

THE OCTOBER 1932

RADIO INDEX

THE ALL-WAVE RADIO MAGAZINE



25^c

Monday Time on the Air for All Stations
Short Wave Stations of the World by Frequencies
Index to Trans-Pacific Broadcast Stations
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What's What in the New Tubes

No. 62

N. S. E.

OCTOBER DX CALENDAR

1 — SATURDAY NIGHT

11:00- PST CHWK Chilliwack, B. C.
 11:30- PST CKWX Vancouver, B. C.
 11:30- EST KDKA Pittsburgh, Pa.
 11:30- 2:00 CST WBBZ Ponca City, Okla.
 Mid.-12:30 CST WKY Oklahoma City
 Mid.- EST WWRL Woodside, N. Y.
 Mid.- 2:00 PST CKOV Kelowna, B. C.
 Mid.- 2:00 EST CMCH Havana, Cuba
 Mid.- 2:00 CST WCAH Columbus, Ohio
 Mid.- 2:00 EST WGBI Seranton, Pa.
 Mid.- 3:00 EST CMCD Havana, Cuba
 12:30- 2:30 CST WOW Omaha, Neb.
 1:00- 2:00 EST CKOK Windsor, Ont.
 1:00- 4:00 MST KGCC Wolf Point, Mont.
 1:00- EST KQV Pittsburgh, Pa.
 1:00- 5:00 CST WJAK Elkhart, Ind.
 1:30- 3:30 EST YVIBC Caracas, Venz. (960)
 2:00- 3:00 CST WKBZ Ludington, Mich.

2 — SUNDAY NIGHT

Mid.- 1:00 EST WSAZ Huntington, W. Va.
 1:00- 4:00 PST KPCB Seattle, Wash.

3 — MONDAY NIGHT

10:30-10:45 CST WMAQ Chicago, Ill.
 Mid.- 2:00 CST KFYZ Bismarek, N. D.
 Mid.- 2:00 MST KOY Phoenix, Ariz.
 Mid.- 2:30 EST WMLL Brooklyn, N. Y.

4 — TUESDAY NIGHT

11:00-Mid. CST XEH Monterrey, Mex.
 Mid.- 2:00 PST CFJC Kamloops, B. C.
 3:00- EST WOPI Bristol, Tenn.

5 — WEDNESDAY NIGHT

11:00-Mid. CST WHBL Sheboygan, Wis.
 11:30- PST CKWX Vancouver, B. C.

6 — THURSDAY NIGHT

Mid.- 1:00 MST CFAC Calgary, Alta.
 Mid.- 2:00 PST CKOV Kelowna, B. C.
 Mid.- 2:30 EST WMLL Brooklyn, N. Y.

7 — FRIDAY NIGHT

11:30- 1:00 MST KGEK Yuma, Colo.
 11:30- 2:30 CST WCAJ Lincoln, Neb.
 Mid.- 2:00 PST CFJC Kamloops, B. C.
 1:00- 3:00 EST CKGL Toronto, Ont.
 1:00- 3:00 CST KGFK Moorhead, Minn.

8 — SATURDAY NIGHT

Same as Saturday the 1st, except CHWK not on; add
 Mid.- CST KUSD Vermillion, S. D.

9 — SUNDAY NIGHT

Mid.- 1:00 EST WSAZ Huntington, W. Va.
 2:00- 4:00 CST WHBF Rock Island, Ill.

10 — MONDAY NIGHT

Same as Monday the 3rd.

11 — TUESDAY NIGHT

Same as Tuesday the 4th, except WOPI not on.

12 — WEDNESDAY NIGHT

Same as Wednesday the 5th.

13 — THURSDAY NIGHT

Same as Thursday the 6th.

14 — FRIDAY NIGHT

Same as Friday the 7th.

15 — SATURDAY NIGHT

Same as Saturday the 1st, except CHWK not on; add
 3:00- 5:00-CST KFBI Abilene, Kans.

16 — SUNDAY NIGHT

Mid.- 1:00 EST WSAZ Huntington, W. Va.

17 — MONDAY NIGHT

Same as Monday the 3rd.

18 — TUESDAY NIGHT

Same as Tuesday the 11th.

19 — WEDNESDAY NIGHT

Same as Wednesday the 5th.

20 — THURSDAY NIGHT

Same as Thursday the 6th.

21 — FRIDAY NIGHT

Same as Friday the 7th.

22 — SATURDAY NIGHT

Same as Saturday the 8th.

23 — SUNDAY NIGHT

Mid.- 1:00 EST WSAZ Huntington, W. Va.

24 — MONDAY NIGHT

Same as Monday the 3rd.

25 — TUESDAY NIGHT

11:00-Mid. CST XEH Monterrey, Mex.
 Mid.- 2:00 PST CFJC Kamloops, B. C.
 1:30- 2:30 CST WCLO Janesville, Wis.
 2:00- 3:00 MST KPOF Denver, Colo.
 2:00- 4:00 CST KDRL Devils Lake, N. D.

26 — WEDNESDAY NIGHT

Same as Wednesday the 5th.

27 — THURSDAY NIGHT

Same as Thursday the 6th.

28 — FRIDAY NIGHT

Same as Friday the 7th.

29 — SATURDAY NIGHT

Same as Saturday the 1st, except CHWK not on

30 — SUNDAY NIGHT

Mid.- 1:00 EST WSAZ Huntington, W. Va.

31 — MONDAY NIGHT

Same as Monday the 3rd.

OCTOBER 1, 1932



RADIO IN INDEX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER
Editor and Publisher



NINTH YEAR

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WHAT'S WHAT in NEW TUBES

DURING the past few months the tube manufacturers have been hard at work to see how many new types they could produce. Since it is needless to attempt to explain the merits of each of this avalanche of new tubes, we shall confine our remarks to those types having a wider range of usefulness.

The superiority of many of these tubes calls for radical circuit changes, and about one-half of the newer radio sets are now discarding the older and more familiar tubes. The late 1932 flood of so many new types has swept away a number of faithful tubes, such as the -24, -27, -45, -80, and the more recent -35 and -47.

Sixteen New Tube Types

The new types are: 41, 42, 43, 44, 46, 52, 55, 56, 57, 58, 82, 83, 85, 89, and the Wunderlich and Triple Twin. Each serves a definite purpose because of remarkable electrical possibilities. At least two of these tubes are very valuable in short-wave reception and will go far toward improving worldwide "all-wave" radio. Most new sets are now being designed and built around the characteris-



"Ramona," singer and pianist with Paul Whiteman, NBC-WJZ net 7:45 p.m., Tuesdays and Thursdays, EST.

The Technical Editor Describes Them

tics of certain of the new "50" series of tubes.

A number of these tubes are not of sufficient general interest to justify rather detailed descriptions. These are the types numbered 41, 42, 43, 44, 52, 85 and 89. They are more or less limited in use, being confined to auto-radio on 6.3 volts and d.c. sets. Of course, the tubes can be used in some cases on alternating current.

Automobile and D.C. Series

The new 41 is somewhat similar to the old -38, but is not interchangeable because of the 6-prong base. The 42 is a pentode with more power than the -47, but also having the 6-prong base. Type 43 is a special purpose audio power tube using 25 volts. The 44 is a new variable-mu tube with a 5-prong base and grid-cap, and may be substituted for the -35 or -39 if proper filament voltage changes are made. Types 52, and also the ER-LA are automobile and 110-volt d.c. power amplifier tubes with the standard 5-prong bases. The 85 is similar to the 55, which is more fully described below, but acts like the old -37. The 89 is an audio automobile tube with a 6-prong base and triple grids for connecting in various circuits.

Type 55 Duplex-Diode Triode

The 55 tube is essentially an a.c. heater using the new 6-prong small base connecting to two diode plates, a triode plate, two a.c. heater terminals, and the cathode. The control-grid is connected to the cap at the top of the bulb. This tube will act simultaneously as automatic volume control, detector, and audio amplifier. It is somewhat like a -27 with an extra plate surrounding a portion of the cathode, but it cannot be substituted for any other tube.

Many circuit arrangements will be devised with the 55, for it really consists of three tube-units combined as if in separate bulbs. The plate potential is 250 volts with a current of 8 milliam-

peres. The grid is held negative with 20 volts, and the heater consumes 1.0 ampere at 2.5 volts, either a.c. or d.c.

The 56 Also is Similar to -27

In appearance and usefulness the new 56 tube is similar to the older -27. The size of the bulb has been decreased, the plate colored a non-reflecting black, and the current consumption reduced to 1.0 ampere at 2.5 volts, a.c. or d.c. The plate takes 250 volts and 5 milliamperes. The 56 is a general purpose triode tube and will function as an oscillator, biased detector, grid-leak detector, and first audio amplifier.

The 56 tube has the same 5-prong base as the -27, and all internal parts and connections are identical. While this tube has no outstanding features for short-wave work, it will replace the -27 in broadcast receivers. It is interchangeable with the -27 in some circuits, but cannot be recommended as such since the gain is not appreciable. The new tube is best used in circuits designed for its characteristics.

Type 57 Improves On -24

In the type 57, a screen-grid pentode radio-frequency amplifier tube, we find a greatly improved substitute for the old -24 in new circuits. The tube has the small 6-prong base, and is fitted with a pentode suppressor-grid placed between the screen-grid and the plate. The pentode grid has a separate base connection so that it may or may not be attached to the cathode. The current consumption of the 57 tube is the same as the 56; the plate takes 250 volts and 2 milliamperes, while the screen-grid voltage is 100, with a current of 1.0 milliampere.

This tube may be used as a biased first detector in a.c. sets, as a screen-grid amplifier in radio-frequency circuits, or as an automatic volume control tube, and, very satisfactorily, as a detector in short-wave sets. Because of its base the 57 tube cannot be substituted for the -24.

The 57 has an internal shield within the upper dome of the glass bulb and connected to the cathode element. This shield, together with the odd dome-shape of the top of the glass, makes possible the close capacitive proximity of



Bernadine Flynn of the "Rin-Tin-Tin" programs on the NBC-WJZ net Thursdays, 8:30 p.m., EST.

the outer metallic shield that is fitted over the tube. This increases the value of the tube, especially in short-wave work, and the outer shield must always be in place.

The 58 is a Variable-Mu Pentode

Essentially the same in appearance to the -57 tube is the new type 58. It is a screen-grid pentode radio-frequency amplifier having excellent variable-mu characteristics — much better than the old -35 tube. It does not make a good detector, but is the most efficient radio-frequency and intermediate-frequency amplifier known. And it is also well adapted to short-wave work. Shielding of the 58 tube is the same as with the 57, but the construction of the grid is different.

This tube is capable of amplifying radio-frequency signals to a greater extent than previously has been possible. It consumes but 1.0 ampere at 2.5 volts and uses 250 volts on the plate with 8.2 milliamperes. A grid bias ranging from 3 to 50 volts negative is needed for proper control of volume. As is the case with the 57 tube, the small 6-prong base of the 58 prevents substitution for the older -35 variable-mu type.

New 46 Power Pentode

A year or so ago the old -45 power tube fell before the coming of the -47 pentode. Now, both of these tubes become obsolete with the advance of the 46 power pentode tube. Two of these 46 tubes will give far more power than can be obtained from -45s or -47s in push-pull. The 46 has a 5-prong base, similar to the -47, for which it can be substituted with some circuit changes. The 4-prong base of the -45 prevents the substitution of the 46 for the same reason that the -47 was not interchangeable with the -45 tube. The 46 uses 1.0 ampere at 2.5 volts, with 250 volts on the plate.

A Full-Wave Rectifier

The 82 type tube is an improved mercury-vapor full-wave rectifier and takes the place of the -80, which it closely resembles. It has a medium 4-prong base and needs considerable ventilation. It consumes 3.0 amperes at 2.5 volts, and a blue-white glow, due to the ionization of the mercury gas, can be seen between the plates.

The -95 Triple-Twin

The special purpose power tube, type -95, is a Triple-Twin power amplifier, and cannot be substituted for other power tubes. It appears to be a -27 and a -45 built in one bulb. The -95 has a very high power-sensitivity at rather small input voltages and, in fact, when used instead of the older -50 type, the input need be only about six percent of the required to work the -50 for similar results. When using the -95 only one previous stage of audio is required and matched transformers became unnecessary. The -95 has three times the output of a -45, and twice that of the -47 pentode, and considerably more than the new 46. It uses the 5-prong base, similar to the -47 and 46 tubes, but is a heavy consumer of electricity—4.0 amperes at 2.5 volts.

Wunderlich Special Detector

The new Wunderlich tube is a special detector having two uniform grids and characteristics somewhat like the new 56 tube. It works best as a grid-leak detector, but serves also as an automatic volume control tube. The output is reported to be about four times that of a standard triode tube.

With the Radio

MORE and more frequently the strains of a distant orchestra come to us as an automobile goes by. Your real radio fan is lost without his broadcast contacts even when enjoying the pleasures of motoring. Practically all of the better cars now come already wired for radio. It is useless to install a radio set in an automobile without making provision for eliminating the make and break of the spark plugs.

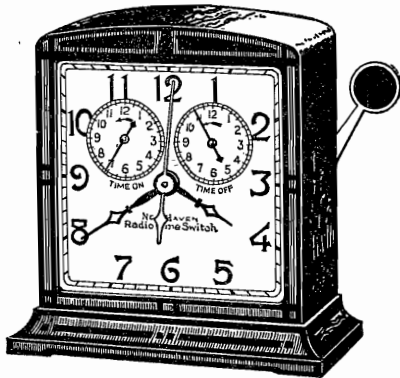
The Insuline Corp. of America, 23-25 Park Place, New York, N. Y., is now putting on the market a Silencer kit composed of four, six or eight spark plug silencers and one for the generator. These are, of course, equally adaptable to motor boats or airplanes. It is said that they do not detract in any way from the power of the motor but entirely suppress any interference with the radio set. This kit is but one item in a line of automobile-radio accessories. Others are a running-board antenna, an axle-to-axle antenna and a small flexible aerial which can be placed under the seat or in other out-of-the-way places.



Our readers are familiar with the adapters made by the Insuline Corp. for four and five prong tube sockets which permit the use of headphones. The same company is now bringing out new adapters for various purposes. One is to permit the use of '58 tubes in place of '35 or '51. The '58 is a variable-mu r.f. pentode which is claimed to give better results than the '35 type. Another adapter permits the use of the new PZH

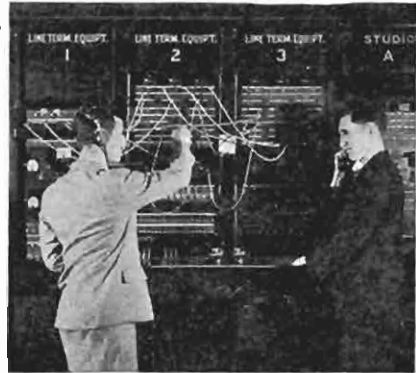
Manufacturers

tube in place of the PZ or '47 type. The PZH is claimed to give 20 per cent greater undistorted power output than the PZ. A third adapter permits the use of the '57 tube in place of an ordinary '24 detector. While the '57 tube is designed primarily for use as a biased detector, its triple grid structure and electrical characteristics also make it useful as a screen grid amplifier for low signal outputs. It is also satisfactory for short wave operation. A fourth adapter uses the new '41 type tube in place of the '38. The new '41 has an undistorted power output of 1200 milliwatts as compared with 525 for the '38. A fifth adapter is to permit the use of the new '82 full-wave mercury rectifier in place of the old-style '80 type.



Here is an electric clock that will turn your radio set on and off. Now you can let the loud speaker run and take your slumber music in bed. Manufactured by the New Haven Clock Co., New Haven, Conn., this device is a combination electric clock and radio control. It turns the radio set on and off at any predetermined time. Or it can be used for window lighting, sign lighting or any electrical operation where it is desired to make and break the current at certain times. The red flag peeping out from behind the clock is a signal which indicates that the clock has the radio set under its control. Push the flag back and the set is no longer operated by the clock. No wiring

WHAT YOU NEED TO SUCCEED IN RADIO



Courtesy of the National Broadcasting Company

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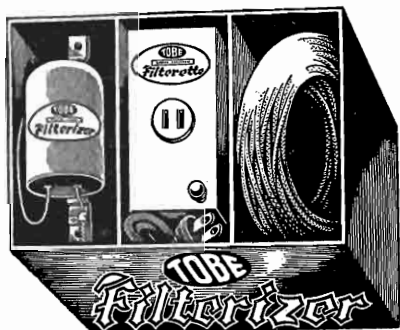
is necessary in connecting clock to set. The clock is self-starting.

When crashes, rattles, groans, buzzes, clicks and rushing sound like machine-gun fire — man-made static — try to get into your radio to spoil your favorite broadcast, you can laugh it off, says the manufacturer of the Filterizer, Tobe Deutschmann Corporation, Canton, Mass. We quote from their statement: The Tobe Filterizer Kit has been developed for radio set owners who have serious reception difficulties that are due to radio noises of unknown origin or to man-made static created by apparatus beyond the control of the broadcast listener. When the Filterizer kit is correctly installed, it should enable anyone to obtain clear, interference-free radio reception."

This matter of the elimination of noises is of so much general interest to our readers that we think it well to give them the story of the manufacturer of this device at some length.

Says the Maker:

"The fundamental principle on which the Filterizer operates is this: All radio noises are carried on wiring systems and are radiated from these wiring systems as well as from the electrical apparatus that is causing the interference. Consequently, almost every building, in which a receiver may be located, is full of radio noise. This noise may be picked up on the aerial, the lead-in, the ground wire, and even on the wiring of the radio set if the set is not completely shielded. Since the radio set is directly connected to the wiring on which noises are carried, some of the interference may reach the receiver through its power connection.



"Obviously an inside antenna, which may be carried along a wall that contains electric wiring circuits, is bound to pick up any radio noises that are present on these circuits. In the same way, the lead-in from an outdoor aerial may be located close to noise-carrying wiring circuits, with resultant transfer of radio noise to the receiver by way of this lead-in. Even the ground wire, which may parallel building wiring on its way to the water pipe or other pipe to which it is connected, may pick up radio noise.

"The Filterizer avoids all of these radio noises by the simple method of filtering the power input to the receiver, providing an aerial outside the field of radio noises, and bringing the broadcast signals through a filtered lead-in to the receiver.

"Since the actual radiating power of most radio noises is extremely low, the influence of these noises seldom extends more than thirty feet from the wiring on which they are carried. This means that an aerial that is located approximately thirty feet from wiring circuits or other antenna systems should be relatively free from radio noise. Such an aerial, then, is the first part of the Filterizer installation.

"Having provided a means of collecting broadcast signals, without interference from local radio noises, it is next necessary to carry these signals to the receiver without giving them a chance to become mixed with noises that may be present on the wiring of the building in which the receiver is installed. This is accomplished by using Tobe Filterized Lead-in Wire.

"This wire consists of a flexible, insulated conductor having a layer of metallic braid outside the insulation. This metallic braid acts as a shield, preventing coupling of man-made static to the lead-in wire. In other words, the radio noises strike the metallic braid of the Filterized Lead-in and are carried to ground before they can reach the wire that is carrying the broadcast signals from the aerial to the receiver. This shielded wire is also used for making the ground connection to the receiver.

"In some of the earliest installations of shielded lead-in, the shielding tended to

by-pass some of the signal energy and thus to decrease the apparent sensitivity of the receiver. The Tobe Filterizer is entirely free from this condition as the lead-in Filterette, RF-1, prevents any loss of signal.

"After provision has been made for collecting broadcast signals and bringing them to the receiver without being affected by man-made static, it is necessary to filter the power supply line to the radio set. This is accomplished by installing Tobe Line Filterette RF-2 in series with the attachment cord of the receiver power supply. This completes the Filterizer installation.

"The Tobe Filterizer kit may be used with any type or make of receiver and may be depended upon to provide maximum freedom from local interference. The kit contains 1 Tobe Line Filterette RF-2, 1 Tobe Lead-in Filterette RF-1, and fifty-feet of Tobe Filterized Lead-in Wire."



A new powerizer Micromike for public address systems and home recording is presented by Radio Receptor Company, Inc., 106 Seventh Ave., New York City. The Micromike is a very sensitive, precision-built microphone of small size and weight which can be fastened to the lapel. A thin, flexible, twisted cord runs from mike to a connector. Between the Micromike and the amplifier a compact volume control is connected. This is called the Mikontrol. It is so small it may be held in the pocket and controlled with the hand. With fifteen feet of cord, the speaker may move about to make his delivery more forcible and natural. The same company makes a portable public address system. The equipment should be very popular with the political orators this fall.

A "B" Eliminator for automobile-



Nancy Garner, cousin of the Speaker of the House, in Musical Comedy Hits, NBC-WEAF net, Thursdays at 4 p.m., EST.

radio which has the advantage of containing a mercury-type rectifier is presented by Electronic Laboratories, Inc., 122 West New York St., Indianapolis, Ind. The Electronic B Eliminator is a vibrating type which incorporates several outstanding features. The new automatic load delay circuit completely protects the vibrator, the rectifier tube and insures long life. The mercury type rectifier naturally gives greater efficiency with a much higher degree of regulation. An automatic relay turns the unit on and off when the key is turned in the radio set. This Eliminator is supplied both as a completely assembled unit or in kit form so that the owner may assemble the unit himself thereby saving considerable money and acquiring a better knowledge of the device. The unit is about 6 by 7 by 2½ inches in size and may be installed in any convenient position in the automobile. The manufacturers claim that this Eliminator has corrected the defects which seemed to be inherent in other types of vibrating eliminators.

WITH YOUR FAVORITE ARTISTS

LANNY ROSS is a good-looking chap, six feet tall, dark gray eyes, brown hair, and unmarried. Born in Seattle, Wash., 26 years ago. His father, Douglas Ross, is well known as an actor and a producer. His mother is a talented musician, and played the piano for Pavlowa several seasons in London.

At Yale three years ago he was a track star, the holder of a national track record and a member of a championship relay team. He was an honor student, and featured soloist with the glee club. Today, although he does not compete in races, he still runs as a pastime. He is studying for a law degree at Columbia University, and in his musical activities he is devoting his time to operatic music and the German and Italian languages. Recently, he received a scholarship from the Juilliard Graduate School of Music.

When his college days were over, Lanny went to New York to seek a job in radio. He passed an audition for a broadcasting network, and began his gradual and undramatic climb up the



Lanny Ross, 26, and unmarried

Meet Them With "Betty"

ladder to fame as a national radio favorite.

Lanny lives with his family in an uptown Manhattan apartment, spending almost all his spare time at home. His hobby is study and reading.

Lanny's voice is heard with the Maxwell House programs over the NBC Red network every Monday, Wednesday and Friday, at 7:30 p.m., EST., for eastern listeners, and again at 11:15 p.m., EST., for western dial-twisters.

A Harmonizing Trio

Count the Do Re Mi girls, Columbia's latest feminine harmony team, among the youthful radio aspirants whose talent was recognized by Abe Lyman. An audition with the conductor won them a chance to appear on his programs for four consecutive weeks, and in April of this year they were signed to a contract with the CBS.

All three girls are graduates of the vaudeville and musical comedy stage. Their extensive repertory includes negro spirituals, ballads, hot numbers, and semi-classic selections. Their careers began with the first piping notes they sang in children's performances at the local schoolhouse.

Born in New York City, Evelyn and Maybelle Ross (the Do and Re) — incidentally no relation to Lanny — entered the entertainment field as pupils in the second grade when their teachers kept them after school primarily to hear them sing. Early parental objection kept them off the professional stage until their father went to Europe on business. Then, at the ages of 12 and 14, respectively, Evelyn and Maybelle got their first contract for vaudeville. On their father's return to New York, they found it necessary to secure out-of-town bookings in order to stay on the stage. After traveling on the leading circuits as a sister team, they added Ann Balthy and specialized in trio work.

Miss Balthy (the Mi) is a native of

Brooklyn. Before joining the Ross sisters, she appeared in such revues as "Blossom Time," "Three Musketeers," etc. She also has played in vaudeville and tabloid revues, traveling on the Keith and Paramount circuits throughout the country.

At present the Do Re Mi girls are heard over the CBS network each Friday, at 2:00 p.m., Saturday at 7:45 p.m., and Sunday at 8:00 p.m., EST., co-starred on the latter period with William Hall and Freddie Rich's Orchestra.

From the Oil Fields

"If fishing interferes with your business, quit your business." That's the principle which has ruled the life of Ralph Kirbery, NBC's "Dream Singer," who would rather fish than eat. Fishing isn't Ralph's only hobby, though, he's an expert with the rifle or pistol and enjoys hunting almost as much as fishing.

Kirbery was born in Paterson, N. J., 32 years ago, and he still lives there. Although he had a natural interest in music as a boy, he never studied it. His singing ability he inherited from his mother who was a church choir singer.

At 18, Ralph enlisted in the army and served in the tank corps during the World War. After the armistice he went to Johns Hopkins to study medicine. About that time an oil boom developed



Do, Re and Mi

in Ranger, Texas, and Ralph hurried there to help swell that town's population. Oil drilling didn't interest him, but advertising did and he opened an agency. He also got out the first telephone directory there. But before the excitement of the oil boom died away, he sold his interest in the advertising agency upon finding that it kept him too busy to go fishing.

For the next ten years Ralph operated an automobile agency in Paterson. Later he abandoned this and became a flour salesman. But after getting on a local station, he found that the radio business and the flour business didn't mix.

He is very much the athlete in appearance. Is exactly six feet, weighs 175 pounds, and has brown hair and eyes and bronzed skin. "Sure, I like women," said Ralph, when queried on the subject. "I like them too much to play such a mean trick as to marry one of them, I'd leave her home alone while I went fishing and hunting." He likes brains in women, but also wants them beautiful and athletic, and he doesn't care to dance.

Ralph Kirbery is heard each midnight over the NBC Red network, and on



Ralph Kirbery, also eligible

Sunday evenings for Enna Jettick over the NBC Blue network.

Florida's Favorite

James Melton, tenor, is one of the notables of the air. He's a member of The Revelers, among the most famous of radio quartets, and has sung on many important programs. He's Florida's favorite entry in the nation's singing sweepstakes and is a constant source of concern to California's native sons. Three Southern colleges contributed to James' musical background. He was two years at the University of Florida, one year at the University of Georgia and one year at Vanderbilt University. He worked his way through these institutions by singing with the glee clubs and campus orchestras. In those days he played a saxophone but discarded that instrument with the passing of his college days.



James Melton of the Revelers

James has been in New York since July, 1927. He went there to continue his voice culture and land a job with "Roxy's Gang" under S. L. Rothafel. He has sung for musical pictures but sidetracked stage work to conserve his energy for radio.

You can hear the Revelers Quartet over the NBC Red network on Monday, at 8:30 p.m., EST.

Three Black Keys

It's a long step from comparative obscurity as entertainers in a "black and tan" cafe in Chester, Pa., to New York,

and its busy radio studios. But to the Three Keys it is the first step toward the realization of their individual ambitions.

Bon Bon, tenor; Slim, baritone and guitarist, and Bob, the nimble-fingered pianist, are Negro youths of humble heritage, but possessed with rare musical talents which have brought them fame, and overnight won the attention of radio listeners. None of the trio ever studied music. They know no written arrangements of their music. As Bon Bon expressed it: "We just get together and let loose." Bob, whose piano playing caused a sensation at the NBC's New York studios during his auditions, says, "I'd played the piano all my life, but not until some of my white friends insisted that I develop my style did I ever consider becoming a professional musician."

When Bob met Slim, they played together at several roadhouses near Philadelphia and Chester. They stopped the shows and dancers left the floor to crowd around them. They needed another tenor to develop their peculiar style of harmony. Bon Bon joined the act and their playing came to be the talk of Chester and Philadelphia. Bob is the oldest of the group — 25. Bon Bon flashes his white teeth and proudly smiles as he confesses he has just turned 20, while lanky Slim has just passed 19.

During the few weeks they have been in New York their life has been a constant round of work. While their unusual musical talents are natural, they spend hours daily rehearsing for their programs, which are heard at 10:30 p.m. Thursday, Friday and Saturday, and at 10:45 p.m., EST., on Sunday, over the NBC Blue network.

Florida's Other Favorite

From Main Street, Lakeland, Fla., to the bright lights of New York's Broadway, was an overnight hop for Frances Langford. Just eighteen months separated her first public appearance at a local fancy-dress ball and her stellar performance as soloist with Abe Lyman's Orchestra.

Miss Langford's mother, Annie Newbern, was a concert pianist, but Frances never learned "Chop-Sticks" on the piano. She was gifted with one of those natural voices, and as a child cultivated it

only by humming to herself. She even avoided amateur nights and social club performances which are commonly the lot of local talent. But when she appeared in the Lakeland American Legion's party idea of "A Night in Hollywood," an offer for radio followed the next morning. The director of a Tampa station happened to be present at the ball, and the next day Frances signed a 13-week contract for a commercial account.

Rudy Vallee chanced to hear her sing over the Tampa station and offered her a great appearance on a network program. Miss Langford traveled to New Orleans to fill the engagement. Six months later she was in New York appearing as a soloist on a local station. Next Frances gave an audition for Abe Lyman and was signed for his programs. Concurrently, Frances found time to make movie shorts, appeared in Peter Arno's musical comedy, "Here Goes the Bride," and toured metropolitan vaudeville houses.

Although she has no Spanish blood, Miss Langford bears a striking resemblance to both Lupe Valez and the Spanish dancer, Armida. Frances likes horseback riding and golf . . . receives mail regularly from a curious admirer asking to whom she sings her love songs . . . recently broke off engagement to appear in "Ballyhoo" because of winter contracts for radio.

The Heart of DX

(Continued from page 28)

referred to, we quote: "In the end you'll be responsible for many disillusioned young DXers. When they find that they cannot receive even the class A stations of New Zealand or Australia much less the absurd 2ZI, there is bound to be a huge disappointment." In observance of this responsibility to these young DXers, let us here and now state that they have about one chance in one thousand of ever hearing any station outside of North America in the broadcast band. These are the big prizes of radio and go only to the favored few. There are hundreds and thousands of DXers who have never received one of them, so if you sit up nights and don't receive 2ZI or even 2YA, remember we warned you.



The Three Keys — Slim, Bonbon and Bob

The Puzzle Corner

THE correct solution to the "G" puzzle of the four states submitted by Edward L. Walters, Roanoke, Va., in the September issue, is given below:

KQW CKCK WOW
 W MARYLAND H
 KCMCWSSWVONA
 ON DE
 WLW WJSV WBT
 POF KBPSCNRA
 ERE BD BAC
 NAA WRRL OSW
 DW WK
 WORKWJKSWCAL
 E VIRGINIA O
 XEA WCDA JNW

KOA
 WPG
 WGBB
 KUOA
 CKUA
 CGPBAB

The problem for this month is of the mathematical code type. In the above example in multiplication, seven station calls are used. Each of the letters stands for one of the ten figures. The problem is to change these letters into figures. The correct solution will appear in the November issue.

ALL SET for DX SEASON

HERE is the new season that we have been waiting for. With the new all-wave sets our readers have been buying and the new tubes, we look forward to some wonderful records this winter.

"Am all set for a big season this coming winter," announces Philip R. Nichols, P.O. Box 82, East Hartford, Conn. "Haven't got a very big log as yet, but hope to increase it materially this coming season. My 'veries' total only 253 at present and my 'heard' list is at 490. Was lucky enough to win first prize last spring for farthest telephone call to KTFI in Idaho on one of their tests. Have twenty-six 2000-milers but no foreigners as yet, outside of HIX, Cuba and Mexico. I have a Philco 9-tube TRF Model 95 and would like to hear from owners of the same set as to their results." Mr. Nichols is greatly pleased with the new time-on-the-air and second column symbol information in the September issue.

"I had been using a Sonora radio, but this last year I obtained an 11-tube Philco, and just last month I added a Stewart-Warner short wave converter, which has been doing wonderful work," writes J. M. Newton, Box 330, Route 1, Hawthorne, Calif. "I have logged over 55 stations. All of these I have verified and now with the fall weather coming on I am ready for others. I am waiting for verifications from JIAA, Japan; VK3ME, Melbourne, Australia; and VK2ME, Sydney, Australia. I also have heard RV15, Khabarovsk, Siberia; VPD, Suva, Fiji; LSN, Buenos Aires; and W3XL, Bound Brook, N. J. On these last I didn't get enough of their programs to warrant sending for a verification, but hope to in the near future. I have built two towers 50 feet high and 90 feet apart with a lead-in wire about 50 feet long. I have a flat top aerial of eight wires of the 7-strand type, also a sunset cage aerial and an inside aerial around the border of the room. I use a six-foot copper rod and keep the ground wet."

Past Reports and Future Hopes

"My log is now enlarged to 442, with 207 verified, all the better ones, of course," reports Leslie G. Briscoe, 3743 Hutchison St., Montreal, Que. "DXing weather was poor here last season and so I could only report one fair catch, WRBL, 50 watts, Columbus, Ga., 1,075 miles from here. According to their honor roll, I am fourth for distance in the world, second in Canada, and the only listener in Montreal. It's a great little station. But how's this for a catch? WIEK, Atlantic Broadcasting Corp., a CBS portable used to bridge a gap of 15 miles in the pickup from Jones Beach, where the Olympic swimming trials took place. The station operated on 1542 kcys., with 50 watts. This was on a b.c. set as are all the stations in my log. Other stations I have received, outside the b.c. band, on this set are: W1XAU, W1XAV, Boston; W2XAR, W2XR, New York; W3XJ, W3XK, Silver Springs, Md. WIEK only operated one night from 11:45 to 11:55 p.m., EDST., and the following afternoon when it was used in the pick-up. I only heard the test. Could you tell me what station on 1220 kcys. has its transmitter at a place called Forest Hills?"

"The schedule of CHYC is as follows: Sunday, 10:30 a.m. to noon; 7:30 p.m. to 9 p.m., EST., church service. VE9DR, 4000 watts, 6000 kcys., 7 p.m. till midnight, EST. I would like to hear from readers of RADEX concerning reception of CFCF with a view to getting them to put on a DX program."

Uses a Converter

"Didn't do much DXing on the b.c. band this summer," reports George Nahas, 147 Seeley St., Brooklyn, N. Y. "KYA and KGHL were the only new stations, boosting my log on the b.c. band to 746 stations. In March I bought a Philco Short Wave Converter, and up to date I have verified the following stations: XAM, I2RO, FYA, CMCI, EAQ, W6EOO, GBS, LSN, LSX, VK3ME,

VK2ME, GBU, VE9BY, KEJ, GBC and El Prado. Kindly advise Harold Wagner, of Erie, Pa., the KEJ, located in Bolinas, Calif., calls 'Cocohead' every evening till 11:30 p.m., EST. Programs are rebroadcast from the NBC and CBS and sent to KGU and KGMB. Their frequency is 9010 kcys. Tell W. F. Rendell, St. Johns, Nfld., the station he heard on 31.58 meters, owned by the Radio Club of Brazil, is PRDA and not PRBA. I am now hearing that station every evening about 8:30 p.m., CST., for the past three weeks."

"With my Westinghouse 8-tube receiving set I have already logged 34

capitals. Of the remaining 34 states that have radio stations at their capitals I have successfully logged 21."

"On December 25th I received a 5-tube Crosley 'Wigit' and I immediately became a DXer," says Walter Lindhardt, Jr., 145 Rockwell Ave., Long Branch, N. J. "I have received 189 stations on my Crosley and the family Atwater Kent, 7 tube. On the A.K. I have received: WRDS, East Lansing, Mich., police station on 1574, five k.w. power; W3XJ, Silver Springs television station on 1604, 50 watt power; W1XAU, Boston experimental sound station on 1550 kcys. with 500 watt power; WKDU,



This is the trio that entertains you regularly over NBC from the Pennsylvania Grill in New York City. Buddy Rogers, formerly of the movies, Jeanette Lof, vocalist, and John S. Young, master of ceremonies. NBC-WEAF, Mondays and Wednesdays at midnight, EST.

states, and confidently expect to pull in at least three more," says Walter W. Erneman, 108 Seventh Ave., Belmar, N. J. "I have been fortunate enough to bring in two states (New Hampshire and Utah) that I was unable to log other previous years, thanks to the invaluable help of RADEX. A few of my mileage prizes are as follows: Shreveport, La., 1230 miles; Oklahoma City, Okla., 1324 miles; Denver, Colo., 1628 miles; XER, Villa Acuna, Mexico, 1878 miles; Salt Lake City, Utah, 1972 miles. This year I have taken a great interest in seeing how many state capitals I could log and I am quite surprised to find that 14 have no broadcasting stations at their

Cincinnati police station on 1712, 500 watts power; KGPC, St. Louis police station on 1712, 500 watts power; WPDL, Lansing police station on 2442, 50 watts power. All verified, all on a b.c. set. I guess this keeps me even with Archie Ferrie."

"I bought a 5-tube Crosley radio at the beginning of the summer," reports John Strong, 1436 Meridan Place, N.W., Washington, D. C. "At first I thought I had made a mistake, but I didn't. I have picked up XER, XEN, CKAC, KGO, WBAP, WCCO, KOA, KWKH, XED, KJR, WFAA, XEW, CFCF, KNX and CKOK and many others east of the Mississippi, for a total of more than 150 during

a summer. Pretty good for a five-tuber. I also picked up WBOQ on 810 kcys. During the summer I read that Dr. Brinkley had sold and left XER. He may have sold it and left, but he is back again. He was talking last night. Can you identify WWX, Washington? I think it is an airport station. WJSV off the air, moving to Alexandria (from Mt. Vernon Hills), will be back on around November 1st with the Columbia network. At this time WMAL will start independent operation."

Won Prize from WTBO

"I have been DXing for about a year now," reports W. H. Lewis, 1328 Delaware St., Leavenworth, Kans. "I have on the regular broadcast band 331 stations so far. My best is 10AB, Moose Jaw. I have 290 amateur and police on short waves. Also 12 regular short-wave stations, including DI2 and DJB, Germans, also LSX, Buenos Aires. I was the winner of the cash prize offered by Station WTBO, Cumberland, Md., on August 14th. WTBO, according to a letter I have from them, are on all night every Saturday night. Although they are using only 100 watts, they have very strong signals. I am using a Midwest Superhet with a converter. Would like to correspond with other users of the Midwest."

David F. Thomas, Proctorville, Ohio, has just secured a Mercury Super Ten with which he hopes to carry his log well above the present figure which he gives as "above the 1000 mark." His two best verifications are from the Union of South Africa station on test on 809 meters and Radio Budapest on 550 kc. Mr. Thomas tells us about a little outlaw station in his vicinity using the call WUMS which succeeded in picking up and rebroadcasting a program from KGU. He offers this as a record relay in answer to Eugene Martin's query in the May issue of this magazine.

A Seven-Story Antenna

"My set is a Philco Model 70 Baby Grand," writes Gordon Richardson, 10 Summer St., East Orange, N. J. "We (Phil and I) lay no claims to any records, but have managed to roster up about 300 stations in the U.S.A., Canada and Mexico. I recently have installed a new

thirty foot antenna, seven stories above the street. With this added feature, we hope to be able to do something this coming season, for which I am anxiously awaiting. I should like to correspond with other loyal sons of the ether waves, and I will gladly answer any letter received."

"I have a Marconi Junior, 8 tubes, and have an aerial about fifty feet in the air and about 70 feet long," says W. H. Warnicker, 766 Lipton St., Winnipeg, Man. "I am starting on another one about 150 feet long, also using the old length too, but am making them separate aeriels. If I find the longer one is too strong at times I can use the shorter one. My grounds are two iron rods about eight feet in the ground and eight feet apart. I do a lot of logging, but have never had them verified. Intend to this winter, however."

Batteries vs. A.C.

"I have a 9-tube General Electric, which has pentode tubes, tone equalizer, automatic volume control, and all other latest additions," says James Havel, 8113 Central Ave., Cleveland, Ohio. "During the winter months, I used a Freshman 5-tube battery set and got more stations on it than on my present G.E. And many of them being farther away, such as KFI and CNRC. Perhaps the cold weather has much to do with it. I use a long aerial, about 125 feet. When my G.E. was installed, the men attached the ground to a hot-water pipe. This created plenty of static, especially around WJAY. Then I changed the ground to another pipe, reducing the static considerably."

"Even if summer time is supposed to be useless as DX weather, I can get KFI and the more powerful Pacific stations every night that the weather is not unsettled. I find the summer a great help in making me get the stations close at home verified, as otherwise I don't pay any attention to them, but try to get DX. I also wonder how many DXers below the Mason-Dixon line have WEXL, 50 watts, verified. I had it verified when I was in Greensboro, North Carolina, at about 6:00 p.m., during summer months. That almost makes it

daylight reception," B. L. Ahman, 3313 Westerwald, Ave., Baltimore, Md.

Likes Monthly Calendar

"Just a line to congratulate you on your fine radio magazine," says Donald F. Logan, 17 Park Road, Truro, N. S. "A feature of it which I hope you will continue is the 'Monthly DX Calendar.' Having all the specials arranged together makes it much easier for the reader to find what specials are on any certain night. For the benefit of DXers, VCX is on daily at 7 a.m., EST. I would like to hear from any Newfoundland and European DXers."

"I've been DXing for almost three years and have over 200 stations, 100 miles or more away," writes Joseph Lang, 229 E. Kingsbridge Road, New York City. "This record is pretty bad, but I go to high school and haven't much time to try. I would like to correspond with DXers 16 years old. I have found that Canada comes in well in this locality, for I have received 17 stations in Eastern Canada."

"I think the September RADEX is fine, especially the DX calendar," says Charles C. Norton, 127 B St., Vallejo, Calif. "Last January I had a log of about 89 with three verified. Now I have a log of 145 with 113 verified. My radio is a 5-tube Echophone 1930 model S-3. My aerial is a 100-foot single wire, my ground is a copper tube 24 inches long and one inch in diameter and is filled with blue-stone and rock-salt, and wrapped with 'Gosilco' one-quarter inch apart from bottom to top."

Japan But Not Vermont

"I have just finished another DX season triumphantly by receiving my 340th verification, which was JOGK, Kumamoto, Japan," reports Harold E. Shade, 712½ Jefferson St., Waterloo, Iowa. "I have 475 stations logged. My best are KXRO, CHWK, HIX, KGMB, JOGK and WRDO. I still lack Vermont on my log. I have every edition of RADEX since 1930. I also find your RADEX map a great help."

"Did not know anything about this wonderful book until I joined the Newark News Radio Club last December," says George McDonald, 424 West 26th St., New York City, "and from

then on my catches came in so fast I could hardly keep record of them. Only DXing since November 12, 1931, to April 19, 1932, and my total catches 493 stations with 427 verified. So you can see what a wonderful help RADEX has been to me."

"I'm just letting you know that I, too, have a verification from WAIR in New Philly, Ohio," informs Glenn E. Mitchell, 1088 E. 16th Ave., Columbus, Ohio, "heard from Cambridge, however. Another outlaw, no doubt. I have a fair DX record on an odd receiver — 4QG best catch. I heartily approved of your attitude toward DXers, etc., in the September issue. Enthusiastic over RADEX."

"It has been almost a year since I have written in to your DX page," comments Clarence A. Overhiser, P.O. Box 608, Hastings, Neb. "I have logged within a year's time 299 stations with 62 verifications and I am pleased to say that RADEX has given me a lot of good help and information on dialing for new stations."

Fine Foreign List

"I just received my 'veri' from YV1BC, Caracas, of July 3rd, testing, using 5000 watts," reports Charles J. Martin, 227-11 Burgoyne Ave., Springfield, N. Y. "I have 706 stations to date and 643 verified. Some are JOCK, KGBU, 2YA, LR3, LR4, YV1BC, HIX, RUS, XEFC, VPN, CKWX."

"In about a year's time I have brought in 214 stations on my 8-tube Radiotrope," writes 14-year-old Neil Redmond, 3414 E. 102nd St., Cleveland, Ohio. "One of my best catches is KGEK, a 100-watter, in Yuma, Colo."

"I see you have taken WNBX off 1200 kcs. and deleted him and you have transferred WHBC from 1200 to 1260," points out Henry Whittaker, 1988 Plymouth Street, Philadelphia, Pa. "If you will check up on these stations, I think you will find that WHBC is still on 1200 and WNBX is now on 1260 with 250 watts daytime only. The latter is due to test on 1260 about the middle of September." In answer to our questionnaires, WNBX advised us that he was off the air until a new license was secured from the FRC.

(Continued on page 33)

WHAT MAKES My SET Do THAT?

Mr. Dashiell
Answers SOS

Changing Power Tubes

I wish to replace the -71A tubes now in my Philco, model 20, baby grand receiver, with either -45s or -47s (pentodes) so that I can get greater power from this set. Is the change practicable?

The design of this set is such that the type -45 tube would be more suitable than the pentode style. The latter would require some rather extensive changes in design which will not be justified under the circumstances. The output impedance characteristics and the gain of the receiver are really the determining factors in making such a change.

For type -45 tubes the filaments are simply wired in series. No center tap resistor is required since the two filaments form the center which is used for the grid and plate returns. No other change is necessary, and the -45s will give somewhat more power when using 180 volts and the same bias resistor required for the two -71As. But since the speaker will not carry much more load than the -71As now supply, it will not pay to increase the plate voltage over what it now is when the -45s are used. For a midget set using a small speaker that is confined to considerable extent any great increase in power supply will create distortion due to microphonic disturbances and perhaps maladjustment due to unbalanced impedances.

