona
KGDA	†	100	---	Mitchell, S. D.
KGFG	†	100	2	Oklahoma City
KGFL	†	50	4	Raton, N. M.
KGKL	†	100	---	San Angelo, Texas
KICA	†	100	4CP	Clovis, N. Mex.
KMAC	†	100	5	San Antonio, Texas
KMNO	†	100	5	San Antonio, Texas
KOOS	*	100	---	Marshfield, Ore.
KRE	†	100	---	Berkeley, Cal.
KUJ	†	100	---	Walla Walla, Wash.
KVL	†	100	3	Seattle, Wash.
KWKX	†	100	---	Kansas City, Mo.
WBGF	†	50	---	Glens Falls, N. Y.
WBTM	†	100	7	Danville, Va.
WCBM	*	100	+Z	Baltimore, Md.
WDAS	*	100	+	Philadelphia, Pa.
WGL	*	100	C	Fort Wayne, Ind.
WHBD	†	100	---	Mount Orab, Ohio
WHBQ	†	100	---	Memphis, Tenn.
WHDF	†	100	+	Calumet, Mich.
WIBM	*	100	1	Jackson, Mich.
WJBK	*	50	1	Detroit, Mich.
WJTL	†	100	---	Atlanta, Ga.
WLEY	†	100	+	Lexington, Mass.
WLVA	†	100	7	Lynchburg, Va.
WMBR	†	100	---	Tampa, Fla.
WPFB	†	100	---	Hattiesburg, Miss.
WQDM	*	100	D	St. Albans, Vt.
WRAK	*	100	6	Williamsport, Pa.
WRAM	*	100	---	Wilmington, N. C.
WRDO	†	100	---	Augusta, Maine
WRJN	†	100	---	Racine, Wis.
WSVS	*	50	---	Buffalo, N. Y.
-----	--	100	6	Williamsport, Pa.

Genaro Sebater United Fruit Co. Enid Radiophone Co. Leese Bros. University of North Dakota Ralph S. Bishop George Roy Clough Tucson Motor Service Co. Mitchell Broadcasting Corp. Oklahoma Broadcasting Co., Inc. KGFL, Inc. KGKL, Inc. W. E. Whitmore W. W. McAllister Mission Broadcasting Co. H. H. Hanseth, Inc. First Congregational Church KUJ, Inc. KVL, Inc. Wilson Duncan Broadcasting Co. W. N. Parker and H. H. Metcalfe Piedmont Broadcasting Corp. Baltimore Broadcasting Corp. WDAS Broadcasting Station, Inc. Fred Z. Zieg F. P. Moler Broadcasting Station WHBQ, Inc. Upper Michigan Broadcasting Co. WIBM, Inc. James F. Hopkins, Inc. Oglethorpe University Lexington Air Stations Lynchburg Broadcasting Corp. F. J. Reynolds Hattiesburg Broadcasting Co. A. J. St. Antoine C. R. Cummins Wilmington Radio Association WRDO, Inc. Racine Broadcasting Corp. Seneca Vocational School Sun-Gazette Broadcasting Co.		

1380 kilocycles 217.3 meters

CMJC	--	150	1382	Camaguey, Cuba
KOH	†	500	C	Reno, Nevada
KQV	†	500	2	Pittsburgh, Pa.
KSO	*	500	1	Clarinda, Iowa
WKBH	*	1000	1C	La Crosse, Wis.
WSMK	*	200	2	Dayton, Ohio
XETB	--	125	---	Torreón, Coah.

Feliciano Isaac The Bee, Inc. KQV Broadcasting Co. Iowa Broadcasting Co. WKBH, Inc. Stanley M. Krohn, Jr. Jose A. Berumen		

KCY.S.
1400
MTRS.
214.2
DIAL

1390 kilocycles 215.7 meters

KLRA	*	1000	1C	Little Rock, Ark.
KOY	*	500	C	Phoenix, Arizona
KUOA	†	1000	1	Fayetteville, Ark.
WHK	*	1000	C	Cleveland, Ohio

Arkansas Broadcasting Co. Nielsen Radio & Sporting Goods Co. University of Arkansas Radio Air Service Corp.		

1400 kilocycles 214.2 meters

CMBI	--	30	1405	Havana, Cuba
CMBN	--	30	1405	Havana, Cuba
CMCH	--	15	1405	Havana, Cuba

Francisco Mayorquim Armado Romeu Hernani Torralbas		

CUT OUT ON
DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

CMCM	--	15	1405	Havana, Cuba
KLO	*	500	---	Ogden, Utah
KOCW	*	250	+	Chickasha, Okla.
WBAA	†	500	1+	Lafayette, Ind.
WBBC	*	500	2	Brooklyn, N. Y.
WCGU	*	500	2	Brooklyn, N. Y.
WCMA	†	500	1	Culver, Ind.
WFOX	--	500	2	Brooklyn, N. Y.
WKBF	†	500	1	Indianapolis, Ind.
WLTH	*	500	2	Brooklyn, N. Y.
XEP	--	200	---	Laredo, Mexico

Martinez-Madico
 Interstate Broadcasting Corp.
 College for Women
 Purdue University
 Brooklyn Broadcasting Corp.
 U. S. Broadcasting Corp.
 General Broadcasting Corp.
 Paramount Broadcasting Co.
 Indianapolis Broadcasting, Inc.
 The Voice of Brooklyn, Inc.
 La Voz Latino

1410 kilocycles 212.6 meters

KFLV	†	500	4	Rockford, Ill.
KGRS	*	1000	1	Amarillo, Texas
WAAB	*	500	C	Boston, Mass.
WBGM	*	500	C	Bay City, Mich.
WDAG	*	1000	1	Amarillo, Texas
WHBL	*	500	4	Sheboygan, Wis.
WHIS	†	250	2	Bluefield, W. Va.
WODX	*	500	3C	Mobile, Ala.
WRBX	*	250	2	Roanoke, Va.
WSFA	†	500	3C	Montgomery, Ala.

Rockford Broadcasters, Inc.
 Gish Radio Service
 Bay State Broadcasting Corp.
 James E. Davidson
 National Radio & Broadcasting Corp.
 Press Pub. Co.
 Daily Telegraph
 Mobile Broadcasting Corp.
 Richmond Development Corp.
 Montgomery Broadcasting Co., Inc.

1420 kilocycles 211.1 meters

KABC	†	100	---	San Antonio, Texas
KBPS	--	100	4	Portland, Ore.
KCMC	--	100	---	Texarkana, Ark.
KFIZ	*	100	---	Fond du Lac, Wis.
KFXD	*	100	Z	Nampa, Idaho
KFXV	--	100	---	Flagstaff, Arizona
KFYO	†	100	+YZ	Abilene, Texas
KGFF	†	100	---	Shawnee, Okla.
KGGC	†	100	5	San Francisco, Cal.
KGIW	†	100	---	Trinidad, Colo.
KGIL	†	100	---	Las Vegas, Nevada
KGKX	†	100	---	Sand Point, Idaho
KGVO	†	100	D	Missoula, Montana
KICK	*	100	---	Red Oak, Iowa
KORE	*	100	---	Eugene, Ore.
KWCR	†	100	B	Cedar Rapids, Iowa
KXL	†	100	4	Portland, Ore.
KXYZ	--	100	---	Houston, Texas
WAGM	--	100	---	Presque Isle, Maine
WDEV	--	50	D	Waterbury, Vt.
WEHS	--	100	a	Cicero, Ill.
WELL	†	50	---	Battle Creek, Mich.
WENC	--	50	D	Americus, Ga.
WERE	*	100	---	Erie, Pa.
WFDW	*	100	---	Anniston, Ala.
WHDL	*	100	D	Tupper Lake, N. Y.
WHFC	--	100	a	Cicero, Ill.
WILM	*	100	---	Wilmington, Del.
WJBO	*	100	---	New Orleans, La.
WJMS	--	100	D	Ironwood, Mich.
WKBI	*	100	a	Cicero, Ill.
WLBF	†	100	---	Kansas City, Kansas
WMBC	*	100	+	Detroit, Mich.
WMBH	--	100	+	Joplin, Mo.
WPAD	†	100	+	Paducah, Ky.
WSPA	†	100	+	Spartanburg, S. C.
WTBO	*	100	+	Cumberland, Md.

Alamo Broadcasting Co.
 Benson Polytechnic Institute
 North Mississippi Broadcasting Corp.
 Reporter Printing Co.
 Frank E. Hurt

Albert H. Scherman
 T. E. Kirksey
 KGFF Broadcasting Co.
 Golden Gate Broadcasting Co.
 Leonard E. Wilson
 Las Vegas, Nevada, Radio Corp.
 Sandpoint Broadcasting Co.
 Mosby's Incorporated
 Red Oak Radio Corp.
 Eugene Broadcasting Station
 Cedar Rapids Broadcast Co.
 KXL Broadcasters, Inc.
 Harris County Broadcast Co.
 Aroostook Broadcasting Corp.
 Harry C. Whitehill
 WEHS, Inc.
 Enquirer-News Co.
 Americus Broadcast Co.
 Erie Dispatch-Herald
 Raymond G. Hammett
 Tupper Lake Broadcasting Co. Inc.,
 WHFC, Inc.
 Delaware Broadcasting Co., Inc.
 Valdemar Jensen
 Marius Johnson
 WKBI, Inc.
 WLBF Broadcasting Co.
 Michigan Broadcasting Co., Inc.
 Edwin Dudley Aber
 Paducah Broadcasting Co.
 Voice of South Carolina
 Associated Broadcasting Corp.

1430 kilocycles 209.7 meters

KECA	†	1000	N	Los Angeles, Cal.
KGNF	†	500	D	North Platte, Nebr.
WBAK	†	500	1+	Harrisburg, Pa.
WCAH	*	500	C □	Columbus, Ohio
WFEA	*	500	C	Manchester, N. H.
WHBC	*	500	C □	Rochester, N. Y.
WHP	*	500	1C	Harrisburg, Pa.
WNBR	*	500	1C+□	Memphis, Tenn.
WOKO	†	500	C □	Albany, N. Y.

Earle C. Anthony, Inc.
 Great Plains Broadcasting Co.
 Penna. State Police
 Commercial Radio Service Co.
 New Hampshire Broadcasting Co.
 WHEC, Inc.
 WHP, The Harrisburg Telegraph
 Memphis Broadcasting Co.
 WOKO, Inc.

1440 kilocycles 208.2 meters

KLS	*	250	D	Oakland, Cal.
WBIG	*	500	C	Greensboro, N. C.

Warner Bros.
 North Carolina Broadcasting Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

WCBA	*	250	a	Allentown, Pa.
WBMD	*	500	3+C	Peoria Heights, Ill.
WSAN	*	250	a	Allentown, Pa.
WTAD	†	500	3	Quincy, Ill.

B. B. Musselman
Peoria Broadcasting Co.
Allentown Call Publishing Co., Inc.
Illinois Broadcasting Corp.

1450 kilocycles 206.8 meters

KTBS	*	1000	N
WBMS	†	250	1
WGAR	†	500	B
WHOM	*	500	1
WNI	*	250	1
WSAR	*	250	---
WTFI	--	500	---

Shreveport, La.
Hackensack, N. J.
Cleveland, Ohio
Jersey City, N. J.
Newark, N. J.
Fall River, Mass.
Athens, Ga.



Tri-State Broadcasting System, Inc.
WBMS Broadcasting Corp.
WGAR Broadcasting Co.
New Jersey Broadcasting Corp.
Radio Investment Co.
Doughty & Welch Electric Co., Inc.
Toccoa Falls Broadcasting Co.

1460 kilocycles 205.4 meters

KSTP	*	10000	N
WJSV	*	10000	---

St. Paul, Minn.
Alexandria, Va.



National Battery Broadcasting Co.
WJSV, Inc.

1470 kilocycles 204.0 meters

KGA	†	5000	N
WLAC	*	5000	C

Spokane, Wash.
Nashville, Tenn.



Northwest Broadcasting System, Inc.
Life & Casualty Insurance Co.

1480 kilocycles 202.6 meters

KFJF	*	5000	C
WKBW	*	5000	C

Oklahoma City
Bufalo, N. Y.



National Radio Mfg. Co.
Bufalo Broadcasting Co., Lessees

1490 kilocycles 201.2 meters

WCHI	*	5000	1
WCKY	*	5000	1N

Chicago, Ill.
Covington, Ky.



Midland Broadcasting Company
L. B. Wilson, Inc.

1500 kilocycles 199.9 meters

CMBL	--	20	---
CMBO	--	50	---
CMBR	--	15	---
KDB	*	100	C
KGF1	*	100	+
KGFK	†	50	---
KGIB	†	100	---
KGKB	†	100	---
KGKY	*	100	---
KNOW	†	100	---
KNOW	†	100	---
KPJM	*	100	---
KPO	†	50	---
KREG	†	100	---
KXO	*	100	---
WFDV	†	100	---
WFDV	†	100	---
WKBV	†	100	+
WKBZ	†	50	---
WLBX	†	100	1
WLOE	*	100	+
WMBA	†	100	---
WMBQ	†	100	1
WMIL	†	100	1
WMPC	†	100	---
WNBF	†	100	---
WOP1	*	100	---
WPEN	*	100	+
WRDW	*	100	---
WSYB	†	100	---
WWR1	*	100	1
WWSW	*	100	---
XETZ	*	100	---
-----	--	100	CP

Havana, Cuba
Havana, Cuba
Havana, Cuba
Santa Barbara, Cal.
Corpus Christi, Texas
Moonhead, Minn.
Grant City, Mo.
Tyler, Texas
Scottsbluff, Nebr.
Austin, Texas
Prescott, Arizona
Wenatchee, Wash.
Santa Ana, Cal.
El Centro, Cal.
Rome, Ga.
Connersville, Ind.
Ludington, Mich.
Long Island City, N. Y.
Boston, Mass.
Newport, R. I.
Brooklyn, N. Y.
Brooklyn, N. Y.
Lapeer, Mich.
Binghamton, N. Y.
Bristol, Tenn.
Philadelphia, Pa.
Augusta, Ga.
Rutland, Vt.
Woodside, N. Y.
Pittsburgh, Pa.
Covoacan, D. F.
Kosciusko, Miss.

Julio C. Hidalgo
Gali-Sardinas
Tomas Basail
Santa Barbara Broadcasters, Ltd.
Eagle Broadcasting Co., Inc.
Red River Broadcasting Co., Inc.
Grant City Park Corp.
East Texas Brdcastg. Co.
Hilliard Co., Inc.
KNOW Broadcasting Co.
A. P. Miller
Westcoat Broadcasting Co.
J. S. Edwards
E. R. Irely and F. M. Bowles
Rome Broadcasting Corp.
Knox Battery & Electric Co.
K. L. Ashbacher
John N. Brahy
Boston Broadcasting Co.
LeRoy Joseph Beebe
Paul J. Gollhofer
Arthur Faske
First M. P. Church
Howitt, Wood Radio Co., Inc.
Radiophone Brdcastg. Station, Inc.
Wm. Penn Broadcasting Co.
Muscovie, Inc.
Philip Weiss Music Co.
Long Island Broadcasting Corp.
Walker & Downing Radio Corp.
Manuel Zetina
Attala Milling & Produce Co.

KCYS.
1500
MTRS.
199.9
DIAL

INDEX BY LOCATIONS WITH MAP KEY

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

ALABAMA		Watts	Kcys.				
Anniston O-22	100	WFDW	1420	San Jose J-1	500	KQW	1010
Birmingham O-21	5000	WAPI N	1140	Santa Ana M-3	100	KREG	1500
	500	WBRC C	930	Santa Barbara M-2	100	KDB C	1500
	100	WKBC	1310	Stockton J-2	250	KGDM	1100
Gadsden O-21	100	WJBY	1210		100	KWG	1200
Huntsville N-21	50	WBHS	1200	COLORADO			
Mobile Q-20	500	WODX C	1410	Colorado Springs K-11	1000	KVOR C	1270
Montgomery P-21	500	WSFA C	1410	Denver K-11	500	KFEL	920
					500	KFXF	920
					1000	KLZ	560
					12500	KOA N	830
					500	KPOF	880
ALASKA				Fort Morgan J-11	100	KGEW	1200
Anchorage	100	KFQD	1230	Grand Junction K-9	100	KFXJ	1310
Ketchikan	500	KGBU	900	Greeley J-11	500	KFKA	880
				Pueblo L-11	250	KGHF	1320
				Trinidad L-11	100	KGIW	1420
				Yuma J-12	100	KGEK	1200
ARIZONA				CONNECTICUT			
Flagstaff M-7	100	KFXY	1420	Bridgeport H-27	250	WICC	600
Jerome M-6	100	KCRJ	1310	Hartford H-27	500	WDRG C	1330
Phoenix N-6	500	KOY C	1390		50000	WTIC R	1060
	500	KTAR N	620	Storrs H-28	250	WCAC	600
Prescott M-6	100	KPJM	1500				
Tucson O-7	100	KGAR	1370	DELAWARE			
	500	KVOA	1260	Wilmington J-26	250	WDEL	1120
					100	WILM	1420
ARKANSAS				DISTRICT OF COLUMBIA			
Blytheville M-19	50	KLCN	1290	Washington J-26	250	WMAL C	630
Fayetteville M-16	1000	KUOA	1390		500	WRC R	950
Fort Smith N-16	50	KFPW	1340		100	WOL	1310
Hot Springs N-17	10000	KTHS N	1040	FLORIDA			
Little Rock N-17	250	KARK	890	Clearwater R-24	1000	WFLA N	620
	100	KGHI	1200	Gainesville Q-24	5000	WRUF C	830
	1000	KBLM C	1390	Jacksonville Q-24	1000	WJAX N	900
Paragould M-18	100	KTRA	1200	Miami T-25	1000	WIOD N	1300
Texarkana O-17	100	KCMC	1420		1000	WQAM C	560
				Orlando R-24	250	WDBO C	1120
				Pensacola Q-21	500	WCOA	1340
				St. Petersburg S-24	1000	WSUN	620
				Tampa R-24	1000	WDAE C	1220
					100	WMBR	1370
CALIFORNIA				GEORGIA			
Bakersfield L-3	100	KERN C	1200	Americus P-22	50	WENC	1420
Berkeley J-2	100	KRE	1370	Athens O-23	500	WTFI	1450
Beverly Hills M-3	500	KMPC	710	Atlanta O-22	250	WGST C	890
Burbank M-3	500	KELW	780		100	WJTL	1370
Culver City M-3	250	KFVD	1000		5000	WSB N	740
El Centro N-4	100	KXO	1500	Augusta O-23	100	WRDW	1500
Fresno K-2	100	KMJ	1210	Columbus O-22	50	WRBL	1200
Hollywood M-3	1000	KFWB	950	Macon O-23	500	WMAZ	1180
	500	KMTR	570	Rome N-22	100	WFDV	1500
	5000	KNX	1050	Savannah O-24	500	WTOG C	1260
Long Beach M-3	1000	KFOX	1250	Thomasville Q-22	100	WQDX	1210
	1000	KGER	1360	HAWAII			
Los Angeles M-3	1000	KECA N	1430	Honolulu	250	KGMB C	1320
	1000	KFAC	1300		1000	KGU R	750
	5000	KFI N	640	IDAHO			
	500	KFSG	1120	Boise G-5	1000	KIDO	1350
	100	KGfJ	1200	Idaho Falls G-7	250	KID	1320
	1000	KHJ C	900	Nampa G-5	100	KFXD	1420
	500	KRKD	1120	Pocatello H-7	250	KSEI	900
Oakland J-1	500	KTM	780	Sand Point D-6	100	KGKX	1420
	250	KLS	1440	Twin Falls H-6	250	KTFI	1240
	500	KLX	880				
	500	KROW	930				
Pasadena M-3	50	KPPC	1210				
Sacramento J-2	100	KFBK	1310				
San Bernardino M-3	100	KFXM	1210				
San Diego N-3	500	KFSM N	600				
	500	KGB C	1330				
San Francisco J-1	1000	KFRC C	610				
	500	KFWI	930				
	100	KGGC	1420				
	7500	KGO N	790				
	100	KJBS	1070				
	5000	KPO N	680				
	1000	KTAB	560				
	1000	KYA B	1230				

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
	5000	WCHL	1490
	100	WCRW	1210
	100	WEDC	1210
	50000	WENR N	870
	500	WGES	1360
	25000	WGN C	720
	1000	WIBO	560
	50000	WLS N	870
	5000	WMAQ N	670
	5000	WMBI	1080
	500	WPCC	560
	100	WBCB	1210
Cicero I-20	100	WEHS	1420
	100	WHFC	1420
	100	WKBI	1420
Decatur K-19	100	WJBL	1200
Galesburg J-18	100	WKBS	1310
Harrisburg L-19	100	WEBQ	1210
Joliet I-19	100	WCLS	1310
	100	WKBB	1310
La Salle J-19	100	WJBC	1200
Mooseheart I-19	20000	WJJD	1130
Peoria Heights J-19	500	WMBD C	1440
Quincy K-18	500	WTAD	1440
Rockford I-19	500	KFLV	1410
Rock Island I-18	100	WHBF	1210
Springfield K-19	100	WCBS	1210
	100	WTAX	1210
Tuscola K-20	100	WDZ	1070
Urbana J-20	250	WILL	890
Zion I-20	5000	WCBD	1080

INDIANA

Anderson J-21	100	WHBU	1210
Connerville K-21	100	WKBV	1500
Culver I-20	500	WCMA	1400
Elkhart I-21	50	WJAK	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	100	WWAE	1200
Indianapolis J-21	1000	WFBM C	1230
	500	WKBF	1400
Lafayette J-20	500	WBAA	1400
Muncie J-21	50	WLBC	1310
South Bend I-20	100	WFAM	1200
	500	WSBT C	1230
Terre Haute K-20	100	WBOW	1310

IOWA

Ames I-17	5000	WOI	640
Boone I-17	100	KFGQ	1310
Cedar Rapids I-18	100	KWCR B	1420
Clarinda J-16	500	KSO	1380
Council Bluffs J-16	1000	KOIL B	1260
Davenport I-18	5000	WOC R	1000
Decorah H-18	50	KGCA	1270
	100	KWLC	1270
Des Moines I-17	5000	WHO R	1000
Iowa City I-18	500	WSUI	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

Coffeyville M-15	500	KGGF	1010
Dodge City L-13	100	KGNO	1210
Kansas City K-16	100	WLBF	1420
Lawrence K-16	500	KFKU	1220
	1000	WREN B	1220
Manhattan K-15	500	KSAC	580
Milford K-14	5000	KFBI	1050
Topeka K-16	1000	WIBW C	580
Wichita L-15	1000	KFH C	1300

KENTUCKY

Covington K-22	5000	WCKY N	1490
Hopkinsville M-20	1000	WFIW C	940
Louisville L-21	10000	WHAS N	820
	250	WLAP C	1200
Paducah M-19	100	WPAD	1420

LOUISIANA

Monroe P-18	100	KMLB	1200
New Orleans R-19	100	WABZ	1200
	1000	WDSU C	1250
	100	WJBO	1420
	100	WJBW	1200
	500	WSMB N	1320
	10000	WWL	850
Shreveport P-17	50	KRMD	1310
	1000	KTBS N	1450
	100	KWEA	1210
	10000	KWKH	850

MAINE

Augusta F-28	100	WRDO	1370
Bangor F-29	100	WABI	1200
	500	WLBZ C	620
Portland F-28	1000	WCBS R	940
Presque Isle D-29	100	WAGM	1420

MARYLAND

Baltimore J-26	10000	WBAL B	1060
	250	WCAO C	600
	100	WCBM	1370
	500	WFBR R	1270
Cumberland J-25	100	WTBO	1420

MASSACHUSETTS

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

MICHIGAN

Battle Creek I-21	50	WELL	1420
Bay City H-22	500	WBCM C	1410
Calumet E-19	100	WHDf	1370
Detroit H-22	50	WJBK	1370
	10000	WJR B	750
	100	WMBC	1420

INDEX BY LOCATIONS WITH MAP KEY

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

Detroit H-22	1000	WWJ	R	920
	1000	WXYZ	C	1240
East Lansing H-21	1000	WKAR		1040
Flint H-22	100	WFDF		1310
Grand Rapids H-21	500	WASH		1270
	500	WOOD		1270
Ironwood F-18	100	WJMS		1420
Jackson I-21	100	WIBM		1370
Kalamazoo I-21	1000	WKZO		590
Lapeer H-22	100	WMPC		1500
Ludington H-20	50	WKBZ		1500
Marquette F-19	100	WBEO		1310
Royal Oak H-22	50	WEXL		1310

MINNESOTA

Fergus Falls F-15	100	KGDE		1200
Minneapolis G-17	5000	WCCO	C	810
	1000	WDGY		1180
	1000	WRHM		1250
Moorhead F-15	50	KGFK		1500
Northfield G-17	1000	KFMX		1250
	1000	WCAL		1250
St. Paul G-17	1000	WLB		1250
	10000	KSTP	N	1460

MISSISSIPPI

Greenville O-18	100	WRBQ		1210
Gulfport Q-19	100	WGCM		1210
Hattiesburg Q-19	100	WPFB		1370
Jackson P-19	1000	WJDX	N	1270
Kosciusko O-19	100	WL		1500
Laurel P-20	100	WTSL		1310
Meridian P-20	500	WCOC		880
Verisburg P-18	500	WQBC		1360

MISSOURI

Cp. Girardeau L-19	100	KFVS		1210
Columbia K-17	500	KFRU		630
Grant City J-16	100	KGIZ		1500
Jefferson City L-17	500	WOS		630
Joplin M-16	100	WMBH		1420
Kansas City K-16	1000	KMBC	C	950
	100	KWKC		1370
	1000	WDAF	N	610
	500	WHB		860
	1000	WOQ		1300
St. Joseph K-16	2500	KFEQ		680
	100	KGBX		1310
St. Louis L-18	500	KFUO		550
	100	KFWF		1200
	50000	KMOX	C	1090
	500	KSD	R	550
	1000	KWK	B	1350
	1000	WEW		760
	100	WIL		1200

MONTANA

Billings F-9	1000	KGHL	B	950
Butte F-7	500	KGIR	N	1360
Great Falls E-8	1000	KFBH		1280
Kalispell D-7	100	KGEZ		1310
Missoula E-7	100	KGVO		1420
Wolf Point E-11	100	KGCX		1310

NEBRASKA

Clay Center J-14	1000	KMMJ		740
Kearney J-14	100	KGFV		1310
Lincoln J-15	5000	KFAB	C	770
	100	KFOR		1210
	500	WCAJ		590
Norfolk I-15	1000	WJAG		1060
North Platte J-13	500	KGNF		1430
Omaha J-15	500	WAAW		660
	1000	WOW	R	590
Scottsbluff I-11	100	KGKY		1500
York J-15	500	KGBZ		930

NEVADA

Las Vegas L-5	100	KGIX		1420
Reno I-3	500	KOH	C	1380

NEW HAMPSHIRE

Laconia G-28	100	WKAV		1310
Manchester G-28	500	WFEA	C	1430
Portsmouth G-28	250	WHEB		740

NEW JERSEY

Asbury Park I-27	500	WCAP		1280
Atlantic City J-27	5000	WPG	C	1100
Camden I-26	500	WCAM		1280
Hackensack I-27	250	WBMS		1450
Jersey City I-27	300	WAAT		940
	500	WHOM		1450
Newark I-27	1000	WAAM		1250
	250	WGCP		1250
	250	WNJ		1450
	5000	WOR		710
Paterson I-27	1000	WODA		1250
Red Bank I-27	100	WJBI		1210
Trenton I-26	500	WOAX		1280
Zarephath I-27	250	WAWZ		1350

NEW MEXICO

Albuquerque N-7	250	KGGM		1230
Clovis N-11	100	KICA		1370
Raton M-11	50	KGFL		1370
State College P-9	20000	KOB		1180

NEW YORK

Albany H-27	500	WOKO	C	1430
Auburn H-25	100	WMBO		1310
Binghamton H-26	100	WNBF		1500
Brooklyn I-27	500	WBBC		1400
	1000	WBRR		1300
	500	WCGU		1400
	500	WFOX		1400
	500	WLTH		1400
	100	WMBQ		1500
	100	WMIL		1500
Buffalo H-24	1000	WBNR	R	900
	100	WEBR		1310
	1000	WGR	C	550
	5000	WKBW	C	1480
	50	WSVS		1370
Canton F-26	500	WCAD		1220
Freeport I-27	100	WGBB		1210
Glens Falls G-27	50	WBGF		1370
Ithaca H-25	1000	WEAI		1270
	50	WLCI		1210
Jamaica H-27	100	WMRJ		1210
Jamestown H-24	50	WOCL		1210
Long Island City I-27	100	WLBX		1500
New York City I-27	50000	WABC	C	860
	250	WBXN		1350
	50000	WBOQ		860
	250	WCDA		1350
	50000	WEAF	R	660
	500	WEVD		1300
	1000	WFAB		1300
	500	WINS		1180
	250	WHN		1010
	30000	WJZ	B	760
	5000	WLWL		1100
	500	WMCA		570
	250	WMSG		1350
	500	WNYC		570
	1000	WOV		1130
	250	WPAP		1010
	500	WPCH		810
	250	WQAO		1010
	250	WRNY		1010