Faulty Regeneration

I have a small 2-tube regenerative set which will oscillate only between 750 and 1500 kilocycles. It does not regenerate at all below 750 kcs., or on the higher waves. Why is this?

This happens in many cases where the circuits are not fully balanced. While we do not know what circuit you are using, you may feel sure this is a common trouble. The degree of regeneration or feed-back energy that is sent into the grid secondary coil or winding of the three-circuit tuner by the tickler coil is less near the 550 kilocycle end of the

dial than that fed back on the 1500 kilocycle end. This is one of the inherent faults of this type of regenerative circuit unless carefully designed and assembled.

We suggest a slight increase in the plate voltage on the detector tube and circuit including the tickler coil. Or it may be that the detector tube is worn and not functioning well as an oscillator. In a final attempt it may be necessary to add three to six turns of wire to the tickler coil so as to build up a somewhat stronger magnetic field for inducing regeneration in the secondary coil at lower frequencies.

Choking and Blurring

I have a Super-Zenith receiver, model 12, No. 8, and it gives me a good deal of trouble by choking up and blurring at times when in operation. I had it sent to a serviceman several times but outside of a new transformer and filter condenser they could find no trouble, yet it still blurs and chokes. We are at a loss to locate this annoying trouble, and hope you can set us on the correct trail.

We feel that we can definitely state that the above trouble will not be found in the power transformer unit nor in the radio-frequency system of the receiver. It is highly probable that some plate-bleeder or grid-resistor in the audio system has become defective. And, also, failure of a bias-resistor will cause this trouble, but the volume of annoyance will not be so decided. Failure of any audio grid-resistor, or any open grid circuit, will develop this annoyance of blocking and blurring sounds as you describe.

We advise you to have all the plate resistors wherever they may be placed in the receiver tested thoroughly for correct resistance in ohms.

Similar trouble may also be due to a shorted bias-resistor in some negative grid circuit which will cause the tube to operate at zero grid value. This defect causes serious distortion and blurring and loss of gain in the stages. It is essential that all grid leaks and bias resistors in grid circuits be tested and replaced

at the slightest sign of suspicion. See that all grid connections either to screen-grid tube tops or sockets and prongs of other tubes are clean and electrically perfect. It also may be necessary finally to check the voltage applied to the grids of the audio tubes from the negative side of the power unit, for too much or too low voltage bias on the audio power tubes will cause your difficulty.

Short Waves on Midget

I have the R.C.A. Superette receiver which is being used with a short-wave adapter. But I am not able to bring in many stations, except that here in South America, WGY at Schenectady, N. Y., comes through.

The broadcast receiver you are using is not as powerful as larger sets, and not so well adapted for long distance reception with a converter or adapter.

The set has one radio frequency tube, one i.f. tube, first and second detectors, oscillator, and two power tubes in push-pull. These are all you have with a converter, and the audio end is all you have with an adapter. The nine to 11-tube sets are more sensitive and better adapted for use with short waves. We feel that you are doing nicely with this combination, but if you get WGY you should also be hearing comparable stations elsewhere.

If you are using the old Radiola short-wave adapter we suggest that you test and inspect the 3,000 ohm antenna resistor, and replace it if even slightly defective. The tubes (-24, and two -27s) must be checked. Use a good ground and aerial.

Changing Types of Tubes

If I try some different types of tubes, such as those in the -30 series, or the 200 detector and the -71A amplifiers, in my Pilot Wasp set, do you think I will get better results and more power?

When this set was designed by the makers it was intended to operate with tubes having certain characteristics. Such things as impedance, etc., must be considered, and we feel the set will work best with recommended tubes.

To use a 200 detector and -71A amplifier would necessitate changes in wiring and potential supply. The -30 series of tubes may be used, but you will

not get as much power, for these tubes are used on sets taking 2 volts. Place a -32 in the r.f. socket, -30s in the detector and first audio, and a -31 in the second audio socket. Use a 2-volt Air Cell battery in place of the 6 volts now needed.

Short Wave Volume Control

The short wave adapter described in the January, 1931, issue of RADEX, has been built. But I cannot get the Tonatrol. I am using a 30-ohm rheostat instead for the volume control, and cannot get good results, the tuning is so very critical, and loud whistles are heard. Can you assist me in overcoming the trouble?

Your trouble is due to not having the proper volume control in the antenna circuit as shown in the circuit diagram in RADEX. You have stated that a 30-ohm rheostat is being used, but this is practically a dead short circuit between the aerial and the ground, and almost effectively prevents any signals from passing through the coil and circuit of the adapter. That little bit which does get through is so weak that the adapter tunes too critical and will tend to howl or whistle with regeneration noises.

The device recommended was the Electrad Tonatrol, but if you are unable to procure one, you may use any 25,000 ohm *non-inductive* variable resistance. The kind made of a sheet of high-resistance material with a contact arm swinging over the surface is best. Do not use a wire-wound unit as this introduces objectionable inductance and resonance in the circuit.

You might try removing one or two of the rotor plates from the oscillator or regenerative condenser to reduce some of the critical operation and tend to stop the sharp whistling noises.

Electrolytic Condenser Trouble

I built an a.c. receiver with power unit and 7 tubes, but the electrolytic condensers make peculiar sputtering and frying sounds. Why is this, and need I get new condensers or have these repaired?

There are three causes of faulty action in electrolytic condensers; overloading, reversed polarity, or failure to develop proper formation. Excess voltage will almost always cause frying noises in these condensers, and the remedy is obviously to reduce the voltage at once.

Any electrolytic condenser will carry heavy currents if its polarity is reversed. Your meter reading seems to indicate this. The condenser will not then function properly. The can or container should be connected to the negative power supply lead, and the isolated lug or lugs to the positive side of the circuit.

Electrolytic condensers require a formation period of 10 or more minutes before they are ready for continuous use. Sputtering or frying noises will be heard, but they should soon cease provided all the connections have been properly made previously.

An Old Style Choke Coil

I have a Grimes Inverse Duplex set with a bad choke coil. I have tried to have a new one wound but no one seems able to say what its value is. Can you tell me?

Only one thing gets wrong with a choke coil of the radio-frequency type. A wire becomes broken, and if unwound carefully the break can be soldered and the wire then rewound ready for use again. The break occurs when too much current is applied in that particular circuit. We suggest you get a new one having a value of 75 millihenries. Perhaps the nearest you can come to it in the radio supply houses will be one of 85 millihenries, which will suffice.

Using the Headphone Adapter

The I.C.A. headphone adapter which I recently purchased does not work so well on my Philco 112 receiver. The automatic volume control brings in some stations, but I can get more on the loud speaker. It seems to me that the headphones should pick up more distance than the speaker.

This adapter connects to the grid input circuit of the power tube and, therefore, the high gain in power which operates the loud speaker is lost in the telephones. By turning up your volume control you get distant stations because you give the grid input more power which is detected by the headphones. But there is a greater flow of energy passing through the plates of the tubes and into the loud speaker, and hence you get more stations on the speaker. The I.C.A. arrangement is the best scheme that can be worked out for the simple connection of headphones to any a.c. set. But, since headphones can use a limited amount of power without

being burned out, they must be connected to lower voltages than exist in the loud speaker and plate circuits of the audio power tubes.

Power Unit Condensers

I have a Knapp "A" eliminator, but I think the condensers require replacing. Is it possible for me to use the electrolytic type instead of the ones now in the unit, and, if so, what chemicals are necessary?

Before you replace these condensers they should be tested, for it is seldom that the trouble lies in all three at the same time. It does not matter whether electrolytic or standard types are used to replace the three Elkons now in use, except that you must obtain equal capacities and sizes. The dry electrolytics are more expensive, and will not give you any decided advantages. They are dry and sealed, and it will not be necessary to use any chemicals in them. But they must be connected correctly and given some time to become "seasoned." We advise you also — first — to check over the coils — transformer and chokes — and the dry rectifier unit on the front of the case, for frequently this needs replacing.

Microphone Amplifier for Speaker

How can I connect a microphone to two tubes for power amplification so a loud speaker can be operated?

We presume the microphone is a single button type which is commonly used in the home. You will need two audio type transformers — one of high ratio and one about 4 to 1 ratio; one 201A tube; one -71A tube; sockets for each; three dry cells; three 45-volt B batteries; one 22½-volt C battery; and a 6-volt filament battery.

Connect the microphone to the primary of the high ratio transformer with the dry cells in series. Run the G end of the secondary to the grid of the -01A tube; the plate of that tube to primary of second transformer; the G of the secondary to the grid of the -71A tube; the plate of that tube to the speaker and 135 volts B battery.

Connect the two tube filaments in parallel and then to the 6-volt source through a small rheostat for volume control. Connect -A to the F of the

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RADIO DX AS A HOBBY

A Talk With Beginners

(Note — Station WGAR, Cleveland, recently gave a series of programs called the "WGAR DX Club." The first talk, designed particularly for beginners, was given by the Editor of RADEX. It is reproduced herewith.)

HAPPY is the man or woman who has a hobby to ride for it brings back many fold in pleasure and satisfaction, the interest and enthusiasm he puts into it. Many of these hobbies take the form of collecting — butterflies or postage stamps or old coins or souvenir spoons. In that radio set of your lies possibilities for a most fascinating hobby — that of collecting the human voice from all over North America or even the world. This hobby is known as DXing and there are some hundred thousand DXers in this country — men and women and boys and girls. Some of the men are executives of big businesses by day but at night they are fervid DXers. There are a number of big DX clubs throughout the United States and Canada and these have their ranks or degrees which they award to their members according to their scores. Many a big business man brags of his total log as other men do of their golf scores. They find DXing a tremendously interesting game.

Technical Knowledge Unnecessary

The DXer is not necessarily interested in the technique of radio. He may not, in fact, know the difference between an audio frequency transformer and a plate resistor. He is interested only in how many stations he can log, and picking up a distant hundred-watter gives him the same kick a golfer gets out of a birdie or eagle. He takes as much pride in a verification from a low-powered West Coaster or Cuban as others may in a grand slam.

It is of this game of DX that I am going to speak to you, of the records other men and women have made, of their development of skill in tuning a

radio set, of their patience as great as that of any fisherman. Among my listeners are undoubtedly many who are already proficient DXers with very creditable records but, on the other hand, there are probably many who are yet to know the thrills of DXing.

DX is the code or symbol for long distance and it has come to signify the art of tuning in distant stations on the radio. While DXing requires no technical knowledge of radio, there are some fundamental principles which one must understand in order that he may know just what he is doing.

Frequencies and Wavelengths

In the United States, the Federal Radio Commission assigns to each broadcasting station a certain frequency. This means that the station operator must adjust his apparatus to send out electrical vibrations at so many hundred thousand per second and he is not allowed to deviate more than 50 vibrations per second one way or the other. This frequency of vibration is known as a channel. In the vibration scale allotted to broadcasting — the broadcast band — there are 96 channels running from 550 kilocycles to 1500 kilocycles inclusive.

The channels are spaced ten kilocycles apart as radio engineers have found this separation necessary to prevent cross-talk in our present-day sets. Some Canadian and Mexican stations have chosen frequencies midway between our channels. These are known as split frequencies. In the early days of radio broadcasting, the difference between stations was designated in wave-lengths measured in meters, a procedure carried over from the practice among code stations. The term wave-length is no longer used in broadcasting, frequencies counted in kilocycles having entirely replaced it, but it is well to understand both terms.

One complete vibration is a cycle. A kilocycle is a thousand vibrations. Wave-length is the distance between one vibration and the next. Let me illustrate this: If you were to drop a handful of pebbles into the water, one at a time, a series of

rings or waves would be set up on the surface of the water. The faster you dropped the pebbles, that is the greater the frequency the shorter would be the distance from the crest of one wave to that of the next. In other words, the faster or higher the frequency, the lesser or lower the wave-length. Contrariwise the slower or lower the frequency, the greater or higher the wave-length.

Radio waves move with the speed of light — approximately three hundred million meters a second — some 186,300 miles. If we divide the speed of three hundred millions by the number of cycles of any station, we get its wave-length or if we divide the speed by the wave-length we get the frequency.

Marking the Dials

When meters were used as a term of measurement, radio manufacturers marked their dials from zero to 100 in the same progression. Today however, using kilocycles which have just the opposite progression from meters we find that the numbers on most of our dials progress opposite to the frequencies. That is, a station on a low frequency comes in at a high number on the dial and a station with a high frequency comes in on the low end. This is quite confusing and it is a mystery why our radio manufacturers who have been so progressive in other ways still give us the old wave-length dial. We now have to go through a sort of reverse arithmetic in reasoning out the location of a station on our dials. Thus we have to say to ourselves, if WLW which is on 700 kcs. comes in at 73 on our particular dial, then KFAB which is on 770 kcs. instead of coming in about 79 where it should, comes in about 67. Perhaps our radio manufacturers will wake up one of these days and give us a 1932 dial instead of one of 1922. Already a few are doing so.

A number of manufacturers are now marking their dials in frequencies and this is of course most convenient when it can be done accurately but very few seem to be able to calibrate their dials so stations will come in exactly at the proper point. Too often stations on 1400 kcs., for instance, will come in about 1380 and stations on 560 will come in at 580. Such a difference is most provoking.

Far better to mark the dials from zero to 100 than to give us merely an approximate marking in kilocycles.

As we have seen, the waves leave the transmitter at certain frequencies of vibration per second. These waves travel through the air and earth and when they pass the aerial we have erected on our roof or in our back yard, they set up within that aerial a tiny current which passes through our radio set and into our ground. In each set is a series of plates called the condenser which are rotated by the dial. These plates have the power of tuning our set to particular vibrations just as the musician tunes a violin to a certain tone by tightening or loosening the string. As we turn our dial we tune our set to any desired rate of vibration and we then pick up the station broadcasting at that rate if its signals are pronounced enough for us to hear. There is every probability that the signals of every broadcasting station within hundreds and even thousands of miles are right there in our room and if our set be sensitive enough, we can pick them up and amplify them and change them into air waves in the loud speaker and then we hear them.

Plenty of Stations

At the beginning of this year, three were in the United States, exactly 608 licensed broadcasting stations. Canada added 76 more. Mexico had 45, Cuba 54, and the other North American countries contributed another dozen with a grand total for this continent of nearly 800 stations. In addition to these, a number of the Japanese, Australian and New Zealand stations in our broadcast band, are picked up with considerable frequency particularly on our West Coast. The European stations are less seldom received. So all in all, it is obvious that our DXer has ample fields in which to pursue his hobby.

If your dial is marked in kilocycles, the stations will come in according to their rated frequencies in some approximate relation to the marks on your dial. If your dial is marked numerically from zero to 100, the stations on 1500 kcs. will come in at the lower end of your dial somewhere near zero. As already stated, a few manufacturers are now marking

their dials properly so that the lower frequencies will come in at the zero end but the big majority still mark them in the opposite progression. As there are 96 frequencies or channels in the broadcast band and 100 points on your dial, theoretically a different channel should come in at every point, but this is very seldom the case, the channels usually coming bunched and overlapping at some parts of the dial while at the opposite end, channels may be several marks apart.

At the opposite — the 100 end of your dial — the stations on 550 kcs. will be heard. There is now a new station, CKOK in Windsor, Ont., which has adopted 540 kcs. for its frequency. This station comes into Cleveland with much strength, almost like a local. It will come in at the extreme upper end of your dial. Some sets may fail to bring it in at all for this reason: While condensers are designed to bring in the full broadcast band of 96 channels, some of them "run off the dial" at one end or the other and sometimes at both ends — a very difficult fault to remedy.

Setting a Mark

DXers set various marks at which to shoot. Some try to complete a roster of the states and provinces, tuning in at least one station in every state. Others try to bring in all the 96 (now 97) channels. Others are interested only in their grand total and marvelous records have been made. Ripley, in his "Believe It or Not" recently printed the picture of a Californian who had, he said, tuned in a total of 1225 stations from 65 countries. Of course this is an astounding record and none of us may ever equal it.

No station should be logged, that is marked in your book to indicate that it has been received, unless the call letters have been clearly heard beyond any reasonable doubt. To assume that you heard a certain station because you caught a program on that channel, is like conceding yourself a hole if golf or cheating at solitaire.

Most broadcasting stations are glad to verify reception upon receipt of postage. You write them, giving the time heard (preferably according to the time standard in the station's own



Bewitching Frances Langford, contralto, with Abe Lyman, CBS-WABS Tuesdays and Thursdays at 8:15 p.m., EST.

zone), the titles of musical selections or talks, the statement of the announcer, and any other information that will enable the station to know definitely that it was their program you heard. Stations as a rule, will not verify chain programs because these are a matter of common knowledge and do not provide the necessary proof of actual reception. Return postage should always be sent. In Cuba, Mexico and Canada this is three cents the same as this country. For return postage from other foreign countries International Reply Coupons may be purchased at any postoffice which are good for the return of one first class letter from any country in the Postal Union.

Some stations issue souvenir stamps to those proving reception of their programs. For these they usually charge ten cents each. They contain the call letters of the station and DXers mount these stamps in books and save them exactly as postage stamp collectors do.

If you have been using your radio set

(Continued on page 33)

More for DX Calendar

TOO late for inclusion in the October DX Calendar which, being on the cover, has already gone to press, comes the following information: From Daniel C. Looby, 5248 Oakland Street, Philadelphia, comes this list of stations which, he states, will broadcast special DX programs Saturday night, October 1st, or rather Sunday morning:

WTOC Savannah, Ga., 2-3 a.m., EST.
CHGS Summerside, P.E.I., 3-4 a.m., AST.

CHWC Regina, Sask., 1-2 a.m., MST.
KSCJ Sioux City, Ia., 2-3 a.m., CST.
WRBX Roanoke, Va., 3-4 a.m., EST.
KFBI Abilene, Kans., 3-4 a.m., CST.
WTAW College Station, Tex., 3-4 a.m., CST.

KVOR Colorado Spgs., 2-3 a.m., MST.

From Ralph H. Schiller, 4 Vincent St., Hawthorne, N. J., "All readers of RADEX are invited to tune in on the 'United States on the Air' DX Series for the Transcontinental DX Club, of Hawthorne, N. J., on October 15th. The time is from midnight to 6 a.m., EST. Stations in 48 states have been invited to join and it is assured that a great many of them will oblige. Many of these have had few, if any, DX broadcasts and it is hoped that the DXers will have success in tuning them in for the purpose of verification." Mr. Schiller

lists the following stations as among those expected to broadcast: Wkzo, Wdel, Wjbi, Koh, Kggm, Kfki, Kpcb, Kggf, Kwjj, Wabi, Wtjs, Wtbo, Kuoa, Kdlr, Kfdy, Kgde, Wbbz, Whbc, Wjbo, Wnbf, Walr, Wmaz, Wwsu, Kgfk, Wqbc, Wmbr, Wilm, Wfdv, Kgff, Kvoa, Wsjs, Kono, Kgiw, Wrol, Kfpm, Wkbc, Wmal, Kark, Wibl, Kggh, Wcaz, Kob, Whby, Wcax, Wcat, Kfvs, Kdfn, Kgkl, Klo, Koin, Wobu.

Charles C. Norton, 127 B Street, Vallejo, Calif., also of the Transcontinental Club, adds to this: "All DXers wishing valuable tips on DX can tune in KPCB on Monday morning, October 3rd from 1:00 to 4:00 a.m., PST."

And here is a list of special frequency checks which will provide excellent opportunity for DX. Time is given in PST. Try for the first group on the morning of Saturday, October 1st:

1:00-1:15	KPJM	Prescott, Arizona
1:15-1:30	KXO	El Centro, Calif.
1:30-1:45	KGLX	Las Vegas, Nevada
1:45-2:00	KCRJ	Jerome, Ariz.
2:00-2:15	KGAR	Tucson, Arizona
2:15-2:30	KUMA	Yuma, Arizona
2:30-2:45	KGU	Honolulu, Hawaii
2:45-3:00	KGMB	Honolulu, Hawaii
3:00-3:15	KERN	Bakersfield, Calif.

The following group will be checked on Saturday morning, October 17th:

1:00-1:10	KPJM	Prescott, Arizona
1:10-1:20	KGLX	Las Vegas, Nevada
1:20-1:30	KCRJ	Jerome, Arizona
1:30-1:40	KERN	Bakersfield, Calif.
1:40-2:00	KGMB	Honolulu, Hawaii
2:00-2:20	KGU	Honolulu, Hawaii
2:20-2:30	KUMA	Yuma, Arizona

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

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| <input type="checkbox"/> One Radio World Map and Time Converter | 25c |
| <input type="checkbox"/> One copy of the next RADEX | 25c |
| <input type="checkbox"/> Trial subscription, next five issues of RADEX | \$1.00 |
| <input type="checkbox"/> One year's subscription to RADEX, 10 issues and Time Converter, free | 1.75 |
| <input type="checkbox"/> Two subscriptions to RADEX with one leatherette cover and Time Converter, both free | 3.50 |
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OVER the EDITOR'S DESK

GOODBY for another year to the old nuisance, Daylight Saving Time. Of course it is mighty nice for the individual to have an extra hour of daylight for leisure time (although lately there has been too much leisure time) but what havoc it does play with radio. When a station gives it time we never know just what time his time is. And what a shake-up in programs comes with the return to standard time. If this issue of "the old reliable" is a day or two late, it will be because we held our presses to get the programs in EST rather than in EDST.

They Do It Better

How much simpler the Continental method of reckoning time than our confusing "a.m." and "p.m." and yet we wonder if this magazine would dare to use it. How it would simplify matters, for instance, if in the case of KRLD's time on the air for Mondays, we could say 6-7:15; 7:45-9; 10-11; 12:30-16:30; 17:30-18:30; 19-20:45; 21:45-23. Instead of this we must use a dozen or more "m's," "am's" and "pm's." On the Continent noon is 12 and midnight is 24, but here we have to say "12 Noon" and "12 midnight." We can't even use 12 n. and 12 m. for 12 m. really means noon and 12 n. might be 12 night. Yet so averse is the average person to change that we fear if we were to adopt the simple and understandable Continental system, thousands of our readers would object.

Too bad the whole world cannot have the same methods of reckoning. Perhaps this will be one of the big benefits Radio will bring to humanity. We ought not only to reckon our time in a uniform way but our money and all other measurements likewise. And what a Godsend it would be if we could only adopt a single language.

The World Language

We often wonder how many of our readers would like to learn Esperanto. This is the made-to-order world language. It is being widely used. Thousands of books have been reprinted in it and there

The Monthly Round Table

are many magazines and newspapers published in this synthetic language. It is extremely simple. It is said that all the rules can be printed on a postcard and there are no exceptions. Esperanto is very easily translated as it takes its roots from those common to many other languages. As a result many words can be instantly comprehended by those using other languages. With Esperanto it would be easy to correspond with radio listeners in other countries and we have no doubt that letters to foreign stations written in Esperanto would receive replies more promptly than those written in English. We do not refer, of course, to English-speaking stations. The Esperanto language could be presented to our readers in short and simple lessons and we would be glad to undertake this task if we felt that enough of our readers would be interested.

Those September Improvements

The improvements in the September issue of "the radio fan's own magazine" brought many comments. We can find space for but a few of them.

We can't forbear making a couple of quotations from a recent letter from an old friend, C. M. Falconer of Baltimore: "I congratulate you and compliment you upon the September number. You have, within your limit of eighty pages, put a tremendous amount of diversified information. I don't see how you have any competition at all, for even as far back as two years ago, there was nothing comparable to RADEX in the completeness and reliability of its listings. . . . I particularly compliment you on the article entitled 'Believe It or Not.' This is the best presentation of the spirit of fair play that I have ever seen in print."

"I have received the new leatherette cover, which is beautiful, and the new Radio Map of the World with Time Converter, and please allow me to say that the latter is something remarkable and

which should be of a world of use to any and all radio users," writes Paris C. Brown, Union Indemnity Bldg., New Orleans, La.

"I think your radio map and time converter is one of the finest things I have ever seen," writes Philip Cass, 40 North Fifth St., Philadelphia, Pa.

The Delinquent Stations

A number of our readers are calling our attention to some of the stations marked "z" which have verified their reception and they believe should be marked "a" instead. The z does not mean that these stations do not verify, but only that they failed to reply to two different requests for information. We hope to be able to secure official information from most of the missing stations soon and dislike to make changes based upon the experience of any one reader. We would like the information given in RADEX to be the authentic and official statement of the station concerned. Stations which fail to answer prepaid-postage requests from this magazine, cannot be very diligent in replying to our readers' reports of reception.

Many have suggested that we get out a supply of verification blanks which we can furnish to our readers at a reasonable price to which radio stations might be expected to give better attention than to letters which too often fail to contain all the information the station desires. We would be glad to hear from our readers in regard to this matter. We would welcome suggested blanks and comments as to whether letter and envelope would be preferred to a reply postcard.

A Sailor Wants Help

Here is an inquiry we will have to refer to our readers as we have had no experience whatever with receivers using direct current. Undoubtedly some of our readers can give us the information that will assist Mr. Sesto in choosing a new set. The inquiry is from Emil Sesto, S.S. E. M. Clark, in harbor at New York. "I'd appreciate it very much if you would let me know what, in your opinion, is the best d.c. set on the market right now. I am referring to those small, light, cheap portable sets, up to eight tubes. You see, I am a seafaring

man of the merchant marine and within the past four years I've owned several small all-electric d.c. sets but none of them gave satisfactory results. I've seen expensive sets of this type that could not pick up New York 500 miles out at sea. Right now I have an 8-tube . . . which I bought last June, a year ago, brand new, for \$80.00. At that time it was supposed to be the best buy in the d.c. field. It turned out to be the worst set I ever had or had seen on any ship that I've been on. It is good only for local, although I've spent at least \$25.00 for tubes and service men and the set hasn't improved a bit. I trust that you will help me out to the best of your knowledge by naming a set suitable for ships which must be long distance."

New Sets in November

Mr. Dashiell plans to attend the coming radio show at New York and will have an article in the November issue of this publication, telling us just what he finds that is new and interesting. He will pay particular attention to the direct current sets for the information of Mr. Sesto and the many others who do not have access to a.c. supply.

"I've been waiting for two months for this magazine of yours and was mighty well pleased to see all the new changes in the book," comments Russell M. Ballard, Rt. 3, Visalia, Calif. "The time idea is a very good one, as it will give everyone a change, and draw less criticism than any other way, as that of giving the times for every day in the week might be in error where this will be more up-to-date.

"KMJ has not changed waves yet but should do so any time now. I received KSEI very loud and clear for the first time August 30. They recently changed waves. I've been after them for two years now. KGKX in their new location should come in and I am going right out and get them."

When They Change Calls

"Recently I have been having quite a heated argument with one of your contributors, Mr. S. F. Owens of Glenside, Pa., regarding the rather important matter of counting stations," advises Carleton Lord, 137 No. Highland Ave., Akron, Ohio. "He claims that when a station changes its call letters the new

call constitutes a new station for his log. I claim that unless the transmitter is actually moved to a new point the new call should not be counted. If the same call is used at a new location that, too, would constitute a new station on the log. He claims that 'everybody' is following his method and I think that most of the radio clubs fall in with my idea. Consequently, I'd be much obliged if you would bring this to the attention of your readers so that they may express their opinions. I remember an editorial statement sometime ago on the subject but, for the life of me, cannot locate it."

We agree with Mr. Lord. The log ought to be a measurement of results. Changing call letters in no way changes the station. We might as well count any station the second time we picked it up as to count one that had merely changed its call. An old station in a new location is a legitimate count regardless of the call letters, but just changing call is no different than changing announcers.

A Couple of DX Tips

"KFYR of Bismarck, N. D., is on the air every Monday night from 12 to 2 a.m. with a DX program," reminds Harvey Kees, Beulah, No. Dak. Also, 10AB of Moose Jaw, Sask., will be on the air with DX tests in October. Here is something that might help a lot of your readers on the selectivity question. A few days ago I placed a sheet of aluminum under the chassis of my radio and improved the selectivity of the set very much. Before this I was never able to separate WNAX, Yankton, on 570 kcys. from KFYR, Bismarck, on 550, but now I can do so. I believe that if I could complete shield all coils, condensers, etc., I would be able to get perfect 10 key. selectivity. Users of the Scott all-wave receiver often claim 10 key. on local stations, and I believe one reason for this is that on this set almost all the parts are shielded."

"You might be interested to know the results that I get now from changing my Majestic Model 52 super-het over from 245 power tubes to the new pentode tube (247)," suggests Russell M. Ballard, 409 Watson Ave., Visalia, Calif. "My radio can now be heard between three and four blocks away and there is no distortion from high volume. It is very



If you aren't listening to "Meyer the Buyer" Thursdays, 8:30 p.m., EST., over CBS, you are missing a good one. This is Ethelyn Holt, the "steno"

clear and unmuffled even on KFI, California's 50,000 watt station. KFI had been on the air 3,769 consecutive nights of broadcasting last night. I have had Cleveland and Pittsburgh lately, a strange occurrence for summer reception, coming in very clear and loud."

"Do you know anything about a station on 690 kcys. that interferes with CFRB (not being NAA)?" asks Guy B. Welsh, 114 Brown St., Reynoldsville, Pa. "Have heard it several times around 8 and 9 p.m., EST. What stations might interfere with WLW, WOR during different periods of the day?" Perhaps some one in Mr. Welsh's vicinity can answer.

"Would like your advice as to improving reception on my set," says C. H. Long, 1116 Denver St., Dalhart, Texas. "I have a 1928 Sarber 7-tube. I like the tone better than any I have heard. Could I use any of the new tubes or do anything to improve reception? My set uses the following tubes: one '80, one '71, four '26, one '27.

In this issue will be found not only an

article by Mr. Dashiell describing the new tubes, but another describing the adapters which have been brought out recently for using them in lieu of the older types.

"Could you tell me what station I heard on the morning of July 4th at about 12:30 a.m., EST., broadcasting between 600 and 610 kcys.?" asks Fred O. Erskine, Rainelle, W. Va. "They were broadcasting 'The Peanut Vendor' and other American popular recordings and the announcement was in Spanish." Respectfully referred to our readers.

"I should like you to explain the Kolster Electrostatic. It is claimed to suppress man-made static. Can it be used on various radios, and where may it be purchased?" inquires Jesse Lausman, 717 S. Shelby St., Louisville, Ky.

Who has used this device and with what results? In another article in this issue is a description of the "Tobe" method of eliminating man-made static.

Answers to Inquiries

"In answer to Harold Wagner's inquiry in regard to the station he heard calling 'Kokohead,'" informs Charles A. Perdicaro, Brooklyn, N.Y., "the call letters are KEJ, operates on 33.27 meters, and is located at Bolinas, Calif. KEJ acts as a relay station for both CBS and NBC programs, which are intended for the audiences of both chains in Hawaii. Hours are irregular. The call letters of that Rio de Janeiro station on 31.58 meters picked up by W. F. Rendell, of St. Johns, are PRDA. Mr. T. Colegrove is right in his write-up in the September issue. Many new s.w. fans will be disappointed because, though you have a large list of stations printed, most of them broadcast a few hours a day, some once a week, etc. Atmospheric conditions are also to be considered, queer quirks on s.w. that may let you hear everything one day and nothing the next. But as Mr. Colgrove says, there are time when you do get a thrill."

"In looking through the Midsummer RADEX I note that I had forgotten to write concerning Mrs. Robert McGrath's (Detroit) inquiry of DIQ, Nauen Germany," postcards Clement Van Velsor, 1033 Sanford Ave., Irvington, N. J. "DIQ is on 29.26 meters. The nearest to

13300 kcys. was reported by a listener who heard DFC on 23.1 meters calling Madrid. DJB, Zeesen, is on 19.73 meters and very fine. DGK is on 44.91 meters, while DJA (Zeesen) on 31.38 meters is best now in the late afternoons (5 to 7:30 EDST. closing time). It is unusually loud of late. DGU is on 31.08 meters. DIQ has been on 29.15 meters heretofore. The best waves are 19.73, 29.15 and 31.38 meters. I have DIQ verified by letter."

"Tell Alden P. Bowers that Tuinuco, Cuba, is located about 80 degrees west longitude and 22 degrees north latitude, just about the middle of Cuba." This informant calls himself "Mr. A. D. Exer, of Norfolk, Va."

Makes "Believe It or Not"

Well, another of our readers enters the DX Hall of Fame. In his "Believe It or Not" cartoon of August 24th, Ripley had a picture of George Lilley and his two-tube set with which our readers are familiar. And if you think it is easy to slip anything over on "Rip" just try and do it.

Radio Station KOIL is trying out a new stunt. It sends its announcer-reporter to the scene of a big news story which is too far to permit direct pick-up or to which lines have not been run. The announcer dictates an on-the-spot account into a dictaphone. The cylinder record is then rushed to the broadcasting station and the radio audience gets it direct from the record.

Adjoining the WHP transmitter is a wooded knoll which is the home of many birds. Listeners at breakfast recently heard from the station the cheery song of these birds from the sylvan bower. Two microphones were used, one deep in the woods and the second at the edge, where a bird expert described the "actors" as they took turns at the mike.

"Thompkins Corners" is going on the stage. George Frame Brown, author of the radio skits, has written a three-act play under the same title for presentation by the original NBC cast in a transcontinental tour which will start at Philadelphia on September 26.

CBS reports that three-cent postage has had no effect on radio enthusiasts, the first month's mail under the new

(Continued on page 33)

VERIFICATIONS the HEART of DX

WE have received so many interesting letters from our readers, both pro and con, regarding this matter of erratic and hard-to-believe reception, that we must give it this further space in this magazine. From Henry Whittaker, 1988 Plymouth St., Philadelphia, Pa., comes this comment: "I note that you are now relegating the extraordinary claims of DX reception to a section entitled 'Believe It or Not.' Undoubtedly some of the reports you receive belong under that title and I hope your critics will be satisfied now. I agree with you that a verified station is DX news and that taking the attitude that verifications do not verify, will do DX no good. May I add that I enjoyed reading your article 'Do Verifications Really Verify?' They do! Every DXer receives replies from stations similar to the following: 'Sorry, but it wasn't our station you heard as we were not broadcasting at the time you mention,' or 'We thank you for your report on our DX program but before we can send you a definite verification, it will be necessary for you to name three selections which you heard together with the time you heard each number as given by our announcer.' A verification finally received from such a station is doubly prized."

Three Times and Never Again

In the article in the September issue we said, "Probably every DXer in the country has at some time or other brought in a certain station which he had never before and has not since been able to get." An example of this is pointed out by "Miss C.A.B." of Oak Park, Ill., who says: "I agree about verifications. I tuned in WDZ, Tuscola, Ill., three different afternoons in May and wrote for verification. They were delighted as their friends in Oak Park had never been able to tune in WDZ. But—I have never tuned them in since!" What explanation is possible of such erratic reception? And as long as radio performs in such an inexplicable way, who shall say what is and what is not possible in the way of reception?

Even if They Can be Forged

One of the severest critics of the Editor in the matter of DX claims wrote us recently saying: "It would be sheer folly to try to force you to stop printing such idiotic claims, but won't you please give us, the decent DXers, a chance in your magazine so that we too can have our say and tell just what DX can be expected?" Ah, we thought, here is the Moses that will lead us out of the wilderness. Here at last is a man who knows just what DX is possible and what isn't. So we sat down and wrote him and asked him to please tell us in a one-page limit just what his formula was for telling the legitimate from the illegitimate.

An Infallible Test

And here is his reply: "I am very sure that my ability is the equal of any and my receiver is as sensitive as any super-hetrodyne of eight tubes. Therefore I will state what limits I have found to exist." He then goes on to say that he has received many fifty and 100-watt Pacific Coasters and therefore they are possible. From Australia and New Zealand he has never received anything less than 1000 watts, therefore "I would put 1000 watts as the minimum for any degree of consistent DX and, under no circumstances, do I believe anything less than 250 watts from there would be heard here." The formula to which we had looked forward so expectantly boils down to this — What I have received, is possible; what I haven't received is impossible.

Blind Spots and Live Spots

The more we think of it the more convinced we are that we touched upon the secret of exceptional reception in our previous article when we said: "It would seem that, just as there are 'blind spots' in which radio reception is practically impossible, so there are locations favored of the gods in which sets may reach out to unbelievable distances." If the peculiarities of radio provide certain sections which signals do not seem to penetrate

and other districts in which reception is excellent, is it not logical that there may be still other places where reception may be extraordinary? Here, we believe, is a factor far more important than the make of receiver or even the ability of the operator. Everyone who has traveled with a receiver finds that his reception varies with the locality thus proving that it is location and not set which makes the difference.

Effect of Locality

In this connection George Nahas, 147 Seeley Street, Brooklyn, N. Y., comments: "Last week I went traveling through northern Pennsylvania. My first stop was at Milford, with a friend who has a seven-tube Philco. I tried to get the ball-game from WINS but, to my surprise, I found that the only New York station I could get was WABC and even that could just be heard. That night I tried again. WABC, WJZ and WEAJ were coming in about like California stations — fading in and out and very hard to tune in. On the other hand, WOR, WLW, WGN, CKAC, XER and XEN were coming in like WABC and WOR do in Brooklyn. At 9:10 p.m., EDST., KFI came in with terrific volume. At 9:25 p.m. I went looking for WBZ on 990 and was dazed to hear the sign-off of LR4 at Buenos Aires, Argentina. Just try to figure that out — WOR is only fifty miles from Milford and yet can scarcely be heard there."

From British Columbia

From Vancouver, B. C., comes an interesting letter by C. R. Caraven, 1840 Georgia Street, East:

"I have read with interest many articles in your magazine pertaining to DX reception, and notice that they have mostly been from readers in your own country.

"RADEX, I believe, is an international Magazine, so why not give your next door neighbor a break?

"As proof for some of your 'doubting Thomases' of what can be heard on an ordinary radio receiver, I am enclosing verifications from Rome, Switzerland, and Iceland. Besides these, I have heard and verified Australia, Tasmania, New Zealand, South America, Japan, and many others. These have all been heard

on the broadcast band, and are not short-wave.

"No doubt, some of the records published may seem a little short of being miraculous, but are these doubting persons aware of what is called the heavy-side layer?

"When a signal is transmitted by a radio station it may be reflected by the heavy-side layer to the earth many miles distant from the station. In such cases it may be almost impossible to hear a station 500 miles away, while at 5,000 it may come in with fine signal strength, due to the fact that it was reflected by this layer just to that point.

"My advice to those who have not yet had the thrill of pulling in a foreign station is to keep trying; have a perfect aerial and ground system, and solder all leads. Check your tubes and see that they are right up to the mark, know the time in foreign countries, and adhere closely to RADEX for without this wonderful little book, DX would most certainly be a thing of the past."

Mr. Caraven's Verifications

From Radio-Genossenschaft in Zurich (Studio Zurich der Schweizerischen Rundspruchgesellschaft) comes the following to Mr. Caraven: "Indeed, the station which you have heard was Beromunster of Zurich, Bern and Basel."

From Rikisutvarp Islands (Icelandic State Broadcasting Service, Reykjavik), comes this verification: "We were interested to hear from you again and to learn that this time you actually picked up our station. The time corresponds exactly and, your interpretation of what you heard is quite correct. Our station gets excellent reception in many parts of Europe and has been heard as far south as Central Africa, but we have never before received a reliable report of its reception as far west as Vancouver. From North America we have received reports from places in the states of Maine and Pennsylvania and from Chicago."

The verification from 1RO printed in Italian definitely confirms the reception of that station on 444.1 meters (about 675 kilocycles).

To return to our caustic critic already

(Continued on page 11)

What the SHORT WAVES are Saying

I NOTICE that it is a custom for many of your readers to tell in RADEX what their DX results have been, so here are mine," writes Gilbert Van Franken, Jr., 2230 N. El Molino Ave., Pasadena, Calif. "My receiver is a National SW5 with plug-in coils covering from 9 to 550 meters. Considering the amount of time put in and my poor location, the results are good, but as compared with some of the DX reports in RADEX my list is very poor. On the b.c. band I have heard only 196 stations with 52 verified. The verifications include CMC, KGU (940 kcs.), XEN, WKBW, WBZA, etc. Also numerous 100-watters, 1000 miles away, in Canada and U.S. In addition to these I have heard five Japanese, one Australian, one in Montreal, and have written to VK4BH, Brisbane (1380 kcs., 600 watts) for a verification.

"On the short waves I have verifications from phone stations in the following countries: one Argentina, one Japan, one Australia, one Columbia, six Canada, one England, one France, one French Indo-China, one Mexico City. Am waiting for additional verifications from the following places to which I have also sent reports: two Argentina, one Siberia, one England, two Canada, one Australia, one Alaska, one Brazil, and one Cuba. Have only spent about one year DXing and, as you can probably see, most of it has been on short waves.

Summer vs. Winter

"I have noticed that the biggest thrills in short waves come in the summer when G5SW, LSN, LSL, VK2ME and BGS come in like locals on the b.c. band. These stations are between 14 and 32 meters and are not satisfactorily received in the winter, at least by me. The higher wave lengths seem to be best in the winter, at which time RV15, Siberia (70.2 meters) and F31CD, Saigon (49 meter band) and others, come in also like locals. The latter group is not anywhere as large as the stations received in the summer. My experience so far with my National, on short

DXing in the High Frequencies

waves, is that most every real weak station is a harmonic of a b.c. station and that the farther away the station is the better it comes in. I hear lots of stations on the short waves with good loud-speaker volume five to seven thousand miles away, when only three tubes of my National SW5 are used. I would be very glad to communicate with any other DXer especially with someone who can tell me when and how to get KGMB.

Kinks in the Power Socket

"On page 24-25 of the September RADEX you tell about changing the light socket plug around for better results. I have noticed that what you said was true, but that the catch was that the same generator or generators are not used all the time and thus both groups are not necessarily grounded on the same side. Therefore the prongs have to be changed back and forth every now and then. How about it?"

"I am writing to you to say how much I appreciate the list of short-wave stations which appeared in the back of RADEX," writes Robert Trufant, 23 S. Prospect St., Oberlin, Ohio. "Since the last of March I have been both a short and a long-wave fan. At first I was somewhat disappointed in the short-wave part, but since I have had more experience in the short waves I have come to prefer it to the broadcast band. Since the first of March I have got 942 stations on the all waves. Some of my best s.w. stations are: EAQ, Madrid; NRB, Honduras; FYA and F8BZ of France; GBU, GBX and G5SW of England, as well as stations in Germany, Italy, Hawaii, Columbia, Siam, Brazil and Argentina. I would have a far larger list of countries if I were able to understand the code.

"Short wave I have found is far more changeable than long wave. One hour you cannot hear a single station outside of the U.S., while the next hour you can hear three or four different countries.

There is only one foreign station which I am certain to hear every night and that is station EAQ, Madrid, Spain. For the benefit of your readers I wish to say that EAQ will be glad to verify reception of their station and will be glad to send their station card. This station on certain nights broadcasts special programs for the people in the Canary Islands and in the United States. Most of the short-wave stations are more than glad to verify any reception of their stations.

"I think that most people after they have become used to their s.w. sets will like them fully as well as their b.c. receiver. The set I use for s.w. reception is a Philco converter used with a Philco 11-tube set.

"In regard to b.c. stations I have some fairly good ones. Some of the 100-watt stations which I have got are KICK, WLBF, WOPI, WPEN, WWSW, WJTL, WNBD, WROL, WEBR, CKMC, KMLB, WCLO, WPMR and WJW. My list of b.c. stations also includes six Mexicans and five Cubans, also three in Manitoba, one of which is no longer in existence. I do not consider that I have done so badly considering that I have been away almost all summer, and due to the fact that I go to college am only able to DX on Sundays and holidays. I would be glad to hear from anyone using a short-wave set like mine, or anyone interested in short waves."

Wants Help in Tuning

"Some weeks ago I purchased a long and short-wave Echophone Radio," writes K. P. Williamson, 1610 Sherbrooke St., West, Montreal, Que. "It is of the regulation type with the long wave circuit and dial covering the b.c. band and in addition a converter with a separate dial covering approximately 5000 to 15000 kcys. In the folder which accompanied this set, the instructions given to tune the short-wave unit were that the indicator on the b.c. dial should be placed on a frequency on which no station was broadcasting. This to me seems obviously impossible as there must at one time or another, be stations broadcasting on all channels regardless of whether the set is capable of bringing them in or not.

"The second method described was

that the indicator on the short-wave dial should be placed in one position where it was thought likely that a station could be brought through and that the b.c. indicator should be moved back and forth until the short-wave station was heard. This action seems unsatisfactory, as I find that my set is prone to pick up b.c. harmonics. In my observations while tuning the short-wave converter, I have noticed that when the b.c. indicator is placed on a channel where there is a station already broadcasting, better results are obtained with the short-wave dial than if a frequency at which no sound can be heard is employed.

"I must confess that as far as short waves are concerned, I am a rank amateur and I am aware that great patience and accuracy is required in order to bring in results. I consider that I have done my utmost in this connection, but the results to date have been very disappointing."

One from Germany

Robert McGrath, 14488 Faircrest Detroit, Mich., sends us the original verification he received from the Program Committee of the German Radio Co. This verification reads as follows:

"With our thanks, we received your letter of May 3rd, this year, and confirm to you with pleasure the correctness of your report.

"You will surely be interested to know that the weekly program of the German short wave stations is broadcasted on week days at 4 o'clock, p.m., in the German and English languages from the German short wave broadcasting stations.