INDEX BY LOCATIONS WITH MAP KEY

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

Rochester G-25	5000	WHAM	B	1150
	500	WHEC	C	1430
Saranac Lake F-26	50	WNBZ	B	1290
Schenectady G-27	50000	WGY	R	790
Syracuse G-25	1000	WFBL	C	1360
	250	WMAC	B	570
	250	WSYR	B	570
Troy G-27	500	WHAZ	B	1300
Tupper Lake F-26	100	WHDL	B	1420
Utica G-26	100	WIBX	B	1200
Woodside I-27	100	WWRL	B	1500
Yonkers I-27	100	WCOH	B	1210

NORTH CAROLINA

Asheville M-23	1000	WWNC	N	570
Charlotte M-24	5000	WBT	C	1080
Gastonia M-24	100	WSOC	B	1210
Greensboro M-24	500	WBIG	C	1440
Raleigh M-25	1000	WPTF	N	680
Wilmington N-26	100	WRAM	B	1370
Winston-Salem M-24	100	WSJS	B	1310

NORTH DAKOTA

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

OHIO

Akron I-23	1000	WADC	C	1320
Canton I-23	10	WHBC	B	1200
Cincinnati K-22	100	WFBE	B	1200
	1000	WKRC	C	550
	50000	WLW	B	700
Cleveland I-23	500	WSAI	R	1330
	500	WGAR	B	1450
	1000	WHK	C	1390
	500	WJAY	B	610
Columbus J-22	50000	WTAM	R	1070
	500	WAIU	B	640
	500	WCAH	C	1430
	750	WEAO	B	570
	100	WSEN	B	1210
Dayton J-22	200	WSMK	B	1380
Mansfield J-22	100	WJW	B	1210
Mount Orab K-22	100	WHBD	B	1370
Toledo I-22	1000	WSPD	C	1340
Youngstown I-23	500	WKBN	C	570
Zanesville J-23	100	WALR	B	1210

OKLAHOMA

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

OREGON

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

Portland E-3	5000	KEX	N	1180
	100	KBPS	B	1420
	500	KFJR	B	1300
	1000	KGW	N	620
	1000	KOIN	C	940
	500	KTBR	B	1300
	500	KWJJ	B	1060
	100	KXL	B	1420

PENNSYLVANIA

Allentown I-26	250	WCBA	B	1440
	250	WSAN	B	1440
Altoona I-25	100	WFBG	B	1310
Carbondale H-26	10	WNBW	B	1200
Elkins Park I-26	75	WIBG	B	930
Erie H-24	100	WERE	B	1420
Grove City I-24	100	WSAJ	B	1310
Harrisburg I-25	500	WBAK	B	1430
	100	WCOD	B	1200
	500	WHP	C	1430
Johnstown J-24	100	WJAC	B	1310
Lancaster I-26	100	WGAL	B	1310
	100	WKJC	B	1200
Lewisburg I-26	100	WJBU	B	1210
Oil City I-24	500	WLBW	B	1260
Philadelphia I-26	10000	WCAU	C	1170
	100	WDAS	B	1370
	500	WFAN	C	610
	500	WFI	R	560
	100	WHAT	B	1310
	500	WIP	C	610
	500	WLIT	R	560
	100	WPEN	B	1500
	250	WRAX	B	1020
	100	WTEL	B	1310
Pittsburgh J-24	50000	KDKA	B	980
	500	KQV	B	1380
	1000	WCAE	R	1220
	1000	WJAS	C	1290
	100	WWSW	B	1500
Reading I-26	1000	WEEU	B	830
	100	WRAW	B	1310
Scranton H-26	250	WGBI	B	880
	250	WQAN	B	880
State College I-25	500	WPSC	B	1230
Washington J-24	100	WNBO	B	1200
Wilkes-Barre I-26	100	WBAX	B	1210
	100	WBRE	B	1310
Williamsport I-25	100	WRAK	B	1370
	100	-----	-----	1370
York J-26	1000	WORK	B	1000

PHILIPPINES

Cebu	500	KZRC	B	937.5
Manila	1000	KZKA	B	1110
	1000	KZRM	B	618.5

PORTO RICO

San Juan W-34	250	WKAQ	B	890
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RHODE ISLAND

Newport H-28	100	WMBA	B	1500
Providence H-28	250	WEAN	C	780
	250	WJAR	R	890
	100	WPRO	B	1210

SOUTH CAROLINA

Charleston O-25	500	WCSC	B	1360
Columbia N-24	500	WIS	N	1010
Spartanburg N-23	100	WSPA	B	1420

INDEX BY LOCATIONS WITH MAP KEY

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

SOUTH DAKOTA		Watts	Kcys.
Brookings H-15	500	KFDY	550
Huron H-14	100	KGDY	1200
Mitchell H-14	100	KGDA	1370
Pierre G-13	200	KGFX	630
Rapid City H-12	100	WCAT	1200
Stoux Falls H-15	2500	KSOO	1110
Vermillion I-15	500	KUSD	890
Watertown G-15	100	KGCR	1210
Yankton I-15	1000	WNAX C	570

TENNESSEE		Watts	Kcys.
Bristol L-23	100	WOPI	1500
Chattanooga N-21	1000	WDOD C	1280
Jackson N-20	100	WTJS	1310
Knoxville M-22	50	WFBC	1200
	1000	WNOX C	560
	100	WROL	1310
Memphis N-19	100	WHBQ	1370
	500	WMC N	780
	500	WNBR	1430
	500	WREC C	600
Nashville M-21	5000	WLAC C	1470
	5000	WSM N	650
Springfield M-20	100	WSIX	1210

TEXAS		Watts	Kcys.
Abilene P-13	100	KFYO	1420
Amarillo N-12	1000	KGRS	1410
	1000	WDAG	1410
Austin Q-14	100	KNOW	1500
Beaumont R-17	500	KFDW	560
Brownsville U-15	500	KWWG	1260
College Sta. Q-15	500	WTAW	1120
Corpus Christi S-14	100	KGFI	1500
Dallas P-15	10000	KRLD C	1040
	5000	WFAA N	800
	500	WRR C	1280
Dublin P-14	100	KFPL	1310
El Paso P-9	100	KTSM	1310
	100	WDAH	1310
Fort Worth P-15	100	KFJZ	1370
	1000	KTAT	1240
	10000	WBAP N	800
Galveston R-16	100	KFLX	1370
	500	KFLX	1290
	15	KFPM	1310
Greenville O-15	500	KRGV	1260
Harlingen T-14	1000	KPRC N	920
Houston R-16	100	KTLC	1310
	500	KTRH C	1120
	100	KXYZ	1420
San Angelo Q-13	100	KGKL	1370
San Antonio R-14	100	KABC	1420
	100	KMAC	1370
	100	KONO	1370
	1000	KTSA C	1290
	5000	WOAI N	1190
Tyler P-16	100	KGKB	1500
Waco Q-15	1000	WACO C	1240
Wichita Falls O-14	250	KGKO	570

UTAH		Watts	Kcys.
Ogden I-7	500	KLO	1400
Salt Lake City I-7	1000	KDYL C	1290
	5000	KSL N	1130

VERMONT		Watts	Kcys.
Burlington F-27	100	WCAX	1200
Rutland G-27	100	WSYB	1500
St. Albans F-27	100	WQDM	1370
Springfield G-27	10	WNBX	1200
Waterbury F-27	50	WDEV	1420

VIRGINIA		Watts	Kcys.
Alexandria K-26	10000	WJSV	1460
Arlington J-25	1000	NAA	690
Danville L-25	100	WBTM	1370
Emory L-23	500	WEHC	1350
Lynchburg L-25	100	WLVA	1370
Newport News L-26	100	WGH	1310
Norfolk L-26	500	WPOR	780
	500	WTAR C	780
Petersburg L-26	100	WLBG	1200
Richmond K-26	100	WBBL	1210
	100	WMBG	C 1210
	5000	WRVA N	1110
Roanoke L-24	250	WDBJ C	930
	250	WRBX	1410

WASHINGTON		Watts	Kcys.
Aberdeen D-2	100	KXRO	1310
Bellingham C-3	100	KVOS	1200
Everett C-3	50	KFBL	1370
Olympia D-3	100	KGY	1200
Pullman E-5	1000	KWSC	1220
Seattle C-3	5000	KJR C	970
	1000	KOL C	1270
	1000	KOMO C	920
	100	KPCB	650
	50	KRSC	1120
	1000	KTW	1220
	100	KVL	1370
	500	KXA	760
Spokane D-5	100	KFIO	1120
	1000	KFPY	1340
	5000	KGA N	1470
	1000	KHQ N	590
Tacoma D-3	500	KMO	860
	1000	KVI C	570
Walla Walla E-5	100	KUJ	1370
Wenatchee D-4	50	KPO	1500
Yakima D-4	100	KIT	1310

WEST VIRGINIA		Watts	Kcys.
Bluefield L-24	250	WHIS	1410
Charleston K-23	250	WOBU	580
Fairmont J-24	250	WMMN	890
Huntington K-23	250	WSAZ	580
Wheeling J-24	5000	WWVA C	1160

WISCONSIN		Watts	Kcys.
Eau Claire G-18	1000	WTAQ C	1330
Fond du Lac H-19	100	KFIZ	1420
Green Bay G-19	100	WHBY	1200
Janesville I-19	100	WCLO	1200
La Crosse H-18	1000	WKBH C	1380
Madison H-19	750	WHA	940
	500	WIBA N	1280
Manitowoc H-20	100	WOMT	1210
Milwaukee H-19	250	WHAD	1120
	250	WISN C	1120
	1000	WTMJ N	620
Poynette H-19	100	WIBU	1210
Racine I-20	100	WRJN	1370
Sheboygan H-20	500	WHBL	1410
Stevens Point G-19	2000	WLBL	900
Superior F-17	1000	WEBC N	1290

WYOMING		Watts	Kcys.
Casper H-10	100	KDFN	1210

CANADA

ALBERTA		Watts	Kcys.
Calgary B-7	500	CFAC	690
	10000	CFCN	985
	500	CJ CJ	690

INDEX BY LOCATIONS WITH MAP KEY

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

Edmonton A-8	250	CHMA	580
	500	CJCA	745
	500	CKUA	580
Lethbridge C-8	100	CJOC	1120
Red Deer A-8	1000	CKLC	840
	1000	CNRD	840

BRITISH COLUMBIA

Chilliwack B-3	100	CHWK	665
Kamloops B-5	100	CFJC	1120
Kelowna C-5	100	CKOV	1200
Trail C-6	25	10-AT	1155
Vancouver B-3	100	CHLS	730
	500	CJOR	1210
	100	CKCD	730
	50	CKFC	730
	100	CKMO	730
	100	CKWX	730
	500	CNRV	1030
	500	CFCT	630

Victoria C-3

MANITOBA

Brandon D-14	500	CKX	930
Winnipeg D-15	5000	CKY	780
	5000	CNRW	780

NEW BRUNSWICK

Fredericton D-29	50	CFNB	1210
Moncton D-30	500	CNRA	630
St. John D-30	500	CFBO	890

NOVA SCOTIA

Glace Bay C-32	2000	VAS	685
Halifax E-31	500	CHNS	815
	500	CNRH	815
	100	VCX	690
	50	CJCB	880
Sydney C-32	50	CKIC	1010
Wolfville D-31	50		

ONTARIO

Brantford H-23	15	10-BQ	1200
Chatham H-22	250	CFCO	1210
Cobalt E-23	100	CKMC	1210
Ft. William E-19	50	CKPR	890
Hamilton H-24	50	CHML	880
	500	CKOC	635
	50	CFRC	930
Kingston G-25	5000	CJGC	910
London H-23	5000	CNRL	910
	100	CFCH	930
North Bay E-23	100	CKCO	890
Ottawa F-25	500	CNRO	600
	100	CFLC	915
Prescott F-25	100	CKPC	880
Preston H-23	500	CKTB	635
St. Catharines H-24	500	CFCA	1120
Toronto G-24	500	CFCL	580
	7000	CFRB	690
	500	CKCL	580
	5000	CKGW	840
	500	CKNC	960
	500	CNRT	1120
	4000	CNRX	690
	5000	CPRY	840
	100	CKCR	645
Waterloo G-23	1000	CKWO	540
Windsor H-22	15	10-BP	1200
Wingham G-23			

PRINCE EDWARD ISLAND

Charlottetown C-31	500	CFCY	580
	100	CHCK	960
Summerside C-31	500	CHGS	1120

QUEBEC

Montreal E-26	500	CFCF	N 1030
	5000	CHYC	730
	5000	CKAC	730
	5000	CNRM	730

		Watts	Keys.
Quebec D-27	100	CHRC	645
	100	CKCI	645
	50	CKCV	880
	50	CNRQ	880

SASKATCHEWAN

Fleming C-13	1000	CJRW	665
Moose Jaw C-11	500	CJRM	665
	25	10-AB	1200
Regina C-12	500	CHWC	960
	500	CJBR	960
	500	CKCK	960
	500	CNRR	960
Saskatoon B-11	500	CFQC	910
	500	CNRS	910
Yorkton B-13	500	CJGX	630

NEWFOUNDLAND

St. Johns A-35	75	VOAS	810
	30	VONA	950
	500	VOWR	675

CENTRAL AMERICA

COSTA RICA

Heredia FF-23	15	TI4NRH	980
San Jose FF-23	50	TICR	911

GUATAMALA

Guatemala CC-19	50	TGW	570
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HONDURAS

Tegucigalpa CC-21	2300	HRB	1370
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SALVADOR

Salvador CC-19	500	RUS	664
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MEXICO

AGUASCALIENTES

Aguascalientes W-10	250	XFC	810
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BAJA CALIFORNIA

Tijuana N-3	300	XEFD	845
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CHIHUAHUA

Chihuahua R-9	100	XEFI	1000
	250	XFF	875
Juarez P-9	101	XEJ	1000
	5000	XEQ	750

COAHUILA

Salttillo, Coah. U-12	25	XEL	1000
Torreon U-11	125	XETB	1380
	100	XETG	1000
Villa Acuna R-12	75000	XER	735

D. F.

Coyoacan Y-13	100	XETZ	1500
Mexico City Y-13	1000	XEB	1030
	250	XEFA	1250
	250	XEG	1070
	101	XEK	990
	1000	XEN	711
	5000	XEO	940
	500	XETA	1140
	100	XETO	1230
	2500	XETR	610
	5000	XEW	910
	500	XEX	1210
	500	XEZ	780
	2000	XFG	638
	1000	XFI	818
	500	XFX	867
Toluca. Y-12	50	XEC	1000