"The German station, Konigs-Wusterhausen (Zeesen) transmits daily until 6 o'clock p.m. on the 19.73 meter wave-length (Name-DJJB), from 6 o'clock on, sending is suspended on account of technical work on the broadcast. From 8 o'clock Zeesen operates on the 31.38 meter wave length (DJA); aside from this a second broadcast is made for the sake of safety for domestic use for special artistic programs. This is either station DJQ (Konigs Wusterhaven) on the 29.155 m. wave, or DGK (Nauen) on the 44.91 meter wave, or DGV (Nauen) on the 31.088 meter wave.

"Our broadcasting stations are some two years old. At the present time they are being remodelled in order to give you better current conditions. The Zeesen broadcasting stations are devoted exclusively to the transmission of radio programs, while the Nauen broadcasting stations are given over first of all to commercial — and experimental uses.

"The capacity of DGK, DGV and DGQ is 7.2 kilowatts, that of stations DJA and DJB, 5 kilowatts.

"We should appreciate it very much if you would continue to report to us the reception results you have."

Likes the S.W. List

"That list of shortwave stations in the last RADEX was fine," writes T. J.

Johnson, Bowlegs, Okla. "However, I am not able to do much good with short wave here. I have discovered that this is a very poor location. Right in the middle of the oil fields with a lot of machinery. I can even hear the sparks of the magnetos. And then we have direct current in this location and get considerable interference from this source. My rotary converter which I have to use to furnish my set with a.c. is well shielded, grounded and filtered on the output and input and I can still hear it faintly on short waves. Most of the shortwave stations in the U.S. come in above the interference, but foreign reception (excluding Canada) has not been accomplished by me. I have not done so badly on the broadcast band, as the interference does not bother much in that portion. At the present time I have 504 stations logged and 415 verifications. I have all but three states and have heard seven foreign countries. I expect to get about 150 more this next season and I am still using my old 1930 TRF set."

"I have just purchased one of the new Bosch Vibropower radios and have received close to 100 stations already, short-wave included, thanks to your magazine," comments Wm. Kirchmann, 274 Dewey Ave., Buffalo, N. Y. "I have received a few stations, the location and call of which I am not sure. The first is W8BOZ. I would like to know where it is located. Then I received a station, the call of which sounded like W3SN or W3SM located at some 'Heights' in New Jersey. I could not distinguish the name of the heights. I would be pleased to have you or some of your readers inform me correctly as to the above stations."

Claims S.W. Record on B.C. Set

"I am writing you a few lines telling you of my short wave record," advises Charles Kneer, 94 Maplewood Terrace, Rochester, N. Y. "I have had eight short-wave stations on a b.c. set (Philco, Model 76): W1XAG, W3XX, W3XJ, W2XAR, WMP, WRDS, WPDR, WPDT. I hold the record in my city. I think I hold the record of 'Radex Listener' for short-wave stations received on b.c. sets. If anyone has more, I would be pleased if they would write me. I would like to ask you one more question. I had

station CQ1 during the early part of August and do not know its location. Will you please tell me its location?"

"Here's my shortwave DX record," says 14-year-old Melvin Botto, 62 Evelyn St., Buffalo, N. Y. "I have got about 500 short wave stations on my Baird converter since last December. This includes 400 amateurs from Halifax to California, 32 police, and 16 foreigners in France, Spain, England, Italy, Argentina, Columbia, Venezuela, Bermuda, Hawaii, and Cuba. I wonder if anyone my age can beat this record."

Another Converter Record

"Early this summer I acquired a Midwest 4-tube shortwave converter, with which I have had wonderful results. To date I have heard stations from all over the world. Some of my good catches are VK2ME, Sydney; VK3ME, Melbourne; and J1AA, Kemikawa, Japan. Every afternoon I get France, England, Italy, Germany and Spain," reports Benigno Contreras, Box 74, Marina Station, Mayaguez, Porto Rico.

"Here is a list of s.w. stations best heard in the U.S.A. at present," writes Richard Zorn, 927 East 6th St., Tucson, Ariz. "EAQ, 30.4 meters, Madrid, Spain, 6:30 p.m.-8 p.m., EST.; Pontoise, France, on 25.63 meters; I2RO, Rome Italy; LSX, Buenos Aires, Argentina; VE9GW, VE9JR, Canada; PRADO, PRBA, South America; VK2ME, VK3ME, Australia; XDA, XAM, Mexico."

Welcomes the Short Waves

"I am glad to note that you are delving into the short waves," comments Haskett H. Burton, 928 Grand Ave., St. Paul, Minn. "This, I believe, is splendid as at present there are a lot of short wave fans and their number is gradually increasing. I have a Scott all-wave receiver and certainly enjoy it."

In the list of foreign short wave stations published in the September issue of this magazine, we gave conflicting data in parenthesis followed by a question-mark. We find that various authorities vary greatly in their data on short wave stations and our readers can assist us materially by advising us promptly of data regarding frequency,

(Continued on page 33)

Radio and the Eclipse

By Karl J. Halpern

THE first total eclipse of the sun seen from the United States since the refinement of radio, found this DX astronomer all ready for the phenomenon. Prior to the eclipse, the NBC and the CBS asked listeners-in to report any changes in tone or volume noticeable during the period of totality. This may be accepted as a report on DX reception from one listener in an area of 95 per cent of totality.

At 2:30 p.m., EDST., one hour before the beginning of the eclipse, no change was noticed in reception. WBZ-A, WORK, WEEU and some of the other daytime DX stations heard daily here in Brooklyn, showed no change in volume. At 2:58 p.m., a half-hour before the opening exercises of the moon² and sun, WGY boomed in for the first time in daylight in more than five months.

At 3:23 p.m., when the curtain arose, the writer took a snappy look at the beginning of the eclipse and dashed right back to the dials. With the moon already doing its work, the anticipated change did not materialize. WGY was still quite loud on the speaker. The "Big Four" and a number of other local stations were all going strong with astronomical talks. There was just one noticeable change — that was in static.

During the hour prior to 95 per cent totality, the only change was an increase in static. One or two of the DX stations were coming in louder but did not show enough change to warrant crediting the eclipse with the increase. Between 4:30 and 4:40 one of the greatest changes was noticed — WICC, WBZ, WORK completely faded out. It was very mysterious. One minute you would hear them; the next they were gone and they couldn't be brought back for about ten minutes.

During totality the static was like blanket covering the local stations. Even with both aerial and ground disconnected, the static was present. At 4:34 the din was terrific. On the ear phones reception was absolutely impossible. One

could hear only the roar of static. On the loud speaker the only station which broke through the static was WLTH, the local Brooklyn station. As the moon receded, the writer noticed that the static lessened and the stations began to roll in again. At 5:39 p.m., the conclusion of the great show, the static had almost entirely disappeared.

During the eclipse the weather was exceptionally clear aside from a heat haze. The temperature dropped three degrees. There was a rise in humidity and a decrease in atmospheric pressure.

Some Phone Problems

HOW can I wire phones into the detector of a Majestic super, Model 52?" asks Russell M. Ballard, Route 3, Visalia, Calif. "This is done on short waves but how about a b.c. set? Will this bring in stations that are too weak to actuate the audio tubes?" This matter of wiring a jack for phones into modern a.c. sets was fully described and illustrated in the September RADEX, 1931, No. 51, a few copies of which are still available.

Franklyn Hoyt, 777 William St., Bridgeport, Conn., has an 8-tube "Silver-tone" using two 247 power tubes. He has tried the phone-adaptor in the socket of the 247 tubes but, cutting down the volume one stage, reduces the power so that a powerful local station does not come in loud enough to be heard plainly. Usually the use of the adapter in the 247 socket leaves all the volume the phones can stand without heating and all that the ears find comfortable. In some cases, however, this does reduce the volume too much. If any other readers have solved this problem with the Silver-tone set, they might write Mr. Hoyt.

W. L. Moore, 244 N. Creighton St., Philadelphia, Pa., is also experiencing trouble with this same problem. He made an adapter out of an old tube base and tried it in the socket of one 245 tube. His difficulty was that even with both 245s removed, the speaker kept on playing. When he disconnected speaker, the phones would not work. Has anyone had

a similar difficulty? If so, Mr. Moore would like to know how they solved it.

"How can I connect a pair of Frost phones to my Atwater Kent 60 (the model with four condensers behind each other in a gang)?" inquires B. L. Ahman, 3313 Westerwald Ave., Baltimore, Md. My loudspeaker has a four-plug socket.

DX as a Hobby

(Continued from page 21)

merely as a sort of automatic phonograph you have been missing one of the greatest thrills radio brings — that of distance. How many are interested in taking up this fascinating hobby? How many stations can you log with your set in one hour? In one evening? In a week or month?

The Editor's Desk

(Continued from page 26)

rate even showing a slight increase over the month before.

KOIL is getting jobs for the unemployed married men of Council Bluffs and Omaha. The first program secured work for 21 men.

So-long until November. Don't forget that the time on the air for all stations for Sundays was in the September issue. We ran an extra supply but they won't last long as subscribers are asking to have their subscriptions begin with the September issue so they will have the complete times for the week. The time for Tuesdays will be in the November edition.

With the Short Waves

(Continued from page 31)

power, owners or time on the air received by them direct from the station. We will not change our records upon hearsay, but want definite information from the stations themselves. If each of the readers of this magazine will make himself a committee of one to report such data, the short wave list in RADEX will soon become the one correct and authoritative index.

A complete list of the short wave sta-

tions in the United States and Canada will appear in the November issue of this magazine. In December we are planning to give our readers what we believe has never been given them before — an index to the world short wave stations arranged by call letters. This ought to fill a long felt need.

Another thing we would like to publish each month is "The Hundred Best Short Wave Stations of the World with their Time on the Air." The complete list will appear in almost every issue, first by frequencies and then by countries. But we want to condense this and choose the one hundred stations which are most easily tuned in. We ask our s.w. readers to help us compile this list.

All Set for DX

(Continued from page 15)

This has now been granted and we are reinstating him. WHBC gave his frequency clearly as 1260 and we thought he ought to know, although we had no record of a shift from 1200. We have written him again regarding his frequency but have not yet received a reply.

An excellent idea is that of Station WHBL, Sheboygan, Wis. They put on a special DX program every Wednesday from 11:00 p.m. to midnight. Each week the program is dedicated to listeners in different states. The October programs are as follows: October 5th, for Iowa; October 12th for Rhode Island; October 19th for North Carolina, and October 26th for North Dakota.

"I learned recently that one of Toledo's old time DXers, William Bowers, was killed in an automobile smash-up," writes Carleton Lord, 137 No. Highland Ave., Akron, Ohio. "He contributed a number of times to RADEX and I'm sure that the DXing fraternity will be sorry to learn of his passing."

October is one of the best months of the year for DX and we confidently expect to publish some good records in November. Remember we must have your letters before October 5th to make sure of getting them in the November issue. Good luck to everybody.

THE RADEX MARKET PLACE

Classified Advertising

A Department for the Use of Advertisers and Readers in bringing Used Sets and Parts, Merchandise, Books or Services to the Attention of the Public. Rate: 10 cents a word; minimum charge, \$4.00.

Ekko Verification Stamps Are Still Popular

If you are unable to obtain one from the station itself, send us your verification and dime. We will return your verification together with Ekko Stamp.

The Ekko Company, 605 W. Washington St., Chicago

The Technical Editor

(Continued from page 18)

secondary of the first transformer. Negative B battery and positive A battery connect together, and also to the positive end of the C battery. The negative C connects to the F end of the secondary of the second transformer. The open end of the primary of the high ratio transformer connects to 90 volts of B battery. A 15,000 ohm variable resistance may be shunted across the primary coil of the high ratio transformer for tone control.

The Month's Changes

OWNERS

- 610 WIP Philadelphia, Pa., to Pennsylvania Broadcasting Co.
 630 KFRR Columbia, Mo., to KFRR, Inc.
 890 WMMM Fairmont, W. Va., to A. M. Rowe, Inc.
 1120 WISN Milwaukee, Wis., to American Radio News Corp.
 1210 WEBQ Harrisburg, Ill., to Harrisburg Broadcasting Co.
 1240 KTAT Fort Worth, Texas, to KTAT Broadcast Co.
 1310 KTSM El Paso, Texas, to Tri-State Broadcasting Co., Inc.
 WDAH El Paso, Texas, to Tri-State Broadcasting Co., Inc.
 1420 WMBH Joplin, Mo., to W. M. Robertson

POWER

- 570 KMTR Hollywood, Calif., 500 to 1000
 1330 KGB San Diego, Calif., 500 to 1000
 1440 KXYZ Houston, Texas, 100 to 250

CALLS

- 1420 WAMC Anniston, Ala., formerly WFDW
 1310 WTRC Elkhart, Ind., formerly WJAK
 1480 KOMA Oklahoma City, Okla., formerly KFJF

DELETED

- 600 WJED Indianapolis, Ind.
 1310 KTLC Houston, Texas

FREQUENCY

- 680 CMAF Havana, Cuba, from 660
 1440 KXYZ Houston, Texas, from 1420

NEW

- 990 WJEM Tupelo, Miss.
 1370 WJEQ Williamsport, Pa.

LOCATION

- 1260 WLBW Erie, Pa., from Oil City, Pa.
 1310 KGBX Springfield, Mo., from St. Joseph, Mo.

REINSTATED

- 1260 WNBX Springfield, Vt.

CHAINS

1290 KDYL Salt Lake City, Utah, CBS to NBC

PERMIT TO CHANGE LOCATION

1210 WJW Mansfield, Ohio, to Akron, Ohio
 1400 KLO Ogden, Utah, to Salt Lake City

Cuban Changes

As we go to press a new official list of Cuban stations comes to us with many changes. These will appear in the November issue. The principal ones are given here.

CMBD Havana, from 965 to 1270
 CMBI Havana, 1444 deleted
 CMBL Havana, 1444 to 1445
 CMBN Havana, 1444 to 1445
 CMBQ Havana, 1500 deleted
 CMBR Havana, 1500 to 1485
 CMBS Havana, 790 to 780
 CMBT Havana, 790 deleted
 CMBY Havana, 1235 to 1230
 CMCA Havana, 1235 to 1230
 CMCG Havana, 1395 deleted
 CMCH Havana, 1395 to 1405
 CMCI Havana, 630 to 588
 CMCM Havana, 1395 to 1405
 CMCN Havana, 925 to 1270
 CMCO Havana, 660 deleted
 CMCO Havana, 1140 to 780
 CMCR Havana, 1345 to 1325
 CMCU Havana, 1270 to 630
 CMCV Havana, 1270 to 1325
 CMCW Havana, 1355 to 1365
 CMDB Havana, 1395 to 1405
 CMGI Colon, 1150 deleted
 CMHJ Cienfuegos, 1150 to 1125
 CMJE Camaguey, 856 to 1175
 CMJH Ciego de Avila, 1150 to 1017
 CMJI Ciego de Avila, 1335 to 1260

NEW STATIONS

588 CMDD Havana
 834 CMGA Colon
 925 CMDE Havana
 965 CMAY Havana
 1010 CMCX Havana
 1110 CMJO Ciego de Avila
 1140 CMBJ Havana
 1225 CMHK Cruces
 1240 CMJN Camaguey
 1290 CMHL Cienfuegos
 1310 CMJP Moron
 1365 CMBF Havana
 1485 CMBK Havana

Map of North America

Due to the great cost of new plates, it is quite out of the question to make up a new map whenever a new city adds a broadcasting station. Since our present map of North America was printed, a number of cities have added broadcasting stations. In the November RADEX, these will be indicated in the map key with directions for placing them in their proper squares. The price of the map has been reduced to 15c.

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 — E Eastern Standard; C Central Standard; M Mountain Standard; P Pacific Standard.

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

MONDAY

E-8:30 a.m., C-7:30, M-6:30, P-5:30

R — Cheerio
 CFCF CKGW KFYP KPRC KSTP
 KTBS WAPI WBEN WCAE WCFL
 WKY WCHS WDAF WFAF WEEI
 WFBR WFI WFLA WGY WIBA
 WIOD WIS WJAR WJAX WJDX
 WKY WQAI WOW WPTF WRC
 WRVA WSB WSM WSMB WTAG
 WTAM WWJ WWNC

E-9:00 a.m., C-8:00, M-7:00, P-6:00

C — Little Jack Little
 CFRB CKOK KFH KRIF KMBC
 KTRH WAAB WABC WBCM WBIG
 WBRB WBT WCAH WDAE WDBJ
 WDBO WDOD WDRC WDSU WEAN
 WFBL WFPA WGR WGST WHAS
 WHEC WHP WJAS WJAX WJWB
 WMAL WMBD WOKO WORC WPG
 WQAM WSFA WSPD WTAQ WTAR
 WTOC WWVA

E-10:15 a.m., C-9:15, M-8:15, P-7:15

B — Clara, Lu 'n' Em
 BKKA KFYP KOA KOIL KPRC
 KSL KSTP KVOO KWK WAPI
 WBAL WBT WBZA WCKY WDAY
 WBCB WFAP WFLA WGAR WHAM
 WBA WIOD WIS WJAX WJDX
 WJR WJZ WKY WMC WQAI WPTF
 WREN WRVA WSB WSM WSMB
 WTMJ WWNC

E-12:30 p.m., C-11:30, M-10:30, P-9:30

C — Columbia Revue
 CFRB CKOK KDYL KFAB KFBK
 KFH KFJF KFRC KHJ KLRA KLZ
 KOL KRLD KSCJ KTRH KVOR
 WABC WBBM WBIG WBT WCAH
 WCAO WDBJ WDBO WDOD WDRC
 WDSU WEAN WFAN WFBL WFEA
 WGR WGST WHAS WHEC WIBW
 WJR WJZ WJAS WKBH WKBN
 WLWB WMAL WNAC WNAJ WNOX
 WODX WOKO WORC WOW WPG
 WQAM WREC WSFA WTAQ WTAR
 WTOC WWVA

B — National Farm and Home Hour

KDKA KFYP KOA KOIL KPRC
 KSTP KTBS KTHS KVOO KWCR
 KWK KYW WAPI WBAL WBT
 WBZA WCKY WDAF WDAY WBCB
 WFAP WFLA WGAR WHAM WHO
 WIBA WIOD WIS WJAX WJDX
 WJR WJZ WKY WLW WMC WQAI
 WOC WOW WPTF WRC WREN
 WRVA WSB WSM WSMB WTMJ
 WWNC

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

R — Schirmer and Schmidt, Piano Duo
 KEX KFSD KFYP KGA KGO KJR
 KOA KPRC KSD KSTP KTBS KVOO
 WBEN WCKY WDAF WFAF WFBR
 WIO WIBA WIOD WIS WKY WMAQ

WMC WOC WRC WRVA WSB WSM
 WSMB WTAG WWNC

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

B — Little Orphan Annie
 KDKA WBAL WBT WBZA WJR
 WJZ

R — G.E. Circle

KFI KFYP KGHL KGIR KGO KGW
 KHQ KOA KOMO KSD WBEN
 WCAE WCHS WDAF WDAY WFAF
 WBEI WENR WFBR WHO WJAR
 WOC WRC WSAI WTAG WTAM
 WTIC WWJ

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

C — Irene Beasley

CFRB CKOK KDYL KFAB KFH
 KFJF KLRA KMBC KSCJ KTRH
 KVOR WAAB WABC WBBM WBIG
 WBRB WBT WDAE WDBJ WFB
 WDOD WDRC WDSU WFAN WFBL
 WFEA WGST WHAS WIBW WIP
 WISN WJAS WKBH WKBW WLWB
 WLOW WNAJ WNOX WOKO WORC
 WQAM WQAM WREC WSFA WTAQ
 WTAR WTOC

R — Waldorf-Astoria Orchestra

KSD KYW WBEN WCAE WDAF
 WFAF WEEI WFBR WGY WIOD
 WJAR WMAQ WRC WSM WTAG
 WWJ WWNC

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

C — Reis and Dunn

CFRB CKOK KDB KDYL KFAB
 KFH KLRA KLZ KMBC KRLD
 KSCJ KTRH WAAB WABC WBIG
 WBRB WBT WCAH WCAO WDAE
 WDBJ WDBO WDOD WDRC WDSU
 WEAN WFAN WFBL WFEA WGR
 WGST WHAS WHEC WHP WIBW
 WIP WISN WJAS WKBH WKBN
 WLWB WNAJ WNOX WOKO WORC
 WOW WQAM WREC WSFA WTAQ
 WTAR WTOC

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

C — Vaughn DeLeath

KLRA WAAB WABC WBIG WBRB
 WDAE WDBJ WDOD WDOD WDSU
 WFEA WGST WORC WREC WSFA
 WTAR WTOC

R — Harding Sisters, Piano Duo

KSD KSTP WCKY WFAF WFBR
 WFI WHO WIBA WIOD WJAR
 WMAQ WMC WOC WRC WSB
 WTAG WTAM WWJ WWNC

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

C — The Funnyboners

CFRB CKOK KDYL KFAB KFH
 KFJF KLRA KLZ KSCJ KTRH
 WAAB WABC WBBM WBIG WBRB
 WBT WCAH WCAO WCAU WDAE
 WDBJ WDOD WDOD WGST WHAS
 WHP WISN WJAS WKBH WKBN
 WKBW WLWB WNAJ WNOX WOKO

WORC WOWO WQAM WREC WSFA
 WSPD WTAQ WTAR WTOC WWVA

R — Donald Novis, Tenor

KECA KEX KFSD KGA KJR KOA
 KPO KSD WAPI WFAF WFBR WFI
 WHO WIS WMAQ WOC WSAI WSB
 WSM WWJ WWNC

B — Lowell Thomas

CKGW KDKA WBAL WBT WBZA
 WGAR WHEAM WJR WJZ WLW

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

R — Harriet Lee and Her Leaders

KFI KFSD KGO KHQ KOA WBEN
 WFAF WJAR WMAQ WTAG

C — Myrt and Marge

CKOK KRLD WABC WADC WBT
 WCAO WCAU WDRC WEAN WFBL
 WGR WHK WJAS WSPD WMAL
 WNAC WOKO WSPD WWVA

B — Amos 'n' Andy

CKGW KDKA WBAL WBT WBZA
 WCKY WFLA WGAR WHAM WIOD
 WJAX WJR WJZ WLW WPTF WRC
 WRVA

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

C — Charles Carlie, Tenor

CKOK KFAB KFBK KFH KPYP
 KGB KLZ KMBC KMOX KOH
 KRLD KSCJ KTRH KVI KVOR
 WABC WACO WADC WBCM WBIG
 WBRB WBT WCAH WCAO WCAU
 WCCO WDBJ WDOD WDRC WEAN
 WFBM WGR WISN WJAS WKBN
 WLAC WLWB WLWB WMAL WMT
 WNAC WNAJ WNOX WOKO WORC
 WQAM WSIS WTAQ WTAR WWVA

R — Wheatonville, Ray Knight

KHQ WDAF WFAF WEEI WGY
 WHO WJAR WLIT WMAQ WOC
 WOW WRC WTAM

B — Tastyest Jesters

KDKA WBAL WBT WBZA WCKY
 WJZ

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

R — Maxwell House Program

WBEN WCAE WCHS WFAF WEEI
 WFBR WFLA WGY WIOD WIS
 WJAR WJAX WLIT WPTF WRC
 WRVA WSAI WTAG WTIC WWNC

B — Stebbins Boys

KDKA KFI KGO KGW KHQ KOA
 KOMO KSL KWK WBAL WBA
 WBZA WCKY WENR WGAR WHAM
 WJR WJZ WREN

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

C — Tito Guizar, Tenor

CFRB CKOK KFAB KFH KLZ
 KMBC KRLD KSCJ KTRH WABC
 WBBM WBCM WBIG WBRB WBT
 WCAH WCAO WCAU WDAE WDBJ
 WDOD WDOD WDRC WEAN WFBL
 WFBM WFEA WGR WGST WHAS
 WHEC WHK WHP WISN WJAS
 WKBN WMAL WNAC WNAJ WNOX

Monday—Continued

WODX WOKO WORC WQAM WREC
WSFA WSPD WTAQ WTAR WTOG
WWVA

R—The Goldbergs
KSD WBEN WCAE WCSH WDAF
WEAF WEEL WENR WFBR WGY
WJAR WLIT WOV WRC WSAI
WTAG WTAM WWJ

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C—Edwin C. Hill

CKOK KMBC KMOX KRLD K TSA
WABC WACO WDBB WBT WCAO
WCAU WCCO WDRS WDSU WEAN
WFBL WFBR WGR WHAS WHK
WJAS WKRC WLAC WMAL WNAC
WOKO WSPD

R—Seconyland Sketches
WBEN WCSH WEAF WEEL WGY
WJAR WTAG WTIC

B—Carnation Contented Program
KDKA KOIL KWK WBAL WCKY
WHEAM WJR WJZ WLS WREN

E-8:15 p.m., C-7:15, M-6:15, P-5:15
C—Singin' Sam

CKOK KMBC KMOX WABC WADC
WCAO WCAU WCCO WDRS WEAN
WFBL WFBR WGN WGR WHK
WJAS WKRC WMAL WNAC WOKO
WSPD

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C—Kate Smith, La Palina

CKOK KFAB KFJ KFJ KMBC
KMOX WABC WADC WBCM WCAH
WCAO WCAU WCCO WFBL WFBR
WGN WGR WHAS WHEC WHK
WISN WJAS WKBN WKRC WMAL
WOKO WSPD

R—The Revelers, Quartet
CFBC CKGW KPRC KSD KTBS
KTBS KVVO WAPI WBEN WCAE
WCSH WDAF WEAF WEEL WFAA
WFBR WFLA WGY WHO WIOD
WIS WJAR WJAX WJDX WKY
WLIT WMAQ WMC WOAI WOC
WOW WPTF WRC WRVA WSAI
WSB WSM WSMB WTAG WTAM
WTIC WWJ WWNC

E-8:45 p.m., C-7:45, M-6:45, P-5:45
C—Fu Manchu Mystery Drama

CFRB CKOK KFBK KFJ KFPY
KGB KLRA KLZ KMBC KMOX
KOH KSCJ KTRH KVI KVOR WABC
WADC WBCM WBIG WBRC WBT
WCAH WCAU WCCO WDBJ WDOD
WEAN WFBR WFEA WGR WISN
WJAS WKBW WLAC WLWB WLZ
WMBD WMT WNAC WNAX WNOX
WORC WOWO WPG WQAM WREC
WSBT WSJS WTAQ WTAR

E-9:00 p.m., C-8:00, M-7:00, P-6:00
R—A. & P. Gypsies

KSD WBEN WCAE WCSH WEAF
WEEL WGY WHO WJAR WLIT
WMAQ WOC WOV WRC WSAI
WTAG WTAM WTIC WWJ

B—Sinclair Wiener Minstrels
KDKA KFYR KOIL KPRC KSTP
KTBS KVVO KWCR KWK WBAL
WDBZ WDBA WDAY WECB WFAA
WFLA WGAR WHAM WIBA WIOD
WIS WJAX WJDX WJZ WKY WLS
WMC WOAI WPTF WREN WRVA
WSB WSM WSMB WTMJ WWNC

E-9:15 p.m., C-8:15, M-7:15, P-6:15
C—Mills Brothers

CKOK KMBC KMOX WABC WADC
WCAO WCAU WDRS WEAN WFBL
WGN WHAS WHEC WHK WJAS
WKBW WKRC WMAL WNAC WOKO
WSPD

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

C—Evening in Paris Mystery
CKOK KMBC KMOX WABC WADC
WBT WCAO WCAU WCCO WEAN
WFBL WGN WHAS WHEC WHK
WKBW WKRC WMAL WNAC
WOKO WOWO WSPD

R—Parade of the States
CFBC CKGW KDYL KFI KFYR
KGIR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP WBEN WCAE
WCSH WDAF WEAF WEEL WJAR
WFAA WFBR WGY WHO WJAR
WKY WLIT WMC WOI WOC
WOW WRC WSAI WSB WSM WTAG
WTAM WTIC WTMJ WWJ

B—Jack Benny, Geo. Olsen
CFBC CKGW KDKA KOIL KWCR
KWK WBAL WBZ WBZA WGAR
WHAM WJR WJZ WLW WMAQ
WREN

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C—Music That Satisfies

CKOK KDB KDYL KERN KFBK
KFH KFJ KFPY KFRS KGB KHJ
KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KRLD KTRH K TSA
KVI KWG WABC WADC WBRB
WBT WCAO WCAU WCCO WDBJ
WDRS WDSU WEAN WFBL WFBR
WGN WGST WHAS WHEC WHK
WISN WJAS WKBW WKRC WLAC
WLBZ WMAL WMBG WMT WNAC
WOKO WOWO WPG WREC WRUF
WSPD WTAR

R—National Radio Forum
KFRS KFYR KGHL KGIR KGO
KRW KGA KOMO KPRC KSD KSL
KSTP KTBS KVVO WBEN WCSH
WDAY WEAF WECB WEEL WENR
WFLA WGY WHO WIBA WIOD
WJAR WJDX WKY WLIT WMC
WOAI WOC WOV WPTF WRC
WRVA WSAI WSB WSM WTAG
WTAM WWJ WWNC

B—Phillips Lord, Country Doctor
CFBC CKGW KDKA KOIL KWCR
KWK WBAL WBZ WBZA WCKY
WGAR WHAM WJR WJZ WMAQ
WREN

E-10:15 p.m., C-9:15, M-8:15, P-7:15
C—Easy Aces

CFRB CKOK KDB KERN KFBK
KFPY KFRS KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KSL KVI
KWG WAAB WABC WADC WCAO
WCAU WCCO WDRS WEAN WFBL
WFBR WGN WHAS WHK WJAS
WKBW WKRC WMAL WOKO
WOWO WSPD

E-10:30 p.m., C-9:30, M-8:30, P-7:30
B—Dramatic Sketch

CFBC KDKA KFYR KOIL KTBS
KWCR KYW WBAL WBZ WBZA
WCKY WGAR WHAM WIBA WIOD
WIS WJAX WJDX WJR WJZ WKY
WMC WREN WSB WSM WWNC

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C—Myrt and Marge

KDB KERN KFBK KFPY KFRS
KGB KHJ KLZ KMBC KMJ KMOX
KOIN KOL KSL KVI KWG WBBM
WCCO WDSU WFBR WHAS WLAC
WJAS WKBW WKRC WMAL WOKO
WOWO WSPD

B—Jane Froman and Orchestra
KWCR KYW WBAL WCKY WHAM
WJZ WREN

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C—Edwin C. Hill

KERN KFBK KFPY KFRS KGB
KHJ KLZ KMJ KOIN KOL KSL
KVI KWG

C—Howard Barlow's Symphony

CFRB CKOK KDYL KFAB KFBK
KFJ KFRS KHJ KLRA KMBC
KMOX KSCJ KTRH KVOR WAAB
WABC WBCM WBIG WBRC WBT
WCAH WCAO WDAE WDBJ WDBO
WDAO WDRS WDSU WEAN WFBL
WFBR WGST WHAS WHK WHP
WIBW WJAS WKBN WKBW WLWB
WMAL WMBD WNAX WNOX
WOKO WORC WOWO WPG WQAM
WREC WSFA WSPD WTOG

R—Paul Whiteman and Orchestra
WEAF WEEL WFBR WJAR WLIT
WRC

B—Ames 'n' Andy
KDYL KFI KFSD KGO KGW KHQ
KOA KOIL KOMO KPRC KSTP
KTBS KWK WBAP WDAF WECB
WENR WIBA WJDX WKY WMAQ
WMC WOAI WREN WSB WSM
WSMB WTMJ

E-11:15 p.m., C-10:15, M-9:15, P-8:15
R—Maxwell House Program

KFI KFSD KGO KGW KHQ KOA
KOMO KPRC KSD KSL KSTP
KTAR KTBS KTBS WAPI WBAP
WDAF WENR WHO WJDX WKY
WMC WOAI WOC WSB WSM WSMB
WTAM WTMJ WWJ

B—Summer Symphony
CFBC KTBS KWCR WBAL WCKY
WENR WHAM WIOD WJZ WREN
WSB

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C—Sid Gary, Baritone

CFRB CKOK KFAB KFBK KFH
KFPY KGB KLRA KLZ KMBC
KOH KSCJ KTRH KVOR WAAB
WABC WACO WADC WBCM WBIG
WBRC WBT WCAH WCAO WCAU
WCCO WDBJ WDOD WDRS WEAN
WFBL WHAS WHEC WHK WISN
WJAS WKBW WLAC WLWB WMAL
WMT WNAX WNOX WOKO WORC
WOWO WPG WQAM WREC WSBT
WSFA WSJS WTAR WWVA

E-11:45 p.m., C-10:45, M-9:45, P-8:45
C—Freddie Martin's Orchestra

CFRB CKOK KDYL KFAB KFBK
KFJ KFRS KHJ KLRA KMBC
KOL KSCJ KTRH KVOR WAAB
WABC WBCM WBIG WBRC WBT
WCAH WCAO WCCO WDAE WDBJ
WDBO WDOD WDRS WDSU WEAN
WFAN WFBL WFBR WGL WGST
WHAS WHEC WHP WIBW WIP
WISN WKBN WKBW WLWB WMAL
WMBD WNAX WNOX WOKO WORC
WQAM WREC WSFA WSPD WTAR
WTOC WWVA

E-12:00 m., C-11:00, M-10:00, P-9:00
C—Eddie Duchin and Orchestra

CKOK KDYL KFAB KFBK KFH
KFJ KLRA KMBC KMOX KOL
KRLD KSCJ KTRH KVOR WABC
WBCM WBRC WBT WCAH WCAU
WCCO WDAE WDBJ WDBO WDOD
WDSU WEAN WFBL WFBR WGL
WGST WHAS WHEC WHP WIBW
WISN WKBN WKBW WLWB WMAL
WMBD WNAC WNAX WNOX WOKO
WPG WQAM WREC WSFA WSPD
WTAR WTOC WWVA

B—Clyde McCoy's Orchestra
KDKA KWCR KYW WBAL WJZ
WRC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Buddy Rogers and Orchestra

KSTP WAPI WCAE WCKY WDAF
WDAY WEAF WENR WIOD WLIT
WMAQ WRC WTAM WWJ

Monday - Continued
 E-12:30 a.m., C-11:30, M-10:30
 K-OIL, KTBS, KWCR
 WHAM, WJAZ, WJAX
 WAC WREN WJZ
 7:00, P-5:30
 Monday
 M-8:15, P-7:15
 See Monday
 M-10:30, P-9:30
 See Monday
 and Home, See Mon.
 15, M-3:45, P-2:45
 Annie, See Monday
 See Monday

WHO WJAR WOC WOW WRC WSAI
 WTAG WTAM WWJ
 B - Stebbins Boys, See Monday
 E-7:45 p.m., C-6:45, M-5:45, P-4:45
 C - Chase & Sanborn, Georgie Price
 CKOK KMBC KMOX WABC WBBM
 WCAO WCAU WGR WHK WJAS
 WKRC WNAC WOKO
 R - The Goldbergs, See Monday
 B - Red and Ramona
 KDKA KGO KOIL KTBS KWCR
 KWOD WBAI WFAA WGAR WIBA
 WIOD WIS WJR WJZ WKY WMAQ
 WREN WWNC
 E-8:00 p.m., C-7:00, M-6:00, P-5:00
 C - Edwin C. Hill, See Monday
 R - Blackstone, Sanderson-Crumit
 KSD KSTP KYW WBNB WCAE
 WCSH WDAF WEAF WEBC WEEL
 WFI WGY WHO WJAR WOC WOW
 WRC WSAI WTAG WTAM WWJ
 B - You and Your Government
 CFCE CKGW KDKA KDYL KEX
 KFSD KGR KJR KOA KOIL KPO
 KTAR KTBS KWCR KWK WBAL
 WBZ WBZA WCKY WENR WFLA
 WGAR WHAM WIOD WIS WJZ
 WKY WMC WPTF WREN WSB
 WSM WWNC
 E-8:15 p.m., C-7:15, M-6:15, P-5:15
 C - Abe Lyman and Orchestra,
 CKOK KMBC KMOX WABC WADC
 WCAO WCAU WDRG WEAN WFBL
 WFBM WGN WGR WHK WJAS
 WKRC WMAL WNAC WOKO WSPD
 E-8:30 p.m., C-7:30, M-6:30, P-5:30
 C - Kate Smith, See Monday
 B - Adventures in Health
 KDKA KOIL KWCR KWK WBAL
 WBZ WBZA WHAM WJR WJZ WLS
 WREN
 E-8:45 p.m., C-7:45, M-6:45, P-5:45
 C - Musical Fast Freight
 CKOK KFJ KFJF KLRA KMBC
 KMOX WAAB WABC WADC WBBM
 WCAO WCAU WCCO WDAE WDBJ
 WDBO WDRG WEAN WFBL WFBM
 WHK WJAS WKBW WKRC WMAL
 WOKO WOWO WQAM WSPD WTOC
 E-9:00 p.m., C-8:00, M-7:00, P-6:00
 C - Music That Satisfies
 CKOK KDB KERN KFBK KFJ
 KFJF KFPY KFRG KGB KHJ KLRA
 KLZ KMBC KMJ KMOX KOH KOIN
 KOL KRLD KSL KTRH KVI KWG
 WABC WADC WBRG WBT WCAO
 WCAU WCCO WDBJ WDRG WDSU
 WEAN WFBL WFBM WGN WGST
 WHAS WHRC WHK WISN WJAS
 WKBW WKRC WLK WLZ WMAL
 WMBG WMT WNAC WOKO WOWO
 WPG WREC WSPD WTAR
 R - Ben Bernie and Orchestra
 KFYR KPRC KSTP WBNB WCAE
 WCSH WDAF WDAY WEAF WEEL
 WFBR WFI WGY WHO WJAR
 WKY WLS WMC WOAI WOC WOW
 WRC WSAI WSM WSMB WTAG
 WTAM WWJ
 B - Household Program
 KDKA KWK WBAL WBNB WBZ
 WBZ WBEBC WHAM WIBA WJR
 WJZ WLS WTMJ
 E-9:15 p.m., C-8:15, M-7:15, P-6:15
 C - Threads of Happiness
 CKOK KDB KERN KFBK KFJ
 KFJF KFPY KFRG KGB KHJ KLRA
 KLZ KMBC KMJ KMOX KOIN
 KOL KRLD KSL KTRH KVI KWG
 WABC WADC WBRG WBT WCAO
 WCAU WCCO WDBO WDRG WDSU

WFBL WFBM WGN WGST
 WHAS WHK WJAS WKBW WKRC
 WLAK WMAL WNAC WOKO WOWO
 WSPD WTAR
 E-9:30 p.m., C-8:30, M-7:30, P-6:30
 C - Eno Crime Club
 CKOK KMBC KMOX WABC WADC
 WCAO WCAU WDRG WEAN WFBL
 WGN WHK WJAS WKBW WKRC
 WMAL WNAC WSPD
 R - Ed Wynn-Don Voorhees
 CFCE KFI KFSD KFYR KGHL
 KGIR KGO KGW KHQ KOA KOMO
 KPRC KSD KSL KSTP KTAR KTBS
 KVOO WBAP WBNB WCAE WCSH
 WDAF WDAY WEAF WEBC WEEL
 WFBR WFI WGY WHO WIBA
 WIOD WIS WJAR WJAX WJDX
 WKY WMAQ WMC WOAI WOC
 WOW WPTF WRC WRVA WSAI
 WBS WSBM WTAG WTAM WTMJ
 WWJ WWNC
 B - Friendship Town
 KDKA KOIL KWK KYW WBAL
 WBZ WBZA WGAR WHAM WJR
 WJZ WREN
 E-10:00 p.m., C-9:00, M-8:00, P-7:00
 C - Jay C. Flippen-ces
 CFRB CKOK KDYL KFAB KFBK
 KFJF KFPY KHJ KLRA KLZ
 KMBC KMOX KOL KRLD KTRH
 KVRB WABC WACO WBCM WBG
 WBRG WBT WCAH WCAO WCAU
 WCCO WDAE WDBJ WDBO WDOD
 WDRG WDSU WFBL WFBM WFEA
 WGL WGST WHAS WEBC WHF
 WIBW WISN WJAS WKBH WKBW
 WKBW WMAL WNAC WNOX WNOY
 WODX WORC WQAM WREC WRUF
 WSPD WTAQ WTAR WTOC WWVA
 R - Lucky Strike Dance Hour
 KFI KFSD KFYR KGO KGW KHQ
 KOA KOMO KPRC KSL KSL KSTP
 KTAR KTBS KTRH KVOO WBAP
 WBNB WCAE WCSH WDAF WDAY
 WEAF WEBC WEEL WENR WFBR
 WFI WFLA WGY WHO WIBA WIOD
 WIS WJAR WJAX WJDX WKY
 WMC WOAI WOC WOW WRC WRVA
 WSAI WSM WSMB WTAG
 WTAM WTMJ WWJ WWNC
 B - Phillips Lord, See Monday
 E-10:15 p.m., C-9:15 M-8:15, P-7:15
 B - Sigmund Spaeth, Tune Detective
 CFCE KWCR WBZ WBZA WGAR
 WJZ
 E-10:30 p.m., C-9:30, M-8:30, P-7:30
 B - Dramatic Sketch, See Monday
 E-10:45 p.m., C-9:45, M-8:45, P-7:45
 C - Myrt and Marge, See Monday
 B - Jane Froman and Orch., See Mon.
 E-11:00 p.m., C-10:00, M-9:00, P-8:00
 C - Columbia Symp. Orch., See Mon.
 B - Amos 'n' Andy, See Monday
 R - Ralph Kirby, Dream Singer
 CFCE CKGW KSD WBNB WCAE
 WCKY WEAF WEEL WFBR WFI
 WFLA WGY WHO WIOD WIS WJAR
 WOC WTAG WTAM WWJ WWNC
 E-11:15 p.m., C-10:15, M-9:15, P-8:15
 B - Cesare Sodero Concert Orchestra
 CFCE CKGW KDKA KEX KFYR
 KGA KJR KOA KPO KSTP KTBS
 KWCR WBAI WCKY WENR WFLA
 WHAM WIOD WIS WJAX WJZ
 WKY WRC WREN WSM WWNC
 E-11:30 p.m., C-10:30, M-9:30, P-8:30
 C - Little Jack Little
 CFRB CKOK KDYL KFAB KFBK
 KFJF KFPY KFRG KGB KHJ

Tuesday—Continued

KLRA KLZ KMBC KMOX KOH
KOL KRLD KSCJ KTRH K TSA
KVI KVOR WAAB WABC WACO
WBCM WBIG WBRC WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDDO WDSU WFBL WFBM
WGST WHAS WHEC WHK WHP
WIBW WISN WKBN WLBW WMBD
WMAL WMBD WNAK WNOX
WORC WOWO WQAM WREC WSFA
WSPD WTAR WTOC

E-11:45 p.m., C-10:45, M-9:45, P-8:45
C—Freddie Martin's Orch., See Mon.

E-12:00 m., C-11:00, M-10:00, P-9:00
C—Harold Stern and Orchestra

CKOK KDYL KFAB KFH KFFJ
KFPY KPRC KGB KLRA KLZ
KMBC KMOX KOH KSCJ KTRH
KVOR WABC WACO WBCM WBRC
WBT WCAH WCAU WDAE WDBJ
WDBO WDDO WDSU WEAN WFBM
WGST WHAS WHEC WHP WIBW
WISN WKBN WLBW WMBD
WNAK WNAK WNOX WOKO WOWO
WQAM WREC WSFA WSPD WTAR
WTOC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Paul Whiteman and Orchestra

CFCF KEX KGA KGO KGW KHQ
KJR KPO KTBS WBN WCAE
WDAF WDAF WFAA WFBF WFLA
WGY WKY WMAQ WMC WOV WRC
WSB WSM WTAM WWJ WWNC

E-12:30 a.m., C-11:30, M-10:30, P-9:30
R—Ben Bernie and Orchestra
KDYL KFI KFSB KGO KGW KHQ
KOA KOMO KTAR

WEDNESDAY

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

E-9:00 a.m., C-8:00, M-7:00, P-6:00
C—Little Jack Little, See Monday

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

E-12:30 p.m., C-11:30, M-10:30, P-9:30
C—Columbia Revue, See Monday

B—National Farm and Home, See Mon.

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

R—G.E. Circle, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00
B—W.A. Wolfe and Orchestra

WBAL WCKY WGAR WJZ WLW
WMAQ WREN

C—Irene Beasley, See Monday

R—Waldorf-Astoria Orch., See Monday

E-6:30 p.m., C-5:30, M-4:30, P-3:30
C—William Vincent Hall

KLRA WAAB WABC WBIG WBRC
WDAE WDBJ WDDO WDSU
WFEA WGST WORC WREC WSFA
WTAR WTOC

B—Dandies of Yesterday
KEX KGA KGHK KJR KOA KOIL
KWCR WBAL WGAR WJZ WLW
WMAQ WREN WSM

R—Harding Sisters, See Monday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C—Funnymen, See Monday

R—Donald Novis, See Monday

B—Lowell Thomas, See Monday

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

B—Amos 'n' Andy, See Monday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C—Connie Boswell
CFRB CKOK KFAB KFH KFPY

KHJ KLZ KMBC KOH KRLD KSCJ
KTRH KVOR WABC WACO WBCM
WBIG WBRC WBT WCAH WCAO
WCAU WDBJ WDBO WDRS WDSU
WEAN WFBL WFBM WFEA WGR
WGST WHAS WHEC WHK WHP
WISN WJAS WKBN WNAK WNAK
WNOX WODX WOKO WORC WOWO
WQAM WREC WSFA WSPD WTAQ
WTAR WTOC WWVA

B—Royal Vagabonds, Ward Wilson
KDKA KFI KGO KGW KHQ KOA
KOIL KOMO KPRC KWK WAPI
WBAL WBZ WCA WCKY WECB
WGAR WIOD WJAX WJDX WJZ
WKY WMAQ WMC WOAI WPTF
WREN WRVA WSB WSM WSMB
WTMJ WWNC

R—Ray Knight, See Monday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
R—Maxwell House Program, See Mon.