CFAC 690	CKCK 960	CMCB 1070	CNRL 910
Calgary, Alta.	Regina, Sask.	Havana, Cuba	London, Ont.
CFBO 890	CKCL 580	CMCD 925	CNRM 730
St. John, N. B.	Toronto, Ont.	Havana, Cuba	Montreal, Que.
CFCA 1120	CKCO 890	CMCF 890	CNRO 600
Toronto, Ont.	Ottawa, Ont.	Havana, Cuba	Ottawa, Ont.
CFCF 1030	CKCR 645	CMCG 1345	CNRQ 880
Montreal, Que.	Waterloo, Ont.	Havana, Cuba	Quebec, Que.
CFCH 930	CKCV 880	CMCH 1405	CNRR 960
North Bay, Ont.	Quebec, Que.	Havana, Cuba	Regina, Sask.
CFCL 580	CKFC 730	CMCJ 630	CNRS 910
Toronto, Ont.	Vancouver, B. C.	Havana, Cuba	Saskatoon, Sask.
CFCN 985	CKGW 840	CMCM 1405	CNRT 1120
Calgary, Alta.	Toronto, Ont.	Havana, Cuba	Toronto, Ont.
CFCO 1210	CKIC 1010	CMCN 925	CNRV 1030
Chatham, Ont.	Wolfville, N. S.	Havana, Cuba	Vancouver, B. C.
CFCT 630	CKLC 840	CMCO 660	CNRW 780
Victoria, B. C.	Red Deer, Alta.	Havana, Cuba	Winnipeg, Man.
CFCY 580	CKMC 1210	CMCQ 1150	CNRX 690
Ch'lottet'n, P.E.I.	Cobalt, Int.	Havana, Cuba	Toronto, Ont.
CFJC 1120	CKMO 730	CMCR 1345	CPRY 840
Kamloops, B. C.	Vancouver, B. C.	Havana, Cuba	Toronto, Ont.
CFCL 915	CKNC 960	CMCU 1270	HHK 920
Prescott, Ont.	Toronto, Ont.	Havana, Cuba	Port au Prince, H.
CFNB 1210	CKOC 635	CMCW 1285	HIX 630
Fredericton, N.B.	Hamilton, Ont.	Havana, Cuba	Santo Domingo
CFQC 910	CKOV 1200	CMCY 1345	HRB 1370
Saskatoon, Sask.	Kelowna, B. C.	Havana, Cuba	Tequigalpa
CFRB 690	CKPC 880	CMDC 660	KABC 1420
Toronto, Ont.	Preston, Ont.	Havana, Cuba	San Antonio, Tex.
CFRC 930	CKPR 890	CMGB 1205	KARK 890
Kingston, Ont.	Ft. William, Ont.	Matanzas, Cuba	Lit. Rock, Ark.
CHCK 960	CKTB 635	CMGC 820	KBPS 1420
Ch'lottet'n, P.E.I.	St. Cath., Ont.	Matanzas, Cuba	Portland, Ore.
CHGS 1120	CKUA 580	CMGE 1375	KBTM 1200
Salt'nside, P.E.I.	Edmonton, Alta.	Cardenas, Cuba	Paragould, Ark.
CHLS 730	CKWO 540	CMGF 977	KCMC 1420
Vancouver, B. C.	Windsor, Ont.	Matanzas, Cuba	Texarkana, Ark.
CHMA 580	CKWX 730	CMGH 1050	KCRC 1370
Edmonton, Alta.	Vancouver, B. C.	Matanzas, Cuba	Enid, Okla.
CHML 880	CKX 930	CMGI 1150	KCRJ 1310
Hamilton, Ont.	Brandon, Man.	Colon, Cuba	Jerome, Ariz.
CHNS 815	CKY 780	CMHC 790	KDB 1500
Halifax, N. S.	Winnipeg, Man.	Tuinucu, Cuba	S. Barbara, Cal.
CHRC 645	CMAB 1249	CMHD 950	KDFN 1210
Quebec, Que.	Pinar del Rio, Cu	Caibarien, Cuba	Casper, Wyo.
CHWC 960	CMBC 965	CMHI 1110	KDKA 980
Regina, Sask.	Havana, Cuba	Santa Clara, Cu	Pittsburgh, Pa.
CHWK 665	CMBD 965	CMHJ 645	KDLR 1210
Chilliwack, B. C.	Havana, Cuba	Cienfuegos, Cuba	Devils Lake, N.D.
CHYC 730	CMBG 1070	CMJC 1382	KDYL 1290
Montreal, Que.	Havana, Cuba	Camaguey, Cuba	Salt Lake City
CJBR 960	CMBI 1405	CMJE 1180	KECA 1430
Regina, Sask.	Havana, Cuba	Camaguey, Cuba	Los Angeles, Cal.
CJCA 745	CMBL 1500	CMJF 930	KELW 780
Edmonton, Alta.	Havana, Cuba	Camaguey, Cuba	Burbank, Cal.
CJCB 880	CMBN 1405	CMJG 1200	KERN 1200
Sydney, N. S.	Havana, Cuba	Camaguey, Cuba	Bakersfield, Cal.
CJCF 690	CMBQ 1500	CMJH 1017	KEX 1180
Calgary, Alta.	Havana, Cuba	Ciego de Avila, C.	Portland, Ore.
CJCC 910	CMBR 1500	CMK 730	KFAB 770
London, Ont.	Havana, Cuba	Havana, Cuba	Lincoln, Nebr.
CJGX 630	CMBS 790	CMKC 1034	KFAC 1300
Yorkton, Sask.	Havana, Cuba	Santiago, Cuba	Los Angeles, Cal.
CJOC 1120	CMBT 790	CMQ 1150	KFBB 1280
Lethbridge, Alta.	Havana, Cuba	Havana, Cuba	Great Fls., Mont.
CJOR 1210	CMBW 1010	CMW 588	KFBI 1050
Vancouver, B. C.	Havana, Cuba	Havana, Cuba	Milford, Kans.
CJRM 665	CMBY 1225	CMX 885	KFBK 1310
Moose Jaw, Sask.	Havana, Cuba	Havana, Cuba	Sacramento, Cal.
CJRW 665	CMBZ 1010	CNRA 630	KFBL 1370
Fleming, Sask.	Havana, Cuba	Moncton, N. B.	Everett, Wash.
CKAC 730	CMC 842	CNRD 840	KFDM 560
Montreal, Que.	Havana, Cuba	Red Deer, Alta.	Beaumont, Tex.
CKCD 730	CMCA 1235	CNRH 815	KFDY 550
Vancouver, B. C.	Havana, Cuba	Halifax, N. S.	Brookings, S. D.
CKCI 645			
Quebec, Que.			

KFEL 920
 Denver, Colo.
 KFEQ 680
 St. Joseph, Mo.
 KFGQ 1310
 Boone, Iowa
 KFH 1300
 Wichita, Kansas
 KFI 640
 Los Angeles, Cal.
 KFIO 1120
 Spokane, Wash.
 KFIZ 1420
 Fond du Lac, Wis.
 KFJB 1200
 Marshalltown, Ia.
 KFJF 1480
 Oklahoma City
 KFJI 1210
 Klamath Falls Ore
 KFJM 1370
 Grd. Forks, N. D.
 KFJR 1300
 Portland, Ore.
 KFJZ 1370
 Ft. Worth, Tex.
 KFKA 880
 Greeley, Colo.
 KFKU 1220
 Lawrence, Kans.
 KFKX 1020
 Chicago, Ill.
 KFLV 1410
 Rockford, Ill.
 KFLX 1370
 Galveston, Tex.
 KFMX 1250
 N'thfield, Minn.
 KFNF 890
 Shenandoah, Ia.
 KFOR 1210
 Lincoln, Nebr.
 KFOX 1250
 Huron Beach, Cal.
 KFPL 1310
 Dublin, Texas
 KFFM 1310
 Greenville, Texas
 KFPW 1340
 Ft. Smith, Ark.
 KFPY 1340
 Spokane, Wash.
 KFQD 1230
 Anchorage, Alas.
 KFRC 610
 San F'nclisco, Cal.
 KFRU 630
 Columbia, Mo.
 KFSD 600
 San Diego, Cal.
 KFSG 1120
 Los Angeles, Cal.
 KFUL 1290
 Galveston, Texas
 KFUO 550
 St. Louis, Mo.
 KFVD 1000
 Culver City, Cal.
 KFVS 1210
 Cape Gir'rd'u, Mo
 KFWB 950
 Hollywood, Cal.
 KFWF 1200
 St. Louis, Mo.
 KFWI 930
 San F'nclisco, Cal.

KFXD 1420
 Nampa, Idaho
 KFXF 920
 Denver, Colo.
 KFXJ 1310
 Grand Junc., Col.
 KFXM 1210
 San Ber'd no, Cal.
 KFXR 1310
 Oklahoma City
 KFXY 1420
 Flagstaff, Ariz.
 KFYO 1420
 Abilene, Texas
 KFYR 55^c
 Bismarck, N. D.
 KGA 1470
 Spokane, Wash.
 KGAR 1370
 Tucson, Arizona
 KGB 1330
 San Diego, Cal.
 KGBU 900
 Ketchikan, Al'ka
 KGBX 1310
 St. Joseph, Mo.
 KGBZ 930
 York, Nebr.
 KGCA 1270
 Decorah, Iowa
 KGCR 1210
 Watertown, S. D.
 KGCU 1240
 Mandan, N. D.
 KGCC 1310
 Wolf P't, Mont.
 KGDA 1370
 Mitchell, S. D.
 KGDE 1200
 Fergus Falls, Minn
 KGDM 1100
 Stockton, Cal.
 KGDY 1200
 Huron, S. D.
 KGEK 1200
 Yuma, Colo.
 KGER 1360
 Long Beach, Cal.
 KGEW 1200
 Ft. Morgan, Colo.
 KGEZ 1310
 Kalispell, Mont.
 KGFF 1420
 Shawnee, Okla.
 KGFG 1370
 Oklahoma City
 KGFI 1500
 Corp's Ch'sti, Tex
 KGfJ 1200
 Los Angeles, Cal.
 KGFK 1500
 Moorhead, Minn.
 KGFL 1370
 Raton, N. M.
 KGFW 1310
 Kearney, Nebr.
 KGFX 630
 Pierre, S. D.
 KGGC 1420
 San F'nclisco, Cal.
 KGGF 1010
 Coffeyville, Kans.
 KGGM 1230
 Albuq'rque, N. M.
 KGHF 1320
 Pueblo, Colo.

KGHI 1200
 Little Rock, Ark.
 KGHL 950
 Billings, Mont.
 KGIR 1360
 Butte, Mont.
 KGIW 1420
 Trinidad, Colo.
 KGIX 1420
 Las Vegas, Nev.
 KGIZ 1500
 Grant City, Mo
 KGKB 1500
 Tyler, Texas
 KGKL 1370
 San Angelo, Tex.
 KGKO 570
 Wichita Falls, Tex.
 KGKX 1420
 Sand Point, Idaho
 KGKY 1500
 Scottsbluff, Nebr.
 KGMB 1320
 Honolulu, T. H.
 KGMP 1210
 Elk City, Okla.
 KGNF 1430
 No. Platte, Nebr.
 KGNO 1210
 Dodge City, Kas.
 KGO 790
 San F'nclisco, Cal.
 KGRS 1410
 Amarillo, Texas
 KGU 750
 Honolulu, Hawaii
 KGVO 1420
 Missoula, Mont.
 KGW 620
 Portland, Ore.
 KGY 1200
 Olympia, Wash.
 KHJ 900
 Los Angeles, Cal.
 KHQ 590
 Spokane, Wash.
 KICA 1370
 Clovis, N. M.
 KICK 1420
 Red Oak, Iowa
 KID 1320
 Idaho Falls, 'da.
 KIDO 1350
 Boise, Idaho
 KIT 1310
 Yakima, Wash.
 KJBS 1070
 San F'nclisco, Cal.
 KJR 970
 Seattle, Wash.
 KLCN 1290
 Blytheville, Ark.
 KLO 1400
 Ogden, Utah
 KLPM 1240
 Minot, N. Dak.
 KLRA 1390
 Little Rock, Ark.
 KLS 1440
 Oakland, Cal.
 KLX 880
 Oakland, Cal.
 KLZ 560
 Denver, Colo.
 KMA 930
 Shenandoah, Ia.

KMAC 1370
 San Antonio, Tex.
 KMBC 950
 Kan. City Mo.
 KMED 1310
 Medford, Ore.
 KMJ 1210
 Fresno, Cal.
 KMLB 1200
 Monroe, La.
 KMMJ 740
 Clay Ctr., Nebr.
 KMO 860
 Tacoma, Wash.
 KMOX 1090
 St. Louis, Mo.
 KMPC 710
 Beverly Hills, Cal
 KMTR 570
 Hollywood, Cal.
 KNOW 1500
 Austin, Tex.
 KNX 1050
 Hollywood, Cal.
 KOA 830
 Denver, Colo.
 KOAC 550
 Corvallis, Ore.
 KOB 1180
 State Col., N. M.
 KOCW 1400
 Chickasha, Okla.
 KOH 1380
 Reno, Nevada
 KOIL 1260
 Council Bluffs, Ia.
 KOIN 940
 Portland, Ore.
 KOL 1270
 Seattle, Wash.
 KOMO 920
 Seattle, Wash.
 KONO 1370
 San Antonio, Tex.
 KOOS 1370
 Marshfield, Ore.
 KORE 1420
 Eugene, Ore.
 KOY 1390
 Phoenix, Arizona
 KPCB 650
 Seattle, Wash.
 KPJM 1500
 Prescott, Ariz.
 KPO 680
 San F'nclisco, Cal.
 KPOF 880
 Denver, Colo.
 KPPC 1210
 Pasadena, Cal.
 KPQ 1500
 Wenatchee, Wash
 KPRC 920
 Houston, Texas
 KQV 1380
 Pittsburgh, Pa.
 KQW 1010
 San Jose, Cal.
 KRE 1370
 Berkeley, Cal.
 KREG 1500
 Santa Ana, Cal.
 KRGV 1260
 Harlingen, Texas
 KRKD 1120
 Los Angeles, Cal.