B—Stebbins Boys, See Monday

C—Fray and Braggiotti

CFRB CKOK KFAB KFBK KFPY
KGB KLRA KLZ KMBC KOH KRLD
KSCJ KTRH KVI KVOR WABC
WACO WADC WBBM WBIG WBRC
WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDBO WDDO WDRS
WEAN WFBM WFEA WGL WGR
WHAS WHEC WHK WHP WISN
WJAS WKBN WLBW WLBZ WMAL
WNAK WNAK WNOX WOKO WORC
WQAM WREC WSBT WSJS WSPD
WTAQ WTAR WTOC WWVA

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C—Angelo Patri

CKOK KMBC KMOX WABC WCAO
WCAU WCCO WFBL WGR WHAS
WHK WJAS WKRC WMAL WNAK
R—The Goldbergs, See Monday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C—Edwin C. Hill, See Monday

R—Big Time, Johnny Hart

KSD WBN WCAE WCHS WDAF
WEAF WEEI WFBZ WGY WHO
WJAR WLIT WLS WOC WOW
WRC WSAI WTAG WTAM WTIC
WWJ

B—American Taxpayers' League

KDKA KFSB KFYZ KGIR KGO
KOA KOIL KOMO KTAR KTBS
KWCR KWK KYW WBAL WDAY
WFAA WFLA WIBA WIOD WJAX
WJDX WJZ WKY WMC WOAI
WPTF WREN WSM WWNC

E-8:15 p.m., C-7:15, M-6:15, P-5:15
C—Singin' Sam, See Monday

B—Irene Taylor, Contralto

CKGW KFSB KGO KSTP KTBS
KWCR KYW WCKY WGAR WIBA
WJZ WKY WREN

E-8:30 p.m., C-7:30, M-6:30, P-5:30
R—Paul Whiteman and Orchestra

CFCF CKGW KFSB KFPY KGO
KGW KHQ KOA KOMO KSTP
WBN WCAE WCHS WEAF WEEI
WFBZ WGY WHO WIBA WIOD
WLIT WOC WRC WSAI WTAG
WTAM WTIC

C—Kate Smith, See Monday

B—Jack Frost Melody Moments

KDKA WBAL WGAR WHAM WJR
WJZ WLS WLW

E-8:45 p.m., C-7:45, M-6:45, P-5:45
C—Musical Fast Freight, See Tuesday

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C—Guy Lombardo-Burns and Allen

CKOK KFJF KMBC KMOX KTRH
K TSA WABC WADC WCAO WCAU
WCCO WDRS WEAN WFBL WFBM

WJAX WJAS WJZW WJZW WJZW
WSP. WSP. WSP. WSP. WSP.
R—G...
KFYR
KVOO K...
WDAY W...
WFBZ W...
WIOD WIS W...
WKY WLIT W...
WOB WPTF W...
WSB WSM WSMB
WTIC WTAM WWJ

B—G. Washington Coffee

KDKA KWK WBAL W...
WGAR WHAM WJR WJL...
WMAQ WREN

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

R—Mobiloil Concert

KFI KFYZ KGO KGW KHQ KOA
KOMO KPRC KSD KSL KSTP
KTAR KVOO WBN WCAE WCHS
WDAF WDAY WEAF WECB WEEI
WENR WFAA WFBZ WFLA WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLIT WMC
WOAI WOC WOW WRC WSAI WSM
WSM WSMB WTAG WTAM WTIC
WTMJ WWJ WWNC

B—Jack Benny, Goe. Olsen, See Mon.

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C—Music That Satisfies, See Monday

R—Corn Cob Pipe Club

KFI KGHK KGIR KGO KGW KHQ
KOA KOMO KSD KSL WBN WCAE
WCHS WDAF WEAF WEEI WENR
WFBZ WGY WHO WJAR WLIT
WOC WOW WRC WRVA WSAI
WTAG WTAM WTIC WWJ
B—Phillips Lord, See Monday

E-10:15 p.m., C-9:15, M-8:15, P-7:15
C—Easy Aces, See Monday

B—Andy Samella

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

E-10:30 p.m., C-9:30, M-8:30, P-7:30
B—Dramatic Sketch, See Monday

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C—Myrt and Marge, See Monday

B—Jane Froman and Orch., See Mon.

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C—Columbia Symp. Orch., See Mon.

R—Nellie Revell

CFCF CKGW KSD WEAF WGY
WLIT WRC WWJ

B—Amos 'n' Andy, See Monday

C—Edwin C. Hill, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C—Angelo Patri

KDB KERN KFBK KFPY KPRC
KGB KHJ KMJ KOIN KOL KSL
KVI KWG

R—Maxwell House, See Monday

B—Cesare Soderò's Orch., See Tuesday

C—Ozzie Nelson and Orchestra

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C—Charles Carille, Tenor

CFRB CKOK KFAB KFH KLRA
KLZ KMBC KMOX KOH KSCJ
KTRH KVOR WAAB WABC WACO
WADC WBCM WBIG WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDDO WDRS WEAN WFBL
WHAS WHEC WHP WIBW WISN
WKBN WLBZ WLBZ WMBD WMT
WNAK WNOX WOKO WORC WOWO
WPG WQAM WREC WSFA WSJS
WSPD WTAR WTOC

Wednesday—Continued

E-12:00 m., C-11:00, M-10:00, P-9:00
C—Eddie Duchin and Orch., See Mon.
B—Baron Lee and Orchestra
KDKA KOIL KWCR WBAL WKCY
WJZ WMAQ WRC
E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Buddy Rogers, See Monday

THURSDAY

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

E-9:00 a.m., C-8:00, M-7:00, P-6:00
C—Little Jack Little, See Monday

E-10:15 p.m., C-9:15, M-8:15, P-7:15
B—Clara, Lu 'n' Em, See Monday

E-12:30 p.m., C-11:30, M-10:30, P-9:30
C—Columbia Revue, See Monday
B—National Farm and Home, See Mon.

E-5:45 p.m., C-4:45, M-3:45, P-2:45
B—Little Orphan Annie, See Monday
R—G.E. Circle, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C—H. V. Kaltenborn, See Tuesday
R—Waldorf-Astoria Orch., See Monday

E-6:30 p.m., C-5:30, M-4:30, P-3:30
B—Old Songs of Church
KEX KFSD KGA KJR KOA KOIL
KPO KTBS KWCR WBAL WGAR
WJZ WKY WLW WMAQ WREN

E-6:45 p.m., C-5:45, M-4:45, P-3:45
B—Lowell Thomas, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C—Myrt and Marge, See Monday
B—Amos 'n' Andy, See Monday
R—The Rollickers, Male Quartet
KGO KOA WAPI WBEN WEAF
WFI WJAR WMAQ WTAM

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C—Cliff Edwards, See Tuesday
R—Ray Knight, See Monday
B—Ward Wilson, See Wednesday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
R—Ray Perkins, See Tuesday
B—Stebbins Boys, See Monday

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C—Georgie Price, See Tuesday
R—The Goldbergs, See Monday
B—Red and Ramona, See Tuesday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C—Edwin C. Hill See Monday
R—Fleischmann, Rudy Vallee
CFPC CKGW KFI KFJR KGO KGW
KHQ KOA KOMO KPRC KSD KSL
KSTP KTAR KVOO WAPI WBAP
WBEN WCAE WCKY WCSH WDAF
WDAF WEAF WEGC WEI WFBW
WFI WFLA WJGZ WHO WIOD WJAR
WJAX WJDX WKY WMAQ WMC
WOAI WOC WOW WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ

E-8:15 p.m., C-7:15, M-6:15, P-5:15
C—Abe Lyman and Orch., See Tuesday
B—Sigmund Spaeth, Song Sleuth
KDKA KOIL KWK WBZ WBZA
WGAR WHAM WJR WJZ WLS WLW
WREN

E-8:30 p.m., C-7:30, M-6:30, P-5:30
B—Rin Tin Tin Thriller
KDKA KOIL KWK WBZ WBZA
WGAR WHAM WJZ WLS WLW
WREN
C—Meyer, the Buyer
CFRB CKOK KFAB KFBK KFH
KFPY KLRA KLZ KMBC KOH
KRLD KSCJ KTRH KVI KWOR

WAAB WABC WADC WBCM WBIG
WBRC WBT WCAH WCAO WCAU
WCCO WDAE WDBJ WDBO WDOD
WDRG WVEN WFBL WFBM WFEA
WGR WHAS WHEC WHK WHF
WIBW WISN WJAS WKBN WLWB
WLWB WMAL WMT WNAX WOKO
WORC WOWO WPG WQAM WREC
WSBT WSPA WSJS WSPD WTAQ
WTAR WTOG

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C—Music That Satisfies, See Tuesday
R—Detective Drama
KFI KFJR KGO KGW KOA KPRC
KSD KSTP KTBS KTHS WBAP
WBEN WCAE WCKY WDAF WDAY
WEAF WEGC WEI WFBW WFI
WFLA WGY WHO WIBA WIOD WIS
WJAR WJAX WKY WOAI WOC
WOW WPTF WRC WRVA WSAI
WTAG WTAM WTMJ WWJ WNNC

E-9:15 p.m., C-8:15, M-7:15, P-6:15
C—Mills Bros., See Monday

E-9:30 p.m., C-8:30, M-7:30, P-6:30
B—Thompkins Corners
KDKA KFI KFSD KGO KGW KHQ
KOA KOIL KOMO KPRC KSL KSTP
KTAR KWCR KWK KYW WAPI
WBAL WBAP WBZ WBZA WEGC
WFLA WGAR WHAM WIOD WJAX
WJDX WJR WJZ WKY WLW WMC
WOAI WREN WRVA WSB WSM
WSMB WTMJ WNNC

R—America in Revue
CFPC CKGW KSD WBEN WCAE
WCSH WDAF WEAF WEI WENR
WFI WGY WHO WJAR WOC WOW
WRC WSAI WTAG WTAM WWJ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C—Col. Stoopnagle and Budd
CFRB CKOK KFBK KFPY KHJ
KLRA KLZ KMBC KMOX KOH
KSCJ KTRH KVI KWOR WABC
WADC WBCM WBIG WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO WDOD WDRG WFEA
WHAS WHEC WHK WHF WIBW
WJAS WKBN WKBW WLAC WLWB
WMAL WMBD WMT WNAX WNOX
WNOX WOKO WORC WOWO WPG
WQAM WREC WSBT WSJS WSPD
WTAR WTOG

R—Lucky Strike, See Tuesday
B—Phillips Lord, See Monday

E-10:15 p.m., C-9:15, M-8:15, P-7:15
C—Fray and Braggiotti
CFRB CKOK KFBK KFPY KHJ
KLRA KLZ KMBC KOH KSCJ
KTRH KVI KWOR WAAB WABC
WADC WBCM WBIG WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO WDOD WDRG WEAN
WFBM WFEA WHAS WHF WIBW
WJAS WKBN WKBW WLAC WLWB
WMAL WMBD WMT WNAX WNOX
WOKO WORC WOWO WPG WQAM
WREC WSPD WTAR WTOG

E-10:30 p.m., C-9:30, M-8:30, P-7:30
B—Three Keys
CKGW KDKA KWCR WBAL WGAR
WHAM WJZ WREN

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C—Myrt and Marge, See Monday
B—Jane Froman and Orch., See Mon.

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C—Columbia Symph. Orch., See Mon.
R—Paul Whiteman and Orch., See Mon.
B—Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
B—Cesare Sodero's Orch., See Tuesday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C—Little Jack Little, See Tuesday

E-12:00 m., C-11:00, M-10:00, P-9:00
C—Noble Sissle and Orchestra
CKOK KDYL KFAB KPBF KFH
KFPY KFPY KPRC KLRA KLZ
KMBC KMOX KOH KOL KRLD
KSCJ KTRH KSA KVI KWOR
WABC WBCM WEGC WBT WCAH
WCAU WCOO WDAE WDBJ WDBO
WDOD WDSU WEAN WFLB WFBM
WGST WHAS WHEC WHF WIBW
WISN WKBN WKBW WLWB WMBD
WNAC WNAX WNOX WODX WOKO
WOWO WQAM WREC WSPD WTAR
WTOG

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

E-12:05 a.m., C-11:05, M-10:05, P-9:05
R—Don Bester and Orchestra
KSD WCAE WDAF WEAF WFBW
WGY WHO WMAQ WOC WWJ

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B—Pacific Serenaders
KFJR KOA KOIL KPRC KTBS
KTHS KVOO KWCR WBAL WENR
WFLA WHAM WIBA WJR WJZ
WKY WLW WMC WREN WSM
WSMB WNNC

Friday—Continued

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

R—The Goldbergs, See Monday

C—Connie Boswell

CFRB CKOK KFAB KFBK KHJ
 KLRA KMBC KMOX KOH KRLL
 KSCJ KTRH KVI WABC WADC
 WBWM WBCM WCBM WBRB WBT
 WCAH WCAO WCOO WDAE WDBJ
 WDBO WDRD WDRC WEAN WFAN
 WFBL WFBM WFEA WGL WGR
 WHAS WHK WHP WIP WISN WJAS
 WLWB WML WMT WNAC WNAW
 WNOX WOKO WORC WQAM WREC
 WSBT WSPA WSJS WSPD WTAQ
 WTAR WTOC WWSA

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

C—Edwin C. Hill, See Monday

R—Cities Service Orchestra

CKGW KOA KPRC KSD KSL KSTP
 KTBS KTHS KVOO KYW WBEN
 WCAE WCSH WDAF WFAE WFCB
 WEEL WFLA WFBR WGY WHO
 WJAR WKY WLIT WOAL WOC
 WOV WRC WSAI WTAG WTAM
 WTIC WTMJ WWJ

B—Nestlé's Program

KDKA KOIL KWK WBAL WBZ
 WBZA WCKY WGRB WHAM WJR
 WJZ WLS WREN

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

C—Singer Sam, See Monday

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

C—March of Time

CKOK KPPY KHJ KLRA KLZ KMBC
 KMOX KOH KSCJ KTRH KVI
 WABC WADC WBCM WBGW WBRB
 WBT WCAH WCAO WCAU WDAE
 WDBJ WDBO WDRD WEAN WFBM
 WFEA WGR WHEC WHK WHP
 WIBW WISN WJAS WLAC WLWB
 WML WMT WNAC WNAW WNOX
 WOKO WORC WOVO WPG WQAM
 WREC WSBT WSPA WSJS WSPD
 WTAQ WTAR WTOC

B—Adventures in Health, See Tuesday

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

C—Candle Lightin' Time

KDKA KOIL KWCR KWK WBAL
 WBZ WBZA WCKY WFLA WGAR
 WHAM WIOD WJZ WLS WMC
 WREN WSB WWSA

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

C—Football Show, Christy Walsh

CKOK KDB KERN KFBK KFPY
 KFRG KGB KHJ KLZ KMBC KMJ
 KMOX KOIN KOL KRLL KSCJ
 KVI KWG WABC KSL WADC
 WCAH WCAO WCAU WCOO WDRD
 WEAN WFBL WFBM WGN WHAS
 WHK WISN WJAS WKBW WKRC
 WML WNAC WOKO WORC WOVO
 WSPD

R—Cluquet Club

KSD WBEN WCAE WCSH WDAF
 WFAE WEEL WFBM WGY WHO
 WJAR WLIT WMAQ WOC WOV
 WRC WSAI WTAG WTAM WTIC
 WWJ

B—First Nighter

KFSO KOA KSL KSTP KTAR WEBC
 WJZ WTMJ

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

C—To the Ladies

CKOK KMBC KMOX KRLL WABC
 WADC WCAO WCAU WCOO WDRD
 WEAN WFBL WFBM WGN WGST
 WHAS WHK WJAS WKBW WKRC
 WML WNAC WOKO WSPD

R—Pond's Program

KSD WBEN WCAE WCSH WDAF

WEAF WENR WFBR WGY WHO
 WJAR WLIT WOC WOV WRC
 WSAI WTAG WTAM WWJ

B—Armour Program

KDKA KFI KGO KGW KHQ KOA
 KOIL KOMO KPRC KSL KSTP
 KWK WAPI WBAL WBZ WBZA
 WEBC WFLA WGAR WHAM WIOD
 WJAX WJR WJZ WKY WMAQ
 WMC WOAI WREN WRVA WSE
 WSM WSMB WTMJ WWSA

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

C—Music That Satisfies, See Monday

R—Paul Whiteman and Orchestra

KFI KFYR KGO KGW KHQ KOA
 KOMO KSD KSL KSTP WBEN
 WCAE WCSH WDAF WDAY WFAE
 WEBC WEEL WFBR WGY WHO
 WJAR WLIT WOC WOV WRC
 WRVA WSAI WTAG WTAM WTIC
 WTMJ WWJ

B—Phillips Lord, See Monday

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

C—Easy Aces, See Monday

B—Concert Orchestra

CKGW KPRC WBAL WCKY WFLA
 WGAR WHAM WIOD WIS WJAX
 WJZ WKY WMAQ WMC WOAI
 WREN WRVA WSB WSM WWSA

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

R—RKO Mystery Drama

CFPC CKGW KFI KFSO KFYR
 KGHK KGRG KGO KGW KHQ KOA
 KOMO KPRC KSD KSL KSTP
 KTAR KTBS WAPI WBEN WCAE
 WCSH WDAF WDAY WFAE WEBC
 WEEL WENR WFLA WFBR WFLA
 WGY WHO WIBA WIOD WIS
 WJAR WJAX WJDX WKY WLIT
 WMC WOC WOV WRC WRVA
 WSAI WSB WSM WSMB WTAG
 WTAM WTIC WTMJ WWJ WWSA

B—Three Keys, See Thursday

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

C—Myrt and Marge, See Monday

B—Jane Froman and Orch., See Mon.

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

C—Columbia Symp. Orch., See Monday

B—Amos 'n' Andy, See Monday

C—Edwin C. Hill, See Monday

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

B—Maxwell House, See Monday

R—Cesare Soderò's Orch., See Tuesday

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

C—Charles Carlile, See Wednesday

E-11:45 p.m., C-10:45, M-9:45, P-8:45

C—Freddie Martin's Orch., See Monday

E-12:00 m., C-11:00, M-10:00, P-9:00

B—Baron Lee and Orch., See Wed.

C—Bernie Cummins and Orchestra

CKOK KFAB KFBK KFPY KHJ
 KLZ KMBC KMOX KOH KSCJ
 KTRH KVI WABC WADC WBCM
 WBRB WBT WCAH WCAU WCOO
 WDBO WEAN WFBL WFAE WHEC
 WHP WIBW WISN WKBW WLAC
 WML WMBD WMT WNAC WNAW
 WNOX WOKO WORC WOVO WREC
 WSPD WWSA

SATURDAY

E-8:30 a.m., C-7:30, M-6:30, P-5:30

R—Cheerie, See Monday

E-9:00 a.m., C-8:00, M-7:00, P-6:00

C—Little Jack Little, See Monday

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

B—Little Orphan Annie, See Monday

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

R—Waldorf-Astoria Orch., See Monday

B—Little German Band

KDKA KEX KFSO KFYR KGA
 KJR KOA KPO KTAR KTBS KWCR
 WBAL WFLA WGAR WIBA WIOD
 WJZ WKY WREN WSB WWSA

C—Irene Beasley, See Monday

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

R—Oppy House Tonight

KEX KFSO KGA KJR KOA KPO
 KTBS WCAE WFAE WIBA WKY
 WMC WRC WSM WTAM WWSA

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

C—Ozzie Nelson and Orchestra

CFRB CKOK KDYL KFAB KFBK
 KFH KRIF KFPY KFRG KGB KHJ
 KTRA KLZ KMOX KOH KOL KSCJ
 KTRH KTSB KVI KVR WABC
 WACO WBEM WBCM WBIG WBRB
 WBT WCAH WCAO WCOO WDAE
 WDBJ WDBO WDOD WDRD WDSU
 WEAN WFAN WFBL WFEA WGST
 WHAS WHEC WHP WIBW WIP
 WISN WJAS WKBW WKBW WLWB
 WNAW WNAW WNOX WORC WOVO
 WQAM WREC WSPA WSPD WTAQ
 WTAR WTOC WWSA

R—Donald Novis, See Monday

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

C—Frederic William Wile

KFBK KFPY KGB KHJ KMBC
 KMOX KOH KTRH KVI KVR
 WABC WACO WADC WBCM WBIG
 WBRB WBT WCAH WCAO WCAU
 WDAE WDRD WFBM WFEA WGL
 WGN WGR WJAS WLAC WLWB
 WML WMT WNAW WNOX WOKO
 WQAM WSPA WSPD WTOC WWSA

B—Amos 'n' Andy, See Monday

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

C—William Vincent Hall

CFRB CKOK KFBK KFH KFPY
 KFRG KGB KHJ KLZ KMBC KMOX
 KOH KOL KSCJ KTRH KTSB KVI
 KVR WABC WACO WBCM WBCM
 WBIG WBRB WBT WCAO WCAU
 WCOO WDAE WDBJ WDBO WDOD
 WDSU WEAN WGR WGST WHAS
 WHEC WHP WIBW WISN WJAS
 WKBW WNAW WNAW WNOX WOKO
 WORC WOVO WQAM WREC WSPA
 WSPD WTAQ WTAR WTOC WWSA

B—Jack Fulton, Jr., Tenor

KDKA KOIL KWCR KWK WBAL
 WENR WFLA WHAM WIOD WIS
 WJR WJZ WREN WRVA WWSA

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

R—Rollickers, Male Quartet

WBEN WCSH WFAE WFBR WFI
 WGY WJAR WOV WRC WTAG

C—Keenan and Phillips

CFRB CKOK KFAB KFBK KFH
 KFI KFPY KFRG KGB KHJ KLZ
 KMBC KOL KRLL KSCJ KTRH
 KTSB KVI KVR WABC WACO
 WBEM WBCM WBIG WBRB WBT
 WCAO WCAU WDAE WDBJ WDBO
 WDOD WDSU WEAN WFBL WFEA
 WGL WGR WGST WHAS WHP
 WIBW WISN WJAS WML WNAW
 WNAW WNOX WOKO WORC WQAM
 WREC WSPA WSPD WTAQ WTAR
 WTOC WWSA

R—Cuckoo Program, Ray Knight

CKGW KEX KGA KJR KOA KTBS
 KWCR WBAL WFLA WGAR WHAM
 WIBA WJDX WJR WJZ WREN
 WRVA WSB WSM WWSA

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

C—Do Re Mi, Female Trio

CFRB KFAB KFBK KFPY KFRG
 KGB KHJ KLZ KMBC KOH KOL

Continued

KTRH KVI KVOR
WBMM WBCM WBIG
WCAH WCAO WCAU
WDAE WDBJ WDBO WDDO
WEAN WFBL WFBM WFEA
WGST WHAS WHEC WHP
WIBW WISN WJAS WNAC WNAX
WNOX WOKO WORC WQAM
WREC WSFA WSPD WTAQ WTAR
WTOC WWVA

R - The Goldbergs, See Monday

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

B - "Whoopie"

KDKA KOIL KWGR KWK WBAL
WCKY WGAR WHAM WJZ WLS
WREN

C - Edwin C. Hill, See Monday

R - Harlem Fantasy

KFI KGO KGW KHQ KOA KOMO
KSD KSL KSTP KVOO WBEN
WCAE WCSH WDAF WFAE WEEI
WFBF WFI WGY WHO WIOD WIS
WJAR WKY WMAQ WOC WOW
WRC WSAI WTAG WTAM WWJ
WWNC

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

C - Abe Lyman, See Tuesday

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

B - Trio Romantique

KDKA KWK WBZ WBZA WGAR
WHEAM WJR WJZ WMAQ WREN

C - Isham Jones and Orchestra

CFRB CKOK KDYL KFBK KFH
KFJF KPFP KFCR KGB KHJ KLRA
KLZ KMBC KOH KOL KSCJ KTRH
KVI KVOR WABC
WBCM WBG WBRB WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDDO WDOB WDSU WEAN WFBL
WFBM WFEA WGL WGST WHEC
WHK WHP WIBW WISN WJAS
WKBW WLBW WMAL WNAC WNAX
WNOX WOKO WORC WPG WQAM
WREC WSFA WSPD WTAQ WTAR
WTOC WWVA

R - K-7, Drama

KFI KFYR KGO KGW KOA KOMO
KSD KSL KSTP KTBS KVOO KYW
WBEN WCAE WCSH WDAF WDAY
WFAE WFCB WFLB WFBF WFI
WFLA WGY WHO WIBA WIOD
WJAR WJAX WKY WOC WOW
WRC WSAI WSM WTAG WTAM
WWJ WWNC

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

C - Music That Satisfies, See Tuesday

R - Erno Rapee and Orchestra

CFPC CKGW KFI KFYR KGO KGW
KHQ KOA KPRC KSD KSTP KTAR
KTBS WBEAN WCAE WCKY WCSH
WDAF WFAE WEEI WFBF WFI
WFLA WGY WHO WIBA WIOD
WIS WJAR WKY WMAQ WMC WOI
WOC WRC WSAI WSB WSBM
WTAG WTAM WWJ WWNC

B - Gus Van, Pickens Sisters

KDKA KOIL KPRC KWCR KWK
WAPI WBAL WBAP WBZ WBZA
WGAR WHAM WJDX WJR WJZ
WLS WMC WREN WSB WSM WSMB

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

C - Ann Leaf at Organ

CFRB CKOK KDYL KFBK KFBK
KFH KFJF KFCR KGB KHJ KLRA
KLZ KMBC KOH KOL KSCJ KTRH
KVI KVOR WABC WACO WBCM
WBG WBRB WBT WCAH WCAO
WCAU WCCO WDAE WDBJ WDBO
WDDO WDSU WEAN WFBL WFBM
WFEA WGL WGST WHAS WHEC

WHK WHP WIBW WISN WKBW
WLBW WLMW WMAL
WNAC WNAX WNOX WOKO WORC
WPG WQAM WREC WTAQ WTAR
WTOC WWVA

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

B - S.R.O., Comedy Sketch

CFPC CKGW KDKA KWCR WBAL
WBG WBZA WGAR WHAM WJR
WJZ WLBW WMAQ WREN

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

R - Lucky Strike, See Tuesday

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

C - Public Affairs Institute

KDYL KFBK KFH KFJF KPFP
KFCR KGB KHJ KLRA KLZ KMBC
KMOX KOH KOL KSCJ KTRH
KTSa KVI KVOR WAAB WABC
WBBM WBCM WBIG WBRB WBT
WCAO WCCO WDAE WDBJ WDBO
WDDO WDSU WEAN WFBM WFEA
WGST WHAS WHEC WHP WIBW
WJAS WKBW WLBW WLMW WMAL
WNAX WNOX WOKO WORC WOWO
WPG WQAM WREC WSFA WSPD
WTOC

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

B - Three Keys, See Thursday

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

C - Vaughn DeLeath

CFRB CKOK KDYL KFBK KFBK
KFH KFJF KPFP KFCR KGB KHJ
KLZ KMBC KOH KOL KSCJ KTRH
KVI KVOR WABC WACO WBCM
WBG WBRB WCAO WCAU WCCO
WDBJ WDBO WDDO WDSU WEAN
WFBL WFEA WGR WGST WHP
WJAS WKBW WLMW WNAC WNAX
WNOX WOKO WORC WOWO WQAM
WSFA WSPD WTAQ WTAR WTOC
WWVA

B - Twenty Fingers of Harmony

CFPC CKGW KDKA WCKY WGAR
WHAM WJZ WREN

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

B - Amos 'n' Andy, See Monday

R - Ralph Kirbery, See Tuesday

C - Guy Lombardo and Orchestra

CKOK KDYL KFBK KFBK KFJF
KPFP KFCR KGB KHJ KLRA KLZ
KMBC KMOX KOH KOL KRLD
KSCJ KTRH KTSa KVI KVOR
WABC WBCM WBRB WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDDO WDSU WEAN WFBL
WFBM WGL WGST WHAS WHEC
WHK WHP WIBW WISN WKBW
WLBW WMAL WMBD WNAC WNAX
WNOX WODX WOKO WQAM WREC
WSPD WTAR WTOC WWVA

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

B - Cesare Sodero's Orch., See Tuesday

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

C - Harold Stern and Orchestra

CFRB CKOK KDYL KFBK KFBK
KFH KFJF KPFP KFCR KGB KHJ
KLRA KLZ KMBC KMOX KOH
KRLD KSCJ KTRH KTSa KVI
KVOR WAAB WABC WBCM WBT
WCAO WCCO WDAE WDBJ WDBO
WDDO WDRS WDSU WEAN WFAN
WFBM WGL WGST WHAS WHEC
WHP WIBW WIP WISN WKBW
WLBW WMAL WMBD WNAX
WNOX WODX WOKO WORC WQAM
WREC WSPD WTAR WTOC WWVA

R - Paul Whiteman and Orchestra

KSD WCAE WCKY WFAE WEEI
WFI WGY WJAR WMAQ WRC
WTAM WWJ

E-12:00 m., C-11:00, M-10:00, P-9:00

C - California Melodies

KFBK KPFP KLZ KMBC KOH
KTRH KVOR WABC WADC WBCM
WBRB WBT WCAH WCAU WFBL
WFBM WGL WHAS WISN WKBW
WLAO WMAL WMBD WMT WNAX
WNOX WOKO WPG WSPD WWVA
B - Jack Denny and Orchestra
KWCR WBAL WHAM WJZ WRC
WREN

E-12:30 a.m., C-11:30, M-10:30, P-9:30

R - College Inn Orchestra

KOA KPRC KSD KTBS KVOO
WBEN WCAE WCKY WDAF WFAE
WFCB WFBF WFLA WHO WIBA
WIOD WKY WOC WOW WRC WSB
WSMB WTAM WWJ WWNC

SUNDAY

E-11:30 a.m., C-10:30, M-9:30 P-8:30

R - Major Bowes Family

KEX KFYR KGA KJR KOA KPO
KSL KSTP KTBS WAPI WCSH WDAF
WFAE WFLA WGY WIOD WLIT
WMAQ WMC WPTF WRC WSM
WTAM WWJ WWNC

E-12:00 n., C-11:00, M-10:00, P-9:00

C - Salt Lake Tabernacle Choir

CFRB CKOK KFAB KFBK KPFP
KGB KLZ KMBC KOH KSCJ KVOR
WAAB WABC WADC WBIG WCAO
WCCO WDBJ WDDO WFBL WFEA
WGR WHAS WHEC WHK WISN
WJAS WKBW WLBZ WMAL WMBD
WMT WNAX WNOX WOKO WORC
WPG WQAM WREC WSBT WSJS
WTAQ WTAR WWVA

E-12:30 p.m., C-11:30, M-10:30, P-9:30

R - Legion of the Lost

CKGW KEX KGA KJR KOA KPO
KPRC KTBS WAPI WBEN WCKY
WDAF WFAE WFBF WFI WFLA
WGY WHO WIOD WJAR WKY
WMC WOC WRC WSAI WSB WSM
WSMB WSYR WTAG WTAM WWNC

C - Reis and Dunn

CFRB KDYL KFAB KFBK KFJF
KFCR KHJ KLRA KMBC KMOX
KOL KRLD KSCJ KTRH KWCR
WAAB WABC WBBM WBRB WCAH
WCAU WCCO WDAE WDBJ WDBO
WDDO WDSU WFBL WFEA WGR
WGST WHAS WHP WIBW WISN
WKBW WKBW WMAL WMBD
WNAX WNOX WODX WOKO WORC
WPG WQAM WREC WSFA WTAQ
WTAR WWVA

E-12:45 p.m., C-11:45, M-10:45, P-9:45

C - Emery Deutsch and Orchestra

CFRB CKOK KDYL KFBK KFBK
KFJF KFCR KHJ KLRA KMBC
KOL KRLD KSCJ KTRH KVOR
WAAB WABC WBBM WBCM WBRB
WCAH WCAU WCCO WDAE WDBJ
WDBO WDDO WDSU WFBL WGR
WGST WHAS WHEC WIBW WISN
WJAS WKBW WKBW WLBW WMBD
WMBD WODX WOKO WORC WOWO
WPG WQAM WREC WSFA WTAQ
WTAR WWVA

E-1:00 p.m., C-12:00, M-11:00, P-10:00

R - Symphony Concert, Erno Rapee

KDYL KEX KFYR KGA KJR KOA
KOMO KPO KTAR KTBS WBEN
WCAE WCKY WDAF WDAY WFAE
WEEI WFI WFLA WGY WHO WIOD
WJAR WMAQ WOC WTAM WWJ
WWNC

E-1:30 p.m., C-12:30, M-11:30, P-10:30

C - Columbia Church of the Air

CFRB CKOK KFAB KFBK KPFP

Sunday—Continued

KLZ KMBC KOH KSCJ KTRH KVI
KVOR WAAB WABC WADC WBCM
WBIG WBRC WBT WCAH WCAO
WCAU WCCO WDBJ WDDO WDRC
WFBL WGR WHEC WHK WISN
WJAS WLBY WLBZ WMAL WMT
WOKO WQOW WRC WQAM WSBT
WJSJ WTAQ WTAR WVA

B—Clyde Doerr's Saxophone Octet
KDKA KFI KFSD KGO KHQ KOA
KOMO KWCR WBAL WBDY WGAR
WHAM WJZ WLW

E-2:30 p.m., C-1:30, M-12:30, P-11:30
C—Ann Leaf at Organ

CFRB CKOK KDYL KFAB KFJF
KFRC KHJ KMOX KOL KSCJ KTRH
KVOR WABC WBBM WBCM WBRC
WBT WCAH WCAO WCCO WDAE
WDBJ WDBO WDDO WDRC WDSU
WEAN WFBL WFEA WGL WGR
WGST WHAS WHEC WHK WHP
WIBW WISN WJAS WKBH WLWB
WMAL WNAC WNOX WODX WOKO
WORC WQAM WSPD WTAQ WTAR
WTOC WVA

R—Moonshine and Honeysuckle
KSD WCAE WCKY WCSH WDAF
WEAF WEEL WFER WGY WHO
WJAR WLIT WMAQ WOC WOW
WRC WTAG WTAM WWJ

B—Yeast Foamers
KDKA KFI KFSD KFYR KGHL
KGO KGW KHQ KOIL KOMO KSTP
KTAR KTHS KVOO KWCR KWK
KYW WAPI WBAL WBLZ WBZA
WDAY WEBC WFAA WFLA WGAR
WHAM WIBA WIOD WIS WJAX
WJDX WJR WJZ WLW WPTF WREN
WRVA WSB WSM WSBM WTMJ
WVNC

E-3:00 p.m., C-2:00, M-1:00, P-12:00
R—Wayne King and Orchestra
KDYL KFI KFYR KGO KGW KHQ
KOA KOMO KPRC KSD KSTP KTBS
KTHS KVOO KYW WBN WCAE
WCSH WDAF WDAY WEAF WEBC
WEEL WFAA WFER WGY WHO
WIBA WJAR WKY WLIT WQAI
WOC WOW WRC WSAI WTAG
WTAM WTMJ WWJ

C—Symphonic Hour
CFRB CKOK KDYL KFAB KFH
KFJF KFRC KHJ KLRA KMBC
KMOX KOL KSCJ KTRH KVOR
WABC WBCM WBIG WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO WDDO WDRC WDSU
WEAN WFBL WFBM WFEA WGL
WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WKBN WMAL WMBD WNAC WNOX
WODX WOKO WORC WQAM WREC
WTAQ WTAR WTOC WVA

E-3:30 p.m., C-2:30, M-1:30, P-12:30
R—National Sunday Forum
KFYR KFHL KGIR KGO KGW
KHQ KOA KPRC KSL KSTP KTAR
KTBS KVOO KYW WBN WCAE
WCSH WDAF WEAF WEBC WEEL
WFAA WFER WFLA WGY WIBA
WIOD WIS WJAR WJAX WJDX
WKY WQAI WOW WPTF WRC
WRVA WSAI WSB WSM WSBM
WTAG WTAM WWJ WVNC

B—48th Highlanders Military Band
CKGW KDKA KOLL KWCR WBAL
WBZ WBZA WGAR WHAM WJZ
WJZ WLW WMAQ WREN

E-4:00 p.m., C-3:00, M-2:00, P-1:00
C—Cathedral Hour
CFRB CKOK KDYL KFAB KFBC

KFH KFJF KFRC KHJ KLRA
KMBC KMOX KOL KSCJ KTRH
KVOR WABC WBCM WBIG WBRC
WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDBO WDDO WDRC
WDSU WEAN WFBL WFBM WFEA
WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WKBN WMAL WMBD WNAC WNOX
WODX WOKO WORC WQAM WQAM
WREC WSA WSPD WTAQ WTAR
WTOC WVA

R—Jodent Program
KFI KFSD KFYR KGHL KGIR
KGO KGW KHQ KOA KOMO KPRC
KSD KSL KSTP KTAR KTBS KTHS
KVOO KYW WAPI WBN WCAE
WCSH WDAF WDAY WEAF WEBC
WEEL WFAA WFER WFLA WGY
WHO WIBA WIOD WIS WJAR WJAX
WJDX WKY WMC WOAI WOC
WOW WPTF WRC WRVA WSAI
WSB WSM WSBM WTAG WTAM
WTMJ WWJ WVNC

B—Temple of Song
KDKA KOLL KWCR WBAL WBZ
WBAZ WCKY WFLA WGAR WHAM
WJR WJZ WMAQ WREN

E-4:30 p.m., C-3:30, M-2:30, P-1:30
B—Highlights of Bible
KDKA KFSD KFYR KGHL KGIR
KGO KGW KHQ KOIL KOMO
KPRC KSL KSTP KTAR KTBS
KTHS KVOO KWCR KWK WAPI
WBAL WBZ WBAZ WCKY WDAY
WEBC WENR WFAA WFLA WGAR
WIBA WIOD WIS WJDX WJR
WJZ WKY WMC WOAI WPTF
WREN WRVA WSB WSM WSBM
WVNC

R—Kremlin Art Quintet
CKGW KSD WBN WCSH WDAF
WEAF WEEL WFER WFI WGY
WHO WJAR WOC WOV WRC WSAI
WTAG WTAM WWJ

E-4:45 p.m., C-3:45, M-2:45, P-1:45
R—Pastels, String Quartet
CKGW KSD WBN WCAE WCSH
WDAF WEAF WEEL WENR WFER
WFI WGY WHO WJAR WOC WOW
WRC WSAI WTAG WTAM

E-5:00 p.m., C-4:00, M-3:00, P-2:00
C—Roses and Drums
CKOK KMBC KMOX KRLD WAAB
WABC WADC WBBM WCAO WDSU
WFBM WGR WGST WHK WJAS
WKRC WMAL

B—World of Religion
KFSD KFYR KGHL KGIR KGO
KGW KHQ KOA KOIL KPRC KTAR
KTBS KTHS KVOO KWCR KWK
KYW WAPI WBAL WBAZ WBZ
WBZA WCKY WDAY WEBC WFLA
WGAR WHAM WIBA WIOD WIS
WJAX WJDX WJZ WMC WOAI
WPTF WREN WRVA WSB WSBM
WVNC

E-5:15 p.m., C-4:15, M-3:15, P-2:15
R—Le Trio Charmante
CKGW WBN WCAE WCSH WDAF
WEAF WEEL WENR WFER WFI
WGY WHO WJAR WOC WOW
WRC WSAI WTAG

E-5:30 p.m., C-4:30, M-3:30, P-2:30
C—Poet's Gold, David Ross
CFRB CKOK KDYL KFBC KFH
KFJF KFRC KHJ KLRA KMBC
KMOX KOL KRLD KSCJ KVOR
WABC WBCM WBIG WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDDO WDRC WENR WFBL
WFBM WFEA WGR WGST WHAS

WHEC WHP WIB
WKBH WKBN WLBY
WODX WOKO WORC
WSPA WSPD WTAQ WVA

B—Road to Romany
KOLL KWCR KWK KYW WGL
WHAM WJR WJZ WLW WREN

R—Big Ben's Dream Dramas
KDBL KFI KGO KOA KSD KSTP
WBN WCAE WCSH WDAF WEAF
WEEL WENR WFER WFI WGY
WJAR WOV WRC WSAI WTAG
WTAM WTMJ WWJ

E-5:45 p.m., C-4:45, M-3:45, P-2:45
R—Walter Logan, Pop Concert
CKGW KFSD KGO KGW KHQ
KOA KSTP KTAR KTBS WAPI
WBN WCAE WCSH WDAF WEAF
WEBC WEEL WENR WFER WFI
WFLA WGY WHO WIOD WJAR
WKY WMC WOC WOV WRC WRVA
WSAI WSB WSM WTAG WTAM
WWJ WVNC

CFRB Little Jack Little
CFRB CKOK KDYL KFBC KFH
KFJF KFRC KHJ KLRA KMBC
KOL KRLD KSCJ KVOR WABC
WBCM WBIG WBRC WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDDO WDRC WENR WFBL
WFBM WFEA WGR WGST WHAS
WHEC WHK WHP WIBW WISN
WJAS WKBH WKBN WLWB WNAC
WNOX WODX WOKO WORC WQAM
WREC WSA WSPD WTAQ WTAR
WTOC WVA

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C—Ballad Hour
CFRB CKOK KDYL KFAB KFBC
KFJF KFRC KHJ KLRA KMOX
KOL KRLD KSCJ KVOR WABC
WBCM WBIG WBRC WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDDO WDRC WDSU WEAN WFBL
WFBM WFEA WGL WGR WGST
WHAS WHEC WHK WHP WIBW
WJAS WKBH WKBN WLWB WMAL
WNOX WODX WOKO WORC
WPG WQAM WREC WSA WSPD
WTAQ WTAR WTOC WVA

R—Catholic Hour
KEX KFSD KFYR KGA KGHL
KGIR KJR KOA KPO KPRC KSTP
KVOR WAPI WBAF WBN WCAE
WCSH WDAF WEAF WEBC WEEL
WENR WFER WFLA WGY WHO
WIBA WIOD WJAR WJAX WJDX
WKY WLIT WMC WOAI WOC
WOW WRC WRVA WSAI WSM
WSBM WTAG WTAM WWJ WVNC

B—Paul Whiteman and Orchestra
KGW KOIL KWCR KWK WBAL
WBZ WBZA WCKY WGAR WHAM
WJR WJZ WMAQ WREN

E-6:30 p.m., C-5:30, M-4:30, P-3:30
R—L'Heure Esquise
KEX KFSD KGA KJR KOA KPO
KSD KSTP KTAR KTBS KVOO
WBN WCAE WDAF WEAF WEEL
WFER WFLA WGY WHO WIBA
WIOD WIS WJAR WJAX WKY
WMAQ WMC WOC WOV WPTF
WRVA WSAI WSM WTAG WWJ

C—Irene Beasley, Round Towners
CFRB CKOK KDYL KFAB KFBC
KFH KFJF KFRC KHJ KLRA
KMBC KMOX KOL KRLD KSCJ
KVOR WABC WBCM WBIG WBRC
WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDBO WDDO WDRC

Sunday—Continued

WDSU WEAN WFBL WFBR WFEA
WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WDBN WLWB WMBD WNOV WNOX
WOKX WOKO WORC WQAM WQAM
WRCB WSFA WSPD WTAQ WTAR
WTOC WVVVA

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

R—Donald Novis, Tenor
KFSD KFYR KGO KGW KHQ KOA
KSL KSTP KTAR KTBS KVOO
WBEN WCSH WDAF WFAE WFCB
WEEI WFRB WFLA WGY WHO
WIBA WIOD WJAR WJDX WKY
WLIT WMAQ WOC WOV WSAI
WMSM WTAG WTAM WWJ WNNC

B—Pickens Sisters
CKGW KOIL WBAL WCKY WHAM
WJZ WMAQ WREN

C—World's Business, Dr. Klein
KFAB KFH KFPY KGB KLZ KMOX
KOH KRLL KSCJ KTRH KVI
KVOR WABC WACO WADC WBBM
WBCM WBIG WBRB WBT WCAH
WCAO WCCO WDBJ WDOD WDRC
WEAN WFAN WFBL WFBR WFEA
WGL WGR WHAS WHEC WIP
WISN WJAS WLAC WLWB WLWB
WMAL WMT WNAC WNAX WNOX
WOKO WORC WPG WQAM WREC
WSBT WTAQ WTAR WVVVA

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

R—Ray Knight, See Monday

C—Chicago Knights
CKOK KDYL KFAB KFH KFFJ
KFRC KHJ KMBC KMOX KOL
KRLL KSCJ KTRH KVOR WABC
WBCM WBIG WBRB WBT WCAH
WCAO WCCO WDAE WDBJ WDBO
WDOD WDRC WDSU WEAN WFBL
WFBM WFEA WGL WGR WGST
WHAS WHEC WHP WIBW WISN
WJAS WKBN WKBN WLWB WMAL
WNAC WNAX WNOX WODX WOKO
WORC WQAM WREC WSFA WSPD
WTAQ WTAR WTOC WVVVA

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

R—Orchestral Gems
KSD WBEN WCAE WDAF WFAE
WFBR WGY WJAR WLS WOW
WSAI WTAG WTIC WWJ

B—Commodores, Male Quartet
CFCE KDKA KFI KFSJ KFYR
KGO KHQ KOA KOIL KSL KSTP
KTAR KTBS KWCR KWK WAPI
WBAL WFLA WGR WHAM WIOD
WJR WJZ WKY WLS WLW WREN
WRVA WSB WSM WNNC

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

C—Angelo Patri, See Wednesday

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

B—Radio Luminaries
KDKA KPRC KTBS KVOO KWCR
KWK WBAL WFLA WGR WIBA
WIOD WIS WJZ WKY WLS WMC
WREN WRVA WSBM WNNC

C—William Vincent Hall

CKOK KDYL KFAB KFH KFFJ
KFRC KHJ KMBC KMOX KOL
KSCJ KTRH KVOR WABC WBCM
WBIG WBRB WBT WCAH WCAO
WCCO WDAE WDBJ WDBO WDOD
WDRC WDSU WEAN WFBR WFEA
WGL WGR WGST WHAS WHEC
WHP WIBW WISN WJAS WKBH
WKBN WLWB WMAL WNAC WNAX
WODX WOKO WORC WQAM WREC
WSFA WSPD WTAR WTOC WVVVA

R—Chase and Sanborn Hour

CFCE CKGW KFI KFSJ KFYR

KGO KGW KHQ KOA KOMO KPRC
KSD KSL KSTP KTAR KTHS KVOO
WAPI WBEN WCAE WCKY WCSH
WDAF WDAY WFAE WFCB WFAA
WFRB WFLA WGY WHO WIOD
WIS WJAR WJAX WJDX WKY
WLIT WLS WMC WOA1 WOC WPTF
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTIC WTMJ
WWJ WNNC

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

C—Roxey Theatre Symphony
CKOK KFAB KFPY KGB KLRA
KLZ KMBC KMOX KOH KRLL
KSCJ KTRH KVI KVOR WABC
WADC WBCM WBIG WBRB WBT
WCAH WCAO WCAU WCCO WDBJ
WDOD WDRC WEAN WFBL WFBM
WFEA WGR WHAS WHEC WHK
WISN WJAS WKBN WLWB WLWB
WMAL WMT WNAC WNAX WNOX
WOKO WORC WOV WQAM WREC
WSJS WTAR

B—Minnevitich Harmonica Rascals

KDKA KOIL KWCR KWK WBAL
WGAR WJR WJZ WLS WLW WREN

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

R—Our Government, David Lawrence
KPRC KSD KTBS KVOO WAPI
WEAF WENR WFAA WFBR WFI
WFLA WGY WHO WIOD WIS WJAR
WJDX WKY WMC WOC WOW
WPTF WRC WRVA WSAI WSB
WSM WSMB WTAG WNNC

B—Enna Jettick Melodies

CFCE CKGW KDKA KFI KFSJ
KFYR KGHL KGIR KGO KGW KHQ
KOA KOIL KOMO KSTP KTAR
KWCR KWK KYW WBAL WBZ
WBZA WCKY WDAY WFCB WGAR
WHAM WIBA WJAX WJR WJZ
WREN WRVA WTMJ

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

R—Album of Familiar Music
KFI KFSJ KFYR KGO KGW KHQ
KOA KOMO KPRC KSD KSL KSTP
KTAR KTHS WAPI WBEN WCAE
WCSH WDAY WFAE WFCB WENR
WFAA WFRB WFI WFLA WGY
WHO WIBA WIOD WJAR WJDX
WKY WMC WOA1 WOC WOW
WRC WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ

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

C—Pennzoil Parade
CKOK KFJF KLRA KMBC KMOX
KTSB WABC WADC WBRB WBT
WCAO WCAU WCCO WDRC WEAN
WFBL WGN WGR WGST WHEC
WHK WJAS WKRC WLAC WLWB
WMAL WNAE WOKO WSPD

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

B—Sheaffer Lifetime Revue

CFCE CKGW KDKA KDYL KFI
KFYR KGHL KGIR KGO KGW
KHQ KOA KOIL KOMO KPRC
KSTP KTBS KTHS KWCR KWK
WBAL WBZ WBZA WDAY WFCB
WENR WGAR WHAM WIBA WJDX
WJR WJZ WKY WMC WOA1 WREN
WSB WSM WSMB WTMJ

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

C—Ernest Hutcheson, Pianist
CFRB CKOK KFH KFPY KGB
KLRA KLZ KMBC KMOX KOH
KSCJ KTRH KVI KVOR WAAB
WABC WADC WBBM WBCM WBRB
WBT WCAH WCAO WCAU WCCO
WDBJ WDOD WDRC WEAN WFBL
WFBM WFEA WHAS WHEC WISN
WJAS WKBN WKBN WLAC WLWB

WMAL WMBG WMT WNAX WOKO
WORC WOWO WQAM WREC WSFA
WSJS WTAR

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

B—Old Singing Master
KDKA KFI KGO KGW KHQ KOA
KOIL KOMO KSL KWK WBAL WBZ
WBZA WGAR WHAM WJR WJZ
WLW WMAQ WREN

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

C—The Gauchos
CFRB CKOK KDYL KFAB KFBK
KFH KFJ KFCRC KHJ KLRA KMBC
KMOX KOL KRLL KSCJ KTRH
KVOR WAAB WABC WBCM WBRB
WBT WCAH WCCO WDAE WDBJ
WDBO WDOD WDRC WDSU WEAN
WFAN WFBL WFBR WGL WGR
WHAS WHK WHP WIBW WIP WISN
WJAS WKBN WLWB WMAL WMBD
WNOX WOKO WPG WQAM WREC
WSFA WSPD WTAR WTOC

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

R—Sunday at Seth Parker's
CFCE KECA KFSJ KFYR KGHL
KGIR KGO KGW KHQ KOA KOMO
KPRC KSD KSL KSTP KTAR KTBS
KYW WAPI WBEN WCAE WCSH
WDAF WDAY WFAE WFCB WEEI
WFAA WFRB WFI WFLA WGY
WHO WIBA WIOD WIS WJAR WJAX
WJDX WKY WMC WOA1 WOC WOW
WPTF WRC WRVA WSAI WSB
WSM WTAM WTMJ WWJ

B—Three Keys

KDKA KOIL KWCR KWK WBAL
WCKY WGAR WHAM WJZ WMAQ

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

B—Malik Mystery Drama
KOIL KWCR WBAL WCKY WHAM
WJZ WMAQ WREN

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

R—Radio Rubes, Hill Billy Songs
KPHYR KGHL KGO KGW KHQ
KTBS WCAE WFAE WENR WFRB
WFI WFLA WGY WIBA WIOD WIS
WJDX WMAQ WMC WOW WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTIC WWJ WNNC
C—Angelo Patri, See Wednesday

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

R—Melodic Serenade
KFSJ KFYR KGO KHQ KSTP
KTAR KTBS WCAE WCKY WFAE
WENR WFRB WFLA WGY WIBA
WIOD WIS WJAR WMC WRC WSAI
WSB WSM WTAM WWJ WNNC

C—Orzie Nelson and Orchestra

CFRB CKOK KLRA WABC WBCM
WBRB WBT WCAU WCCO WDAE
WDBJ WDBO WDOD WDRC WDSU
WEAN WFBL WGL WGR WHEC
WHP WISN WKBN WLWB WMAL
WNAC WNOX WOKO WQAM WSFA
WSPD WTAR WTOC

C—Pennzoil Parade

KDYL KERN KFBK KFPY KFCR
KGB KHJ KLZ KMJ KOIN KOL
KVI KWG

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

B—Wm. Steeles and Orchestra
KGHL KGO KGW KOA KOIL KOMO
KSTP KTBS KWCR WDAY WENR
WFLA WGAR WHAM WIOD WJR
WJZ WKY WLW WMC WREN
WSB WNNC

C—Bernie Cummins, See Friday

R—Eliot Everett and Orchestra
WCAE WCKY WDAF WFAE WFRB
WHO WLIT WOC WTAM

CLASSIFIED INDEX to CHAIN PROGRAMS

Time in Eastern Standard

BANDS

48th Highlanders, 3:30 p.m., Sunday, B.
Little German Band, 6:00 p.m., Saturday, B.

CONCERTS

Ballad Hour, 6:00 p.m., Sunday, C.
Howard Barlow Symphony, 11:00 p.m., daily, ex. Sat. and Sun., C.
Cities Service, 8:00 p.m., Friday, R.
Gauchos, 10:30 p.m., Sunday, C.
Kremlin Art Quintet, 4:30 p.m., Sunday, R.
L'Heure Exquise, 6:30 p.m., Sunday, R.
Le Trio Charmante, 5:15 p.m., Sunday, R.
Walter Logan, 5:45 p.m., Sunday, R.
Melodie Serenade, 11:30 p.m., Sunday, R.
Mobiloil, 9:30 p.m., Wednesday, R.
New York Orchestra, 8:15 p.m., Sunday, B.
Orchestra Gems, 7:30 p.m., Sunday, R.
Pastels, Spring Quartet, 4:45 p.m., Sunday, R.
Erno Rapee, 1:00 p.m., Sunday; 9:00 p.m., Sat., R.
Roxy Symphony, 8:30 p.m., Sunday, C.
Cesare Sodero, 11:15 p.m., daily, ex. Sun. and Mon., B.
Summer Symphony, 11:15 p.m., Monday, B.
Symphonic Hour, 3:00 p.m., Sunday, C.
Waldorf-Astoria, 6:00 p.m., daily, ex. Sunday, R.
G. Washington, 9:00 p.m., Wednesday, B.

DANCE BANDS

Ben Bernie, 9:00 p.m., Tues.; 12:30 a.m., Wed., R.
Don Bestor, 12 mid., Thursday, R.
College Inn, 12:30 a.m., Sunday, R.
Bernie Cummins, 12 mid., Sun. and Frid., C.
Jack Denny, 12 mid., Saturday, B.
Lew Diamond, 12:30 a.m., Monday, B.
Clyde Doerr, 1:30 p.m., Sunday, B.
Eliot Everett, 12 mid., Sunday, R.
Isham Jones, 8:30 p.m., Saturday, C.
Wayne King, 3:00 p.m., Sunday, R.
Baron Lee, 12 mid., Wed. and Fri., B.
Guy Lombardo, 9:00 p.m., Wed.; 11:00 p.m. Sat., C.
Lucky Strike, 10:00 p.m., Tues., Thurs. and Sat., R.
Abe Lyman, 8:15 p.m., Tues., Thurs. and Sat., C.
Freddie Martin, 11:45 p.m., Mon., Tues. and Fri., C.
Clyde McCoy, 12 mid., Monday, B.
Merry Madcaps, 6:30 p.m., Friday, R.
Ozzie Nelson, 11:30 p.m., Sun.; 6:45 p.m., Sat., C.
George Olsen, 9:30 p.m., Mon. and Wed., B.
Pacific Serenaders, 12:30 a.m., Thurs., B.
Graham Prince, 6:15 p.m., Friday, B.
Buddy Rogers, 12 mid., Mon. and Wed., R.
B. A. Rolfe, 6:00 p.m., Wednesday, B.
Andy Sanella, 10:15 p.m., Wednesday, B.
Noble Sissle, 12 mid., Thursday, C.
Harold Stern, 12 mid., Tues.; 11:30 p.m., Sat., C.
William Stoess, 12 mid., Sunday, B.
Rudy Vallee, 8:00 p.m., Thursday, R.
Paul Whiteman, 11:00 p.m., Mon. and Thurs.; 12:05 a.m., Tues.; 10:00 p.m., Fri.; 11:30 p.m., Sat.; 8:30 p.m., Wed., R.; 6:00 p.m., Sun., B.

DIALOG

Amos 'n' Andy, 7:00 and 11:00 p.m., daily, ex. Sunday, B.
Big Time, 8:00 p.m., Wednesday, R.
Burn and Allen, 9:00 p.m., Wednesday, C.
Clara, Lu 'n' Em, 10:15 a.m., daily, ex. Sat. and Sun., B.
East Aces, 10:15 p.m., Mon., Wed. and Fri., C.
Funnyboners, 6:45 p.m., Mon. and Wed., C.
Ray Knight, 7:15 p.m., daily, ex. Fri. and Sat., R.; 7:30 p.m., Sat., B.
Meyer the Buyer, 8:30 p.m., Thursday, C.
Opry House, 6:30 p.m., Saturday, R.
Ray Perkins, 7:30 p.m., Tues. and Thurs., R.
Reis & Dunn, 12:30 p.m., Sun.; 6:15 p.m., Mon., C.
S.R.O. Comedy, 9:30 p.m., Saturday, B.
Stebbins Boys, 7:30 p.m., daily, ex. Sat. and Sun., B.
Stoopnagle and Budd, 10:00 p.m., Thurs.; 7:30 p.m., Fri., C
Tastyeast Jesters, 7:15 p.m., Monday, B.
Ward Wilson, 7:15 p.m., Wed., Thurs. and Fri., B.

DRAMA

Big Ben, 5:30 p.m., Sunday, R.
Detective Drama, 9:00 p.m., Thursday, R.
Dramatic Sketch, 10:30 p.m., Mon., Tues. and Wed., B.
Eno Crime Club, 9:30 p.m., Tues. and Wed., C.
Evening in Paris Mystery, 9:30 p.m., Monday, C.
First Nighter, 9:00 p.m., Friday, B.
Friendship Town, 9:30 p.m., Tuesday, B.
Fu Manchu, 8:45 p.m., Monday, C.
Goldbergs, 7:45 p.m., daily, ex. Sunday, R.
K-7, 8:30 p.m., Saturday, R.
Legion of Lost, 12:30 p.m., Sunday, R.
Phillips Lord, 10:00 p.m., daily, ex. Sat. and Sun., B.
Malik Mystery, 11:00 p.m., Sunday, B.
March of Time, 8:30 p.m., Friday, C.
Moonshine and Honeysuckle, 2:30 p.m., Sunday, R.
Myrt and Marge, 7:00 and 10:45 p.m., daily, ex. Sat. and Sun., C.
Rin Tin Tin, 8:30 p.m., Thursday, B.
RKO Mystery, 10:30 p.m., Friday, R.
Roses and Drums, 5:00 p.m., Saturday, C.
Sheer Romance, 6:30 p.m., Tuesday, B.
Soconyland Sketches, 8:00 p.m., Monday, R.
Thompkins Corner, 9:30 p.m., Thursday, B.

PIANO AND ORGAN

Fray and Braggiotti, 7:30 p.m., Wed.; 10:15 p.m., Thurs., C.
Harding Sisters, 6:30 p.m., Mon. and Wed., R.; 10:45 p.m., Sat., B.
Ernest Hutcheson, 10:00 p.m., Sunday, C.
Keenan and Phillips, 7:30 p.m., Saturday, C.
Ann Leaf, 2:30 p.m., Sunday; 9:15 p.m., Saturday, C.
Schirmer and Schmidt, 5:30 p.m., Monday, R.

POPULAR PROGRAMS

A. & P. Gypsies, 9:00 p.m., Monday, R.
America in Revue, 9:30 p.m., Thursday, R.
Armour Program, 9:30 p.m., Friday, B.
Jack Benny, 9:30 p.m., Mon. and Wed., B.
Major Bows, 11:30 a.m., Sunday, R.
Carnation Contended, 8:00 p.m., Monday, B.
Chase and Sanborn, 8:00 p.m., Sunday, R.
Clicquot Club, 9:00 p.m., Friday, R.
Columbia Revue, 12:30 p.m., daily, ex. Sat. and Sun., C.
Enna Jettick Melodies, 9:00 p.m., Sunday, B.
Jay C. Flippen, 10:00 p.m., Tuesday, C.
Jack Frost Melody, 8:30 p.m., Wednesday, B.
G.E. Circle, 5:45 p.m., daily, ex. Sat. and Sun., R.
Goodyear Program, 9:00 p.m., Wednesday, R.
Harlem Fantasy, 8:00 p.m., Saturday, R.
Household Program, 9:00 p.m., Tuesday, B.
Maxwell House, 7:30 and 11:15 p.m., Mon., Wed. and Fri., R.
Musical Fast Freight, 8:45 p.m., Tues. and Wed., C.
Borah Minnevitich, 8:30 p.m., Sunday, B.
Nestle's Program, 8:00 p.m., Friday, B.
Parade of the States, 9:30 p.m., Monday, R.
Pennzoil Parade, 9:30 and 11:30 p.m., Sunday, C.
Pond's Program, 9:30 p.m., Friday, R.
Road to Romanay, 5:30 p.m., Sunday, B.
Sheaffer Revue, 9:45 p.m., Sunday, B.
Sinclair Wiener Minstrels, 9:00 p.m., Monday, B.
Whoopee, 8:00 p.m., Saturday, B.
Ed Wynn, 9:30 p.m., Tuesday, R.
Yeast Foamers, 2:30 p.m., Sunday, B.

QUARTETS

Candle Lightin' Time, 8:30 p.m., Friday, B.
Commodores, 7:30 p.m., Sunday, B.
Corn Cob Pipe Club, 10:00 p.m., Wednesday, R.
Dandies of Yesterday, 6:30 p.m., Wednesday, B.
Mills Bros., 9:15 p.m., Mon. and Thurs., C.
Revelers, 8:30 p.m., Monday, R.
Rollickers, 7:00 p.m., Thurs.; 7:30 p.m., Sat., R.

RELIGIOUS

Cathedral Hour, 4:00 p.m., Sunday, C.
 Catholic Hour, 6:00 p.m., Sunday, R.
 Chicago Knights, 7:15 p.m., Sunday, C.
 Church of the Air, 1:30 p.m., Sunday, C.
 Highlights of Bible, 4:30 p.m., Sunday, B.
 Mid-Week Hymn Sing, 7:00 p.m., Tuesday, R.
 National Sunday Forum, 3:30 p.m., Sunday, R.
 Old Songs of Church, 6:30 p.m., Thursday, B.
 Seth Parker, 10:45 p.m., Sunday, R.
 Salt Lake Tabernacle Choir, 12 noon, Sunday, C.
 World of Religion, 5:00 p.m., Sunday, B.

SINGERS

Irene Beasley, 6:30 p.m., Sun.; 6:00 p.m., Mon., Wed., Fri. and Sat., C.
 Connie Boswell, 7:15 p.m., Wed.; 7:45 p.m., Fri., C.
 Boswell Sisters, 10 p.m., Mon.; 9:00 p.m., Thurs., C.
 Charles Carlile, 7:15 p.m., Mon.; 11:30 p.m., Wed. and Fri., C.
 Vaughn DeLeath, 6:30 p.m., Mon.; 10:45 p.m., Sat., C.
 De Re Mi, 7:45 p.m., Sat.; 8:00 p.m., Sun.; 2:00 p.m., Fri., C.
 Cliff Edwards, 7:15 p.m., Tues. and Thurs., C.
 Ruth Etting, 10:00 p.m., Wed.; 9:00 p.m., Sat., C.
 Jane Froman, 4:00 p.m., Sun., R; 10:45 p.m., daily, ex. Sat and Sun., B.
 Jack Fulton, 7:15 p.m., Saturday, B.
 Sid Gary, 11:30 p.m., Monday, C.
 Tito Guizar, 7:45 p.m., Mon.; 9:30 p.m., Fri., C.
 William Vincent Hall, 8:00 p.m., Sun.; 6:30 p.m., Wed.; 7:15 p.m., Sat., C.
 Ralph Kirbery, 11:00 p.m., Tues. and Sat., R.
 Harriet Lee, 7:00 p.m., Monday, R.
 Little Jack Little, 5:45 p.m., Sun.; 9:00 a.m., daily, ex. Sun.; 11:30 p.m., Tues. and Thurs., C.
 Tommy McLaughlin, 9:15 p.m., Tuesday, C.
 Frank Munn, 9:15 p.m., Sunday, R.

Donald Novis, 7:00 p.m., Sun.; 6:45 p.m., Mon., Wed. and Sat., R.
 Old Singing Master, 10:15 p.m., Sunday, B.
 Pickens Sisters, 7:00 p.m., Sun.; 9:00 p.m., Sat., B.
 Georgie Price, 7:45 p.m., Tues. and Thurs., C.
 Radio Rubes, 11:15 p.m., Sunday, R.
 Red and Ramona, 7:45 p.m., Tues. and Thurs., B.
 Sanderson-Crumit, 8:00 p.m., Tuesday, R.
 Singin' Sam, 8:15 p.m., Mon., Wed. and Fri., C.
 Kate Smith, 8:30 p.m., Mon., Tues. and Wed., C.
 Street Singer, 9:00 p.m., Tues.; 10:00 p.m., Fri., C.
 Irene Taylor, 8:15 p.m., Wednesday, B.
 Temple of Song, 4:00 p.m., Sunday, B.
 Three Keys, 10:45 p.m., Sun.; 10:30 p.m., Thurs., Fri. and Sat., B.
 Trio Romantique, 8:30 p.m., Saturday, B.
 Gus Van, 9:00 p.m., Saturday, B.

TALKS

Adventures in Health, 8:30 p.m., Tues. and Fri., B.
 Cheerio, 8:30 p.m., daily, ex. Sunday, R.
 Football Show, 9:00 p.m., Friday, C.
 William Hard, 6:45 p.m., Tuesday, R.
 Edwin C. Hill, 8:00 p.m., daily, ex. Sun.; 11:00 p.m., Mon., Wed. and Fri., C.
 H. V. Kaltenborn, 6:00 p.m., Tues. and Thurs., C.
 Dr. Julius Klein, 7:00 p.m., Sunday, C.
 David Lawrence, 9:04 p.m., Sunday, R.
 National Farm and Home, 12:30 p.m., daily, ex. Sat. and Sun., B.
 Angelo Patri, 7:45 and 11:15 p.m., Wd. and Sun., C.
 Poets Gold, 5:30 p.m., Sunday, C.
 Public Affairs Institute, 10:15 p.m., Sat., C.
 Nellie Revell, 11:00 p.m., Wednesday, R.
 Sigmund Spaeth, 10:15 p.m., Tues.; 8:15 p.m., Thurs., B.
 Taxpayers' League, 8:00 p.m., Wednesday, B.
 Lowell Thomas, 6:45 p.m., daily, ex. Sat. and Sun., B.
 You and Your Government, 8:00 p.m., Tuesday, B.
 Frederic William Wile, 7:00 p.m., Saturday, C.

KEY TO SYMBOLS

As Shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wavelength in meters. Night power is shown in watts in third column. Daytime power is shown in parenthesis in fourth column in kilowatts, thus (.25) indicating 250 watts. Some stations outside the United States use a "split frequency." Their exact frequency is shown in fourth column. R-C indicates Remote Control. Where space permits, names of hotels or other buildings used in announcements are shown in parenthesis. These are not mail addresses.

Second Column Symbols

a	Verifies reception for return postage.	g	Sends Ekko stamp for postage.
b	Verifies only occasionally.	h	Sends own station stamp for 10c.
c	Does not verify.	i	Sends own station stamp for 5c.
d	Verification 25c; reply card 10c.	j	Sends own station stamp for postage.
e	Sends Ekko stamp for 10c.	k	Has no stamps.
f	Sends Ekko stamp for 5c.	z	Failed to reply.

Fourth Column Symbols

A	These stations are synchronized.	Q	Great Lakes network.
B	National "Blue" Network.	R	National "Red" network.
C	Columbia network.	S	Sunday only.
D	Daytime only.	T	Don Lee System.
Dn	Daytime with occasional evening hours.	U	Dixie network.
E	Trans-Canada network.	V	Maritime Broadcasting network.
F	Canadian National Railways network.	W	Curtis-Indiana network.
G	All Canadian networks.	X	Has permit to increase power.
H	Yankee network.	Y	Has permit to change location.
J	Orange and gold networks.	Z	Has permit to change frequency.
K	Mexican networks.	a-b-c.	Small letters show stations using same transmitter.
L	Canadian Pacific Ry. network (Dominion)	1-2-3.	Figures denote stations sharing time.
M	Canadian Radio Corp. network.	----	No information.
N	National "Red" and "Blue" networks.		
P	Has construction permit only.		

INDEX BY FREQUENCIES AND DIAL NUMBERS

NOTICE OF COPYRIGHT

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FOR KEY TO SYMBOLS SEE PAGE 45

540 kilocycles 555.6 meters

CKOK ae 5000 CG Windsor, Ont.

Essex Broadcasters, Ltd.

550 kilocycles 545.1 meters

KFDY ae 500 (1)1 Brookings, S. D.
 KFUC ae 500 2(1) St. Louis, Mo.
 KFVR ah 1000 1N(2,5) Bismarck, No. Dakota
 KOAC ak 1000 ----- Corvallis, Ore.
 KSD ak 500 2R St. Louis, Mo.
 WDEV ae 500 D Waterbury, Vt.
 WGR ak 1000 C Buffalo, N. Y.
 WKRC ak 1000 C Cincinnati, Ohio

South Dakota State College
 Evangelical Lutheran Church
 Meyer Broadcasting Co.
 Oregon State Agricultural College
 Pulitzer Publishing Co.
 Harry G. Whitehill
 Buffalo Broadcasting Corp.
 WKRC, Inc., Hotel Alms

560 kilocycles 535.4 meters

KFDM ak 500 (1) Beaumont, Texas
 KLZ ak 1000 C Denver, Colo.
 KTAB ae 1000 ----- San Francisco, Calif.
 WFI ae 500 1R Philadelphia, Pa.
 WIBO ae 1000 (1,5)a Chicago, Ill.
 WLIT z 500 1R Philadelphia, Pa.
 WNOX ak 1000 C(2) Knoxville, Tenn.
 WPCC ak 500 Sa Chicago, Ill.
 WQAM ae 1000 C Miami, Fla.

Sabine Broadcasting Co., Inc.
 Reynolds Radio Co., Inc.
 Associated Broadcasters, Inc.
 WFI Broadcasting Co.
 Nelson Bros. Bond & Mtg. Co.
 Lit Bros. Broadcasting System, Inc.
 So. Carolina Broadcasting Co., Inc.
 North Shore Congregational Church
 Miami Broadcasting Co.

570 kilocycles 526.0 meters

KGKO z 250 (.5) Wichita Falls, Texas
 KMTR z 1000 ----- Hollywood, Calif.
 KYI ae 500 C Tacoma, Wash.
 TGW z 50 ----- Guatamala
 WEAO ae 750 1 Columbus, Ohio
 WKBN ak 500 1C Youngtown, Ohio
 WMCA ak 500 3 New York, N. Y.
 WNAX ae 1000 C Yankton, S. D.
 WNYC ak 500 3 New York, N. Y.
 WSYR ak 250 R2a Syracuse, N. Y.
 WWNC ae 1000 N Asheville, N. C.

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

Ohio State University
 WKBN Broadcasting Corp.
 Knickerbocker Broadcasting Co., Inc.
 House of Gurney, Inc.
 Dept. of Plant & Structures
 Clive B. Meredith Estate (WMAC)
 Citizens Broadcasting Co., Inc.

580 kilocycles 516.9 meters

CFCL agj 500 Sa Toronto, Ont.
 CFCY ae 500 E Charlottetown, P. E. I.
 CHMA z 250 4S Edmonton, Alta.
 CKL agj 500 a Toronto, Ont.
 CKUA ak 500 4F Edmonton, Alta.
 KMJ ak 500 CT Fresno, Calif.
 KSAC ae 500 2(1) Manhattan, Kans.
 WDBO ae 250 CU Orlando, Fla.
 WIBW ae 1000 C2 Topeka, Kans.
 WOBU ak 250 1(.5) Charleston, W. Va.
 WSAZ ak 250 1(.5) Huntington, W. Va.
 WTAG ae 250 R(.5) Worcester, Mass.

The Dominion Battery Co.
 Island Radio Broadcasting Co., Ltd.
 Christian & Missionary Alliance
 The Dominion Battery Co.
 University of Alberta
 McClatchy Radio Stations (Fresno Bee)
 State Agricultural College
 Orlando Broadcasting Co., Inc.
 Capper Publications
 WOBU, Inc., Ruffner Hotel
 WSAZ, Inc.
 Worcester Telegram Pub. Co., Inc.

590 kilocycles 508.2 meters

CJGC ae 5000 595GZ London, Ont.
 KHFJ ak 1000 N(2) Spokane, Wash.
 WCAJ ae 500 1 Lincoln, Neb.
 WEI ak 1000 R Boston, Mass.
 WKZO ae 1000 D Kalamazoo, Mich.
 WOV aeh 1000 1R Omaha, Neb.

Free Press Printing Co., Ltd.
 Louis Wasmer, Inc.
 Nebraska Wesleyan University
 Edison Electric Illuminating Co.
 WKZO, Inc., Burdick Hotel
 Woodmen of the World

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600 kilocycles 499.7 meters

CNRO	ak	500	F	Ottawa, Ont.
KFSD	ah	500	N(1)	San Diego, Calif.
WCAC	ak	250	2	Storrs, Conn.
WCAO	ae	250	C	Baltimore, Md.
WICC	ae	250	2H(.5)	Bridgeport, Conn.
WMT	ak	500	C	Waterloo, Iowa
WREC	z	500	C(1)	Memphis, Tenn.

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

KCYS.
670
MTRS.
447.5
DIAL

610 kilocycles 491.5 meters

KFRC	ae	1000	C	San Francisco, Calif.
VPN	z	500	-----	Nassau, Bahama
WDAF	ae	1000	R	Kansas City, Mo.
WIP	ak	500	C	Philadelphia, Pa.
WJAY	ae	500	D	Cleveland, Ohio
XETR	z	2500	-----	Mexico City, Mexico

Don Lee, Inc.
Development Board
Kansas City Star Co.
Pennsylvania Bdctg. Co. (WFAN)
Cleveland Radio Broadcasting Corp.
Cia. Difusora Mexicana S. A.

620 kilocycles 483.6 meters

KGW	ae	1000	N	Portland, Ore.
KTAR	ae	500	NJ(1)	Phoenix, Ariz.
WFLA	ae	1000	Na(2.5)	Clearwater, Fla.
WLBZ	z	500	C	Bangor, Maine
WSUN	ae	1000	Na(2.5)	St. Petersburg, Fla.
WTMJ	ae	1000	N(2.5)	Milwaukee, Wis.

Oregonian Publishing Co.
KTAR Broadcasting Co.
Florida West Coast Bdct. Co., Inc.
Maine Broadcasting Co., Inc.
Florida West Coast Bdctg. Co., Inc.
Journal Company

630 kilocycles 475.9 meters

CFCT	ae	500	G	Victoria, B. C.
CJGX	ae	500	FL	Yorkton, Sask.
CKOC	ae	1000	635aG	Hamilton, Ont.
CKTB	aej	1000	635aL	St. Catharines, Ont.
CMCJ	z	250	-----	Havana, Cuba
CMQ	z	250	-----	Havana, Cuba
CNRA	ae	700	F	Moncton, N. B.
HIX	ah	1000	-----	Santo Domingo, D. R.
KFRU	ak	500	1	Columbia, Mo.
KGFX	z	200	D	Pierre, S. D.
WGFB	ae	500	W	Evansville, Ind.
WMAL	ae	250	C(.5)	Washington, D. C.
WOS	z	500	1	Jefferson City, Mo.
XETF	ak	500	K	Veracruz., Ver., Mexico

Victoria Broadcasting Assn.
Winnipeg Grain Exchange
Wentworth Radio Bdctg. Co., Ltd.
Wentworth Radio Bdctg. Co., Ltd.
Rafael Rodriguez
Jose Fernandez
Canadian National Railways
The Dominican Government
KFRU, Inc.
Dana McNeil
Evansville On the Air, Inc.
M. A. Leese Radio Corp., Inc.
Missouri State Marketing Bureau
Manuel Angel Fernandez

640 kilocycles 468.5 meters

CHRC	ak	100	645aG	Quebec, Que.
CKCI	ck	100	645a	Quebec, Que.
CKCR	ak	100	645G	Waterloo, Ont.
KFI	ah	50000	N1	Los Angeles, Calif.
WAIU	ae	500	1	Columbus, Ohio
WOI	ae	5000	D	Ames, Iowa

CHRC, Ltd., Victoria Hotel
Le Soleil, Ltd.
Mitchell & Liddle
Earle C. Anthony, Inc.
American Insurance Union
State College of Agriculture

650 kilocycles 461.3 meters

KPCB	ae	100	-----	Seattle, Wash.
WSM	aej	50000	N	Nashville, Tenn.

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

660 kilocycles 454.3 meters

CHWK	ak	100	665	Chilliwack, B. C.
CJRM	z	500	665	Moose Jaw, Sask.
CJRW	z	1000	665	Fleming, Sask.
CMCO	z	250	-----	Havana, Cuba
RUS	z	500	664	Salvador
WAAW	z	500	D	Omaha, Neb.
WEAF	ak	50000	R	New York City

Chilliwack Broadcasting Co., Ltd.
Jas. Richardson & Sons, Ltd.
Jas. Richardson & Sons, Ltd.
J. L. Stowers
Republic of El Salvador
Omaha Grain Exchange
National Broadcasting Co., Inc.

670 kilocycles 447.5 meters

WMAQ	ae	5000	N	Chicago, Ill.
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WMAQ, Inc. (NBC Lessees)

CUT OUT ON DOTTED LINES

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680 kilocycles 440.9 meters

CMAF	z	500	-----	Havana, Cuba
KFEQ	ae	2500	D	St. Joseph, Mo.
KPO	ak	5000	N	San Francisco, Calif.
WPTF	ae	1000	N Dn	Raleigh, N. C.
XFG	z	2000	683.3	Mexico, Mexico

International Broadcasting Co.
Scroggin & Co. Bank
National Broadcasting Co., Inc.
Durham Life Insurance Co.
Sria. de Guerra y Marina

690 kilocycles 434.5 meters

CFAC	ak	500	1G	Calgary, Alta.
CFRB	ae	10000	CM	Toronto, Ont.
CJ CJ	ak	500	1LE	Calgary, Alta.
NAA	z	1000	-----	Arlington, Va.
VAS	z	2000	685(4)	Glance Bay, N. S.
XET	ck	500	-----	Monterrey, Mexico
VCX	z	100	-----	Halifax, N. S.

Calgary Herald, Ltd.
Rogers-Majestic Corp., Ltd.
Albertan Publishing Co., Ltd.
U. S. Navy
Canadian Marconi Co.
Cadena Radio Difusora Mexicana S. A.
Sambro Lightship

700 kilocycles 428.3 meters

WLW	ae	50000	B	Cincinnati, Ohio
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The Crosley Radio Corporation

710 kilocycles 422.3 meters

KMPC	z	500	Dn	Beverly Hills, Calif.
WOR	ak	5000	X	Newark, N. J.
XEN	agj	1000	711K	Mexico City

R. S. MacMillan
Bamberger's Broadcasting Service, Inc.
Cerveceria Modelo S. A.

720 kilocycles 416.4 meters

WGN	ak	25000	C	Chicago, Ill.
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WGN, Inc., Drake Hotel

730 kilocycles 410.7 meters

CHLS	ak	100	1b	Vancouver, B. C.
CHYC	z	5000	Sa	Montreal, Que.
CKAC	ak	5000	CaM	Montreal, Que.
CKCD	z	100	1b	Vancouver, B. C.
CKFC	ak	50	1	Vancouver, B. C.
CKMO	z	100	1	Vancouver, B. C.
CKWX	ak	100	1L	Vancouver, B. C.
CMK	aeH	5000	-----	Havana, Cuba
XEF-XER	z	75000	735	Villa Acuna, Mexico

W. G. Hassell (Province Bldg.)
Northern Electric Co., Ltd.
La Presse Publishing Co., Ltd.
Vancouver Daily Province
United Church of Canada
Spratt-Shaw Radio Co.
Western Broadcasting Co., Ltd.
National Broadcasting Co. of Cuba
Villa Acuna Broadcasting Co., Inc.

740 kilocycles 405.2 meters

CJCA	ae	500	745EL	Edmonton, Alberta
KMMJ	bk	1000	Dn	Clay Center, Neb.
WSB	aeH	5000	N	Atlanta, Ga.
WHEB	z	250	D	Portsmouth, N. H.

Edmonton Journal, Ltd.
M. M. Johnson Co. (R / C Lincoln)
Atlanta Journal, Biltmore Hotel
Granite State Broadcasting Co.

750 kilocycles 399.8 meters

KGU	aj	2500	NX	Honolulu, Hawaii
VOWR	ak	500	-----	St. John's, N. F.
WJR	ak	10000	B	Detroit, Mich.
XEQ	aeH	5000	-----	Juarez, Chih., Mexico

Advertiser Publishing Co.
Wesley United Church
WJR, The Goodwill Station, Inc.
Radio Difusora National S. A.

760 kilocycles 394.5 meters

KXA	ae	250	(.5)	Seattle, Wash.
WBAL	ae	10000	BA	Baltimore, Md.
WEW	ae	1000	D	St. Louis, Mo.
WJZ	ck	30000	BA	New York City

American Radio Tel. Co.
(See 1060 keys. also)
St. Louis University
National Broadcasting Co., Inc.

770 kilocycles 389.4 meters

KFAB	ae	5000	1C	Lincoln, Neb.
WBBM	ae	25000	1C	Chicago, Ill.

KFAB Broadcasting Co.
WBBM Bdctg. Corp. (Wrigley Bldg.)

780 kilocycles 384.4 meters

CKY	z	5000	-----	Winnipeg, Man.
KELW	aeH	500	2	Burbank, Calif.
KTM	ae	500	2(1)	Los Angeles, Calif.
WEAN	ak	250	CH(.5)	Providence, R. I.
WMC	ak	500	N (1)	Memphis, Tenn.
WPOR	aeH	500	b	Portsmouth, Va.
WTAR	aeH	500	bC	Norfolk, Va.
XEZ	z	500	-----	Mexico, Mexico

Manitoba Telephone System
Magnolia Park, Ltd.
Pickwick Broadcasting Corp., Ltd.
Shepard Broadcasting Service, Inc.
Memphis Commercial Appeal, Inc.
WTAR Radio Corp. (Norfolk)
WTAR Radio Corp.
Joaquin Capilla

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790 kilocycles 379.5 meters

CMBS	z	150	-----	Havana, Cuba
CMBT	z	150	-----	Havana, Cuba
CMHC	z	250	-----	Tuinucu, Cuba
KGO	ak	7500	N	San Francisco, Calif.
WGY	ak	50000	R	Schenectady, N. Y.

Enrique Artalejo
Emilio Perera
Frank H. Jones
General Electric Co. (Opr. NBC)
General Electric Co.

800 kilocycles 374.8 meters

WBAP	ak	10000	1N	Fort Worth, Texas
WFAA	ak	50000	1N	Dallas, Texas

Carter Publications, Inc.
Dallas News-Dallas Journal

810 kilocycles 370.2 meters

CHNS	ae.	500	815aZG	Halifax, N. S.
CNRH	z	500	815aZ	Halifax, N. S.
VOAS	ak	75	D	St. John's, N. F.
WCCO	ae	5000	C	Minneapolis, Minn.
WPCH	ak	500	D	New York City
XFC	z	250	-----	Aguascalientes, Mex.

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

820 kilocycles 365.6 meters

CMGC	z	30	-----	Matanzas, Cuba
WHAS	aj	25000	C	Louisville, Ky.

Oscar S. Mechoso
The Louisville Times Co., Inc.

830 kilocycles 361.2 meters

KOA	ak	12500	NJ	Denver, Colo.
WEEU	ak	1000	D	Reading, Pa.
WHDH	z	1000	DY	Boston, Mass.
WRUF	ae	5000	DnC	Gainesville, Fla.

General Electric Co. (NBC Opr.)
Berks Broadcasting Co.
Matheson Radio Co., Inc.
State of Florida (Univ. of Fla.)

840 kilocycles 356.9 meters

CKGW	ae	5000	NEa	Toronto, Ont.
CKLC	ak	1000	G	Red Deer, Alta.
CMC	z	500	-----	Havana, Cuba
CPRY	ae	5000	L	Toronto, Ont.
XEFD	z	300	845	Tijuana, Mexico

Gooderham & Worts, Ltd.
Alberta Pacific Grain Co., Ltd.
Cuban Telephone Co.
Canadian Pacific Co., Royal York Hotel
Carlos de la Sierra

850 kilocycles 352.7 meters

CMJE	z	20	856	Camaguey, Cuba
KWKH	ak	10000	1	Shreveport, La.
WWL	ak	5000	1DnX	New Orleans, La.

Manuel Fernandez
Hello World Broadcasting Corp.
WWL Development Co. (Loyola Univ.)

860 kilocycles 348.6 meters

WABC	ae	50000	aC	New York City
WBQO	ae	50000	a	New York City
WHB	ae	500	D	Kansas City, Mo.
XFX	z	500	867	Mexico City, Mexico

Atlantic Broadcasting Corp.
Atlantic Broadcasting Corp. (tests)
WHB Broadcasting Co.
Secretaria de Educacion Publica

870 kilocycles 344.6 meters

WBCN	ak	50000	Na	Chicago, Ill.
WENR	ak	50000	Na	Chicago, Ill.
WLS	ae	50000	Na	Chicago, Ill.
XFF	z	500	875	Chihuahua, Mexico

Great Lakes Bdctg. Co., NBC Opr.
Great Lakes Bdctg. Co. NBC Opr.
Agricultural Broadcasting Co.
Gobierno del Estado de Chihuahua

880 kilocycles 340.7 meters

CHML	ae	50	4G	Hamilton, Ont.
CJCB	ak	100	G	Sydney, N. S.
CKCV	ak	100	-----	Quebec, Que.
CKPC	ak	100	4L	Preston, Ont.
KFKA	ak	500	2(1)	Greeley, Colo.
KLX	ae	500	-----	Oakland, Calif.
KPOF	ae	500	2	Denver, Colo.
WCOC	ae	500	(1)	Meridian, Miss.
WGBI	ah	250	Q1	Scranton, Pa.
WQAN	ak	250	1	Scranton, Pa.
WSUI	ae	500	-----	Iowa City, Iowa

Maple Leaf Radio Co., Ltd.
Nathansan's Radio Headquarters
Vandry, Inc.
Cyrus Dolph
Mid-Western Radio Corp.
Tribune Publishing Co.
Pillar of Fire
Mississippi Broadcasting Co., Inc.
Scranton Broadcasters, Inc.
Scranton Times
State University of Iowa

KCYS.
880
MTRS.
340.7
DIAL

CUT OUT ON DOTTED LINES

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890 kilocycles 336.9 meters

CFBO	z	500	-----	St. John, N. B.
CKCO	z	100	3	Ottawa, Ont.
CKPR	ak	50	3G	Fort William, Ont.
CMCF	ak	250	1	Havana, Cuba
CMX	ae	3000	1	Havana, Cuba
KARK	ak	250	-----	Little Rock, Ark.
KFNF	ak	500	2(1)	Shenandoah, Iowa
KSEI	ae	250	(.5)	Pocatello, Idaho
KUSD	ae	500	2	Vermillion, S. Dak.
VOGT	z	100	-----	Wabana, N. F.
WGST	ae	250	C(.5)	Atlanta, Ga.
WILL	ak	250	2(.5)	Urbana, Ill.
WJAR	ae	250	(.5)R	Providence, R. I.
WMMN	ach	250	(.5)	Fairmont, W. Va.

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C. A. Munro, Ltd.
Dr. G. M. Geldert
Dougall Motor Car Co., Ltd.
Raoul Karman, Casa DelaPorte
Casa "Lavin" Francisco A. Lavin, Adm.
Arkansas Radio & Equipment Co.
Henry Field Company
Radio Service Corporation
University of South Dakota
The Gaiety Theatre
Southern Broadcasting Co.
University of Illinois
The Outlet Co.
A. M. Rowe, Inc.

900 kilocycles 333.1 meters

KGBU	z	500	-----	Ketchikan, Alaska
KHJ	ae	1000	C T	Los Angeles, Calif.
WBEN	ae	1000	R	Buffalo, N. Y.
WJAX	ach	1000	N	Jacksonville, Fla.
WKY	ae	1000	N	Oklahoma City, Okla.
WLBL	ae	2000	D	Stevens Point, Wis.

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Alaska Radio & Service Co.
Don Lee, Inc.
WBEN, Inc., Buffalo Evening News
City of Jacksonville
Oklahoma Publishing Co.
Wis. Dept. Agriculture & Markets

910 kilocycles 329.6 meters

CFLC	ae	100	915	Prescott, Ont.
CFQC	z	500	-----	Saskatoon, Sask.
TICR	z	50	911	San Jose, Costa Rica
XEW	z	5000	-----	Mexico City, Mexico

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Radio Association of Prescott
The Electric Shop, Ltd.
Mexico Music Co.

920 kilocycles 325.9 meters

CMCD	ach	250	925	Havana, Cuba
CMCN	z	250	925	Havana, Cuba
HHK	z	1000	-----	Port au Prince, Haiti
KFEL	ak	500	1	Denver, Colo.
KFXF	z	500	1	Denver, Colo.
KOMO	aj	1000	N	Seattle, Wash.
KPRC	ak	1000	N(2.5)	Houston, Texas
WAAF	ak	500	D	Chicago, Ill.
WBSO	ae	500	D	Babson Park, Mass.
WWJ	ak	1000	R	Detroit, Mich.