KRLD 1040 Dallas, Texas	KWKC 1370 Kansas City, Mo.	WAPI 1140 Birmingham, Ala.	WCAP 1280 Asbury Pk., N. J.
KRMD 1310 Shreveport, La.	KWKH 850 Shreveport, La.	WASH 1270 Gr. Rapids, Mich.	WCAT 1200 Rapid City, S. D.
KROW 930 Oakland, Cal.	KWLC 1270 Decorah, Iowa	WAWZ 1350 Zarephath, N. J.	WCAU 1170 Philadelphia, Pa.
KRSC 1120 Seattle, Wash.	KWLS 1220 Pulaski, Wash.	WBAA 1400 Lafayette, Ind.	WCAX 1200 Burlington, Vt.
KSAC 580 Manh'tt'n, Kans.	KWWG 1260 Brownsville, Tex.	WBAB 1430 Harrisburg, Pa.	WCAY 1070 Carthage, Ill.
KSJC 1330 Sioux City, Ia.	KXA 760 Seattle, Wash.	WBAL 760-1060 Baltimore, Md.	WCBA 1440 Allentown, Pa.
KSD 550 St. Louis, Mo.	KXL 1420 Portland, Ore.	WBAP 800 Fort Worth, Tex.	WCBD 1080 Zion, Ill.
KSEI 900 Pocatello, Idaho	KXO 1500 El Centro, Cal.	WBAX 1210 Wilkes-Barre, Pa.	WCBM 1370 Baltimore, Md.
KSL 1130 Salt Lake City	KXRO 1310 Aberdeen, Wash.	WBBC 1400 Brooklyn, N. Y.	WCBS 1210 Springfield, Ill.
KSO 1380 Clarinda, Iowa	KXYZ 1420 Houston, Texas	WBBL 1210 Richmond, Va.	WCOC 810 Minneap., Minn.
KSOO 1110 Sioux Falls, S. D.	KYA 1230 San F'nscisco, Cal.	WBMM 770 Chicago, Ill.	WCDA 1350 New York City
KSTP 1460 St. Paul, Minn.	KYW 1020 Chicago, Ill.	WBRR 1300 Brooklyn, N. Y.	WCFL 970 Chicago, Ill.
KTAB 560 San F'nscisco, Cal.	KZKA 1110 Manilla, P. I.	WBWB 1200 Ponca City, Okla	WCGU 1400 Brooklyn, N. Y.
KTAR 620 Phoenix, Ariz.	KZRC 937.5 Cebu, P. I.	WBWC 1410 Bay City, Mich.	WCHI 1490 Chicago, Ill.
KTAT 1240 Ft. Worth, Tex.	KZRM 618.5 Manila, P. I.	WBEN 900 Buffalo, N. Y.	WCKY 1490 Covington, Ky.
KTRB 1300 Portland, Ore.	NAA 690 Arlington, Va.	WBEO 1310 Marquette, Mich.	WCLO 1200 Janesville, Wis.
KTBS 1450 Shreveport, La.	RUS 664 Salvador	WBGF 1370 Glens Falls, N. Y.	WCLS 1310 Joliet, Ill
KTFI 1240 Twin Falls, Ida.	TGW 570 Guatemala	WBHS 1200 Huntsville, Ala.	WCMA 1400 Cairo, Ind.
KTHS 1040 Hot Spgs., Ark.	TICR 911 San Jose, C. R.	WBIG 1440 Greensboro, N. C.	WCOA 1340 Pensacola, Fla.
KTLC 1310 Houston, Texas	TIANRH 980 Heredia, C. R.	WBIS 1230 Boston, Mass.	WCOG 680 Meridian, Miss.
KTM 780 Los Angeles, Cal.	VAS 685 Glac Bay, N. S.	WBMS 1450 Hackensack, N.J.	WCOD 1200 Harrisburg, Pa.
KTRH 120 Houston, Texas	VCCY 690 Halifax, N. S.	WBNY 1350 New York City	WCOH 210 Yonkers, N. Y.
KTSA 1290 San Antonio, Tex.	VOAS 810 St. John's, N. F.	WBOQ 800 New York City	WCWR 1210 Chicago, Ill.
KTSM 1310 El Paso, Texas	VONA 950 St. John's, N. F.	WBOW 1310 Terre Haute, Ind.	WCSC 1360 Charleston, S. C.
KTW 1220 Seattle, Wash.	VOWR 675 St. Johns, N. F.	WBRC 930 Birmingham, Ala.	WCSE 940 Portland, Maine
KUJ 1370 Walla Wal., Wash.	VPN 610 Nassau, B. I.	WBRE 1310 Wilkes-Barre, Pa.	WCDAE 1220 Tampa, Fla.
KUOA 1390 Fayetteville, Ark.	WAAB 1410 Boston, Mass.	WBRO 920 Needham, Mass.	WDAF 610 Kansas City, Mo.
KUSD 890 Vermillion, S. D.	WAAF 920 Chicago, Ill.	WBT 1080 Charlotte, N. C.	WDAG 1410 Amarillo, Texas
KVI 570 Tacoma, Wash.	WAAM 1250 Newark, N. J.	WBTM 1370 Danville, Va.	WDAH 1310 El Paso, Texas
KWL 1370 Seattle, Wash.	WAAT 940 Jersey City, N. J.	WBZ 990 Boston, Mass.	WDAS 1370 Philadelphia, Pa.
KWOA 1260 Tucson, Arizona	WAAB 660 Omaha, Nebr.	WBZA 990 Springfield, Mass.	WDAY 940 Fargo, N. D.
KWOO 1140 Tulsa, Okla.	WABC 860 New York City	WCAC 600 Storrs, Conn.	WDBJ 930 Roanoke, Va.
KWOR 1270 Col. Sp'gs, Colo.	WABI 1200 Bangor, Maine	WCAD 1220 Canton, N. Y.	WDBO 1120 Orlando, Fla.
KWOS 1200 Bellingh'm, Wash.	WABZ 1200 New Orleans, La.	WCAE 1220 Pittsburgh, Pa.	WDEL 1120 Wilmington, Del.
KWCR 1420 Cedar Rapids, Ia.	WACO 1240 Waco, Texas	WCAH 1430 Columbus, Ohio	WDEW 1420 Waterbury, Vt.
KWEA 1210 Shreveport, La.	WADC 1320 Akron, Ohio	WCAJ 590 Lincoln, Nebr.	WDGY 1180 Minneap., Minn.
KWGC 1200 Stockton, Cal.	WAGM 1420 Presque Isle, Me.	WCAL 1250 Northfield, Minn.	WDOD 1280 Chattanooga, Tenn
KWJJ 1060 Portland, Ore.	WAIU 640 Columbus, Ohio	WCAM 1280 Camden, N. J.	WDRC 1330 Hartford, Conn.
KWK 1350 St. Louis, Mo.	WALR 1210 Zanesville, Ohio	WCAO 600 Baltimore, Md.	

WDSU 1250 New Orleans, La.	WFOX 1400 Brooklyn, N. Y.	WHN 1010 New York City	WJJD 1130 Mooseheart, Ill.
WDZ 1070 Tuscola, Ill.	WGAL 1310 Lancaster, Pa.	WHO 1000 Des Moines, Ia.	WJKS 1360 Gary, Ind.
WEAF 660 New York City	WGAR 1450 Cleveland, Ohio	WHOM 1450 Jersey City, N. J.	WJMS 1420 Ironwood, Mich.
WEAI 1270 Ithaca, N. Y.	WGBB 1210 Freeport, N. Y.	WHP 1430 Harrisburg, Pa.	WJR 750 Detroit, Mich.
WEAN 780 Providence, R. I.	WGBF 630 Evansville, Ind.	WIAS 1310 Ottumwa, Iowa	WJSV 1460 Alexandria, Va.
WEAO 570 Columbus, Ohio	WGBI 880 Scranton, Pa.	WIBA 1280 Madison, Wis.	WJTL 1370 Atlanta, Ga.
WEBC 1290 Superior, Wis.	WGCM 1210 Gulfport, Miss.	WIBG 930 Elkins Park, Pa.	WJW 1210 Mansfield, Ohio
WEBQ 1210 Harrisburg, Ill.	WGCP 1250 Newark, N. J.	WIBM 1370 Jackson, Mich.	WJZ 760 New York City
WEBR 1310 Buffalo, N. Y.	WGES 1360 Chicago, Ill.	WIBO 560 Chicago, Ill.	WKAQ 890 San Juan, P. R.
WEDC 1210 Chicago, Ill.	WGH 1310 Newsp't News, Va.	WIBU 1210 Poynette, Wis.	WKAR 1040 E. Lansing, Mich.
WEEL 590 Boston, Mass.	WGL 1370 Ft. Wayne, Ind.	WIBW 580 Topeka, Kansas	WKAV 1310 Laconia, N. H.
WEUU 830 Reading, Pa.	WGN 720 Chicago, Ill.	WIBX 1290 Utica, N. Y.	WKBB 1310 Joliet, Ill.
WEHC 1350 Emory, Va.	WGR 550 Buffalo, N. Y.	WICC 600 Bridgeport, Conn	WKBC 1310 Birmingham, Ala.
WEHS 1420 Cicero, Ill.	WGST 890 Atlanta, Ga.	WIL 1200 St. Louis, Mo.	WKBF 1400 Indianapolis, Ind.
WELL 1420 Battle C'k, Mich.	WGY 790 Schene'cy, N. Y.	WILL 890 Urbana, Ill.	WKBH 1380 La Crosse, Wis.
WENC 1420 Americus, Ga.	WHA 940 Madison, Wis.	WILM 1420 Wilmington, Del.	WKBI 1420 Cicero, Ill.
WENR 870 Chicago, Ill.	WHAD 1120 Milwaukee, Wis.	WINS 1180 New York City	WKBN 570 Youngstown, O.
WERE 1420 Erie, Pa.	WHAM 1150 Rochester, N. Y.	WIOD 1300 Miami, Fla.	WKBS 1310 Galesburg, Ill.
WEVD 1300 New York City	WHAS 820 Louisville, Ky.	WIP 610 Philadelphia, Pa.	WKBV 1500 Connersville, Ind.
WEW 760 St. Louis, Mo.	WHAT 1310 Philadelphia, Pa.	WIS 1010 Columbia, S. C.	WKBW 1480 Buffalo, N. Y.
WEXL 1310 Royal Oak, Mich.	WHAZ 1300 Troy, N. Y.	WISN 1120 Milwaukee, Wis.	WKBZ 1500 Ludington, Mich.
WFAA 800 Dallas, Texas	WHB 860 Kansas City, Mo.	WJAC 1310 Johnstown, Pa.	WKJC 1200 Lancaster, Pa.
WFAB 1300 New York City	WHBC 1200 Canton, Ohio	WJAG 1060 La Salle, Ill.	WKRC 550 Cincinnati, Ohio
WFAM 1200 So. Bend, Ind.	WHBD 1370 Mt. Orab, Ohio	WJAK 1310 Elkhart, Ind.	WKY 900 Oklahoma City
WFAN 610 Philadelphia, Pa.	WHBF 1210 Rock Island, Ill.	WJAR 890 Providence, R. I.	WKZO 590 Kalamazoo, Mich.
WFBC 1200 Knoxville, Tenn	WHBL 1410 Sheboygan, Wis.	WJAS 1290 Pittsburgh, Pa.	WLAC 1470 Nashville, Tenn.
WFBE 1200 Cincinnati, Ohio	WHBQ 1370 Memphis, Tenn.	WJAX 900 Jacksonville, Fla.	WLAP 1200 Louisville, Ky.
WFBG 1310 Altoona, Pa.	WHBU 1210 Anderson, Ind.	WJAY 610 Cleveland, Ohio	WLB 1250 St. Paul, Minn.
WFBL 1360 Syracuse, N. Y.	WHBY 1200 Green Bay, Wis.	WJBC 1200 La Salle, Ill.	WLBC 1310 Muncie, Ind.
WFBM 1230 Indianapolis, Ind.	WHDF 1370 Calumet, Mich.	WJBI 1210 Red Bank, N. J.	WLBK 1420 Kansas City, Ks.
WFBR 1270 Baltimore, Md.	WHDH 830 Boston, Mass.	WJBK 1370 Detroit, Mich.	WLBG 1200 Ettrick, Va.
WFDF 1310 Flint, Mich.	WHDL 1420 TupperLake, N.Y.	WJBL 1200 Decatur, Ill.	WLBL 900 Stevens Pt., Wis.
WFDU 1500 Rome, Ga.	WHEB 740 Portsmouth N.H.	WJBO 1420 New Orleans, La.	WLBW 1260 Oil City, Pa.
WFDW 1420 Anniston, Ala.	WHEC 1430 Rochester, N. Y.	WJBU 1210 Lewisburg, Pa.	WLBX 1500 L. I. City, N. Y.
WFEE 1430 Manchester, N.H.	WHFC 1420 Cicero, Ill.	WJBW 1200 New Orleans, La.	WLBZ 620 Bangor, Maine
WFI 560 Philadelphia, Pa.	WHIS 1410 Bluefield, W. Va.	WJBY 1210 Gadsden, Ala.	WLCI 1210 Ithaca, N. Y.
WFIW 940 Hopkinsville, Ky.	WHK 1390 Cleveland, Ohio	WJDX 1270 Jackson, Miss.	WLEY 1370 Lexington, Mass.
WFLA 620 Clearwater, Fla.			