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Angel Bertemart y Garcia
Antonio Ginard
Republic of Haiti
Gene O'Fallon (Albany Hotel)
Colorado Radio Corp.
Fisher's Blend Station, Inc.
Houston Printing Co. (Houston Post)
Drovers Journal Publishing Co.
Broadcasting Service Org., Inc.
The Detroit News

930 kilocycles 322.4 meters

CFCH	aj	100	3LM	North Bay, Ont.
CFRC	z	50	3(.25)	Kingston, Ont.
CKXI	ak	500	E	Brandon, Manitoba
CMJF	z	225	-----	Camaguey, Cuba
KFWI	aj	500	1	San Francisco, Calif.
KGBZ	ak	500	2(1)	York, Neb.
KMA	ae	500	2(1)	Shenandoah, Iowa
KROW	ak	500	1(1)	Oakland, Calif.
WBRC	ak	500	C(1)	Birmingham, Ala.
WDBJ	ae	250	C(.5)	Roanoke, Va.
WIBG	ach	25	D	Glenside, Penna.

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Northern Supplies, Ltd.
Queen's University
Manitoba Telephone System
John L. Stowers
Radio Entertainments, Ltd.
Dr. Geo. R. Miller
Earl E. May Seed & Nursery Co.
Educational Broadcasting Corp.
Birmingham Bdctg. Co., Inc.
Times-World Corp.
WIBG, Inc. (Keswick Bldg.)

940 kilocycles 319.0 meters

KOIN	zk	1000	CT	Portland, Ore.
WAAT	ae	300	D	Jersey City, N. J.
WCSH	ae	1000	R(2.5)	Portland, Maine
WDAY	ae	1000	N	Fargo, No. Dakota
WFIW	ae	1000	C	Hopkinsville, Ky.
WHA	ak	1000	D	Madison, Wis.
XEO	ak	5000	(35)	Mexico City, Mexico

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KOIN, Inc. (New Heathman Hotel)
Bremer Broadcasting Corp.
Congress Square Hotel Co.
WDAY, Inc. (Black Bldg.)
WFIW, Inc.
University of Wisconsin
National Revolucionario Party (XEFO)

950 kilocycles 315.6 meters

CMHD	z	250	-----	Caibarien, Cuba
KFWB	ak	1000	-----	Los Angeles, Calif.
KGHL	ak	1000	NJ(2.5)	Billings, Mont.
KMBC	ak	1000	C	Kansas City, Mo.
VONA	z	30	-----	St. John's, N. F.
WRC	z	500	R	Washington, D. C.

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Manual Alvarez
Warner Bros. Broadcasting Corp.
Northwestern Auto Supply Co.
Midland Bdctg. Co. (Pickwick Hotel)
Lane, Gillard & Avery
National Broadcasting Co., Inc.

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960 kilocycles 312.3 meters

CHCK	ak	100	V	Charlottetown, P. E. I.	J. A. Gesner & W. E. Burke
CHWC	ak	500	3FL	Regina, Sask.	R. H. Williams & Sons, Ltd.
CKKC	ak	500	3FL	Regina, Sask.	Leader Post, Ltd. (Leader Bldg.)
CKNC	ak	500	M	Toronto, Ont.	Canadian National Carbon Co., Ltd.
CMBC	aeH	500	965a	Havana, Cuba	Domingo Fernandez
CMDB	z	150	965a	Havana, Cuba	Luis Perez Garcia
CMJL	z	50	-----	Camaguey, Cuba	Enrique Artimes
XED	z	10000	965	Reynosa, Mexico	International Broadcasting Co.

970 kilocycles 309.1 meters

KJR	ae	5000	N	Seattle, Wash.	Northwest Broadcasting System, Inc.
WCFL	ak	1500	RX	Chicago, Ill.	Chicago Federation of Labor

980 kilocycles 305.9 meters

CFCN	ak	10000	985FL	Calgary, Alberta	The Voice of the Prairies, Ltd.
KDKA	ak	50000	B	Pittsburgh, Pa.	Westinghouse Elec. & Mfg. Co.

990 kilocycles 302.8 meters

CMGF	z	50	987	Matanzas, Cuba	Bernabe R. de la Torre
WBZ	ak	25000	BA	Boston, Mass.	Westinghouse Elec. & Mfg. Co.
WBZA	ak	1000	BA	Springfield, Mass.	Westinghouse Elec. & Mfg. Co.
WJEM	z	500	DP	Tupelo, Miss.	Britt A. Rogers, Jr.
XEK	z	101	-----	Mexico City, Mexico	Arturo Martinez

KCY5.
1040

MTRS.
288.3

1000 kilocycles 299.8 meters

KFVD	ak	250	Dn	Los Angeles, Calif.	Los Angeles Broadcasting Co.
WHO	z	5000	RAX	Des Moines, Iowa	Central Broadcasting Co.
WOC	ak	5000	RAX	Davenport, Iowa	Central Broadcasting Co.
WORK	aj	1000	D	York, Pa.	York Broadcasting Co.
XEC	z	50	-----	Toluca, Mexico	Jesus R. Benavides
XEE	z	105	-----	Oaxaca, Oax., Mexico	Alfonso Zorilla B.
XEFE	z	100	-----	N. Laredo, Tams., Mex.	Rafael T. Carranza
XEFI	z	100	-----	Chihuahua, Mexico	Feliciano Lopez Islas
XEFS	z	40	-----	Queretaro, Mexico	Queretaro Sanchez
XEJ	ak	100	K	Juarez, Mexico	Juan G. Buttner & Leo Allande
XEL	ak	25	-----	Saltillo, Mexico	Antonio Garza Castro y J. T. Perez
XETC	z	100	-----	Jalapa, Ver., Mexico	Juventino Sanchez
XETG	z	100	-----	Torreon, Coah., Mex.	Feliciano Lopez Islas
XEU	ak	100	1007K	Veracruz, Mexico	Baltasar Pazos Sosa
XEV	z	100	-----	Puebla, Pue., Mex.	Ciro Molina
XEY	z	105	-----	Merida, Yuc.	Partido Socialista S. E.

DIAL

1010 kilocycles 296.8 meters

CKIC	ak	50	-----	Wolfville, N. S.	Acadia University
CMBZ	z	150	-----	Havana, Cuba	Manuel & Guillermo Salas
KGGF	ak	500	2	So. Coffeyville, Okla.	Powell & Platz
KQW	ae	500	T	San Jose, Calif.	Pacific Agricultural Foundation, Ltd.
WHN	z	250	1	New York City	Marcus Loew Booking Agency
WIS	ae	500	N(1)	Columbia, S. C.	South Carolina Bdctg. Co., Inc.
WNAD	ae	500	2	Norman, Okla.	University of Oklahoma
WPAP	z	250	1	New York City	Calvary Baptist Church
WQAO	z	250	1	New York City	Calvary Baptist Church
WRNY	z	250	1	New York City	Aviation Radio Station, Inc.

CUT OUT ON DOTTED LINES

1020 kilocycles 293.9 meters

KYW	ae	10000	N	Chicago, Ill.	Westinghouse Elec. & Mfg. Co. (KFKX)
WRAX	ae	250	D	Philadelphia, Pa.	WRAX Broadcasting Co.

1030 kilocycles 291.1 meters

CFCF	ae	500	NG	Montreal, Que.	Canadian Marconi Co.
CMHI	ck	200	a	Santa Clara, Cuba	Laviz & Paz
CMKC	z	150	1034a	Santiago de Cuba	M. P. Martinez
CNRV	ak	500	-----	Vancouver, B. C.	Canadian National Railways
XEB	ak	1000	-----	Mexico City, Mexico	El Buen Tono, S. A.

1040 kilocycles 288.3 meters

CMGH	z	150	-----	Matanzas, Cuba	Alberto Alvarez
KRLD	ae	10000	IC	Dallas, Texas	KRLD Radio Corp. (Adolphus Hotel)
KTHS	ae	10000	1N	Hot Springs, Ark.	Chamber of Commerce
WKAR	ae	1000	D	East Lansing, Mich.	Michigan State College

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1050 kilocycles 285.5 meters

CMJG	z	50	-----	Carnaguey, Cuba
KFBI	ae	5000	Dn	Abilene, Kans.
KNX	ae	5000	X	Hollywood, Calif.
XEFC	z	10		Merida, Yuc.
XES	adk	500	1055K	Tampico, Mexico

Jose Antonio Lefran
Farmers & Bankers Life Ins. Co.
Western Broadcast Co.
Hugo Molina Font
Wendell Cox

1060 kilocycles 282.8 meters

KWJJ	z	500	Dn	Portland, Ore.
WBAL	ae	10000	1B	Baltimore, Md.
WJAG	ak	1000	Dn	Norfolk, Neb.
WTIC	ak	50000	1R	Hartford, Conn.

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

1070 kilocycles 280.2 meters

CMBG	z	225	-----	Havana, Cuba
CMCB	af	150	-----	Havana, Cuba
KJBS	ae	100	D	San Francisco, Calif.
WCAZ	z	50	D	Carthage, Ill.
WDZ	ak	100	D	Tuscola, Ill.
WTAM	ak	50000	R	Cleveland, Ohio
XEG	z	250	-----	Mexico City, Mexico

Francisco Garrigo
Metropolitan-Radio de Cuba
Julius Brunton & Sons Co.
Superior Bdctg. Service, Inc.
James L. Bush
National Broadcasting Co., Inc.
Miguel Yarza

1080 kilocycles 277.6 meters

WBT	ae	25000	CU	Charlotte, N. C.
WCBD	ae	5000	1Dn	Zion, Ill.
WMBI	ck	5000	1Dn	Chicago, Ill.

Station WBT, Inc.
Wilbur Glenn Voliva
Moody Bible Institute

1090 kilocycles 275.1 meters

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

1100 kilocycles 272.6 meters

KGDM	ak	250	D	Stockton, Calif.
WLWL	z	5000	1	New York City
WPG	ae	5000	1C	Atlantic City, N. J.

E. F. Peffer
Missionary Society of St. Paul
Municipality of Atlantic City

1110 kilocycles 270.1 meters

KSOO	ae	1000	Dn(2.5)	Sioux Falls, So. Dak.
WRVA	ae	5000	N	Richmond, Va.

Sioux Falls Broadcast Assn., Inc.
Larus & Bros. Co., Inc.

1120 kilocycles 267.7 meters

CFCA	ak	500	G	Toronto, Ont.
CFJC	ak	100	EL	Kamloops, B. C.
CHGS	ce	100	V	Summerside, P. E. I.
CJOC	ak	100	-----	Lethbridge, Alta.
KFIO	ae	100	D	Spokane, Wash.
KFSG	ak	500	3	Los Angeles, Calif.
KRKD	aeH	500	3	Los Angeles, Calif.
KRSC	ak	100	D	Seattle, Wash.
KTRH	ak	500	2C	Houston, Texas
WDEL	aj	250	(.5)	Wilmington, Del.
WHAD	ae	250	1C	Milwaukee, Wis.
WISN	ak	250	1C	Milwaukee, Wis.
WTAW	z	500	2	College Station, Texas

Toronto Daily Star
The Kamloops Sentinel
R. T. Holman, Ltd.
Harold R. Carson
Spokane Broadcasting Corp.
Echo Park Evangelistic Assn.
Dalton's, Inc. (Arcade Bldg.)
Radio Sales Corp. (Wash. Ath. Club)
KTRH Broadcasting Co. (Rice Hotel)
WDEL, Inc.
Marquette University
American Radio News Corp.
Agricultural & Mech. College

1130 kilocycles 265.3 meters

KSL	ae	5000	Cn	Salt Lake City, Utah
WJJD	ze	20000	Dn	Chicago, Ill.
WOV	z	1000	D	New York City
XEH	ak	1000	1132	Monterrey, Mexico

Radio Service Corp. of Utah
WJJD, Inc. (Palmer House)
International Broadcasting Corp.
Tarnava & Cia.

1140 kilocycles 263.0 meters

CMBW	z	150	-----	Havana, Cuba
CMCQ	z	1000	-----	Havana, Cuba
KVOO	ae	5000	1N	Tulsa, Okla.
WAPI	aj	5000	1N	Birmingham, Ala.
XETA	z	500	-----	Mexico City, Mexico

Alvarez-Moris
Andres Martinez
Southwestern Sales Corp.
WAPI Broadcasting Corp.
Manuel Espinosa Tagle

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1150 kilocycles 260.7 meters

CMGI	z	30	-----	Colon, Cuba
CMHJ	ae	75	-----	Cienfuegos, Cuba
CMJH	ak	50	-----	Ciego de Avila, Cuba
WFAM	ae	5000	B	Rochester, N. Y.
XEA	ak	500	K1155	Guadalajara, Mexico
10-AT	z	25	1155	Trail, B. C.

Armando Lizama
Victorino Lopez (Hotel Bristol)
Luis Marauri Mendoza
Stromberg-Carlson Tel. Mfg. Co.
Radiofonografica de Guadalajara, S.A.
Trail Amateur Radio Assn.

1160 kilocycles 258.5 meters

WOWO	ae	10000	1C	Fort Wayne, Ind.
WVVA	ae	5000	1C	Wheeling, W. Va.

Main Auto Supply Co.
West Virginia Broadcasting Corp.

1170 kilocycles 256.3 meters

WCAU	ae	10000	C	Philadelphia, Pa.
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Universal Broadcasting Corp.

1180 kilocycles 254.1 meters

CMW	ae	1500	1185	Havana, Cuba
KEX	ak	5000	2N	Portland, Ore.
KOB	ae	10000	2	Albuquerque, N. M.
WDGY	ak	1000	Dn	Minneapolis, Minn.
WINS	ae	500	-----	New York City
WMAZ	ak	500	-----	Macon, Ga.

Troncoso y Gil
National Broadcasting Co.
N. M. Coll. of Agr. & Mechanical Arts
George W. Young
American Radio News Corp.
Southeastern Broadcasting Co.

1190 kilocycles 252.0 meters

WOAI	ae	50000	N	San Antonio, Texas
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Southern Equipment Co.

1200 kilocycles 249.9 meters

CKOV	ak	100	-----	Kelowna, B. C.
CMGB	z	30	1205	Matanzas, Cuba
KBTM	ak	100	D	Paragould, Ark.
KERN	z	100	C	Bakersfield, Calif.
KFJB	z	100	(.25)	Marshalltown, Iowa
KFWF	z	100	5	St. Louis, Mo.
KFXD	ae	100	(.25)	Nampa, Idaho
KGDE	ae	100	(.25)	Jargon Falls, Minn.
KG DY	z	100	-----	Huron, S. D.
KGEK	ak	100	9	Yuma, Colo.
KGEW	ak	100	9	Ft. Morgan, Colo.
KGFJ	ae	100	-----	Los Angeles, Calif.
KGHI	z	100	-----	Little Rock, Ark.
KGVO	ak	100	-----	Missoula, Mont.
KMLB	z	100	D	Monroe, La.
KVLS	z	100	-----	Bellingham, Wash.
KWG	ae	100	CT	Stockton, Calif.
WABI	ak	100	-----	Bangor, Maine
WABZ	z	100	1	New Orleans, La.
WBZZ	ak	100	-----	Ponca City, Okla.
WBHS	z	100	4	Huntsville, Ala.
WCAT	ak	100	D	Rapid City, S. D.
WCAX	ak	100	-----	Burlington, Vt.
WCLO	ak	100	-----	Janesville, Wis.
WCOD	z	100	3	Harrisburg, Pa.
WFAM	z	100	8	South Bend, Ind.
WFBE	ak	100	(.25)	Cincinnati, Ohio
WHBC	ak	10	-----	Canton, Ohio
WHBY	ak	100	-----	Green Bay, Wis.
WIBX	z	100	(.3)	Utica, N. Y.
WIL	ae	100	5(.25)	St. Louis, Mo.
WJBC	ae	100	6	LaSalle, Ill.
WJBL	ae	100	6	Decatur, Ill.
WJBW	ak	100	1	New Orleans, La.
WKJC	ak	100	3	Lancaster, Pa.
WLAP	ck	100	(.25)	Louisville, Ky.
WNBO	ae	100	(.1)	Washington, Pa.
WNBW	z	10	-----	Carbondale, Pa.
WORC	ak	100	CH	Worcester, Mass.
WPBR	ak	100	(.25)	Petersburg, Va.
WRBL	ak	100	-----	Columbus, Ga.
WWAE	z	100	8	Hammond, Ind.
10-AB	z	25	-----	Moose Jaw, Sask.
10-AK	ak	15	-----	Stratford, Ont.
10-BI	ak	25	-----	Prince Albert, Sask.
10-BP	ak	25	1199	Wingham, Ont.
10-BQ	ak	15	-----	Brantford, Ont.
10-BU	z	15	-----	Canora, Sask.

Okanagan Broadcasters, Ltd.
Jose Anorga
Beard's Temple of Music
Bee Bakersfield Broadcasting Co.
Marshall Electric Co., Inc.
St. Louis Truth Center, Inc.
Frank E. Hurt (R/C Boise)
Jaren Drug Co.
Voice of South Dakota
Beehler Electrical Equipment Co.
City of Fort Morgan
Ben. S. McGlashan
O. A. Cook
Mosby's, Inc.
Liner's Broadcasting Station, Inc.
KVOS, Inc.
McClatchy Newspapers
First Universalist Society
Samuel D. Reeks
C. L. Carrell (R/C various cities)
The Hutchens Co.
State School of Mines
Burlington Daily News
WCLO Radio Corp. (R/C Beloit)
Keystone Broadcasting Corp.
South Bend Tribune
The Post Publishing Co., Opr.
Edward P. Graham
St. Norbert College (Belli Bldg.)
WIBX, Inc.
Missouri Broadcasting Corp.
Kaskaskia Broadcasting Co.
Commodore Broadcasting, Inc.
C. C. Carlson
Lancaster Bdtg. Service, Inc.
American Broadcasting Corp. of Ky.
Spriggs Symplex
Home Cut Glass & China Co.
A. F. Kleindienst
WLBG, Inc.
WRBL Radio Station, Inc.
Hammond-Calumet Bdtg. Corp.
Moose Jaw Radio Assn.
M. I. Higgins Elec. & Radio Co.
Prince Albert Radio Club
W. T. Cruickshank
Tom Brown & Harold Brown
Canora Radio Assn.

KCY.S.
1200
MTRS.
249.9
DIAL

CUT OUT ON DOTTED LINES

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INDEX BY FREQUENCIES AND DIAL NUMBERS

1210 kilocycles 247.8 meters

CFCO	ak	250	8G	Chatham, Ont.	John Beardall (Wm. Pitt Hotel)
CFNB	z	50	E----	Fredericton, N. B.	James S. Neill & Sons, Ltd.
✓ CJOR	ak	500	E	Vancouver, B. C.	George C. Chandler
CKMC	z	100	8	Cobalt, Ont.	R. L. McAdam
KASA	ak	100	-----	Elk City, Okla.	E. M. Woody (Casa Grande Hotel)
KDLR	ak	100	-----	Devils Lake, N. Dak.	KDLR, Inc.
✓ KFJI	ak	100	-----	Klamath Falls, Ore.	KFJI Broadcasters, Inc.
✓ KFOR	ak	100	(.25)	Lincoln, Neb.	Howard A. Shuman
✓ KFPW	ak	100	-----	Fort Smith, Ark.	Southwestern Hotel Co.
✓ KFVS	ae	100	6	Cape Girardeau, Mo.	Oscar C. Hirsch
✓ KFXM	ak	100	9	San Bernardino, Calif.	J. C. & E. W. Lee
✓ KGCR	ah	100	-----	Watertown, S. Dak.	Greater Kampeska Radio Corp.
✓ KGNO	ak	100	-----	Dodge City, Kans.	Dodge City Broadcasting Co.
✓ KGY	ak	100	-----	Olympia, Wash.	KGY, Inc. (Capitol Park Bldg.)
✓ KPPC	ak	50	9	Pasadena, Calif.	Pasadena Presbyterian Church
KWEA	z	100	-----	Shreveport, La.	Hello World Broadcasting Corp.
WALR	ae	100	-----	Zanesville, Ohio	WALR Broadcasting Corp.
WBAX	ae	100	1	Wilkes-Barre, Pa.	John H. Stenger, Jr. (Morris Bldg.)
WBBL	z	100	7S	Richmond, Va.	Grace Covenant Pres. Church,
WCBS	ak	100	2	Springfield, Ill.	Chas. H. Messter & Harold L. Dewing
WCRW	ae	100	4	Chicago, Ill.	Clinton R. White
WEBQ	ae	100	6	Harrisburg, Ill.	Harrisburg Broadcasting Co.
WEDC	z	100	4	Chicago, Ill.	Emil Denemark, Inc.
WFAS	ak	100	3	White Plains, N. Y.	Westchester Broadcasting Corp.
WGGB	z	100	3	Freeport, N. Y.	Harry H. Carman
WGCN	ae	100	5	Gulfport, Miss.	Great Southern Land Co.
WHBF	ae	100	-----	Rock Island, Ill.	Beardsley Specialty Co. (Harms Hotel)
WHBU	aj	100	-----	Anderson, Ind.	Anderson Broadcasting Corp.
WHET	ak	100	D	Troy, Ala.	Troy Broadcasting Co.
WIBU	z	100	-----	Poynette, Wis.	Wm. C. Forrest
WJBI	ak	100	3	Red Bank, N. J.	Monmouth Broadcasting Co., Inc.
WJBU	ae	100	1	Lewisburg, Pa.	Bucknell University
WJBY	z	100	-----	Gadsden, Ala.	Gadsden Broadcasting Co., Inc.
WTEJ	z	100	PD	Hagerstown, Md.	A. V. Tidmore
WTV	ae	100	Y	Mansfield, Ohio	John F. Weimer (to Akron)
WKFI	z	100	5(.25)	Greenville, Miss.	J. Pat Scully
WMBG	aj	100	7C	Richmond, Va.	Havens & Martin, Inc.
WMLR	ak	100	3	Jamaica, N. Y.	Peter J. Prinz
WOCL	ak	50	-----	Jamestown, N. Y.	A. E. Newton
WOMT	ae	100	-----	Manitowoc, Wis.	Francis Mangin Kadow
WPAA	z	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co.
WPRO	z	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co.
WQDX	z	100	-----	Thomasville, Ga.	Stevens Luke
WSBC	z	100	4	Chicago, Ill.	World Battery Co., Inc.
WSEN	ak	100	-----	Columbus, Ohio	Columbus Bdctg. Corp. (Seneca Hotel)
WSIX	z	100	-----	Springfield, Tenn.	638 Tire & Vulcanizing Co.
WSOC	ae	100	-----	Gastonia, N. C.	WSOC, Inc.
WTAX	z	100	2	Springfield, Ill.	WTAX, Inc.
XEX	z	500	-----	Mexico City, Mexico	Excelsior, Cia Editorial S. A.

1220 kilocycles 245.8 meters

KFKU	ae	500	1	Lawrence, Kans.	University of Kansas
✓ KTW	z	1000	2	Seattle, Wash.	First Presbyterian Church
✓ KWSC	ae	1000	2(2)	Pullman, Wash.	State College of Washington
WCAD	ak	500	D	Canton, N. Y.	St. Lawrence University
WCAE	ae	1000	R	Pittsburgh, Pa.	WCAE, Inc. and Sun-Telegraph
WDAE	ak	1000	C	Tampa, Fla.	Tampa Daily Times (Tampa Terrace)
✓ WREN	ak	1000	1B	Lawrence, Kans.	Jenny Wren Co.

1230 kilocycles 243.8 meters

CMBY	z	350	1235	Havana, Cuba	Callejas-Estefani
CMCA	z	150	1235	Havana, Cuba	Manuel Cruz
✓ KFOD	aj	250	-----	Anchorage, Alaska	Anchorage Radio Club, Inc.
✓ KGGM	ak	250	(.5)	Albuquerque, N. M.	New Mexico Broadcasting Co.
✓ KYA	ae	1000	N	San Francisco, Calif.	Pacific Broadcasting Co.
WFBM	ae	1000	1C	Indianapolis, Ind.	Indianapolis Power & Light Co.
WNAC	ae	1000	CH	Boston, Mass.	Shepard Broadcasting Service, Inc.
WPSC	ah	500	D	State College, Pa.	Pennsylvania State College
WSBT	z	500	1C	South Bend, Ind.	South Bend Tribune
XETQ	z	100	-----	Mexico, Mexico	Carlos G. Caballero

1240 kilocycles 241.8 meters

CMAB	z	20	1249	Pinar del Rio, Cuba	Francisco Martinez
✓ KGCU	ak	250	3	Mandan, N. Dak.	Mandan Radio Assn.
✓ KLPM	ak	250	3	Minot, N. Dak.	John B. Cooley

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KTAT	z	1000	1	Fort Worth, Texas	KTAT Broadcast Co.
KTFI	ak	500	-----	Twin Falls, Idaho	Radio Broadcasting Corp. of Idaho
WACO	ak	1000	1C	Waco, Texas	Southwest Broadcasting Co.
WKAQ	z	1000	-----	San Juan, P. R.	Radio Corp. of Porto Rico
WXYZ	z	1000	-----	Detroit, Mich.	Kunsky-Trendle Broadcasting Corp.

1250 kilocycles 239.9 meters

KFMX	aj	1000	2	Northfield, Minn.	Carleton College
KFOX	ae	1000	CT	Long Beach, Calif.	Nichols & Wariner, Inc.
WAAM	ae	1000	1(2.5)	Newark, N. J.	WAAM, Inc.
WCAL	ae	1000	2	Northfield, Minn.	St. Olaf College
WDSU	ak	1000	C	New Orleans, La.	Jos. H. Uhalt
WGCP	ak	250	1	Newark, N. J.	May Radio Broadcasting Co.
WLB	ak	1000	2	Minneapolis, Minn.	University of Minnesota
WODA	z	1000	1	Paterson, N. J.	Richard E. O'Dea
WRHMH	ae	1000	2	Minneapolis, Minn.	Minnesota Broadcasting Corp.
XEFA	z	250	-----	Mexico City, Mexico	Manuel F. Murguia

1260 kilocycles 238.0 meters

KOIL	ak	1000	B	Council Bluffs, Iowa	Mona Motor Oil Co.
KRGV	ae	500	1	Harlingen, Texas	KRGV, Inc. (Rio Grande Na. Life Bldg.)
KVOA	z	500	D	Tucson, Arizona	Robert M. Riculfi
KWWG	z	500	1	Brownsville, Texas	Frank P. Jackson
WLBW	ae	500	C(1)	Erie, Pa.	Radio-Wire Program Corp. of Amer.
WNBX	z	250	D	Springfield, Vt.	WNBX Broadcasting Corp.
WTOC	ae	500	CU	Savannah, Ga.	Savannah Broadcasting Co., Inc.

1270 kilocycles 236.1 meters

CMCU	z	150	-----	Havana, Cuba	Jorge Garcia Serra
CMCW	z	150	-----	Havana, Cuba	Jose Lorenzo
KGCA	ak	100	D2	Decorah, Iowa	Chas. W. Greenley
KOL	ae	1000	CT	Seattle, Wash.	Seattle Broadcasting Co.
KVOR	ae	1000	C	Colorado Springs, Col.	Reynolds Radio Co., Inc.
KWLC	ak	100	D2	Decorah, Iowa	Luther College
WASH	ak	500	a	Grand Rapids, Mich.	Kunsky-Trendle Broadcasting Corp.
WEAI	ae	1000	D	Ithaca, N. Y.	Cornell University
WFBR	ae	500	R	Baltimore, Md.	Baltimore Radio Show, Inc.
WJDX	ak	1000	N	Jackson, Miss.	Lamar Life Insurance Co.
WOOD	ak	500	a	Grand Rapids, Mich.	Kunsky-Trendle Broadcasting Corp.

1280 kilocycles 234.2 meters

KFBB	aeH	1000	(2.5)	Great Falls, Mont.	Buttrey Broadcast, Inc.
WCAM	aeH	500	1	Camden, N. J.	City of Camden (City Hall Tower)
WCAP	ae	500	1C	Asbury Park, N. J.	Radio Industries Broadcast Co.
WDOD	ae	1000	C(2.5)	Chattanooga, Tenn.	WDOD Bdctg. Corp. (Hotel Patten)
WIBA	ae	500	N(1)	Madison, Wis.	Badger Broadcasting Co., Inc.
WOAX	aeH	500	1	Trenton, N. J.	Trenton Broadcasting Co.
WRR	aeH	500	C	Dallas, Texas	City of Dallas (Hilton Hotel)

KCYS.

1300

MTRS.

230.6

DIAL

1290 kilocycles 232.4 meters

KDYL	ak	1000	N	Salt Lake City, Utah	Intermountain Broadcasting Corp.
KFUL	ak	500	1	Galveston, Texas	News Publishing Co. (Buccaneer Hotel)
KLCN	z	50	D	Blytheville, Ark.	C. L. Lintzenich
KTSA	ae	1000	1C(2.5)	San Antonio, Texas	Lone Star Broadcast Co. (Plaza Hotel)
WEBC	ae	1000	N(2.5)	Superior, Wis.	Head of the Lakes Broadcasting Co.
WJAS	ak	1000	C(2.5)	Pittsburgh, Pa.	Pittsburgh Radio Supply House
WNBZ	z	50	D	Saranac Lake, N. Y.	Smith & Mace

1300 kilocycles 230.6 meters

CMKJ	z	20	-----	Guantanamo, Cuba	Luis Morlote
KFAC	aj	1000	-----	Los Angeles, Calif.	Los Angeles Broadcasting Co.
KFH	ae	1000	C	Wichita, Kans.	Wichita Eagle—Hotel Lassen
KFJR	ag	500	3	Portland, Ore.	Ashley C. Dixon—KFJR, Inc.
KTBR	z	500	3	Portland, Ore.	M. E. Brown
WBBR	aej	1000	1	Brooklyn, N. Y.	Peoples Pulpit Assn.
WEVD	ae	500	1	New York City	Debs Memorial Radio Fund, Inc.
WFAB	z	1000	1	New York City	Defenders of Truth Society, Inc.
WHAZ	ae	500	1	Troy, N. Y.	Rensselaer Polytechnic Institute
WIOD	aeH	1000	N	Miami, Fla.	Isle of Dreams Broadcasting Corp.
WOO	ae	1000	-----	Kansas City, Mo.	Unity School of Christianity
XEM	z	250	-----	Tampico, Tams, Mex.	Maria T. de Gutierrez

CUT OUT ON DOTTED LINES

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1310 kilocycles 228.9 meters

KCRJ ak 100 D	Jerome, Arizona	Chas. C. Robinson
KFBK z 100 C	Sacramento, Calif.	Jas. McClatchy Co.
KFGQ z 100 7	Boone, Iowa	Boone Biblical College
KFPL ck 100 -----	Dublin, Texas	C. C. Baxter
KFPM ae 15 -----	Greenville, Texas	New Furniture Co.
KFXJ ak 100 -----	Grand Junction, Colo.	Western Slope Broadcasting Co.
KFXR z 100 (.25)	Oklahoma City, Okla.	Exchange Ave. Baptist Church
KFYO z 100 (.25)Z	Lubbock, Texas	T. E. Kirksey
KGBX ae 100 -----	Springfield, Mo.	KGBX, Inc.
KGCX ak 100 (.25)	Wolf Point, Mont.	First State Bank of Vida
KGEZ aj 100 -----	Kalispell, Mont.	Donald C. Treloar
KGFW ah 100 -----	Kearney, Neb.	Central Nebraska Bdctg. Corp.
KIT ak 100 -----	Yakima, Wash.	Valley Broadcasters, Inc.
KMED ak 100 -----	Medford, Ore.	Mrs. W. J. Virgin
KRMD ak 100 -----	Shreveport, La.	KRMD, Inc. (Jefferson Hotel)
KTSM z 100 a	El Paso, Texas	Tri-State Broadcasting Co., Inc.
KXRO ak 100 -----	Aberdeen, Wash.	KXRO, Inc. (Hotel Morck)
WBEO z 100 -----	Marquette, Mich.	Lake Superior Broadcasting Co.
WBOW ak 100 -----	Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE z 100 -----	Wilkes-Barre, Pa.	Louis G. Baltimore
WCLS ae 100 b	Joliet, Ill.	WCLS, Inc.
WDAH z 100 a	El Paso, Texas	Tri-State Broadcasting Co., Inc.
WEBR ae 100 Q(.25)	Buffalo, N. Y.	Howell Broadcasting Station
WEXL ak 50 -----	Royal Oak, Mich.	Royal Oak Broadcasting Co.
WFBG ae 100 3	Altoona, Pa.	The William F. Gable Co.
WFDF ae 100 -----	Flint, Mich.	Frank D. Fallain (Union Ind. Bldg.)
WGAL ae 100 5	Lancaster, Pa.	WGAL, Inc. (Lancaster Newsp. Bldg.)
WGH ae 100 -----	Newport News, Va.	Hampton Roads Broadcasting Corp.
WHAT ak 100 4	Philadelphia, Pa.	Independence Broadcasting Co.
WIAS ak 100 7	Ottumwa, Iowa	Iowa Bdctg. Co. (Hotel Ottumwa)
WJAC ae 100 3	Johnstown, Pa.	WJAC, Inc.
WJAK ak 50 6	Elkhart, Ind.	Elkhart Daily Truth
WKAV ae 100 -----	Laconia, N. H.	Laconia Radio Club
WKBB ae 100 b	Joliet, Ill.	Richard W. Hoffman
WKBC z 100 -----	Birmingham, Ala.	R. B. Broyles Furniture Co.
WLBC ak 50 6	Galesburg, Ill.	Permil N. Nelson
WMBO ak 100 -----	Muncie, Ind.	D. A. Burton-A. J. Marriott
WNBH ae 100 H(.25)	Auburn, N. Y.	WMBO, Inc. (Masonic Temple)
WOL ae 100 -----	New Bedford, Mass.	New Bedford Bdctg. Co. (N. B. Hotel)
WRAW z 100 5X	Washington, D. C.	American Broadcasting Co.
WROL ak 100 -----	Reading, Pa.	Reading Broadcasting Co.
WSAJ ae 100 -----	Knoxville, Tenn.	Stuart Bdctg. Co. (Farragut Hotel)
WSJS ae 100 C	Grove City, Pa.	Grove City College
WTSL ae 100 4	Winston-Salem, N. C.	Winston-Salem Journal Co.
WTJS ak 100 (.25)	Philadelphia, Pa.	Foulkrod Radio Eng. Co. Inc.
WTSL z 100 -----	Jackson, Tenn.	Sun Publishing Co. (Sun Bldg.)
XEFB ak 100 1315	Laurel, Miss.	G. A. Houseman
XEI ak 150 -----	Monterrey, N. L., Mex.	Quintanilla y Stevenson
	Morelia, Mexico	Carlos Gutierrez M.

1320 kilocycles 227.1 meters

KGHF ak 250 (.5)	Pueblo, Colo.	C. P. Ritchie & J. E. Finch
KGMB ak 250 C	Honolulu, Hawaii	Honolulu Broadcasting Co.
KID ae 250 (.5)	Idaho Falls, Idaho	KID Broadcasting Co., Inc.
WADC ae 1000 C	Akron, Ohio	Allan T. Simmons
WSMB ae 500 N	New Orleans, La.	WSMB, Inc.

1330 kilocycles 225.4 meters

CMJI ak 112 1335	Ciego de Avila, Cuba	Gilberto Gessa Lopez
KGB ae 1000 CT	San Diego, Calif.	Don Lee, Inc. (Pickwick Hotel)
KMO ak 250 -----	Tacoma, Wash.	KMO, Inc. (Hotel Winthrop)
KSCJ ah 1000 IC(2.5)	Sioux City, Iowa	Perkins Bros. Co.
WDRG ae 500 CH	Hartford, Conn.	WDRG, Inc.
WSAI ae 500 R(1)	Cincinnati, Ohio	The Crosley Radio Corp.
WTAQ ae 1000 IC	Eau Claire, Wis.	The Gillette Rubber Co.

1340 kilocycles 223.7 meters

CMCR z 150 1345	Havana, Cuba	Aurelio Hernandez
KFPY ae 1000 CT	Spokane, Wash.	Symons Bdctg. Co. (Symons Bldg.)
WCOA agj 500 -----	Pensacola, Fla.	Pensacola Bdctg. Co. (San Carlos Hot.)
WSPD ae 1000 C	Toledo, Ohio	Toledo Bdctg. Co. (Corn. Perry Hotel)

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1350 kilocycles 222.1 meters

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CMCY	ak	500	1355	Havana, Cuba
KIDO	ak	1000	-----	Boise, Idaho
KWK	ae	1000	B	St. Louis, Mo.
WAWZ	ae	250	1	Zarephath, N. J.
WBNX	ae	250	1a	New York City
WCDA	ae	250	1a	New York City
WEHC	ae	500	D	Emory, Va.
WMSG	ae	250	1a	New York City

M. D. Autran
C. G. Phillips & Frank Hill
Thomas Patrick, Inc. (Hotel Chase)
Pillar of Fire
New York Met. Broadcasting Corp.
Italian Educ. Bdcrg. Co., Inc.
Emory & Henry College
New York Met. Broadcasting Corp.

1360 kilocycles 220.4 meters

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KGER	ah	1000	-----	Long Beach, Calif.
KGIR	ak	500	NJ	Butte, Mont.
WCSC	z	500		Charleston, S. C.
WFBL	ak	1000	C(2.2)	Syracuse, N. Y.
WGES	ae	500	1(1)	Chicago, Ill.
WJKS	agj	1000	1Z	Gary, Ind.
WQBC	ak	500	-----	Vicksburg, Miss.

Consolidated Bdcrg. Co.(R/C Los An.)
KGIR, Inc.
So. Carolina Broadcasting Co., Inc.
Onondaga Radio Broadcasting Corp.
Oak Leaves Broadcasting Station, Inc.
Johnson-Kennedy Radio Corp.
Delta Bdcrg. Co.(Post-Herald Station)

1370 kilocycles 218.7 meters

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CMGE	z	30	1375	Cardenas, Cuba
KCRC	ak	100	2(.25)	Enid, Okla.
KFLB	aj	50	3	Everett, Wash.
KFJM	zk	100	-----	Grand Forks, N. Dak.
KFJZ	ae	100	-----	Fort Worth, Texas
KFLX	z	100	-----	Galveston, Texas
KGAR	ae	100	(.25)	Tucson, Arizona
KGDA	ak	100	-----	Mitchell, S. Dak.
KGFG	z	100	2	Oklahoma City
KGFL	zk	100	4	Santa Fe, N. Mex.
KGKL	ak	100	-----	San Angelo, Texas
KICA	z	100	4	Clovis, New Mexico
KMAC	ak	100	5	San Antonio, Texas
KONO	ak	100	5	San Antonio, Texas
KOOS	ae	100	-----	Marshfield, Ore.
KRE	ak	100	-----	Berkeley, Calif.
KUJ	ak	100	D	Walla Walla, Wash.
KVL	z	100	3	Seattle, Wash.
KWKC	z	100	-----	Kansas City, Mo.
WBTM	z	100	7	Danville, Va.
WCBM	ae	100	Z(.25)	Baltimore, Md.
WDAS	ae	100	(.25)	Philadelphia, Pa.
WESG	z	50		Glens Falls, N. Y.
WGL	ae	100	C	Fort Wayne, Ind.
WHBD	bk	100	-----	Mount Orab, Ohio
WHBQ	ak	100	-----	Memphis, Tenn.
WHDF	ak	100	(.25)	Calumet, Mich.
WIBM	ae	100	1	Jackson, Mich.
WJBK	ae	50	1Q	Detroit, Mich.
WJEQ	z	100	6	Williamsport, Pa.
WJTL	z	100	-----	Atlanta, Ga.
WLEY	ae	100	(.25)	Lexington, Mass.
WLVA	ck	100	7	Lynchburg, Va.
WMBR	ak	100	-----	Tampa, Fla.
WPFB	ak	100	-----	Hattiesburg, Miss.
WQDM	z	100	-----	St. Albans, Vt.
WRAK	ak	100	6	Williamsport, Pa.
WRAM	ae	100	-----	Wilmington, N. C.
WRDO	ae	100	-----	Augusta, Maine
WRJN	ae	100	-----	Racine, Wis.
WSVS	z	50	-----	Buffalo, N. Y.
XEFZ	ae	100	-----	Coyoacan, Mexico

Genaro Sebater
Enid Radiophone Co. (Oxford Hotel)
Leese Bros.
University of North Dakota
Fort Worth Broadcasters, Inc.
George Roy Clough
Tucson Motor Service Co.
Mitchell Broadcasting Corp.
Oklahoma Broadcasting Co., Inc.
KGFL, Inc.
KGKL, Inc. (St. Angelus Hotel)
W. E. Whitmore
Walmac Co., Inc. (Blue Bonnet Stud.)
Mission Broadcasting Co.
H. H. Hanseth, Inc. (Hall Bldg.)
First Cong. Church of Berkeley
KUJ, Inc. (Marcus Whitman Hotel)
KVL, Inc.
Wilson Duncan Broadcasting Co.
Piedmont Broadcasting Corp.
Baltimore Broadcasting Corp.
WDAS Bdcrg. Sta., Inc. (Elks Hotel)
W. N. Parker and H. H. Metcalfe
F. C. Zieg
F. P. Moler
Station WHBQ, Inc. (Hotel Claridge)
Upper Michigan Broadcasting Co.
WIBM, Inc. (Otsega Hotel)
James F. Hopkins, Inc. (Curtiss Bldg.)
Sun-Gazette Broadcasting Co.
Oglethorpe University
Lexington Air Station
Lynchburg Broadcasting Corp.
F. J. Reynolds
Hattiesburg Broacdstng Co.
A. J. St. Antoine & E. J. Regan
C. R. Cummins (Penn Central Bldg.)
Wilmington Radio Assn., Inc.
WRDO, Inc. (Augusta House)
Racine Bdcrg. Corp. (Hotel Racine)
Seneca Vocational School
Manuel Zetina

KCY.S.

1380

MTRS.

217.3

DIAL

1380 kilocycles 217.3 meters

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CMJC	z	75	1382	Camaguey, Cuba
KOH	ak	500	C	Reco, Nevada
KQV	ak	500	2	Pittsburgh, Pa.
KSO	z	500	-----	Clarinda, Iowa
WKBH	aj	1000	1C	LaCrosse, Wis.
WSMK	ak	200	2	Dayton, Ohio
XETB	z	125	-----	Torreon, Coah., Mex.

Feliciano Isaac
McClatchy Newspapers
KQV Bdcrg. Co. (Investment Bldg.)
Iowa Broadcasting Co.
WKBH, Inc. (Radio Bldg.)
Stanley M. Krohn, Jr.
Jose A. Berumen

CUT OUT ON
DOTTED LINES

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1390 kilocycles 215.7 meters

CMCG	z	30	1395	Havana, Cuba
CMCH	ak	100	1395	Havana, Cuba
CMCM	z	15	1395	Havana, Cuba
CMDB	z	40	1395	Havana, Cuba
KLRA	ae	1000	1C	Little Rock, Ark.
KOY	ae	500	C	Phoenix, Arizona
KUOA	bk	1000	1	Fayetteville, Ark.
WHK	ae	1000	C	Cleveland, Ohio

Jose Justo Moran
Wifredo & Hum. Fontanals Sanchez
Martinez-Madicu
Julio Powers
Arkansas Broadcasting Co.
Nielson Radio & Sporting Goods Co.
Southwestern Hotel Co. (Ft. Smith)
Radio Air Service Corp. (Higbee Store)

1400 kilocycles 214.2 meters

KLO	ae	500	Y	Ogden, Utah
KOCW	z	250	(.5)	Chickasha, Okla.
WBAA	ak	500	1	Lafayette, Ind.
WBBC	z	500	2	Brooklyn, N. Y.
WCGU	ak	500	2	Brooklyn, N. Y.
WCMA	ak	500	1	Culver, Ind.
WFOX	z	500	2	Brooklyn, N. Y.
WKBF	ak	500	1W	Indianapolis, Ind.
WLTH	aeH	500	2	Brooklyn, N. Y.
XEP	z	200	-----	Laredo, Mexico

Interstate Bcg. Corp. (Hotel Bigelow)
College for Women
Purdue University
Brooklyn Broadcasting Corp.
United States Broadcasting Corp.
General Broadcasting, Inc.
Paramount Broadcasting Co.
Indianapolis Broadcasting, Inc.
Voice of Brooklyn, Inc.
La Voz Latino

1410 kilocycles 212.6 meters

KFLV	ak	500	4	Rockford, Ill.
KGRS	ae	1000	1	Amarillo, Texas
WAAB	ae	500	CH	Boston, Mass.
WBGM	z	500	C	Bay City, Mich.
WDAG	ae	1000	1	Amarillo, Texas
WHBL	ae	500	4	Sheboygan, Wis.
WHIS	ak	250	2	Bluefield, W. Va.
WODX	ea	500	3CU	Mobile, Ala.
WRBX	z	250	2	Roanoke, Va.
WSFA	ak	500	3C	Montgomery, Ala.

Rockford Broadcasters, Inc.
E. B. Gish
Bay State Broadcasting Corp.
James E. Davidson
National Radio & Bdctg. Corp.
The Press Publishing Co.
Daily Telegraph
Mobile Broadcasting Corp.
Richmond Development Corp.
Montgomery Broadcasting Co., Inc.

1420 kilocycles 211.1 meters

KABC	ak	100	-----	San Antonio, Texas
KBPS	aj	100	4	Portland, Ore.
KCMC	ak	100	-----	Texarkana, Ark.
KFIZ	ak	100	-----	Fond du Lac, Wis.
KGFF	ak	100	-----	Shawnee, Okla.
KGCC	z	100	5	San Francisco, Calif.
KGIW	z	100	1	Trinidad, Colo.
KGIX	ak	100	-----	Las Vegas, Nevada
KGXK	z	100	-----	Lewiston, Idaho
KICK	z	100	Y	Red Oak, Iowa
KIDW	z	100	1	Lamar, Colo.
KORE	aeH	100	-----	Eugene, Ore.
KUMA	ak	100	-----	Yuma, Arizona
KWCR	ae	100	B	Cedar Rapids, Iowa
KXL	ae	100	4	Portland, Ore.
WAGM	ae	100	-----	Presque Isle, Maine
WAMC	ae	100	-----	Anniston, Ala.
WEHS	ak	100	a	Cicero, Ill.
WELL	z	50	-----	Battle Creek, Mich.
WENC	ak	100	D	Americus, Ga.
WERE	ae	100	-----	Erie, Pa.
WHDL	aeH	100	D	Tupper Lake, N. Y.
WHFC	ae	100	a	Cicero, Ill.
WILM	ae	100	-----	Wilmington, Del.
WJBO	z	100	D	New Orleans, La.
WJMS	ak	100	D	Ironwood, Mich.
WKBI	ak	100	a	Cicero, Ill.
WLBF	ae	100	-----	Kansas City, Kans.
WMAS	z	100	CP	Springfield, Mass.
WMBC	ae	100	(.25)	Detroit, Mich.
WMBH	z	100	(.25)	Joplin, Mo.
WPAD	ak	100	-----	Paducah, Ky.
WSPA	aeH	100	(.25)	Spartanburg, S. C.
WTBO	ae	100	(.25)	Cumberland, Md.

Alamo Bctg. Co., Inc. (Texas Theatre)
Student Body Benson Polytech. School
Texarkana Gazette & Daily News
Reporter Printing Co.
KGFF Bdctg. Co. (Aldridge Hotel)
Golden Gate Broadcasting Co.
Leonard E. Wilson
J. M. Heaton
Sand Point Broadcasting Co.
Red Oak Radio Corp.
Southwest Broadcasting Co.
Frank L. Hill & Curtis G. Phillips
Dr. Albert H. Schermann
Cedar Rapids Broadcast Co.
KXL Broadcasters(Hotel Multnomah)
Aroostook Broadcasting Corp.
Roymond C. Hammett (Alabama Hot.)
WEHS, Inc.
Enquirer-News Co.
Americus Broadcast Co.
Erie Bdctg. Corp. (Lawrence Hotel)
Tupper Lake Broadcasting Co., Inc.
WHFC, Inc.
Delaware Broadcasting Co.
Valdemar Jensen
WJMS, Inc. (St. James Hotel)
WKBI, Inc.
WLBF Bdctg. Co. (Aladdin Hotel)
Albert S. Moffet
Michigan Broadcasting Co.
W. M. Robertson
Paducah Bdctg. Co. (Ritz Hotel)
The Voice of South Carolina
Associated Broadcasting Corp.

1430 kilocycles 209.7 meters

KECA	ah	1000	N	Los Angeles, Calif.
KGNF	ak	500	D	North Platte, Neb.
WBAK	ak	500	1(1)	Harrisburg, Pa.

Earle C. Anthony, Inc.
Great Plains Broadcasting Co.
Pennsylvania State Police

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WCAH	ae	500	CA	Columbus, Ohio	Commercial Radio Service Co.
WFEA	ae	500	CH	Manchester, N. H.	New Hampshire Broadcasting Co.
WHEC	ae	500	CA	Rochester, N. Y.	WHEC, Inc. (Roch. Sav. Bank Bldg.)
WHP	ak	500	1CA(1)	Harrisburg, Pa.	WHP, Inc. (Harrisburg Telegraph)
WNBR	ae	500	-----	Memphis, Tenn.	Memphis Bdctg. Co. (WGBC)
WOKO	ae	500	CA	Albany, N. Y.	WOKO, Inc. (Hotel Ten Eyck)

1440 kilocycles 208.2 meters

CMBI	z	30	1444	Havana, Cuba	Francisco Mayorquin
CMBL	ak	20	1444	Havana, Cuba	Julio C. Hidalgo
CMBN	ak	65	1444	Havana, Cuba	Armando Romeu Marrero
KDFN	ak	500	-----	Casper, Wyo.	Donald L. Hathaway
KLS	ae	250	D	Oakland, Calif.	Warner Bros.
KXYZ	ak	250	-----	Houston, Texas	Harris County Broadcast Co.
WBIG	ae	500	C(1)	Greensboro, N. C.	No. Carolina Broadcasting Co., Inc.
WCBA	ah	250	-----	Allentown, Pa.	B. Bryan Musselman
WMBD	ae	500	3C(1)	Peoria, Ill.	Peoria Broadcasting Co.
WSAN	z	250	a	Allentown, Pa.	Allentown Call Publishing Co., Inc.
WTAD	ak	500	3	Quincy, Ill.	Illinois Broadcasting Corp.

1450 kilocycles 206.8 meters

KTBS	ae	1000	N	Shreveport, La.	Tri-State Bdctg. System, Inc.
WBMS	ak	250	1	Hackensack, N. J.	WBMS Broadcasting Corp.
WGAR	ak	500	B	Cleveland, Ohio	WGAR Broadcasting Co., Inc.
WHOM	ae	250	1	Jersey City, N. J.	New Jersey Broadcasting Corp.
WNJ	ak	250	1	Newark, N. J.	The Radio Investment Co., Inc.
WSAR	aeh	250	-----	Fall River, Mass.	Doughty & Welch Electric Co., Inc.
WTFI	ak	500	-----	Athens, Ga.	Liberty Broadcasting Co.

1460 kilocycles 205.4 meters

KSTP	ae	10000	N	St. Paul, Minn.	National Battery Broadcasting Co.
WJVS	ck	10000	C	Washington, D. C.	Old Dominion Broadcasting Co.

1470 kilocycles 204.0 meters

KGA	ak	5000	B	Spokane, Wash.	Northwest Broadcasting System
WLAC	ae	5000	C	Nashville, Tenn.	Life & Casualty Insurance Co.

1480 kilocycles 202.6 meters

KOMA	ae	5000	C	Oklahoma City, Okla.	Pan American Bdctg. System, Inc.
WKBW	ae	5000	C	Buffalo, N. Y.	Buffalo Broadcasting Corp.

1490 kilocycles 201.2 meters

WCKY	ae	5000	N	Covington, Ky.	L. B. Wilson, Inc. (Mabley & Carew)

1500 kilocycles 199.9 meters

CMBQ	z	50	-----	Havana, Cuba	Gali-Sardinas
CMBR	z	15	-----	Havana, Cuba	Tomas Basail
KDB	ak	100	CT	Santa Barbara, Calif.	Santa Barbara Broadcasters, Ltd.
KGFI	aj	100	(.25)	Corpus Christi, Texas	Eagle Broadcasting Co., Inc.
KGFK	ak	50	-----	Moorhead, Minn.	Red River Broadcasting Co., Inc.
KGIZ	z	100	-----	Grant City, Mo.	Grant City Park Corp.
KGKB	bk	100	-----	Tyler, Texas	East Texas Broadcasting Co.
KGKY	ck	100	-----	Scottsbluff, Neb.	Hilliard Co., Inc.
KNOW	ak	100	-----	Austin, Texas	KUT Bdctg. Co. (Driskill Hotel)
KPJM	z	100	-----	Prescott, Arizona	A. P. Miller
KPO	aj	50	-----	Wenatchee, Wash.	Wescoast Broadcasting Co.
KREG	ak	100	-----	Santa Ana, Calif.	J. S. Edwards
KXO	z	100	-----	El Centro, Calif.	E. R. Irey and F. M. Bowles
WFDV	ak	100	-----	Rome, Ga.	Rome Broadcasting Corp.
WHEF	ak	100	(.25)	Kosciusko, Miss.	Attala Milling & Produce Co.
WKBV	z	100	-----	Connerville, Ind.	William O. Knox
WKBZ	ak	100	-----	Ludington, Mich.	K. L. Ashbacher
WLOE	z	100	(.25)	Boston, Mass.	Boston Broadcasting Co.
WMBQ	z	100	1	Brooklyn, N. Y.	Paul J. Gollhofer
WMIL	ak	100	1	Brooklyn, N. Y.	Arthur Faske
WMPC	ak	100	-----	Lapeer, Mich.	First Methodist Protestant Church
WNBF	ae	100	-----	Binghamton, N. Y.	Howitt-Wood Radio Co., Inc.
WOPI	ae	100	-----	Bristol, Tenn.	Radiohone Bdctg. Station WOPI
WPEN	ae	100	(.25)	Philadelphia, Pa.	Wm. Penn Broadcasting Co.
WRDW	ae	100	-----	Augusta, Ga.	Muscove, Inc. (Relays WLW)
WSYB	aeh	100	-----	Rutland, Vt.	Philp Weiss Music Co.
WWRL	ak	100	1	Woodside, N. Y.	Long Island Broadcasting Corp.
WWSW	ae	100	X(.25)	Pittsburgh, Pa.	Walker & Downing Radio Corp.

KCYS.

1500

MTRS.

199.9

DIAL



INDEX BY LOCATIONS WITH MAP KEY

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

	Watts		Keys.		Watts		Keys.
ALABAMA							
Anniston O-22	100	WAMC	1420	Santa Barbara M-2	100	KDB	C 1500
Birmingham O-21	5000	WAPI	N 1140	Stockton J-2	250	KGDM	C 1100
	500	WBRC	C 930		100	KWG	C 1200
	100	WKBC	1310	COLORADO			
Gadsden O-21	100	WJBY	1210	Colorado Springs K-11	1000	KVOR	C 1270
Huntsville N-21	100	WBHS	1200	Denver K-11	500	KFEL	920
Mobile Q-20	500	WODX	C 1410		500	KFXF	920
Montgomery P-21	500	WSFA	C 1410		1000	KLZ	C 560
Troy P-21	100	WHET	1210		12500	KOA	N 830
					500	KPOF	880
ALASKA							
Anchorage	250	KFOD	1230	Fort Morgan J-11	100	KGEW	1200
Ketchikan	500	KGBU	900	Grand Junction K-9	700	KFXJ	1310
				Graley J-11	500	KFKA	880
ARIZONA							
Jerome M-6	400	KCRJ	1310	Lamar L-12	400	KIDW	1420
Phoenix N-6	500	KOY	C 1390	Pueblo L-11	350	KGHF	1320
	500	KTAR	N 620	Trinidad L-11	100	KGIW	1420
Prescott M-6	100	KPJM	1500	Yuma J-12	100	KGEK	1200
Tucson O-7	400	KGAR	1370				
	500	KVOA	1260	CONNECTICUT			
Yuma O-5	100	KUMA	1420	Bridgeport H-27	250	WICC	600
				Hartford H-27	500	WDRC	C 1330
					50000	WTIC	R 1060
				Storrs H-28	250	WCAC	600
ARKANSAS							
Blytheville M-19	50	KLCN	1290	DELAWARE			
Fayetteville M-16	1000	KUOA	1390	Wilmington J-26	250	WDEL	1120
Fort Smith N-16	100	KFPW	1210		100	WILM	1420
Hot Spring N-17	10000	KTHS	N 1040	DISTRICT OF COLUMBIA			
Little Rock N-17	250	KARK	890	Washington J-26	10000	WJSV	C 1460
	100	KGHI	1200		250	WMAL	C 630
	1000	KLRA	C 1390		500	WRC	R 950
Paragould M-18	100	KBTM	1200		100	WOL	1310
Texarkana O-17	100	KCMC	1420				
				FLORIDA			
CALIFORNIA							
Bakersfield L-3	100	KERN	C 1200	Clearwater R-24	1000	WFLA	N 620
Berkeley J-2	100	KRE	1370	Gainesville Q-24	5000	WRUF	C 830
Beverly Hills M-3	500	KMPC	710	Jacksonville Q-24	1000	WJAX	N 900
Burbank M-3	500	KELW	780	Miami T-25	1000	WTOX	N 1300
El Centro N-4	100	KXO	1500		1000	WQAM	C 560
Fresno K-2	500	KMJ	C 580	Orlando R-24	250	WDBO	C 580
Hollywood M-3	1000	KMTR	570	Pensacola Q-21	500	WCOA	1340
	5000	KNX	1050	St. Petersburg S-24	1000	WSUN	N 620
Long Beach M-3	1000	KFOX	C 1250	Tampa R-24	1000	WDAE	C 1220
	1000	KGER	1360		100	WMBR	1370
Los Angeles M-3	1000	KECA	N 1430	GEORGIA			
	1000	KFAC	1300	Americus P-22	100	WENC	1420
	50000	KFI	N 640	Athens O-23	500	WTFI	1450
	500	KFSG	1120	Atlanta O-22	250	WGST	C 890
	250	KFVD	1000		100	WJTL	1370
	1000	KFWB	950		5000	WSB	N 740
	100	KGfJ	1200	Augusta O-23	100	WRDW	1500
	1000	KHJ	C 900	Columbus O-22	100	WRBL	1200
	500	KRKD	1120	Macon O-23	500	WMAZ	1180
Oakland J-1	500	KTM	780	Rome N-22	100	WFDV	1500
	250	KLS	1440	Savannah O-24	500	WTOC	C 1260
	500	KLX	880	Thomasville Q-22	100	WQDX	1210
	500	KROW	930	HAWAII			
Pasadena M-3	50	KPPC	1210	Honolulu	250	KGMB	C 1320
Sacramento J-2	100	KFBK	C 1310		1000	KGU	N 750
San Bernardino M-3	100	KFXM	1210	IDAHO			
San Diego N-3	500	KFSD	N 600	Boise G-5	4000	KIDO	1350
	1000	KGB	C 1330	Idaho Falls G-7	250	KID	1320
San Francisco J-1	1000	KFRC	C 610	Nampa G-5	100	KFXD	1200
	500	KFWI	930	Pocatello H-7	250	KSEI	890
	100	KGGC	1420	Lewiston E-5	100	KGKX	1420
	7500	KGO	N 790	Twin Falls H-6	500	KTFI	1240
	100	KJBS	1070				
	5000	KPO	N 680				
	1000	KTAB	560				
	1000	KYA	N 1230				
San Jose J-1	500	KQW	1010				
Santa Ana M-3	100	KREG	1500				

INDEX BY LOCATIONS WITH MAP KEY

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

ILLINOIS

	Watts		Kcys.
Carthage J-18	50	WCAZ	1070
Chicago I-20	10000	KFKX	1020
	10000	KYW	N 1020
	500	WAAF	920
	25000	WBEM	C 770
	100	WCFL	R 970
	100	WCRW	1210
	100	WEDC	1210
	50000	WENR	N 870
	500	WGES	1360
	25000	WGN	C 720
	1000	WIBO	560
	20000	WJJD	1130
	30000	WLS	N 870
	5000	WMAQ	N 670
	5000	WMBI	1080
	500	WPCC	560
	100	WSBC	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
Peoria 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
Connorsville 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	KFGO	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	100	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

	Watts		Kcys.
Abilene K-14	5000	KFBI	1050
Coffeyville M-15	100	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
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	4000	WFTW	C 940
Louisville L-21	25000	WHAS	C 820
	100	WLAP	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
	5000	WWL	850
Shreveport P-17	100	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	WCSH	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
Hagerstown J-25	100	WJEJ	1210

MASSACHUSETTS

Babson Park G-28	500	WBSO	920
Boston G-28	500	WAAB	C 1410
	25000	WBZ	B 990
	1000	WEEI	R 590
	1000	WHDH	830
	100	WLOE	1500
	1000	WNAK	C 1230
Fall River H-28	250	WSAR	1450
Lexington G-28	100	WLEY	1370
New Bedford H-28	100	WNBH	1310
Springfield H-27	4000	WBZA	B 990
	100	WMAS	1420
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	WMBK	1420
	4000	WWJ	R 920
	1000	WXYZ	1240
East Lansing H-21	1000	WKAR	1040

INDEX BY LOCATIONS WITH MAP KEY.

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

	Watts		Kcys.
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	100	WBZB	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	WLB	1250
	1000	WRHM	1250
Moorhead F-15	50	KGFK	1500
Northfield G-17	1000	KFMX	1250
	1000	WCAL	1250
St. Paul G-17	10000	KSTP N	1460

MISSISSIPPI

Greenville O-18	100	WKFI	1210
Gulfport Q-19	100	WGCM	1210
Hattiesburg Q-19	100	WPFB	1370
Jackson P-19	1000	WJDX N	1270
Kosciusko O-19	100	WHEF	1500
Laurel P-20	100	WTSL	1310
Meridian P-20	500	WCOG	880
Tupelo N-20	500	WJEM	990
Vicksburg 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 R	610
	500	WHB	860
	1000	WQQ	1300
St. Joseph K-16	2500	KFEQ	680
St. Louis L-18	500	KFUO	550
	100	KFWF	1200
	5000	KMOX C	1090
	500	KSD R	550
	1000	KWK B	1350
	1000	WEW	760
	100	WIL	1200
Springfield M-17	100	KGBX	1310

MONTANA

Billings F-9	1000	KGHL N	950
Butte F-7	500	KGIR N	1360
Great Falls E-8	1000	KFBB	1280
Kalispell D-7	100	KGZZ	1310
Missoula E-7	100	KGVO	1200
Wolf Point E-11	100	KGXC	1310

NEBRASKA

Clay Center J-14	1000	KMMJ	740
Kearney J-14	100	KGFW	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 C	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
	250	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
	1000	KOB	1180
Clovis N-11	100	KICA	1370
Santa Fe M-10	100	KGFL	1370

NEW YORK

Albany H-27	500	WOKO C	1430
Auburn H-25	100	WMBO	1310
Binghamton H-26	100	WNBFB	1500
Brooklyn I-27	500	WBBC	1400
	1000	WBBR	1300
	500	WCGU	1400
	500	WFOX	1400
	500	WLTH	1400
	100	WMBQ	1500
	100	WMIL	1500
Buffalo H-24	1000	WBEN R	900
	100	WEBR	1310
	1000	WGR C	550
	5000	WKBW C	1480
	50	WSVS	1370
	500	WCAD	1220
Canton F-26	100	WGBB	1210
Freeport I-27	50	WESG	1370
Glens Falls G-27	1000	WEAI	1270
Ithaca H-25	100	WMRJ	1210
Jamaica H-27	50	WOCL	1210
Jamestown H-24	5000	WABC C	860
New York City I-27	250	WBNX	1350
	50000	WBOQ	860
	250	WCDA	1350
	50000	WEAF R	660
	500	WEVD	1300
	1000	WFAB	1300
	500	WINS	1180
	250	WHN	1010
	20000	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
Rochester G-25	5000	WHAM B	1150
	500	WHEC C	1430

INDEX BY LOCATIONS WITH MAP KEY

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

	Watts		Keys.
Saranac Lake F-26	50	WNBZ	1290
Schenectady G-27	50000	WGY	R 790
Syracuse G-25	1000	WFBL	C 1350
	250	WMAC	R 570
	250	WSYR	R 570
Troy G-27	500	WHAZ	1300
Tupper Lake F-26	100	WHDL	1420
Utica G-26	100	WIBX	1200
Woodside I-27	100	WWRL	1500
White Plains I-27	100	WFAS	1210

NORTH CAROLINA

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

NORTH DAKOTA

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

OHIO

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

OKLAHOMA

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

OREGON

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

	Watts		Keys.
Portland E-3	5000	KEX	N 1180
	100	KBPS	1420
	500	KFJR	1300
	1000	KGW	N 620
	7000	KOIN	C 940
	500	KTBR	1300
	500	KWJJ	1060
	100	KXL	1420

PENNSYLVANIA

Allentown I-26	250	WCBA	1440
	250	WSAN	1440
Altoona I-25	100	WFBG	1310
Carbondale H-26	10	WNBW	1200
Erie H-24	100	WERE	1420
	500	WLBW	C 1260
	25	WIBG	930
Glenside I-26	100	WSAJ	1310
Grove City I-24	500	WEAK	1430
Harrisburg I-25	100	WCOD	1200
	500	WHP	C 1430
	100	WIAC	1310
Johnstown J-24	100	WGAL	1310
Lancaster I-26	100	WKJC	1200
	100	WJBU	1310
Lewisburg I-26	5000	WCAU	C 1170
Philadelphia I-26	100	WDAS	1370
	500	WFAN	C 610
	500	WFI	C 560
	100	WHAT	1310
	500	WIP	C 610
	500	WLIT	C 560
	100	WPEN	1500
	250	WRAX	1020
	100	WTEL	1310
Pittsburgh J-24	50000	KDKA	B 980
	500	QV	1380
	1000	WCAE	R 1220
	1000	WJAS	C 1290
	100	WWSW	1500
Reading I-26	1000	WEEU	830
	100	WRAW	1310
Scranton H-26	250	WGBI	880
	250	WQAN	880
State College I-25	500	WPSC	1230
Washington J-24	100	WNBO	1200
Wilkes-Barre I-26	100	WBAX	1210
	100	WBRE	1310
Williamsport I-25	100	WRAK	1370
	100	WJEQ	1370
York J-26	1000	WORK	1000

PHILIPPINES

Cebu	500	KZRC	937.5
Manila	1000	KZKA	1110
	50000	KZRM	618.5

PORTO RICO

San Juan W-34	1000	WKAQ	1240
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RHODE ISLAND

Providence H-28	250	WEAN	C 780
	250	WJAR	R 890
	100	WPAW	1210
	100	WPRO	1210

SOUTH CAROLINA

Charleston O-25	500	WCSC	1360
Columbia N-24	500	WIS	N 1010
Spartanburg N-23	100	WSPA	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
Sioux Falls H-15	1000	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	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	N 1470
	50000	WSM	C 650
Springfield M-20	100	WSIX	1210

TEXAS

	Watts		Kcys.
Amarillo N-12	1000	KGRS	1410
	1000	WDAG	1410
Austin Q-14	100	KNOW	1500
Beaumont R-17	500	KFDM	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
	50000	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	KFUL	1290
Greenville O-15	15	KFPM	1310
Harlingen T-14	500	KRGV	1260
Houston R-16	1000	KPRC	N 920
	500	KTRH	C 1120
	250	KXYZ	1440
Lubbock O-12	100	KFYD	1310
San Angelo Q-13	100	KGKL	1370
San Antonio R-14	100	KABC	1420
	100	KMAC	1370
	100	KONO	1370
	1000	KTSA	C 1290
	50000	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	2500	KDYL	N 1290
	5000	KSL	C 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	250	WNBX	1260
Waterbury F-27	500	WDEV	550

VIRGINIA

	Watts		Kcys.
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	WTRAR	C 780
Petersburg L-26	100	WPHR	1200
Portsmouth L-26	500	WPOR	780
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	1210
Pullman E-5	1000	KWSC	1220
Seattle C-3	5000	KJR	N 970
	1000	KOL	C 1270
	1000	KOMO	N 920
	100	KPCB	650
	100	KRSC	1120
	1000	KTW	1220
	100	KVL	1370
	250	KXA	760
Spokane D-5	100	KFIO	1120
	1000	KFGY	C 1340
	5000	KGA	B 1470
	1000	KHGO	N 1930
Tacoma D-3	250	KMO	C 1330
	500	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	WVVA	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	1000	WHA	940
	500	WIBA	N 1280
Manitowoc H-20	100	WOMT	1210
Milwaukee H-19	250	WHAD	C 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	WHEB	1410
Stevens Point G-19	2000	WLBL	900
Superior F-17	1000	WEBC	N 1290

WYOMING

	Watts		Kcys.
Casper H-10	500	KDFN	1440

CANADA

ALBERTA

	Watts		Kcys.
Calgary B-7	500	CFAC	690
	10000	CFCN	985
	500	CJcJ	690

INDEX BY LOCATIONS WITH MAP KEY

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

	Watts		Keys.
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

BRITISH COLUMBIA

Chilliwack B-3	100	CHWK	665
Kamloops B-5	100	CJFC	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
Victoria C-3	500	CFCT	630

MANITOBA

Brandon D-14	500	CKX	930
Winnipeg D-15	5000	CKY	780

NEW BRUNSWICK

Fredericton D-29	50	CFNB	1210
Moncton D-30	700	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
Sydney C-32	100	CJCB	880
Wolfville D-31	50	CKIC	1010

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
	1000	CKOC	635
Kingston G-25	50	CFRC	930
London H-23	5000	CJGC	595
North Bay E-23	100	CFCH	930
Ottawa F-25	100	CKCO	890
	500	CNRO	600
Prescott F-25	100	CFLC	915
Preston H-23	100	CKPC	880
St. Catharines H-24	1000	CKTB	635
Stratford H-23	15	10-AK	1200
Toronto G-24	500	CFCA	1120
	500	CFCL	580
	10000	CFRB	C 690
	500	CKCL	580
	5000	CKGW	N 840
	500	CKNC	960
	5000	CPRY	840
Waterloo G-23	100	CKCR	645
Windsor H-22	5000	CKOK	C 540
Wingham G-23	25	10-BP	1199

PRINCE EDWARD ISLAND

Charlottetown C-31	500	CFCY	580
	100	CHCK	960
Summerside C-31	100	CHGS	1120

QUEBEC

Montreal E-26	500	CFCF	N 1030
	5000	CHYC	730
	5000	CKAC	C 730

	Watts		Keys.
Quebec D-27	100	CHRC	645
	100	CKCI	645
	100	CKCV	880

SASKATCHEWAN

Canora A-13	15	10-BU	1200
Fleming C-13	1000	CJRW	665
Moose Jaw C-11	500	CJRM	665
	25	10-AB	1200
Prince Albert A-11	25	10-BI	1200
Regina C-12	500	CHWC	960
Saskatoon B-11	500	CKCK	960
Yorkton B-13	500	CJGX	910

NEWFOUNDLAND

St. Johns A-35	75	VOAS	810
	30	VONA	950
	500	VOWR	750
Wabana A-35	100	VOGT	893

CENTRAL AMERICA

COSTA RICA

San Jose FF-23	50	TICR	911
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GUATAMALA

Guatamala CC-19	50	TGW	570
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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

Saltillo, Coah. U-12	25	XEL	1000
Torreón U-11	125	XETB	1380
	100	XETG	1000
Villa Acuna R-12	25000	XER-XEF	735

D. F.

Coyoacan Y-13	100	XEFZ	1370
Mexico City Y-13	1000	XEB	1030
	250	XEFA	1250
	250	XEG	1070
	101	XEK	990
	1080	XEN	711
	5000	XEO-XEFO	940
	500	XETA	1140
	100	XETQ	1230
	2500	XETR	610
	5000	XEW	910
	500	XEX	1210
	500	XEZ	780
	2000	XFG	638
	500	XFX	867
Toluca Y-12	50	XEC	1000

INDEX BY LOCATIONS WITH MAP KEY

	Watts		Kcys.		Watts		Kcys.
JALISCO							
Guadalajara, Jal. X-10	500	XEA	1155	Cienfuegos W-25	75	CMHJ	1150
MICHOACAN				Colon W-24	30	CMGI	1150
Morelia, Mich. Y-12	150	XEI	1310	Guantanamo X-28	20	CMKJ	1300
NEUVO LEON				Havana W-23	500	CMAF	680
Monterrey, N. L. U-13	100	XEFB	1315		500	CMBC	965
	1000	XEH	1132		150	CMBD	965
	500	XET	690		225	CMBG	1070
OAXACA					30	CMBI	1444
Oaxaca, Oax. AA-14	105	XEE	1000		20	CMBL	1444
PUEBLA					65	CMBN	1444
Puebla Z-13	101	XEV	1000		50	CMBQ	1500
QUERETARO					15	CMBR	1500
Queretaro X-12	40	XEFS	1000		150	CMBS	790
TAMAULIPAS					150	CMBT	790
N. Laredo S-13	101	XEFE	1000		150	CMBW	1140
	200	XEP	1400		350	CMBY	1235
Reynosa, Tams. T-14	1000	XED	965		150	CMBZ	1010
Tampico, Tams. W-14	500	XEM	730		500	CMC	840
	500	XES	1055		150	CMCA	1235
VERA CRUZ					150	CMCB	1070
Jalapa Y-14	100	XETC	1000		250	CMCD	925
Vera Cruz, Ver. Z-14	500	XETF	630		250	CMCF	890
	100	XEU	1007		30	CMCG	1395
YUCATAN					100	CMCH	1395
Merida, Yuc. X-19	10	XEFC	1050		250	CMCJ	630
	105	XEY	1000		15	CMCM	1395
WEST INDIES					250	CMCN	925
BAHAMA					250	CMCO	660
Nassau, U-26	500	VPN	610		1000	CMCQ	1140
CUBA					150	CMCR	1345
Caibarien W-25	250	CMHD	950		150	CMCU	1270
Camaguey W-26	75	CMJC	1382		150	CMCW	1270
	20	CMJE	856		500	CMCY	1355
	225	CMJF	930		40	CMDB	1395
	50	CMJG	1050		5000	CMK	730
	50	CMJL	960		250	CMQ	630
Cardenas W-24	30	CMGE	1375	Matanzas W-24	1500	CMW	1185
Ciego de Avila W-26	50	CMJH	1150		3000	CMX	890
	112	CMJI	1335		30	CMGB	1205
					30	CMGC	820
					50	CMGF	987
					150	CMGH	1040
					20	CMAB	1249
					200	CMHI	1030
					150	CMKC	1034
					250	CMHC	790
				DOMINICAN REPUBLIC			
				Santo Domingo X-31	1000	HIX	630
				HAITI			
				Port au Prince X-30	1000	HHK	920

TIME CONVERSION TABLE

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

CFAC 690 Calgary, Alta., <i>MST</i> . 7:30-9 a.m.; 11:30 a.m.-1:30 p.m.; 4:30-6 p.m.	CKCI 645 Quebec, Que., <i>EST</i> . 1-1:30 p.m.	CMCG 1395 Havana, Cuba.
CFBO 890 St. John, N. B.	CKCK 960 Regina, Sask., <i>MST</i> . 9-10 a.m.; 11 a.m.-noon; 1-3:30 p.m.	CMCH 1395 Havana, Cuba, <i>EST</i> . 5-9 p.m.
CFCA 1120 Toronto, Ont., <i>EST</i> . 7:15 a.m.-noon; 1 p.m.-mid.	CKCL 580 Toronto, Ont., <i>EST</i> . 8:30 a.m.-mid.	CMCJ 630 Havana, Cuba.
CFCF 1030 Montreal, Que., <i>EST</i> . 8 a.m.-mid.	CKCO 890 Ottawa, Ont.	CMCM 1395 Havana, Cuba.
CFCH 930 North Bay, Ont., <i>EST</i> . 8-8:30 a.m.; noon-1 p.m.; 5-8 p.m.	CKCR 645 Waterloo, Ont., <i>EST</i> . 10 a.m.-1:15 p.m.; 4-11 p.m.	CMCN 925 Havana, Cuba.
CFCL 580 Toronto, Ont.	CKCV 880 Quebec, Que., <i>EST</i> . Noon-2 p.m.; 6:30-11 p.m.	CMCO 660 Havana, Cuba.
CFCN 985 Calgary, Alta., <i>MST</i> . 7:30 a.m.-1:30 p.m.; 5-11 p.m.	CKCF Silent.	CMCQ 1140 Havana, Cuba.
CFCO 1210 Chatham, Ont., <i>EST</i> . 7:15-8:30 p.m.	CKGW 840 Toronto, Ont., <i>EST</i> . 6:45 a.m.-mid.	CMCR 1345 Havana, Cuba.
CFCT 630 Victoria, B. C., <i>PST</i> . 8 a.m.-12:30 p.m.; 6-8 p.m.	CKIC 1010 Wolfville, N. S., <i>AST</i> . 7:30-8:30 a.m.; 12:15-1:15 p.m.; 6-7 p.m.; 8-10 p.m.	CMCU 1270 Havana, Cuba.
CFCY 580 Charlottetown, P. E. I., <i>AST</i> . 11:30 a.m.-noon; 4:30-8 p.m.	CKLC 840 Red Deer, Alta., <i>MST</i> . 8 a.m.-7:45 p.m.	CMCV 1270 Havana, Cuba.
CFJC 1120 Kamloops, B. C., <i>PST</i> . 7:30-9:30 a.m.; noon-2 p.m.; 5:30-7 p.m.	CKMO 730 Vancouver, B. C.	CMCY 1355 Havana, Cuba, <i>EST</i> . 8:30-10:30 p.m.
CFLC 915 Prescott, Ont., <i>EST</i> . 8-10 a.m.; noon-2 p.m.; 5-7:30 p.m.	CKNC 960 Toronto, Ont., <i>EST</i> . 8 a.m.-12:30 p.m.; 2:30-11:15 p.m.	CMDB 1395 Havana, Cuba.
CFNB 1210 Fredericton, N. B.	CKOC 635 Hamilton, Ont., <i>EST</i> . 8 a.m.-10:30 p.m.	CMDE 1205 Matanzas, Cuba.
CFQC 910 Saskatoon, Sask.	CKOK 540 Windsor, Ont., <i>EST</i> . 7:30 a.m.-mid.	CMGE 1375 Cardenas, Cuba.
CFRB 690 Toronto, Ont., <i>EST</i> . 8 a.m.-mid.	CKOV 1200 Kelowna, B. C., <i>PST</i> . 8-9 a.m.; 11:30 a.m.-2 p.m.; 4:30-7:30 p.m.	CMGF 987 Matanzas, Cuba.
CFRC 930 Kingston, Ont.	CKPC 880 Preston, Ont., <i>EST</i> . 10 a.m.-2 p.m.	CMGH 1040 Matanzas, Cuba.
CHCK 960 Charlottetown, P. E. I., <i>AST</i> . Noon-2 p.m.; 5-7:30 p.m.	CKPR 890 Ft. William, Ont., <i>EST</i> . 9 a.m.-2 p.m.; 5:30-11 p.m.	CMGI 1150 Colun, Cuba.
CHGS 1120 Summerside, P. E. I., <i>AST</i> . 10 a.m.-2 p.m.; 4-8 p.m.	CKTB 635 St. Catharines, Ont., <i>EST</i> . 1:30-5 p.m.; 6:30-8 p.m.	CMGJ 790 Tuinucu, Cuba.
CHLS 730 Vancouver, B. C., <i>PST</i> . 8:50-10:30 p.m.	CKUA 580 Edmonton, Alta., <i>MST</i> . 4-9 p.m.	CMHI 950 Caibarien, Cuba.
CHMA 580 Edmonton, Alta.	CKWX 730 Vancouver, B. C., <i>PST</i> . 8-8:30 a.m.; 10:30 a.m.-noon; 4:30-7:30 p.m.	CMHJ 1030 Santa Clara, Cuba, <i>EST</i> . 11 a.m.-1 p.m.; 8-10 p.m.
CHML 880 Hamilton, Ont., <i>EST</i> . 3 p.m.-mid.	CKX 930 Brandon, Man., <i>CST</i> . 8:30-9:30 a.m.	CMHJ 1150 Cienfuegos, Cuba, <i>EST</i> . 11 a.m.-1 p.m.; 7-9 p.m.
CHNS 815 Halifax, N. S., <i>AST</i> . 8 a.m.-2 p.m.; 6 p.m.-mid.	CKY 780 Winnipeg, Man., <i>CST</i> . 8:30 a.m.-1:30 p.m.; 4-6 p.m.; 8:30-10:45 p.m.	CMJC 1382 Camaguey, Cuba.
CHRC 645 Quebec, Que., <i>EST</i> . 9 a.m.-2 p.m.; 5 p.m.-mid.	CMAB 1249 Pinar del Rio, Cuba.	CMJE 856 Camaguey, Cuba.
CHWC 960 Regina, Sask., <i>MST</i> . 7-9 a.m.; 10-11 a.m.; noon-1 p.m.; 3:30 p.m.-mid.	CMAC 680 Havana, Cuba.	CMJF 930 Camaguey, Cuba.
CHWK 665 Chilliwack, B. C., <i>PST</i> . Noon-8 p.m.	CMBC 965 Havana, Cuba, <i>EST</i> . 4 p.m.-mid.	CMJG 1050 Camaguey, Cuba.
CHYC 730 Montreal, Que.	CMBD 965 Havana, Cuba.	CMJH 1150 Ciego de Avila, Cuba, <i>EST</i> . 10 a.m.-2 p.m.; 5-10 p.m.
CJCA 745 Edmonton, Alta., <i>MST</i> . 7:45-9:15 a.m.; noon-1 p.m.; 3:30-4:30 p.m.; 5-6 p.m.; 6-7:30 p.m.	CMBG 1070 Havana, Cuba.	CMJI 1335 Ciego de Avila, Cuba, <i>EST</i> . 10 a.m.-1:30 p.m.; 6-10 p.m.
CJCB 880 Sydney, N. S., <i>AST</i> . 10 a.m.-2 p.m.; 6-10 p.m.	CMBI 1444 Havana, Cuba.	CMJL 960 Camaguey, Cuba.
CJCC 690 Calgary, Alta., <i>MST</i> . 9-11:30 a.m.; 1:45-3 p.m.; 6-7:30 p.m.	CMBL 1444 Havana, Cuba, <i>EST</i> . 7-9 p.m.	CMK 730 Havana, Cuba, <i>EST</i> . 10 a.m.-noon; 6 p.m.-mid.
CJGC 595 London, Ont., <i>EST</i> . 8:45 a.m.-1:15 p.m.; 5:30-10 p.m.	CMBN 1444 Havana, Cuba. 2-3 p.m.; 9:15-11 p.m., <i>EST</i> .	CMKA 1034 Santiago, Cuba.
CJGX 630 Yorkton, Sask., <i>CST</i> . 8:30-9:15 a.m.; 10:30-10:45 a.m.; 12:40-1:15 p.m.; 6:45-8 p.m.	CMBO 1500 Havana, Cuba.	CMKJ 1300 Guantanamo, Cuba.
CJOC 1120 Lethbridge, Alta., <i>MST</i> . 8:45-10 a.m.; noon-1:15 p.m.; 3-4 p.m.; 6-8 p.m.	CMBR 1500 Havana, Cuba.	CMKQ 630 Havana, Cuba.
CJOR 1210 Vancouver, B. C., <i>PST</i> . 7:30 a.m.-1 p.m.; 4-10:30 p.m.	CMBS 790 Havana, Cuba.	CMKW 1185 Havana, Cuba, <i>EST</i> . 7:30 a.m.-11:30 p.m.
CJRM 665 Moose Jaw, Sask.	CMBT 790 Havana, Cuba.	CMX 890 Havana, Cuba, <i>EST</i> . 11 a.m.-2 p.m.; 7-11 p.m.
CJRW 665 Fleming, Sask.	CMBW 1140 Havana, Cuba.	CNRA 630 Moncton, N. B., <i>AST</i> . 12:30-2 p.m.; 6:15-7:15 p.m.
CKAC 730 Montreal, Que., <i>EST</i> . 7:30 a.m.-mid.	CMBY 1235 Havana, Cuba.	CNRH 815 Halifax, N. S.
CKCD 730 Vancouver, B. C.	CMCZ 1010 Havana, Cuba, <i>EST</i> . 9-10:30 a.m.; noon-2 p.m.; 4-5 p.m.; 6-7 p.m.; 8-11 p.m.	CNRO 600 Ottawa, Ont., <i>EST</i> . Noon-1 p.m.; 6-11 p.m.
	CMCA 1235 Havana, Cuba.	CNRV 1030 Vancouver, B. C., <i>PST</i> . 2-3:30 p.m.; 5:30-8:30 p.m.
	CMCB 1070 Havana, Cuba, <i>EST</i> . 11:30 a.m.-1 p.m.; 5-6 p.m.; 7:30-10 p.m.	CPRY 840 Toronto, Ont., <i>EST</i> . 1-1:30 p.m.; 10-10:30 p.m.
	CMCD 925 Fleming, Cuba, <i>EST</i> . Noon-3 p.m.; 8 p.m.-mid.	HHK 920 Port au Prince, Haiti.
	CMCF 890 Havana, Cuba, <i>EST</i> . 5-8 p.m.	HIX 630 Santo Domingo Silent.
		KBAC 1420 San Antonio, Tex., <i>CST</i> . 6:45 a.m.-1:30 p.m.; 4-11:30 p.m.
		KARK 890 Little Rock, Ark., <i>CST</i> . 7:30 a.m.-9 p.m.
		KASA 1210 Elk City, Okla., <i>CST</i> . 7 a.m.-9 p.m.
		KBPS 1420 Portland, Ore., <i>PST</i> . 11 a.m.-12:30 p.m.; 3-5 p.m.
		KBTM 1200 Paragould, Ark., <i>CST</i> . 7:30-9:30 a.m.; noon-1 p.m.; 3:15-6:15 p.m.
		KCMC 1420 Texarkana, Ark., <i>CST</i> . 6:45 a.m.-2 p.m.; 4-9 p.m.
		KCRC 1370 Enid, Okla., <i>CST</i> . 10 a.m.-2 p.m.; 3:45-7:45 p.m.
		KCRJ 1310 Jerome, Ariz., <i>MST</i> . 7:30-9:30 a.m.; noon-1 p.m.; 3:45-6 p.m.