WLIT 560	WNOX 560	WQDX 1210	WSUN 620
Philadelphia, Pa.	Knoxville, Tenn.	Thomasville, Ga.	St. Petersburg, Fla.
WLOE 1500	WNYC 570	WRAK 1370	WSVS 1370
Boston, Mass.	New York City	Williamsport, Pa.	Buffalo, N. Y.
WLS 870	WOAI 1190	WRAM 1370	WSYB 1500
Chicago, Ill.	San Antonio, Tex.	Wilmington, N. C.	Rutland, Vt.
WLTH 1400	WOAX 1280	WRAW 1310	WSYR 570
Brooklyn, N. Y.	Trenton, N. J.	Reading, Pa.	Syracuse, N. Y.
WLVA 1370	WOBU 580	WRAX 1020	WTAD 1440
Lynchburg, Va.	Charleston, W. Va.	Philadelphia, Pa.	Quincy, Ill.
WLW 700	WOC 1000	WRBL 1200	WTAG 580
Cincinnati, Ohio	Davenport, Iowa	Columbus, Ga.	Worcester, Mass.
WLWL 1100	WOCL 1210	WRBQ 1210	WTAM 1070
New York City	Jamestown, N. Y.	Greenville, Miss.	Cleveland, Ohio
WMAC 570	WODA 1250	WRBX 1410	WTAQ 1330
Syracuse, N. Y.	Paterson, N. J.	Roanoke, Va.	Eau Claire, Wis.
WMAL 630	WODX 1410	WRC 950	WTAR 780
Washington, D. C.	Mobile, Ala.	Washington, D. C.	Norfolk, Va.
WMAQ 670	WOI 640	WRDO 1370	WTAW 1120
Chicago, Ill.	Ames, Iowa	Augusta, Maine	College Sta., Tex.
WMAZ 1180	WOKO 1430	WRDW 1500	WTAX 1210
Macon, Ga.	Albany, N. Y.	Augusta, Ga.	Springfield, Ill.
WMBA 1500	WOL 1310	WREC 600	WTBO 1420
Newport, R. I.	Washington, D. C.	Memphis, Tenn.	Cumberland, Md.
WMBC 1420	WOMT 1210	WREN 1220	WTFL 1310
Detroit, Mich.	Manitowoc, Wis.	Lawrence, Kans.	Philadelphia, Pa.
WMBD 1440	WOOD 1270	WRHM 1250	WTFI 1450
Peoria Heights, Ill.	Gr. Rapids, Mich.	Minneapolis, Minn.	Athens, Ga.
WMBG 1210	WOPI 1500	WRJN 1370	WTIC 660-1060
Richmond, Va.	Bristol, Tenn.	Racine, Wis.	Hartford, Conn.
WMBH 1420	WOQ 1300	WRNY 1010	WTJS 1310
Joplin, Mo.	Kansas City, Mo.	New York City	Jackson, Tenn.
WMBI 1080	WOR 710	WROL 1310	WTMJ 620
Chicago, Ill.	Newark, N. J.	Knoxville, Tenn.	Milwaukee, Wis.
WMBO 1310	WORC 1200	WRR 1280	WTOC 1260
Auburn, N. Y.	Worcester, Mass.	Dallas, Texas	Savannah, Ga.
WMBQ 1500	WORK 1000	WRUF 830	WTSL 1310
Brooklyn, N. Y.	York, Pa.	Gainesville, Fla.	Laurel, Miss.
WMBR 1370	WOS 630	WRVA 1110	WWAE 1200
Tampa, Fla.	Jeff's'n City, Mo.	Richmond, Va.	Hammond, Ind.
WMC 780	WOV 1130	WSAL 1330	WWJ 920
Memphis, Tenn.	New York City	Cincinnati, Ohio	Detroit, Mich.
WMCA 570	WOW 590	WSAJ 1310	WWL 850
New York City	Omaha, Nebr.	Grove City, Pa.	New Orleans, La.
WMIL 1500	WOWO 1160	WSAN 1440	WWNC 570
Brooklyn, N. Y.	Ft. Wayne, Ind.	Allentown, Pa.	Asheville, N. C.
WMMN 890	WPAD 1420	WSAR 1450	WWRL 1500
Fairmont, W. Va.	Paducah, Ky.	Fall River, Mass.	Woodside, N. Y.
WMPC 1500	WPAP 1010	WSAZ 580	WWSW 1500
Lapeer, Mich.	New York City	Hunt'gton, W. Va.	Pittsburgh, Pa.
WMRJ 1210	WPCC 560	WSB 740	WWVA 1160
Jamaica, N. Y.	Chicago, Ill.	Atlanta, Ga.	Wheeling, W. Va.
WMSG 1350	WPCH 810	WSBC 1210	WXYZ 1240
New York City	New York City	Chicago, Ill.	Detroit, Mich.
WMT 600	WPEN 1500	WSBT 1230	XEA 1000
Waterloo, Iowa	Philadelphia, Pa.	South Bend, Ind.	Guad'ljara, Mex.
WNAC 1230	WPFB 1370	WSEN 1210	XEB 1030
Boston, Mass.	Hattiesb'g., Miss.	Columbus, Ohio	Mexico City
WNAD 1010	WPG 1100	WSFA 1410	XEC 1000
Norman, Okla.	Atl'ntic City, N. J.	Montgomery, Ala.	Toluca, Mexico
WNAX 570	WPOR 780	WSIX 1210	XED 965
Yankton, S. D.	Norfolk, Va.	Springfield, Tenn.	Reynosa, Mexico
WNBF 1500	WPRO 1210	WSJS 1310	XEE 1000
Blingh'mt'n, N. Y.	Providence, R. I.	Winst-Sal., N. C.	Oaxaco, Mexico
WNBH 1310	WPSC 1230	WSM 650	XEFA 1250
New B'd'd, Mass.	State College, Pa.	Nashville, Tenn.	Mexico City
WNBO 1200	WPTF 680	WSMB 1320	XEFB 1315
Washington, Pa.	Raleigh, N. C.	New Orleans, La.	Monterrey, Mex.
WNBR 1430	WQAM 560	WSMK 1380	XEFC 1050
Memphis, Tenn.	Miami, Fla.	Dayton, Ohio	Merida, Mex.
WNBW 1200	WQAN 880	WSOC 1210	XEFD 845
Carbondale, Pa.	Scranton, Pa.	Gastonia, N. C.	Tijuana, Mex.
WNBX 1200	WQAO 1010	WSPA 1420	XEFE 1000
Springfield, Vt.	New York City	Spartanburg, S. C.	Laredo, Mexico
WNBZ 1290	WQBC 1360	WSPD 1340	XEFI 1000
Sar'n'c L'ke, N. Y.	Vicksburg, Miss.	Toledo, Ohio	Chihuahua, Mex.
WNJ 1450	WQDM 1370	WSUI 880	XEFS 1000
Newark, N. J.	St. Albans, Vt.	Iowa City, Iowa	Queretaro, Mex.
			XEG 1070
			Mexico, Mex.

XEH 1132 Monterrey, Mex.	XEQ 750 Juarez, Mexico	XETQ 1230 Mexico, Mex.	XFC 810 Aguascal'ntes, M.
XEI 1000 Morelia, Mexico	XER 735 Villa Acuna, Mex.	XETR 610 Mexico City	XFF 875 Chihuahua, Mex.
XEM 1000 Juarez, Mexico	XES 890 Tampico, Mexico	XETZ 1500 Coyoacan, Mex.	XFG 683.3 Mexico City
XEK 990 Mexico City	XET 690 Monterrey, Mex.	XEU 1000 Veracruz, Mex.	XFI 818 Mexico City
XEL 1000 Saltillo, Mexico	XETA 1140 Mexico City	XEV 1000 Puebla, Mexico	XFX 867 Mexico City
XEM 1300 Tampico, Mexico	XETB 1380 Torreon, Mex.	XEW 910 Mexico City	10-AB 1200 Moose Jaw, Sask.
XEN 711 Mexico City	XETC 1000 Jalapa, Mex.	XEX 1210 Mexico City	10-AT 1155 Trail, B. C.
XEO 940 Mexico City	XETF 630 Veracruz, Mex.	XEY 1000 Merida, Mexico	10-BP 1200 Wingham, Ont.
XEP 1400 Laredo, Mexico	XETG 1000 Torreon, Mex.	XEZ 780 Mexico City	10-BQ 1200 Brantford, Ont.

INDEX BY LOCATIONS WITH MAP KEY

(Continued from page 59)

Location	Watts	Call Letters	Kcys.	Location	Watts	Call Letters	Kcys.
JALISCO				Ciego de Avila W-26	15	CMJH	1017
Guadalajara, Jal. X-10	101	XEA	1000	Cienfuegos W-25	40	CMHJ	645
MICHOACAN				Colon W-24	30	CMGI	1150
Morelia, Mich. Y-12	101	XEI	1000	Havana W-23	150	CMBC	965
NEUVO LEON					250	CMBD	965
Monterrey, N. L. U-13	50	XEFB	1315		150	CMBG	1070
	1000	XEH	1132		30	CMBI	1405
	500	XET	690		20	CMBL	1500
OAXACA					30	CMBN	1405
Oaxaca, Oak. AA-14	105	XEE	1000		50	CMBQ	1500
PUEBLA					15	CMBR	1500
Puebla Z-13	101	XEV	1000		150	CMBS	790
QUERETARO					500	CMBT	790
Queretaro X-12	40	XEFS	1000		150	CMBW	1010
TAMAULIPAS					350	CMBY	1225
N. Laredo S-13	101	XEFE	1000		150	CMBZ	1010
	200	XEP	1400		500	CMC	842
Reynosa, Tams. T-14	10000	XED	965		150	CMCA	1235
Tampico, Tams. W-14	500	XEM	730		150	CMCB	1070
	500	XES	890		250	CMCD	925
VERA CRUZ					250	CMCF	890
Jalapa Y-14	100	XETC	1000		30	CMCG	1345
Veracruz, Ver. Z-14	500	XETF	630		15	CMCH	1405
	101	XEU	1000		250	CMCJ	630
YUCATAN					15	CMCM	1405
Merida, Yuc. X-19	105	XEY	1000		250	CMCN	925
WEST INDIES					225	CMCO	660
BAHAMA					600	CMCQ	1150
Nassau, U-26	500	VPN	610		150	CMCR	1345
CUBA					250	CMCU	1270
Caibarien W-25	250	CMHD	950		150	CMCW	1285
Camaguey W-26	150	CMJC	1382		50	CMCY	1345
	20	CMJE	1180		500	CMDC	660
	50	CMJF	930		3150	CMK	730
	30	CMJG	1200		250	CMQ	1150
Cardenas W-24	30	CMGE	1375		2000	CMW	588
					1000	CMX	885
				Matanzas W-24	30	CMGB	1205
					100	CMGC	820
					50	CMGF	977
					150	CMGH	1050
				Pinar del Rio W-22	20	CMAB	1249
				Santa Clara W-25	15	CMHI	1110
				Santiago X-28	150	CMKC	1034
				Tuinucu	100	CMHC	790
				DOMINICAN REPUBLIC			
				Santo Domingo X-31	1000	HIX	630
				HAITI			
				Port au Prince X-30	1000	HHK	920

Principal Broadcasting Stations of the World

Fill in your dial numbers and you will then know where these foreign stations should be received on your set

500

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Kcys.	Power	Call	City	Country
551	1000	RW17	Kazan	Russia
554	4000	IIPA	Palermo	Italy
554	10000	SBD	Sundsvall	Sweden
560	1200	RW41	Veliki Oustug	Russia
563	1700	.....	Munich	Germany
569	3000	.....	Ljubljana	Jugoslavia
571	10000	YLZ	Riga	Latvia
580	600	VL7ZL	Hobart	Australia
581	.....	.....	Vienna	Austria
587	1000	RV50	Arnaavr	Russia
588	750	.....	Bloemfontaine	So. Africa
589	3600	ON4RB	Brussels	Belgium
589	15000	.....	Velthem	Belgium
590	LP6	Buenos Aires	Argentina
590	10000	JOAK	Tokyo	Japan
599	8500	IMI	Milan	Italy

600

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600	1750	Colombo	Ceylon
600	120	ZL2ZK	Wanganui	New Zealand
600	150	ZL2ZR	Wellington	New Zealand
600	20	RA51	Ulyanovsk	Russia
604	1200	RW31	Ivanovo-	Russia
			Vosnesensk	
606	500	XGZ	Nanking	China
608	500	LKT	Trondelag	Norway
608	1200	RW32	Stavropol	Russia
610	1000	VK3AR	Melbourne	Australia
616	5000	OKP	Prague	Czechoslovakia
621	1200	RW40	Gomel	Russia
625	1000	CMAB	Santiago	Chile
625	500	XOL	Tientsin	China
625	500	JOQK	Nilgata	Japan
626	25000	G5GB	Davenport	England
626	30000	.....	Huddersfield	England
630	50	ZL1ZH	Hamilton	New Zealand
630	4000	RW52	Sieropol	Russia
635	17000	.....	Langenburg	Germany
635	500	JONK	Nagano	Japan
636	1200	RW23	Groznyi	Russia
636	300	RW28	Vladivostok	Russia
638	50	PRAM	Amparo	Brazil
640	1200	RW56	Penza	Russia
644	3000	YN	Lyon	France
645	1200	RW48	Touisk	Russia
648	500	ZL4YA	Dunedin	New Zealand
650	1000	RW33	Krasnodar	Russia
650	1000	CX6	Montevideo	Uruguay
653	60000	.....	Beronunster	Switzerland
662	500	.....	Klagenfurt	Austria
662	250	PTB	Danzig	Danzig
662	200	IBZ	Bolzano	Italy
662	500	LKD	Bodo	Norway
662	800	LKP	Porsgrund	Norway
662	110	LKM	Tronsoe	Norway
662	1000	EAJ8	Sau Sebastian	Spain
662	150	SCT	Upsala	Sweden
665	1000	VK2FC	Sydney	Australia
667	15000	ZTJ	Johannesburg	So. Africa
668	4000	RW13	Odessa	Russia
670	5000	LP4	Buenos Aires	Argentina
670	10000	JFAK	Tokyo	Japan
671	1000	FPTT	Paris	France
671	300	LKA	Aalesund	Norway
671	900	LKN	Notodden	Norway
671	170	LKR	Rjukan	Norway
674	50	PRAH	Bahia	Brazil

Kcys.	Power	Call	City	Country
674	1000	COHB	Harbin	China
680	75000	IIR0	Rome	Italy
680	500	JOLK	Fukuoka	Japan
685	1000	LP8	LaPlata	Argentina
685	2000	HJN	Bogota	Colombia
687	1200	RW46	Petropavlovsk	Russia
680	1000	CAB	Canton	China
689	60	SCN	Malmberget	Sweden
689	1000	SBA	Stockholm	Sweden
690	1000	VK6WF	Perth	Australia
690	1000	JODK	Keijo. Chosen	Japan
690	1200	RA44	Tver	Russia
696	Belgrade	Jugoslavia

700

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700	500	JOKK	Okayama	Japan
704	4000	RW20	Khar'kov	Russia
706	3000	PRAP	Pernambuco	Brazil
706	3000	PRAG	Porto Alegre	Brazil
708	1500	EAJ7	Madrid	Spain
710	5000	LS1	Buenos Aires	Argentina
710	300	JOJK	Kanazawa	Japan
714	200	RA32	Saratov	Russia
716	1700	.....	Berlin	Germany
720	5000	ZL2YA	Wellington	New Zealand
723	2000	COMK	Mukden	China
724	2000	.....	Rabat	Morocco
726	1500	2RN	Dublin	Irish Free State
730	5000	LT6	San Juan	Argentina
730	1000	VK5CL	Adelaide	Australia
730	1000	RW55	Pokrovsk	Russia
730	1000	CX10	Montevideo	Uruguay
731	1000	ZTD	Durban	South Africa
734	10000	.....	Katowice	Poland
735	2200	.....	Tartu	Estonia
741	1000	JOSK	Kokura	Japan
743	25000	.....	Sottens	Switzerland
748	1200	RW51	Nalehik	Russia
750	7000	LR7	Buenos Aires	Argentina
750	1000	PRAA	Rio de Janeiro	Brazil
750	250	.....	Mont-de-Marsan	France
750	10000	JOBK	Osaka	Japan
750	1000	VQ7LO	Nairobi	Kenya
750	700	RA8	Bogorodsk	Russia
750	750	EAJ2	Madrid	Spain
752	1000	G5SC	Glasgow	Scotland
759	500	LT4	Mendoza	Argentina
759	12000	.....	Bueharest	Rumania
760	2500	VK4QG	Brisbane	Australia
760	1000	JQAK	Dairen, Man- churia	Japan
770	8000	.....	Toulouse	France
770	1700	.....	Frankfort	Germany
770	200	VUM	Madras	India
770	10000	JOHK	Sendai	Japan
770	10000	RW36	Arkhangelsk	Russia
770	600	SEF	Ostersund	Sweden
770	500	CX12	Montevideo	Uruguay
777	500	.....	Rheims	France
778	500	JOPK	Shidzuoka	Japan
779	.....	.....	Lwow	Poland
779	500	.....	Wilna	Poland
789	500	LU2	Babia Blanca	Argentina
790	500	LRI	Buenos Aires	Argentina
790	10000	JOGK	Kumamoto	Japan
790	1500	OAX	Lima	Peru
793	1000	RW37	Moscow	Russia
793	300	RW39	Moscow	Russia
796	1000	RW27	Makhlatch Kalá	Russia
797	1000	G2ZY	Manchester	England

800

Keys.	Power	Call	City	Country
800	1000	VK3LO	Melbourne	Australia
804	1000	CMAC	Santiago	Chile
806	1700	.....	Hamburg	Germany
810	1000	LT1	Concordia	Argentina
810	3000	VUC	Calcutta	India
810	10000	JOCK	Ngoya	Japan
810	.....	HS7PJ	Bangkok	Siam
810	1000	ZTC	Cape Town	So. Africa
810	1000	CX14	Montevideo	Uruguay
811	1200	RV26	Artemovsk	Russia
815	1000	PRAE	Sao Paulo	Brazil
815	.....	EAJ5	Seville	Spain
820	20	ZL3ZR	Greyouth	New Zealand
820	4	ZL2ZF	Wairoa	New Zealand
824	.....	RV42	Nokolaev	Russia
824	2400	.....	Algiers	Algeria
824	1000	LKB	Bergen	Norway
825	1500	F8GC	Paris	France
830	500	LR5	Buenos Aires	Argentina
830	10000	JO1K	Stapporo	Japan
833	60000	.....	Stuttgart	Germany
837	700	LKF	Fredrikstad	Norway
838	4000	RW57	Tiraspol	Russia
840	10000	.....	Helsingfors	Finland
840	12000	F31CD	Saigon	Fr. Indo-China
840	3000	VUB	Bombay	India
842	250	PRAF	Para	Brazil
842	30000	G2LO	London	England
845	1500	ZBW	Victoria	Hong Kong
850	10000	JOFK	Hiroshima	Japan
850	.....	CX16	Montevideo	Uruguay
851	7000	.....	Graz	Austria
855	1000	VK2ZL	Sydney	Australia
856	1200	RV36	Leningrad	Russia
856	2500	HSP1	Bangkok	Siam
857	200	PRAJ	Juiz de Fora	Brazil
857	500	PRAC	Rio de Janeiro	Brazil
860	7500	EAJ1	Barcelona	Spain
865	1200	RW24	Piatigorsk	Russia
867	8000	SPTT	Straasburg	France
870	10000	LR2	Buenos Aires	Argentina
870	.....	.....	Shanghai	China
870	10000	JOAK	Tokyo	Japan
878	36000	OKB	Brno	Czechoslovakia
880	600	VK4BC	Brisbane	Australia
880	200	VK6PR	Perth	Australia
881	500	LV7	Tucuman	Argentina
882	50	PRAN	Curityba	Brazil
882	100	VUL	Lahore	India
882	400	HS1PJ	Bangkok	Siam
887	1000	PRAS	Santos Miranir	Brazil
890	50	VK7HO	Hobart	Australia
890	250	CX18	Montevideo	Uruguay
895	250	XGY	Hangchow	China
896	1500	.....	Poznan	Poland

900

Keys.	Power	Call	City	Country
901	500	.....	Paris	France
905	1500	INA	Naples	Italy
909	.....	CT1GL	Lisbon	Portugal
910	2000	VK4RK	Rockhampton	Australia
910	500	ZLIYA	Auckland	New Zealand
911	1000	LV2	Cordoba	Argentina
914	1500	.....	Grenoble	France
920	50	PRAD	Pelotas	Brazil
923	1700	.....	Breslau	Germany
923	.....	HS7PJ	Bangkok	Siam
930	100	VK3UZ	Melbourne	Australia
930	2000	CX20	Montevideo	Uruguay
932	500	SCC	Falun	Sweden
932	10000	SBB	Goteborg	Sweden
937	500	PRAB	Rio de Janeiro	Brazil
937	1000	XOPP	Peking	China
937	.....	HSP3	Bangkok	Siam
938	50	XGAF	Shanghai	China

Keys.	Power	Call	City	Country
940	.....	5ZA	Apia	Samoa
941	300	.....	Dresden	Germany
950	5000	LR3	Buenos Aires	Argentina
950	800	VK2GB	Sydney	Australia
950	500	.....	Marseilles	France
950	300	.....	Bremen	Germany
952	50	NKS	Shanghai	China
959	1500	IGE	Genoa	Italy
959	1500	.....	Krakow	Poland
960	100	VK5DN	Adelaide	Australia
960	.....	YV1BC	Caracas	Venezuela
968	2000	.....	Paris	France
968	1000	G5WA	Cardiff	Wales
970	200	VK3BO	Sydney	Australia
970	250	CX22	Montevideo	Uruguay
977	700	.....	Zagreb	Jugoslavia
980	500	ZL3YA	Christchurch	New Zealand
983	25	CNO	Casablanca	Morocco
986	1500	.....	Bodeaux	France
990	10000	LR4	Buenos Aires	Argentina
990	5000	LR6	Buenos Aires	Argentina
995	1000	G2BD	Aberdeen	Scotland

1000

Keys.	Power	Call	City	Country
1000	50	VK4GR	Toowoomba	Australia
1000	50	PRAY	Mogydas Cruzes	Brazil
1000	350	.....	The Hague	Netherlands
1000	50	.....	Pretoria	So. Africa
1004	7000	PFBI	Amsterdam,	Netherlands
1004	6400	PH9	Amsterdam,	Netherlands
1006	500	PRAR	Sao Paulo	Brazil
1010	200	VK3HA	Hamilton	Australia
1010	300	VK6ML	Perth	Australia
1010	1000	CX24	Montevideo	Uruguay
1013	10000	.....	Tallinn	Estonia
1013	8500	ITO	Turin	Italy
1016	250	CMAO	Santiago	Chile
1022	500	.....	Limoges	France
1023	2500	OKK	Kosice	Czechoslovakia
1025	50	VK2UE	Sydney	Australia
1030	10000	LR9	Buenos Aires	Argentina
1031	750	.....	Viborg	Finland
1032	500	YR	Lyon	France
1034	100	CMAJ	Valparaiso	Chile
1040	1000	G6BM	Bournemouth	England
1040	130	G6KH	Hull	England
1040	130	G2LS	Leeds-Bradford	England
1040	130	G6LV	Liverpool	England
1040	130	G5PY	Plymouth	England
1040	160	G6FL	Sheffield	England
1040	130	G6ST	Stoke-on-Trent	England
1040	130	G2DE	Dundee	Scotland
1040	350	G2EH	Edinburgh	Scotland
1040	130	G5SX	Swansea	Wales
1049	200	.....	Montpelier	France
1050	50	VK2CA	Canberra	Australia
1050	150	ZL2ZF	Palmerston	New Zealand
1050	2000	CX26	Montevideo	Uruguay
1053	500	.....	Kharbarovsk	Russia
1056	2000	CT1AA	Lisbon	Portugal
1056	10	CT1AN	Lisbon	Portugal
1056	150	CT1BO	Lisbon	Portugal
1056	.....	CT1DH	Lisbon	Portugal
1056	30	CT1EB	Lisbon	Portugal
1058	500	.....	Innsbruck	Austria
1058	600	.....	Berlin	Germany
1058	600	.....	Magdeburg	Germany
1058	600	.....	Stettin	Germany
1058	50	SCR	Uddevalla	Sweden
1058	300	SCU	Varberg	Sweden
1067	1000	.....	Copenhagen	Denmark
1069	10000	LS5	Buenos Aires	Argentina
1070	300	VK2KY	Sydney	Australia
1070	10	PRAI	Ribeirao Preto	Brazil
1071	500	EAR5	Las Palmas	Canary Islands
1071	50	XGX	Shanghai	China
1075	100	LT9	Rosario	Argentina

Kcys.	Power	Call	City	Country	Kcys.	Power	Call	City	Country
1075	12000	OKR	Bratislava	Czechoslovakia	1219	200	ON4RW	Liege	Belgium
1080	2000	LT3	Rosario	Argentina	1219	250	.....	Nice	France
1080	20	VK7LA	Launceston	Australia	1219	100	EAJ15	Cartagena	Spain
1080	50	VK3SH	Swan Hill	Australia	1220	500	.....	Linz-an-der-Donau	Austria
1080	200	.....	Caen	France	1220	50	VK2MV	Moss Vale	Australia
1080	20	ZL4ZB	Dunedin	New Zealand	1220	100	VK6KG	Kalgoorlie	Australia
1080	45	ZL4ZM	Dunedin	New Zealand	1220	.....	.....	Abo	Finland
1080	30	ZL4ZO	Dunedin	New Zealand	1220	.....	.....	Bjorneborg	Finland
1085	60000	.....	Heilsburg	Germany	1220	1500	.....	Jakobstad	Finland
1085	1700	.....	Konigsberg	Germany	1220	750	.....	Kassel	Germany
1088	50	KSMS	Shanghai	China	1220	300	.....	Bloemendaal	Netherlands
1090	.....	PRAQ	Bello Horizonte	Brazil	1220	.....	.....	Dunedin	New Zealand
1090	18	ZL1ZB	Auckland	New Zealand	1220	200	SCB	Eskilstuna	Sweden
1090	40	ZL1ZR	Auckland	New Zealand	1220	200	SCI	Kalmar	Sweden
1091	250	.....	Angers	France	1220	200	SCL	Kiruna	Sweden
					1220	400	SCP	Saffle	Sweden
					1220	50	CW34	Salto	Uruguay
					1224	100	CMAQ	Santiago	Chile
					1229	10000	L58	Buenos Aires	Argentina
					1230	100	ZL2YB	New Plymouth	New Zealand
					1238	1000	G2BE	Belfast	Ireland
					1245	2000	VK2NC	Newcastle	Australia
					1247	500	LKS	Stavanger	Norway
					1249	500	LT5	Parana	Argentina
					1249	.....	PRP1	Oporto	Portugal
					1250	500	.....	Nimes	France
					1250	250	CX36	Montevideo	Uruguay
					1256	2300	.....	Nuremberg	Germany
					1260	50	VK3WR	Wangaratta	Australia
					1260	15	ZL2ZH	Napier	New Zealand
					1260	30	CW36	Salto	Uruguay
					1265	200	SCV	Orebro	Sweden
					1270	1000	LS3	Buenos Aires	Argentina
					1274	500	LKK	Kristiansand	Norway
					1277	50	RSC	Shanghai	China
					1280	200	VK4BK	Brisbane	Australia
					1280	50	VK3TR	Trafalgar	Australia
					1290	100	CX38	Montevideo	Uruguay
					1292	300	.....	Kiel	Germany

1100

1100	20	VK7LA	Launceston	Australia	1299	500	.....	.....	.....
1100	7.5	ZL2ZU	Dannevirke	New Zealand	1230	100	ZL2YB	New Plymouth	New Zealand
1103	1500	.....	Rennes	France	1238	1000	G2BE	Belfast	Ireland
1110	200	VK2HD	Newcastle	Australia	1245	2000	VK2NC	Newcastle	Australia
1110	50	PRAZ	France	Brazil	1247	500	LKS	Stavanger	Norway
1112	300	.....	Kaiserslautern	Germany	1249	500	LT5	Parana	Argentina
1112	150	SCF	Hudkivall	Sweden	1249	.....	PRP1	Oporto	Portugal
1112	250	SCO	Norrkoping	Sweden	1250	500	.....	Nimes	France
1112	250	SCQ	Trollhattan	Sweden	1250	250	CX36	Montevideo	Uruguay
					1256	2300	.....	Nuremberg	Germany
					1260	50	VK3WR	Wangaratta	Australia
					1260	15	ZL2ZH	Napier	New Zealand
					1260	30	CW36	Salto	Uruguay
					1265	200	SCV	Orebro	Sweden
					1270	1000	LS3	Buenos Aires	Argentina
					1274	500	LKK	Kristiansand	Norway
					1277	50	RSC	Shanghai	China
					1280	200	VK4BK	Brisbane	Australia
					1280	50	VK3TR	Trafalgar	Australia
					1290	100	CX38	Montevideo	Uruguay
					1292	300	.....	Kiel	Germany

1300

1118	1500	.....	Valencia	Spain	1260	50	VK3WR	Wangaratta	Australia
1119	10000	EZJ13	Barcelona	Spain	1260	15	ZL2ZH	Napier	New Zealand
1119	30	EAJ19	Oviedo	Spain	1260	30	CW36	Salto	Uruguay
1120	10	ZL2ZO	Palmerston North	New Zealand	1265	200	SCV	Orebro	Sweden
					1270	1000	LS3	Buenos Aires	Argentina
					1274	500	LKK	Kristiansand	Norway
					1277	50	RSC	Shanghai	China
					1280	200	VK4BK	Brisbane	Australia
					1280	50	VK3TR	Trafalgar	Australia
					1290	100	CX38	Montevideo	Uruguay
					1292	300	.....	Kiel	Germany
					1300	50	VK3BA	Bailarat	Australia
					1300	30	CW38	Salto	Uruguay
					1301	150	SCA	Boras	Sweden
					1301	200	SCG	Helsingborg	Sweden
					1301	60	SBC	Malmö	Sweden
					1301	20	SCS	Umea	Sweden
					1304	.....	HKF	Bogota	Colombia
					1310	300	VK5AD	Adelaide	Australia
					1319	300	.....	Aix la Chapelle	Germany
					1319	1700	.....	Cologne	Germany
					1319	600	.....	Muenster	Germany
					1320	50	VK2AY	Albury	Australia
					1320	26	ZL1ZJ	Auckland	New Zealand
					1330	50	VK2MO	Buneda	Australia
					1330	15	ZL2ZJ	Hastings	New Zealand
					1330	100	CX40	Montevideo	Uruguay
					1333	100	CMAK	Santiago	Chile
					1337	1000	6CK	Cork	Irish Free State
					1340	50	VK2XN	Lismore	Australia
					1340	30	CW40	Paysandu	Uruguay
					1344	10000	LOAA	Luxemburg	Luxemburg
					1349	3000	L86	Buenos Aires	Argentina
					1350	200	VK3KZ	Melbourne	Australia
					1350	1000	CPX	LaPaz	Bolivia
					1360	400	LT2	Concordia	Argentina
					1363	.....	ZP1	Asuncion	Paraguay
					1364	1000	PRAX	Rio de Janeiro	Brazil
					1364	1500	.....	Beziers	France
					1364	250	.....	St. Etienne	France
					1365	50	BK2XL	Broken Hill	Australia
					1370	500	CX42	Montevideo	Uruguay
					1373	600	.....	Flensburg	Germany
					1373	250	SKC	Karlstad	Sweden
					1373	200	SCW	Ornskoldsvik	Sweden
					1375	100	ON4GT	Brussels	Belgium
					1380	600	VK4BH	Brisbane	Australia
					1386	10000	LS9	Buenos Aires	Argentina
					1388	500	LV5	Rosario	Argentina

1200

1200	200	VK5KA	Adelaide	Australia
1200	500	.....	Toulon	France
1200	500	TFA	Reykjavik	Iceland
1200	250	ZL3ZC	Christchurch	New Zealand
1210	5	ZL2ZE	Ekatihuana	New Zealand
1210	10	ZL1ZM	Manurewa	New Zealand
1210	500	CX34	Montevideo	Uruguay
1211	15000	ITR	Trieste	Italy
1219	100	ON4FO	Brussels	Belgium
1219	400	ON4RG	Ghent	Belgium

Keys.	Power	Call	City	Country
1388	200	ON4CE	Chatelaineau	Belgium
1388	100	ON4EX	Ottomont	Belgium
			Adriemont	Belgium
1391	200	SCE	Halmstad	Sweden
1400				
1400	50	VK3GL	Geelong	Australia
1410	20	CX44	Montevideo	Uruguay
1414	100	LUI	Mar del Plata	Argentina
1415	200	VK2KO	Newcastle	Australia
1420	30	CW44	Paysandu	Uruguay
1428	12	OA4M	Lima	Peru
1435	50	VK2WL	Wollongong	Australia
1441	1000	LT7	General Pico	Argentina
1448	100	ON4RC	Brussels	Belgium
1448	3000	.....	Oporto	Portugal
1450	100	CX46	Montevideo	Uruguay
1455	50	ON4ED	Antwerp	Belgium
1455	25	ON4FG	Dampremy	Belgium
1455	100	ON4CE	Verviers	Belgium
1460	50	VK2MV	Moss Vale	Australia
1460	20	CW46	Tucuaerembo	Uruguay
1470	200	SCE	Gavle	Sweden
1480	50	VK2AY	Albury	Australia
1480	250	SCM	Kristinehamn	Sweden
1490	250	SCH	Jonkoping	Sweden
1490	50	CX48	Montevideo	Uruguay
1500	50	VK2MO	Gunnedah	Australia
1500	130	G2LS	Leeds-Bradford	England

Their Time on the Air

Your Zone	Where Time is Given as			
	EST	CST	MST	PST
EST	.....	Add 1 hr.	Add 2 hrs.	Add 3 hrs.
CST	Subt. 1 hr.	.....	Add 1 hr.	Add 2 hrs.
MST	Subt. 2 hrs.	Subt. 1 hr.	.....	Add 1 hr.
PST	Subt. 3 hrs.	Subt. 2 hrs.	Subt. 1 hr.	.....
State	City	Call	Keys.	Watts
California	Culver City	KFVD	1000	250
	Sunday, 8 a.m.-6 p.m.; 10-12 mid. PST.			
	Daily, 6 a.m.-6 p.m.; 10 p.m.-1 a.m.			
	El Centro	KXO	1500	100
	Sunday, 7 a.m.-10 p.m. PST.			
	Daily, 7:15 a.m.-10 p.m.			
	Pasadena	KPPC	1210	50
	Sunday, 9 a.m.-12:30 p.m.; 6:45-9 p.m. PST			
	Wednesday, 7 p.m.-9:15 p.m. (Rest of week silent.)			
	San Bernardino	KFXM	1210	100
	Sunday, 3 p.m.-5 p.m., PST.			
	Daily, 7 a.m.-11 p.m.			
Colorado	Yuma	KGEK	1200	100
	DX every Friday, 11 p.m.-1 a.m., MST.			
Georgia	Rome	WFDV	1500	100
	Sunday, 9 a.m.-3 p.m.; 6-9 p.m., CST.			
	Daily, 6-9 a.m.; 12-3 p.m.; 6-9 p.m.			
Hawaii	Honolulu	KGU	750	1000
	Daily, 6:15 a.m.-11 p.m., Honolulu time.			
	(5½ hours behind EST.)			
Kansas	Coffeyville	KGGF	1010	500
	Sunday, 7:30-10:30 a.m.; 1:30-5 p.m., CST.			
	Monday, 11:30 a.m.-2 p.m.; 5-10:30 p.m.			
	Tues. and Thurs., 7:30-10:30 a.m.; 11:30-2 p.m., 5-7:15 p.m.; 9:15-10:30 p.m.			
	Wednesday, 7:30-10:30 a.m.; 11:30-2 p.m.; 5-8:15 p.m.; 9:15-10:45 p.m.			
	Friday, 7:30-10:30 a.m.; 11:30-2 p.m.; 5-10:30 p.m.			
	Saturday, 7:30-10:30 a.m.; 11:30-2 p.m.; 5-9:30 p.m.			
Louisiana	Shreveport	KRMD	1310	50
	Sunday, 7-10 a.m.; 4-7 p.m., CST.			
	Monday to Friday, 7-10 a.m.; 5-8 p.m.			
	Saturday, 7-10 a.m.; 2-5 p.m.			
Maine	Bangor	WABI	1200	100
	Sunday, 9 a.m.-12 n., EST.			
	Daily, 6-9 a.m.; 12-3 p.m.; 6-9 p.m.			
Michigan	Lapeer	WMPC	1500	100
	Sunday, 7:30-11 p.m., CST.			
	Daily (ex. Sat. and Thurs.) 10 a.m.-2 p.m.; 3:30-6 p.m.; 7-10:30 p.m.			

State	City	Call	Keys.	Watts
Mississippi	Laurel	WTSL	1310	100
	Sunday, 1 p.m.-12 mid., CST.			
	Mon., Wed., Fri., 6-7 a.m.; 1-7 p.m.; 9:30-12 mid.			
	Tues., Thurs., Sat., 1-30 p.m.			
New Hampshire	Laconia	WKAV	1310	100
	Daily, 9 a.m.-1 p.m.; 3-8 p.m., EST.			
New York	Troy	WHAZ	1300	500
	DX every Monday from 6 p.m.-12 mid., EST.			
OHIO	Columbus	WEAO	570	750
	Monday, 9-11 a.m.; 1-3 p.m.; 8-10 p.m., EST.			
	Tues. and Thurs., 9-11 a.m.; 1-3 p.m.			
	Wednesday, 9-11 a.m.; 1-3 p.m.; 8-12 mid.			
	Friday, 9-11 a.m.; 7-12 mid.			
	Saturday, 1 p.m.-12 mid. No Sunday hours.			
	Youngstown	WKBN	570	500
	Sunday, 6 a.m.-12 mid., EST.			
	Monday, 6-9 a.m.; 11 a.m.-1 p.m.; 3-8 p.m.; 10-12 mid.			
	Tues. and Thurs., 6-9 a.m.; 11 a.m.-1 p.m.; 3-12 mid.			
	Wednesday, 6-9 a.m.; 11 a.m.-1 p.m.; 3-8 p.m.			
	Friday, 6-9 a.m.-11 a.m.-7 p.m.			
	Saturday, 6 a.m.-1 p.m.			
Oklahoma	Norman	WNAD	1010	500
	Tues. and Thurs., 7:15-9:15 p.m., CST.			
	Wednesday, 8:15-9:15 p.m.			
Pennsylvania	Carbondale	WNBW	1200	10
	Daily, 8 a.m.-10 p.m., EST.			
	State College	WPCB	1230	500
	Sunday, 9 a.m.-1 p.m.; 2 p.m.-sunset, EST.			
	Daily, ex. Sat., 11:45 a.m.-12:15 p.m.; 4-5:30 p.m.			
	Saturday, 11:45 a.m.-12:15 p.m.			
Texas	Austin	KNOW	1500	100
	Sunday, 7:30-11 a.m.; 12-4 p.m.; 5-9:30 p.m., CST.			
	Daily, 7:30 a.m.-1:30 p.m.; 4-10 p.m.			
Vermont	St. Albans	WQDM	1370	100
	Sunday, 1-2 p.m., EST.			
	Daily, 11 a.m.-2 p.m.			
Virginia	Danville	WBTV	1000	100
	Sunday, 7-11 a.m.; 6-6:30 p.m.; 7 p.m. till close, EST.			
	Mon., Wed., Fri., 7 a.m.-1 p.m.; 2-6:30 p.m.			
	Tues., Thurs., Sat., 12 n.-1 p.m.; 6-6:30 p.m.; 7 p.m. till close.			
Washington	Yakima	KIT	1310	100
	Sunday, 9 a.m.-11 p.m., PST.			
	Daily, 7 a.m.-11 p.m. (Saturday on till midnight.)			
Wyoming	Casper	KDFN	1210	100
	Daily, ex. Sunday, 9 a.m.-9 p.m., MST.			
	Test every Tuesday morning, 1:05-1:15 a.m.			

CANADA

British Columbia	Vancouver	CKMO	730	100
	DX every Mon., Tues., Thurs., Fri., Sun., 11:30 p.m.-1:30 a.m., PST.			
Newfoundland	St. Johns	VONA	950	30
	Sunday, 12:30-1:30 p.m.; 7:45-9 p.m.			
	Saturday, 9:45 a.m.-12:30 p.m.			
	Daily, 12:30-1:30 p.m.; 6:30-8 p.m.			
	(Newfoundland time — 1½ hours ahead of Eastern.)			
	St. Johns	VOWR	675	500
	Sunday, 11 a.m.-12:30 p.m.; 6:30-8 p.m.			
	Tues. and Thurs., 8:15 p.m.-9:30 p.m.			
CUBA				
Cuba	Havana	CMCU	1270	250
	DX every Sunday, 2 a.m.-5 a.m., EST.			
	Daily, 6-11 a.m.; 12-3 p.m.; 7-10 p.m.			

The Month's Changes

Frequencies	
570 KVI	Tacoma, Wash., from 760.
630 KGFX	Pierre, S. D., from 580.
750 KGU	Honolulu, Hawaii, from 940.
760 KXA	Seattle, Wash., from 570.
820 CMGC	Matanzas, Cuba, from 1375.
845 XEFD	Tijuana, Mex., from 1020.
1050 CMGH	Matanzas, Cuba, from 1370.
1180 CMJE	Camaguey, Cuba, from 856.
1235 CMCA	Havana, Cuba, from 1225.
1270 CMCU	Havana, Cuba, from 1285.
1310 WIAS	Ottumwa, Iowa, from 1420.
1420 KWCR	Cedar Rapids, Iowa, from 1310.
1500 WFDV	Rome, Ga., from 1310.

Power	
588 CMW	Havana, Cuba, 1400 to 2000.
630 CFCT	Victoria, B. C., 50 to 500.
690 CFRB	Toronto, Ont., 4000 to 7000.
820 CMGC	Matanzas, Cuba, 30 to 100.
1120 CHGS	Summerside, P.E.I., 100 to 500.
1205 CMGB	Matanzas, Cuba, 7.5 to 30.
1270 CMCU	Havana, Cuba, 150 to 250.
1420 WENC	Americus, Ga., 50 to 100.
Owners	
630 WOS	Jefferson City, Mo., to Missouri State Marketing Bureau.
630 XETF	Veracruz, Mex., to Cia. Difusora Mexicana, S. A.
1200 WABI	Bangor Maine, to First Universalist Society.
1310 KRMD	Shreveport, La., to KRMD, Inc.
1420 KGKX	Sandpoint, Idaho, to Sandpoint Broadcasting Co.
New	
540 CKWO	Windsor, Ont.
610 XETR	Mexico City, Mexico.
1150 CMGI	Colon, Cuba.
1500	Kosciusko, Miss.
Calls	
820 CMGC	Matanzas, Cuba, from CMAC.
1300 WFAB	New York City, from WHAP.
Deleted	
834 CMGA	Colon, Cuba.
1310 KFJY	Fort Dodge, Iowa.
Location	
820 CMGC	Matanzas, Cuba, from Pinar del R o.
Reinstated	
1210 KGMP	Elk City, Okla.
Chains	
1420 KWCR	Cedar Rapids, Iowa, new NBC.
Permit to Change Frequency	
860 KMO	Tacoma, Wash., to 1330.
1210 WGCM	Gulfport, Miss., to 590.
1420 KFXD	Nampa, Idaho, to 1200.
Permit to Increase Power	
1200 WRBL	Columbus, Ga., 50 to 100.
1210 WGCM	Gulfport, Miss., 100 to 1000.
1310 KRMD	Shreveport, La., 50 to 100
Heard on Other Waves	
1240 KTFI	Twin Falls, Idaho, on 1220.

Your Radio Friends

(Continued from page 17)

worked so hard to attain with the more popular material. He studied Mexican and Spanish folk songs and popular melodies, arranging them in classic style. In 1929 Tito came to New York to make records of his unique renditions of Spanish and Mexican songs. At the expiration of the original contract, Guizar was offered another on similar terms, but by this time officials of the CBS had heard his mellow voice and signed him for radio performances. Tito Guizar was born in Guadalajara, Mexico, in 1905. He is now featured with Vincent Sorey's orchestra on the Gauchos program each Sunday at 11:30 p.m.; Thursdays at 5:00 p.m.; also with Leon Belasco's orchestra on Friday at 9:30 p.m. EST, over the Columbia network.

Back Issues of RADEX

We still have a small supply of each issue of RADEX back as far as No. 41 of September, 1930. These old numbers constitute a valuable library for the radio fan and we are epitomizing the contents of each issue. They may be secured at the regular subscription rates of 25 cents per copy, five for \$1.00 and ten for \$1.75.

- 41 September, 1930
Those Bothersome Noises.
Getting Rid of Interference.
- 42 October, 1930
High Frequency Interference.
Progress of Television.
- 43 November, 1930
Multiple Speakers and Remote Control
The Mechanics of Chain Programs.
- 44 December, 1930
Adding Your Own Tone Control.
Wave Trap Increases Selectivity.
- 45 January, 1931
Building a Short Wave Adapter.
- 46 February, 1931
Reducing the Effect of Static.
- 47 March, 1931
Theory of Radio in a Nutshell.
Attaching Phones to Majestic Sets.
Neutralizing Oscillation of R.F. Tubes.
- 48 April, 1931
Fighting Radio's Worst Enemy.
Faults of Superheterodynes.
- 49 May, 1931
What Happens Inside Your Set.
Short-Wave Adapter for A. C. Sets.
- 50 June, 1931
Converting Vibrations Into Sound.
- 51 September, 1931
Using Phones with A. C. Sets.
Can Static Be Eliminated?
Modern Sets for D. C. Current.
- 52 October, 1931
What About the Pentode Tube?
The "Why" of Call Letters.
- 53 November, 1931
Is Television Ready for the Home?
Does Radio Offer a Life Career?
- 54 December, 1931
Can I Use a Variable-Mu?
Replacing 45's with Pentodes.
- 55 January, 1932
Buying and Servicing a New Set.

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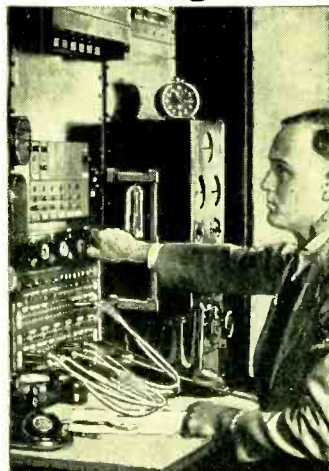
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