KDB 1500 Santa Barbara, Calif., <i>PST.</i>	KFOR 1210 Lincoln, Nebr., <i>CST.</i>	KGDA 1370 Mitchell, S. D., <i>CST.</i>
8 a.m.-mid.	7 a.m.-10 p.m.	8 a.m.-4:30 p.m.; 5:30-9 p.m.
KDFN 1440 Casper, Wyo., <i>MST.</i>	KFOX 1250 Long Beach, Calif., <i>PST.</i>	KGDE 1200 Fergus Falls, Minn., <i>CST.</i>
9 a.m.-9 p.m.	6 a.m.-mid.	7 a.m.-9 p.m.
KDKA 980 Pittsburgh, Pa., <i>EST.</i>	KFPL 1310 Dublin, Texas, <i>CST.</i>	KGDM 1100 Stockton, Calif., <i>PST.</i>
7 a.m.-12:30 a.m. next day.	6 a.m.-10:30 p.m.	6 a.m.-sunset.
KDLR 1210 Devils Lake, N. D., <i>CST.</i>	KFPM 1310 Greenville, Texas, <i>CST.</i>	KGDY 1200 Huron, S. D.
7 a.m.-3 p.m.; 5:30-9:30 p.m.	7:45-9 a.m.; 1-2:45 p.m.; 6-9 p.m.	KGKE 1200 Yuma, Colo., <i>MST.</i>
KDYL 1290 Salt Lake City, Utah, <i>MST.</i>	KFPW 1210 Fort Smith, Ark., <i>CST.</i>	KGGER 1360 Long Beach, Calif., <i>PST.</i>
6:30 a.m.-1 a.m. next day.	6:30 a.m.-2 p.m.; 5-10:30 p.m.	6 a.m.-mid.
KECA 1430 Los Angeles, Calif., <i>PST.</i>	KFPY 1340 Spokane, Wash., <i>PST.</i>	KGWEV 1200 Ft. Morgan, Colo., <i>MST.</i>
9 a.m.-11 p.m.	7 a.m.-12:30 a.m. next day.	6:30-9:30 p.m.
KELW 780 Burbank, Calif., <i>PST.</i>	KFQD 1230 Anchorage, Alaska.	KGEZ 1310 Kalispell, Mont., <i>MST.</i>
10 a.m.-1 p.m.; 5-8 p.m.	6 p.m.-mid. (Zone 6)	8 a.m.-9 p.m.
KERN 1200 Bakersfield, Calif.	KFRFC 610 San Francisco, Calif., <i>PST.</i>	KGFF 1420 Shawnee, Okla., <i>CST.</i>
KEX 1180 Portland, Ore., <i>PST.</i>	7 a.m.-1 a.m. next day.	7:30 a.m.-9 p.m.
KFAB 770 Lincoln, Neb., <i>CST.</i>	KFRU 630 Columbia, Mo., <i>CST.</i>	KGFG 1370 Oklahoma City, Okla.
6 a.m.-10:30 p.m.	6:30-9 a.m.-4-7:30 p.m.; 8 p.m.-mid.	KGFI 1500 Corpus Christi, Texas, <i>CST.</i>
KFAC 1300 Los Angeles, Calif., <i>PST.</i>	KFSD 600 San Diego, Calif., <i>PST.</i>	7 a.m.-3 p.m.; 6-10 p.m.
7 a.m.-mid.	7:30 a.m.-mid.	KGFIJ 1200 Los Angeles, Calif.
KFBB 1280 Great Falls, Mont., <i>MST.</i>	KFSG 1120 Los Angeles, Calif., <i>PST.</i>	24 hours daily.
8 a.m.-3 p.m.; 5-10 p.m.	1:30-3 p.m.	KGFK 1500 Moorhead, Minn., <i>CST.</i>
KFBI 1050 Abilene, Kans., <i>CST.</i>	KFUL 1290 Galveston, Texas, <i>CST.</i>	8 a.m.-9 p.m.
5 a.m.-9 p.m.	8-9:30 a.m.; 11 a.m.-1 p.m.; 2:30-4 p.m.; 5:30-8 p.m.; 10:15 p.m.-mid.	KGFL 1370 Santa Fe, N. M., <i>MST.</i>
KFBK 1310 Sacramento, Calif.	KFUO 550 St. Louis, Mo., <i>CST.</i>	9-10 a.m.; 11 a.m.-3 p.m.; 4-5:30 p.m.; 7:30-9 p.m.
KFBL 1370 Everett, Wash., <i>PST.</i>	6:30-7 a.m.; 12:15-12:40 p.m.; 9:30-10:30 p.m.	KGFW 1310 Kearney, Neb., <i>CST.</i>
8:30 a.m.-noon; 3-6 p.m.; 3-6 a.m.	KFVD 1000 Los Angeles, Calif., <i>PST.</i>	7:30 a.m.-1:30 p.m.; 5-10:30 p.m.
KFDM 560 Beaumont, Texas, <i>CST.</i>	6 a.m.-6:45 p.m.; 10 p.m.-mid.	KGFX 630 Pierre, S. D.
7 a.m.-2 p.m.; 4:30-10:30 p.m.	KFVS 1210 Cape Girardeau, Mo., <i>CST.</i>	KGGG 1420 San Francisco, Calif.
KFDY 550 Brookings, S. D., <i>CST.</i>	9 a.m.-noon; 4-8:30 p.m.	KGGF 1010 Coffeyville, Kans., <i>CST.</i>
12:30-2 p.m.	9:50 Los Angeles, Calif., <i>PST.</i>	7:30 a.m.-2 p.m.; 5-10:30 p.m.
KFEL 920 Denver, Colo., <i>MST.</i>	7:30 a.m.-mid.	KGGM 1230 Albuquerque, N. M., <i>MST.</i>
7-8:30 a.m.; 10 a.m.-12:30 p.m.; 3-4:30 p.m.; 6-7:30 p.m.	KFWB 1200 St. Louis, Mo.	8 a.m.-2 p.m.; 4-10 p.m.
KFEQ 680 St. Joseph, Mo., <i>CST.</i>	KFWI 930 San Francisco, Calif., <i>PST.</i>	KGHF 1320 Pueblo, Colo., <i>MST.</i>
6 a.m.-7:45 p.m.	7-8 a.m.; 9 a.m.-1 p.m.; 6-7:30 p.m.; 8:30 p.m.-1 a.m.	7 a.m.-1 p.m.; 4-10 p.m.
KFGQ 1310 Boone, Iowa.	KFXD 200 Nampa, Idaho, <i>MST.</i>	KGHI 1200 Little Rock, Ark.
KFH 1300 Wichita, Kans., <i>CST.</i>	7 a.m.-9 p.m.	KGHL 950 Billings, Mont., <i>MST.</i>
7-8:30 a.m.; 9-11 a.m.; 11:30 a.m.-2 p.m.; 3-9 p.m.; 10-11 p.m.	KFXF 920 Denver, Colo.	7:30 a.m.-4 p.m.; 5:30-11 p.m.
KFI 640 Los Angeles, Calif., <i>PST.</i>	KFXJ 1310 Grand Jct., Colo., <i>MST.</i>	KGIR 1360 Butte, Mont., <i>MST.</i>
6:30 a.m.-mid.	8 a.m.-2 p.m.; 6-9 p.m.	7 a.m.-mid.
KFIO 1120 Spokane, Wash., <i>PST.</i>	KFXM 1210 San Bernardino, Calif., <i>PST.</i>	KGIV 1420 Trinidad, Colo.
6 a.m.-sunset.	7 a.m.-mid.	KGIX 1420 Las Vegas, Nev., <i>PST.</i>
KFIZ 1420 Fond du Lac, Wis., <i>CST.</i>	KFXR 1310 Lubbock, Texas.	7 a.m.-1 p.m.; 3-9 p.m.
10 a.m.-1 p.m.; 4-10 p.m.	550 Bismarck, N. D., <i>CST.</i>	KGIZ 1500 Grant City, Mo.
KFJB 1200 Marshalltown, Iowa.	6:30 a.m.-12:30 p.m.; 2-11 p.m.	KGKB 1500 Tyler, Texas, <i>CST.</i>
KFJI 1210 Klamath Falls, Ore., <i>PST.</i>	1470 Spokane, Wash., <i>PST.</i>	7 a.m.-2 p.m.; 4-10 p.m.
7:30 a.m.-9 p.m.	6 a.m.-mid.	KGKL 1370 San Angelo, Texas, <i>CST.</i>
KFJM 1370 Grand Forks, N.D., <i>CST.</i>	KGAR 1370 Tucson, Ariz., <i>MST.</i>	8 a.m.-9:30 p.m.
7 a.m.-9 p.m.	7 a.m.-1:30 p.m.; 4-11 p.m.	KGKO 570 Wichita Falls, Texas.
KFJR 1300 Portland, Ore., <i>PST.</i>	KGB 1330 San Diego, Calif., <i>PST.</i>	KGKY 1500 Scottsbluff, Neb., <i>MST.</i>
10-30 a.m.-2:30 p.m.; 5-6 p.m.; 7-8 p.m.	7 a.m.-mid.	6:30 a.m.-2 p.m.; 4:30-9 p.m.
KFJZ 1370 Fort Worth, Texas, <i>CST.</i>	KGBU 900 Ketchikan, Alaska.	7-9 a.m.; 10:40 a.m.-11 p.m. (Zone 5)
7 a.m.-11 p.m.	KGBX 1310 Springfield, Mo., <i>CST.</i>	KGNF 1430 North Platte, Neb., <i>MST.</i>
KFKA 880 Greeley, Colo., <i>MST.</i>	6:30-9:30 a.m.; 11 a.m.-2 p.m.; 4-10 p.m.	7 a.m.-sunset.
6-7:30 a.m.; 9 a.m.-2:30 p.m.; 6-7:30 p.m.; 9-11 p.m.	KGZ 930 York, Neb., <i>CST.</i>	KGNO 1210 Dodge City, Kans., <i>MST.</i>
KFKU 1220 Lawrence, Kans., <i>CST.</i>	7:30-9:30 a.m.; 11 a.m.-12:30 p.m.; 2-3:30 p.m.; 5-6:30 p.m.	7:30 a.m.-3:30 p.m.; 5-9 p.m.
2:30-3 p.m.; 6-6:15 p.m.	KGCA 1270 Decorah, Iowa, <i>CST.</i>	KGQ 790 San Francisco, Calif., <i>PST.</i>
KFKX 1020 Chicago, Ill.	8:30-9:45 a.m.; 10:45-11:30 a.m.; 12:30-2:30 p.m.	7 a.m.-12:30 a.m. next day.
KFLV 1410 Rockford, Ill., <i>CST.</i>	KGCR 1210 Watertown, S. D., <i>CST.</i>	1410 Amarillo, Texas, <i>CST.</i>
10 a.m.-12:30 p.m.; 3-6 p.m.; 8-10 p.m.	6:30 a.m.-3 p.m.; 5-9 p.m.	6-8 a.m.; 10 a.m.-12:30 p.m.; 3-4:30 p.m.; 6-7:30 p.m.; 9-10 p.m.
KFLX 1370 Galveston, Texas.	Noon-5 p.m.; 6:45-9 p.m.	KGU 750 Honolulu, Hawaii.
KFMX 1250 Northfield, Minn., <i>Silent.</i>	KGCU 1310 Wolf Point, Mont., <i>MST.</i>	6:15-10:30 a.m.; noon-11 p.m.; 4:30-11 p.m. (Zone 5)
KFNF 890 Shenandoah, Ia., <i>CST.</i>	7:30-9 a.m.; noon-3 p.m.; 6-7:30 p.m.	KGVO 1200 Missoula, Mont., <i>MST.</i>
5-8 a.m.; 9-10 a.m.; 12:15-5 p.m.; 6-8 p.m.; 9-10 p.m.		6 a.m.-mid.
		KGW 620 Portland, Ore., <i>PST.</i>
		6:30 a.m.-mid.

KGY 1210 Olympia, Wash., <i>PST.</i>	KOMA 1480 Oklahoma City, Okla., <i>CST.</i>	KTAT 1240 Ft. Worth, Texas.
KHJ 900 Los Angeles, Calif., <i>PST.</i>	7 a.m.-1 a.m. next day.	KTBR 1300 Portland, Ore.
7 a.m.-1 a.m. next day.	KOMO 920 Seattle, Wash., <i>PST.</i>	KTBS 1450 Shreveport, La., <i>CST.</i>
KHQ 590 Spokane, Wash., <i>PST.</i>	6:55 a.m.-12:30 a.m. next day.	6 a.m.-mid.
7 a.m.-mid.	KONO 1370 San Antonio, Tex., <i>CST.</i>	KTFI 1240 Twin Falls, Idaho, <i>MST.</i>
KICA 1370 Clovis, N. M.	8:30-10 a.m.; 11 a.m.-noon;	6:30 a.m.-11 p.m.
KICK 1420 Red Oak, Iowa.	1:30-4 p.m.; 6-7 p.m.; 8-10	1040 Hot Springs, Ark., <i>CST.</i>
KID 1320 Idaho Falls, Idaho, <i>MST.</i>	p.m.	9-10 a.m.; 11 a.m.-12:30 p.m.;
9 a.m.-mid.	KOOS-1370 Marshfield, Ore., <i>PST.</i>	4:30-5:30 p.m.; 6:30-7 p.m.;
KIDO 1350 Boise, Idaho, <i>MST.</i>	9 a.m.-9 p.m.	8:45-9:45 p.m.; 11 p.m.-mid.
7 a.m.-9:30 p.m.	KORE 1420 Eugene, Ore., <i>PST.</i>	780 Los Angeles, Calif., <i>PST.</i>
KIDW 1420 Lamar, Colo.	7:45 a.m.-8:30 p.m.	6-10 a.m.; 1-5 p.m.; 8 p.m.-
KIT 1310 Yakima, Wash., <i>PST.</i>	KOY 1390 Phoenix, Ariz., <i>MST.</i>	4 a.m. next day.
7 a.m.-11 p.m.	7 a.m.-10 p.m.	1120 Houston, Texas, <i>CST.</i>
KJBS 1070 San Francisco, Calif., <i>PST.</i>	KPCP-650 Seattle, Wash., <i>PST.</i>	6:30-11 a.m.; noon-11:30 p.m.
Mid. to local sunset.	5:30 a.m.-8 p.m.; 10 p.m.-4 a.m.	1290 San Antonio, Tex., <i>CST.</i>
KJR 970 Seattle, Wash., <i>PST.</i>	next day.	6:30-8 a.m.; 9:30-11 a.m.; 1-
7 a.m.-mid.	KPJM-1500 Prescott, Ariz.	2-30 p.m.; 4-5:30 p.m.; 8-
KLCN 1290 Blytheville, Ark.	KPO 680 San Francisco, Calif., <i>PST.</i>	10:15 p.m.
KLO 1400 Ogden, Utah, <i>MST.</i>	7:30 a.m.-mid.	KTSM 1310 El Paso, Texas.
8:30 a.m.-10:30 p.m.	880 Denver, Colo., <i>MST.</i>	KTW 1220 Seattle, Wash.
KLPM 1240 Minot, N. D., <i>CST.</i>	7:30-9 a.m.; 2:30-4:30 p.m.;	KUJ-1370 Walla Walla, Wash., <i>PST.</i>
7 a.m.-1 p.m.; 6-7:45-p.m.;	7:30-9 p.m.	6 a.m.-sunset.
10-11:30 p.m.	KPPC 1210 Pasadena, Calif.	KUMA-1420 Yuma, Ariz., <i>MST.</i>
KLRA 1390 Little Rock, Ark., <i>CST.</i>	Silent.	7-9 a.m.; noon-3 p.m.; 6-9 p.m.
8-11 a.m.; 1-5 p.m.; 6:30-11 p.m.	KPQ 1500 Wenatchee, Wash., <i>PST.</i>	KUOA 1390 Fayetteville, Ark., <i>CST.</i>
KLS 1440 Oakland, Calif., <i>PST.</i>	7 a.m.-10 p.m.	7-8 a.m.; 11 a.m.-1 p.m.; 5-6:30
8:30 a.m.-7:30 p.m.	KPRC 920 Houston, Texas, <i>CST.</i>	p.m.
KLX 880 Oakland, Calif., <i>PST.</i>	6:30 a.m.-mid.	KUSD 890 Vermillion, S. D., <i>CST.</i>
7 a.m.-11 p.m.	KQV 1380 Pittsburgh, Pa., <i>EST.</i>	8-9 p.m.
KLZ 560 Denver, Colo., <i>MST.</i>	8:30 a.m.-1 p.m.; 2-11 p.m.	KVI 570 Tacoma, Wash., <i>PST.</i>
6:30 a.m.-11:30 p.m.	1010 San Jose, Calif., <i>PST.</i>	6:30 a.m.-mid.
KMA 930 Shenandoah, Iowa, <i>CST.</i>	7 a.m.-3 p.m.; 4:30-10 p.m.	KVL 1370 Seattle, Wash.
6:7-30 a.m.; 9:30-11 a.m.; 12:30-	KRE 1370 Berkeley, Calif., <i>PST.</i>	KVOA 1260 Tucson, Ariz.
2 p.m.; 3:30-5 p.m.; 6:30 p.m.-	6:30-9:30 a.m.; noon-3 p.m.;	KVOO-1140 Tulsa, Okla., <i>CST.</i>
mid.	6-9 p.m.	7 a.m.-1:45 p.m.; 3-9 p.m.
KMAC 1370 San Antonio, Tex., <i>CST.</i>	KREG 1500 Santa Ana, Calif., <i>PST.</i>	KVOR-1270 Colorado Springs, Colo., <i>MST.</i>
7-8:30 a.m.; 10-11 a.m.; noon-	9 a.m.-11 p.m.	7 a.m.-10 p.m.
1:30 p.m.; 4-6 p.m.; 7-8 p.m.;	KRGV 1260 Harlingen, Texas, <i>CST.</i>	KVOS 1200 Bellingham, Wash.
10 p.m.-mid.	7-9:30 a.m.; 12:30-3:30 p.m.;	KWCR 1420 Cedar Rapids, Ia., <i>CST.</i>
KMBC 950 Kansas City, Mo., <i>CST.</i>	6:30-9:30 p.m.	6:30 a.m.-mid.
6:15 a.m.-mid.	KRKD 1120 Los Angeles, Calif., <i>PST.</i>	KWEA 1210 Shreveport, La.
KMED 1310 Medford, Ore., <i>PST.</i>	6 a.m.-1:30 p.m.; 3 p.m.-mid.	KWG-1200 Stockton, Calif., <i>PST.</i>
8 a.m.-9:30 p.m.	KRLD 1040 Dallas, Texas, <i>CST.</i>	7 a.m.-mid.
KMJ 580 Fresno, Calif., <i>PST.</i>	6-7:15 a.m.; 7:45-9 a.m.; 10-11	KWJW 1060 Portland, Ore.
7 a.m.-mid.	a.m.; 12:30-4:30 p.m.; 5:30-	KWK 1350 St. Louis, Mo., <i>CST.</i>
KMLB 1200 Monroe, La.	6:30 p.m.; 7-8:45 p.m.; 9:45-	6:55 a.m.-12:15 a.m. next day.
KMMJ 740 Clay Center, Neb., <i>CST.</i>	11 p.m.	KWK 1370 Kansas City, Mo.
5:45 a.m.-sunset.	KRMD 1310 Shreveport, La., <i>CST.</i>	KWKH 850 Shreveport, La., <i>CST.</i>
KMO 1330 Tacoma, Wash., <i>PST.</i>	7 a.m.-1 p.m.; 5-8 p.m.	8:30 p.m.-mid.
6:30 a.m.-11 p.m.	KROW 930 Oakland, Calif., <i>PST.</i>	KWLC 1270 Decorah, Iowa, <i>CST.</i>
KMOX 1090 St. Louis, Mo., <i>CST.</i>	8-9 a.m.; 1-6 p.m.; 7:30-8:30	6:30-8:30 a.m.; 9:45-10:45 a.m.;
6:45 a.m.-12:45 a.m. next day.	p.m.	11:30 a.m.-12:30 p.m.
KMPK 710 Beverly Hills, Calif.	KRSC-1120 Seattle, Wash., <i>PST.</i>	KWSC-1220 Pullman, Wash., <i>PST.</i>
KMTR 570 Hollywood, Calif.	Sunrise to local sunset.	6:30-8 a.m.; 9:05 a.m.-noon-
KNOW 1500 Austin, Texas, <i>CST.</i>	KSAC 580 Manhattan, Kans., <i>CST.</i>	3:30-5:30 p.m.; 6:30-8 p.m.
7:30 a.m.-1:30 p.m.; 4:30-10:30	8-9 a.m.; 10-10:30 a.m.; 12:30-	KWWG 1260 Brownsville, Texas.
p.m.	1:30 p.m.; 4:30-5:30 p.m.	KXA 760 Seattle, Wash., <i>PST.</i>
KNX 1050 Hollywood, Calif., <i>PST.</i>	KSCJ 1330 Sioux City, Iowa, <i>CST.</i>	7 a.m.-sundown; 9 p.m.-mid.
6:30 a.m.-1 a.m. next day.	6:30 a.m.-11 p.m.	KXL 1420 Portland, Ore., <i>PST.</i>
KOA 830 Denver, Colo., <i>MST.</i>	KSD 550 St. Louis, Mo., <i>CST.</i>	7 a.m.-mid.
7 a.m.-mid.	7 a.m.-12:15 p.m.; 12:40-9:30	KXO 1500 El Centro, Calif.
KOAC 550 Corvallis, Ore., <i>PST.</i>	p.m.; 10:30-11 p.m.	KXRO-310 Aberdeen, Wash., <i>PST.</i>
6:30 a.m.-4 p.m.; 6-8:30 p.m.	KSEI 890 Pocatello, Idaho, <i>MST.</i>	7:30 a.m.-10 p.m.
KOB 1180 Albuquerque, N. M., <i>MST.</i>	8 a.m.-11 p.m.	KXYZ 1440 Houston, Texas, <i>CST.</i>
7 a.m.-9 p.m.	KSL 1130 Salt Lake City, Ut., <i>MST.</i>	7-10 a.m.-11 a.m.-1:15 p.m.;
KOCW 1300 Chickasha, Okla.	7 a.m.-mid.	3:30-10:30 p.m.
KOH 1380 Reno, Nev., <i>PST.</i>	KSO 380 Clarinda, Iowa.	KYA-1230 San Francisco, Calif., <i>PST.</i>
8 a.m.-9 p.m.	KSOO 1110 Sioux Falls, S. D., <i>CST.</i>	7:30 a.m.-mid.
KOIL 1260 Council Bluffs, Ia., <i>CST.</i>	6 a.m.-8 p.m.	KYW 1020 Chicago, Ill., <i>CST.</i>
6 a.m.-mid.	KSTP-1460 St. Paul, Minn., <i>CST.</i>	7 a.m.-1 a.m. next day.
KOIN 940 Portland, Ore., <i>PST.</i>	6:30 a.m.-12:30 a.m. next day.	NAA 690 Arlington, Va.
6 a.m.-1 a.m. next day.	560 San Francisco, Calif., <i>PST.</i>	RUS 664 Salvador
KOL 1270 Seattle, Wash., <i>PST.</i>	6:45 a.m.-1 a.m. next day.	TGW 570 Guatemala.
6:45 a.m.-mid.	620 Phoenix, Ariz., <i>MST.</i>	TICR 911 San Jose, C. R.
	7 a.m.-11:15 p.m.	

VAS 685	Glace Bay, N. S.	WBXN 1350	New York City, EST.	WCOD 1200	Harrisburg, Pa., EST.
1-1:15 p.m.	mid.-12:15 a.m.	9 p.m.-mid.		8-11 a.m.; 3-6 p.m.; 8-11 p.m.	
VCX 690	Halifax, N. S.	WBOQ 860	New York City	WCRW 1210	Chicago, Ill., CST.
VOAS 810	St. Johns, N. F.	WBOW 1310	Terre Haute, Ind., CST.	7-8:30 a.m.; 11:30 a.m.-1:30 p.m.; 6-7 p.m.; 9-10 p.m.	
11 a.m.-12:30 p.m.; 4-5:30 p.m.	(Zone 19)	WBRC 930	Birmingham, Ala., CST.	WCSO 360	Charleston, S. C.
VOGT 893	Wabana, N. F.	7 a.m.-11 p.m.		WCSH 940	Portland, Maine, EST.
Silent.		WBRE 1310	Wilkes Barre, Pa.	7:45 a.m.-1:30 p.m.; 2-10:45 p.m.	
VONA 950	St. Johns, N. F.	WBSO 920	Babson Park, Mass., EST.	WDAE 1220	Tampa, Fla., EST.
VOWR 750	St. Johns, N. F.	7 a.m.-5 p.m.		8 a.m.-mid.	
Silent.		WBT 1080	Charlotte, N. C., EST.	WDAF 610	Kansas City, Mo., CST.
VPN 610	Nassau, B. I.	7 a.m.-mid.		6:26 a.m.-mid.	
WAAB 1410	Boston, Mass., EST.	WBTM 1370	Danville, Va.	WDAG 1410	Amarillo, Texas, CST.
7:45 a.m.-mid.		WBZ 990	Boston, Mass., EST.	8-10 a.m.; 12:30-3 p.m.; 4:30-6 p.m.; 7:30-9 p.m.; 10 p.m.-mid.	
WAAF 920	Chicago, Ill., CST.	7 a.m.-mid.		WDJH 1310	El Paso, Texas.
6 a.m.-local sunset.		WBZA 990	Springfield, Mass., EST.	WDAS 1370	Philadelphia, Pa., EST.
WAAM 1250	Newark, N. J., EST.	7 a.m.-mid.		9 a.m.-10:30 p.m.	
7-9 a.m.; 10 a.m.-noon; 10 p.m.-mid.		WCAC 600	Storrs, Conn., EST.	940	Fargo, N. D., CST.
WAAT 940	Jersey City, N. J., EST.	12:30-1 p.m.; 7-8 p.m.		6 a.m.-11 p.m.	
6 a.m.-6 p.m.		WCAD 1220	Canton, N. Y., EST.	930	Roanoke, Va., EST.
WAAW 660	Omaha, Neb.	12:30-1:20 p.m.		8 a.m.-mid.	
WABC 860	New York City, EST.	6:45 a.m.-mid.		WDBO 580	Orlando, Fla., EST.
7:30 a.m.-2 a.m. next day.		WCAE 1220	Pittsburgh, Pa., EST.	7 a.m.-mid.	
WABI 1200	Bangor, Maine., EST.	6:45 a.m.-mid.		WDEL 1210	Wilmington, Del., EST.
6-9 a.m.; noon-3 p.m.; 6-9 p.m.		WCAH 1430	Columbus, Ohio, EST.	9 a.m.-10 p.m.	
WABZ 1200	New Orleans, La.	7:45 a.m.-mid.		WDEW 550	Waterbury, Vt., EST.
WACO 1240	Waco, Texas, CST.	WCAJ 590	Lincoln, Neb., CST.	9:30-11 a.m.; noon-2 p.m.	
7-8 a.m.; 10 a.m.-12:30 p.m.; 2-4 p.m.; 5-7:30 p.m.; 9-10:30 p.m.		10-10:45 a.m.; 3:30-4 p.m.; 9-10 p.m.		1180	Minneapolis, Minn., CST.
WADC 1320	Akron, Ohio, EST.	WCAL 1250	Northfield, Minn., CST.	6:30 a.m.-8:15 p.m.	
8:30 a.m.-mid.		9:45-10:15 a.m.; 9-10 p.m.		WDOD 1280	Chatanooga, Tenn., CST.
WAGM 1420	Presque Isle, Me., EST.	11 a.m.-noon; 2-5 p.m.; 8 p.m.-mid.		7 a.m.-11 p.m.	
7 a.m.-1 p.m.; 3-9 p.m.		WCAO 600	Baltimore, Md., EST.	1330	Hartford, Conn., EST.
WAIU 640	Columbus, Ohio, EST.	7 a.m.-mid.		8 a.m.-mid.	
7 a.m.-sunset.		WCAP 1280	Asbury Park, N. J., EST.	1250	New Orleans, La., CST.
WALR 1210	Zanesville, Ohio, EST.	9-11 a.m.; 5-8 p.m.		7 a.m.-11:45 p.m.	
9 a.m.-10 p.m.		WCAT 1200	Rapid City, S. D., CST.	1070	Tuscola, Ill., CST.
WAMC 1420	Anniston, Ala., CST.	12:30 p.m.-1:30 p.m.		7 a.m.-4:30 p.m.	
7-10:30 a.m.; noon-9 p.m.		WCAU 1170	Philadelphia, Pa., EST.	660	New York City, EST.
WAPI 1140	Birmingham, Ala., CST.	8 a.m.-1 a.m. next day.		6:45 a.m.-1 a.m. next day.	
6:30 a.m.-sunset; 9 p.m.-mid.		WCAX 1200	Burlington, Vt.	1270	Ithaca, N. Y., EST.
WASH 1270	Gd. Rapids, Mich., CST.	Noon-11; 6-9 p.m., EST.		Variable	
7 a.m.-mid.		WCAZ 1070	Carthage, Ill., CST.	780	Providence, R. I., EST.
WAWZ 1350	Zarephath, N. J., EST.	9:30 a.m.-3:30 p.m.		7:30 a.m.-1 a.m. next day.	
6-9 a.m.; 7:30-9 p.m.		WCBA 1440	Allentown, Pa., EST.	570	Columbus, Ohio, EST.
WBAA 1400	Lafayette, Ind., CST.	7:30 a.m.-1 a.m. next day.		9-11 a.m.; 1-3 p.m.; 8-10 p.m.	
7-8 p.m.		WCBD 1080	Zion, Ill., CST.	1290	Superior, Wis., CST.
WBAC 1430	Harrisburg, Pa., EST.	6-7 a.m.; 7:30-10:30 a.m.; 1:30-3 p.m.; 4:30-5:30 p.m.		7 a.m.-11 p.m.	
10:30-11:30 a.m.; 1:30-2:30 p.m.; 4-4:30 p.m.; 8-9:45 p.m.		WCBM 1370	Baltimore, Md., EST.	1210	Harrisburg, Ill., CST.
WBAL 1060	Baltimore, Md., EST.	7 a.m.-1:30 p.m.; 5-11 p.m.		6-9 a.m.; noon-4 p.m.; 8:30 p.m.-mid.	
7 a.m.-mid.		WCBS 1210	Springfield, Ill., CST.	WBR 1310	Buffalo, N. Y., EST.
WBAW 800	Ft. Worth, Texas, CST.	11:30 a.m.-3 p.m.; 6:45-9 p.m.		7 a.m.-2 a.m. next day.	
8:30-10:30 a.m.; 12:30-3 p.m.; 4:30-5:30 p.m.; 9 p.m.-mid.		6:45 a.m.-mid.		1210	Chicago, Ill.
WBAX 1210	Wilkes Barre, Pa., EST.	WCDA 1350	New York City, EST.	590	Boston, Mass., EST.
7:30 a.m.-noon.		9 a.m.-noon; 3-7:30 p.m.		6:45 a.m.-mid.	
WBBC 1400	Brooklyn, N. Y.	WCFL 970	Chicago, Ill., CST.	830	Reading, Pa., EST.
WBBL 1210	Richmond, Va.	6 a.m.-mid.		8 a.m.-8 p.m.	
WBMM 770	Chicago, Ill., CST.	WCGU 1400	Brooklyn, N. Y., EST.	1350	Emory, Va., EST.
6:45 a.m.-10 p.m.; 11:30 p.m.-2 a.m.		11:15 a.m.-1:30 p.m.; 6-7:30 p.m.		6-8 a.m.; 11 a.m.-2 p.m.; 4-7 p.m.	
WBBR 1300	Brooklyn, N. Y., EST.	WCKY 1490	Covington, Ky., CST.	1420	Cicero, Ill., CST.
10 a.m.-noon.		7 a.m.-mid.		4-6 p.m.	
WBBZ 1200	Ponca City, Okla., CST.	WCLO 1200	Janesville, Wis., CST.	1420	Battle Creek, Mich.
6 a.m.-10 p.m.		7:30 a.m.-3:30 p.m.; 5-9 p.m.		7 a.m.-2 p.m.; 4 p.m.-sunset.	
WBCN 410	Bay City, Mich.	WCLS 1310	Joliet, Ill., CST.	870	Chicago, Ill., CST.
WBEN 900	Buffalo, N. Y., EST.	11 a.m.-noon; 3-8 p.m.; 10 p.m.-mid.		10:15-11:45 a.m.; 3:30-7 p.m.; 8:30 p.m.-1 a.m. next day.	
6:45 a.m.-mid.		WCMA 1400	Culver, Ind., CST.	1420	Erie, Pa., EST.
WBEO 1310	Marquette, Mich.	6-6:30 a.m.; 1:15-4:15 p.m.; 10:30 p.m.-mid.		8 a.m.-1:30 p.m.; 3:45-10:45 p.m.	
WBHS 1200	Huntsville, Ala.	WCOA 1340	Pensacola, Fla., CST.	1370	Glens Falls, N. Y.
WBIG 1440	Greensboro, N. C., EST.	9 a.m.-10:30 p.m.		1300	New York City, EST.
8 a.m.-3 p.m.; 5-11 p.m.		WCOC 880	Meridian, Miss., CST.	8-9 a.m.; 3-6 p.m.	
WBMS 1450	Hackensack, N. J., EST.	7:30 a.m.-2 p.m.; 5-11 p.m.			

WEW 760 St. Louis, Mo., <i>CST.</i> 8 a.m.-5 p.m.	WHAT 1310 Philadelphia, Pa., <i>EST.</i> 9-11 a.m.; 1-2 p.m.; 5-6:30 p.m.	WIS 1010 Columbia, S. C., <i>EST.</i> 7 a.m.-1:30 p.m.; 5:30-11 p.m.
WEXL 1310 Royal Oak, Mich., <i>EST.</i> 8 a.m.-11 p.m.	WHAZ 1300 Troy, N. Y., <i>EST.</i> 6 p.m.-mid.	WISN 1120 Milwaukee, Wis., <i>CST.</i> 7:30 a.m.; 10:15 a.m.-3 p.m.; 4-8:30 p.m.; 9:30 p.m.-mid.
WFAA 800 Dallas, Texas., <i>CST.</i> 6:45-8:30 a.m.; 10:30 a.m.-12:30 p.m.; 3-5 p.m.; 5:30-9 p.m.	WHB 860 Kansas City, Mo., <i>CST.</i> 6 a.m.-5:45 p.m.	WJAC 1310 Johnstown, Pa., <i>EST.</i> 8:30-10:30 a.m.; 4:30 p.m.-mid.
WFAB 1300 New York City	WHBC 1200 Canton, Ohio, <i>EST.</i> 6-9 a.m.; noon-3 p.m.; 6:9 p.m.	WJAG 1066 Norfolk, Neb., <i>CST.</i> 6 a.m.-5:45 p.m.
WFAM 1200 South Bend, Ind.	WHBD 1370 Mt. Orab, Ohio, <i>EST.</i> 7-11 a.m.; noon-5 p.m.; 6-9 p.m.	WJAK 1310 Elkhart, Ind., <i>CST.</i> 7:30 a.m.-7:30 p.m.
WFAN 610 Philadelphia, Pa., <i>EST.</i> 9 a.m.-mid.	WHBF 1210 Rock Island, Ill., <i>CST.</i> 10 a.m.-3 p.m.; 5 p.m.-mid.	WJAR 890 Providence, R. I., <i>EST.</i> 8 a.m.-mid.
WFAS 1210 White Plains, N. Y., <i>EST.</i> 5-7 p.m.	WHBL 1410 Sheboygan, Wis., <i>CST.</i> 7-10 a.m.; 12:30-3 p.m.; 6-8 p.m.; 10 p.m.-mid.	WJAS 1290 Pittsburgh, Pa., <i>EST.</i> 7:30 a.m.-11:30 p.m.
WFBE 1200 Cincinnati, Ohio, <i>EST.</i> 7 a.m.-11 p.m.	WHBQ 1370 Memphis, Tenn., <i>CST.</i> 7:55 a.m.-10:30 p.m.	WJAX 900 Jacksonville, Fla., <i>EST.</i> 7 a.m.-11 p.m.
WFBG 1310 Altoona, Pa., Silent.	WHBU 1310 Anderson, Ind., <i>CST.</i> 7 a.m.-1 p.m.; 3-9:15 p.m.	WJAY 610 Cleveland, Ohio. 6 a.m.-6:45 p.m., <i>EST.</i>
WFBL 1360 Syracuse, N. Y., <i>EST.</i> 7:30 a.m.-mid.	WHBY 1200 Green Bay, Wis., <i>CST.</i> 7 a.m.-10 p.m.	WJBC 1200 LaSalle, Ill., <i>CST.</i> 8-9 a.m.; 10 a.m.-12:30 p.m.; 6:30-10 p.m.
WFBM 1230 Indianapolis, Ind., <i>CST.</i> 7:30-10:15 a.m.; noon-3 p.m.; 5:30 p.m.-mid.	WHDF 1370 Calumet, Mich., <i>CST.</i> 9-9:45 a.m.; noon-1 p.m.; 4:40-7 p.m.	WJBI 1210 Red Bank, N. J., <i>EST.</i> 9 a.m.-noon.
WFBR 1270 Baltimore, Md., <i>EST.</i> 7 a.m.-mid.	WHDH 830 Boston, Mass.	WJBK 1370 Detroit, Mich., <i>EST.</i> 7 p.m.-11 p.m.
WFDL 1310 Flint, Mich., <i>CST.</i> 7 a.m.-11 p.m.	WHDL 1420 Tupper Lake, N. Y., <i>EST.</i> 7:45 a.m.-1 p.m.; 3-7:45 p.m.	WJBL 1200 Decatur, Ill., <i>CST.</i> 6:30-8 a.m.; 9-10 p.m.; 12:30-3 p.m.; 4:30-6:30 p.m.
WFDV 1500 Rome, Ga., <i>CST.</i> 6-9 a.m.; noon-3 p.m.; 6-9 p.m.	WHEB 740 Portsmouth, N. H., <i>EST.</i> 9 a.m.-2 p.m.; 5-7:45 p.m.	WJBO 1420 New Orleans, La.
WFEE 1430 Manchester, N. H., <i>EST.</i> 9 a.m.-11 p.m.	WHEC 1430 Rochester, N. Y., <i>EST.</i> 8 a.m.-mid.	WJBU 1210 Lewistown, Pa., <i>EST.</i> Noon-2 p.m.; 4-10 p.m.
WFI 560 Philadelphia, Pa., <i>EST.</i> 6:45-9 a.m.; 9:45-11 p.m.; 1-2 p.m.; 3-4:30 p.m.; 6-7 p.m.	WHEF 1500 Koscusko, Miss.	WJBW 1200 New Orleans, La., <i>CST.</i> 8 a.m.-noon; 4-8 p.m.
WFIW 940 Hopkinsville, Ky., <i>CST.</i> 6 a.m.-3 p.m.; 5 p.m.-mid.	WHET 1210 Troy, Ala., <i>CST.</i> 6-8 a.m.; 11 a.m.-5 p.m.	WJBY 1210 Gadsden, Ala.
WFLA 620 Clearwater, Fla., <i>EST.</i> 7:15 a.m.-mid.	WHFC 1420 Cicero, Ill., <i>CST.</i> 7 a.m.-1:30 p.m.; 6-9 p.m.; 11 p.m.-1 a.m. next day.	WJDX 1270 Jackson, Miss., <i>CST.</i> 6:15-10 a.m.; 11:30 a.m.-10 p.m.
WFOX 1400 Brooklyn, N. Y.	WHIS 1410 Bluefield, W. Va., <i>EST.</i> 8-9 a.m.; noon-2 p.m.; 6-8 p.m.	WJEF 1210 Hagerstown, Md.
WGAL 1310 Lancaster, Pa., <i>EST.</i> 10 a.m.-noon; 1:30-6 p.m.; 8-11 p.m.	WHK 1390 Cleveland, Ohio, <i>EST.</i> 7 a.m.-8:30 p.m.	WJEM 990 Tupelo, Miss.
WGAR 1450 Cleveland, Ohio, <i>EST.</i> 6 a.m.-1 a.m. next day.	WHN 1010 New York City.	WJEQ 1370 Williamsport, Pa.
WGBB 1210 Freeport, N. Y.	WHO 1000 Des Moines, Iowa.	WJFD 1130 Chicago, Ill., <i>CST.</i> 6 a.m.-8:30 p.m.
WGFB 630 Evansville, Ind., <i>CST.</i> 6:30 a.m.-3:30 p.m.; 4-8 p.m.	WHOM 1450 Jersey City, N. J., <i>EST.</i> 8 a.m.-3 p.m.; 9 p.m.-mid.	WJGS 1360 Gary, Ind., <i>CST.</i> 12:30-6:15 p.m.; 8:30 p.m.-mid.
WGBI 880 Scranton, Pa., <i>EST.</i> 9:30 a.m.-12:30 p.m.; 1:30-4:30 p.m.; 5:30-10:30 p.m.	WHP 1430 Harrisburg, Pa., <i>EST.</i> 8:30-10:30 a.m.; 11:30 a.m.-1:30 p.m.; 2:30-4 p.m.; 4:30-8 p.m.; 9:45 p.m.-1 a.m.	WJMS 1420 Ironwood, Mich., <i>CST.</i> 7 a.m.-2:30 p.m.; 4:30 p.m.-sun- set.
WGCM 1210 Gulfport, Miss., <i>CST.</i> 8 a.m.-2 p.m.; 3-9 p.m.	WIAS 1310 Ottumwa, Iowa, <i>CST.</i> 7:30 a.m.-1:30 p.m.; 5-6 p.m.	WJR 750 Detroit, Mich., <i>EST.</i> 6 a.m.-1 a.m. next day.
WGCP 1250 Newark, N. J., <i>EST.</i> 2-5 p.m.; 8-10 p.m.	WIBA 1280 Madison, Wis., <i>CST.</i> 6:30 a.m.-11:30 p.m.	WJSV 1460 Washington, Dec., <i>EST.</i> 7:30 a.m.-1 a.m. next day.
WGES 1360 Chicago, Ill., <i>CST.</i> 8 a.m.-12:30 p.m.; 6:15-8:30 p.m.	WIBG 930 Glenside, Pa., <i>EST.</i> Daybreak to sunset.	WJTL 1370 Atlanta, Ga.
WGH 1310 Newport News, Va., <i>EST.</i> 7 a.m.-2 p.m.; 5-11 p.m.	WIBM 1370 Jackson, Mich., <i>CST.</i> 7:30 a.m.-8:15 p.m.; 11 p.m.- mid.	WJW 1210 Mansfield, Ohio, <i>EST.</i> 8 a.m.-10 p.m.
WGL 1370 Fort Wayne, Ind., <i>CST.</i> 6:15 a.m.-9:30 p.m.	WIBO 560 Chicago, Ill., <i>CST.</i> 6:30 a.m.-mid.	WJZ 760 New York City, <i>EST.</i> 7:30 a.m.-1 a.m. next day.
WGN 720 Chicago, Ill., <i>CST.</i> 7:30 a.m.-1:30 a.m. next day.	WIBU 1210 Poynette, Wis.	WKAQ 1240 San Juan, P. R.
WGR 550 Buffalo, N. Y., <i>EST.</i> 7:30 a.m.-mid.	WIBW 580 Topeka, Kans., <i>CST.</i> 6 a.m.-mid.	WKAR 1040 E. Lansing, Mich., <i>CST.</i> Noon-12:30 p.m.
WGST 890 Atlanta, Ga., <i>EST.</i> 7 a.m.-mid.	WIBX 1200 Utica, N. Y.	WKAV 1310 Laconia, N. H., <i>EST.</i> 9 a.m.-1 p.m.; 3-8 p.m.
WGY 790 Schenectady, N. Y., <i>EST.</i> 6:45 a.m.-1 a.m. next day.	WICC 600 Bridgeport, Conn., <i>EST.</i> 7:30 a.m.-mid.	WKBB 1310 Joliet, Ill., <i>CST.</i> 8-11 a.m.; noon-3 p.m.; 8-10 p.m.
WHA 940 Madison, Wis., <i>CST.</i> 8 a.m.-3:30 p.m.	WIL 1200 St. Louis, Mo., <i>CST.</i> 7 a.m.-mid.	WKBC 1310 Birmingham, Ala.
WHAD 1120 Milwaukee, Wis., <i>CST.</i> 9:30-10:15 a.m.; 3-4 p.m.; 8:30- 9:30 p.m.	WILL 890 Urbana, Ill., <i>CST.</i> 10 a.m.-12:15 p.m.; 5-6 p.m.	WKBF 1400 Indianapolis, Ind., <i>CST.</i> 6:30 a.m.-1:15 p.m.; 4:15-10:30 p.m.
WHAM 1150 Rochester, N. Y., <i>EST.</i> 7:45 a.m.-mid.	WILM 1420 Wilmington, Del., <i>EST.</i> 7:30 a.m.-2 p.m.; 4:30-10 p.m.	WKBH 1380 LaCrosse, Wis., <i>CST.</i> 7:30 a.m.-10 p.m.
WHAS 820 Louisville, Ky., <i>CST.</i> 7 a.m.-mid.	WINS 1180 New York City, <i>EST.</i> 7 a.m.-10:15 p.m.	WKBI 1420 Cicero, Ill., <i>CST.</i> 1:30-4 p.m.; 9-11 p.m.
	WIOD 1300 Miami, Fla., <i>EST.</i> 7 a.m.-1 a.m. next day.	WKBN 570 Youngstown, Ohio, <i>EST.</i> 7-9 a.m.; 11 a.m.-1 p.m.; 3-8 p.m.; 10 p.m.-mid.
	WIP 610 Philadelphia, Pa., <i>EST.</i> 9 a.m.-mid.	WKBS 1310 Galesburg, Ill.
		WKBV 1500 Connorsville, Ind., <i>CST.</i> 10 a.m.-noon; 6-10 p.m.

WKBW 1480 Buffalo, N. Y., <i>EST.</i> 9:15 a.m.-1 a.m. next day.	WMMN 890 Fairmont, W. Va., <i>EST.</i> 7 a.m.-9 p.m.	WOWE 1160 Fort Wayne, Ind., <i>CST.</i> 7:30 a.m.-7:45 p.m.; 9:15 p.m.-mid.
WKBZ 1500 1400 Lexington, Mich., <i>CST.</i> 9 a.m.-9 p.m.	WMPC 1500 Lapeer, Mich., <i>EST.</i> 10 a.m.-2 p.m.; 3:30-6 p.m.; 7-10:30 p.m.	WPAD 1420 Paducah, Ky., <i>CST.</i> 7-9:30 a.m.; 11 a.m.-2 p.m.; 4-10:30 p.m.
WKFI 1210 Greenville, Miss.	WMRJ 1210 Jamaica, N. Y., <i>EST.</i> Noon-5 p.m.; 7-9 p.m.	WPAP 1010 New York City.
WKJC 1200 Lancaster, Pa., <i>EST.</i> 11 a.m.-3 p.m.; 6-8 p.m.	WMSG 1350 New York City, <i>EST.</i> Noon-3 p.m.	WPAW 1210 Providence, R. I.
WKRC 550 Cincinnati, Ohio, <i>EST.</i> 6:45 a.m.-mid.	WMT 600 Waterloo, Iowa, <i>CST.</i> 7 a.m.-11 p.m.	WPCC 560 Chicago, Ill. Silent.
WKY 900 Oklahoma City, Okla., <i>CST.</i> 6:30 a.m.-11:30 p.m.	WNAC 1230 Boston, Mass., <i>EST.</i> 6:30 a.m.-1 a.m. next day.	WPCH 810 New York City, <i>EST.</i> 8 a.m.-6:30 p.m.
WKZO 590 Kalamazoo, Mich., <i>CST.</i> 6:30 a.m.-8:15 p.m.	WNAD 1010 Norman, Okla. Silent.	WPEN 1500 Philadelphia, Pa., <i>EST.</i> 7:30 a.m.-10:30 p.m.
WLAC 1470 Nashville, Tenn., <i>CST.</i> 7 a.m.-11 p.m.	WNAX 570 Yankton, S. D., <i>CST.</i> 6 a.m.-mid.	WPFF 1370 Hattiesburg, Miss., <i>CST.</i> 7 a.m.-2 p.m.; 4-9 p.m.
WLAP 1200 Louisville, Ky., <i>CST.</i> 6:30 a.m.-11 p.m.	WNB 1500 Binghamton, N. Y., <i>EST.</i> 7 a.m.-10 p.m.	WPG 1100 Atlantic City, N. J., <i>EST.</i> 8:15 a.m.-6 p.m.; 8 p.m.-1 a.m. next day.
WLB 1250 Minneapolis, Minn., <i>CST.</i> 12:30-1 p.m.; 7-8 p.m.	WNBH 1310 New Bedford, Mass., <i>EST.</i> 8:30 a.m.-1:10 p.m.; 3-11 p.m.	WPHR 1200 Petersburg, Va., <i>EST.</i> 7-11 a.m.; noon-5 p.m.; 6-9 p.m.
WLBC 1310 Muncie, Ind., <i>CST.</i> 7 a.m.-11 p.m.	WNBW 1290 Springfield, Vt.	WPRO 780 Norfolk, Va.
WLB 1420 Kansas City, Kans., <i>CST.</i> 7 a.m.-11 p.m.	WNBZ 1260 Saranac Lake, N. Y.	WPUR 1210 Providence, R. I.
WLBF 1420 Kansas City, Kans., <i>CST.</i> 7 a.m.-11 p.m.	WNJ 1450 Newark, N. J., <i>EST.</i> 3-6 p.m.	WPSC 1230 State College, Pa., <i>EST.</i> 11:45 a.m.-12:15 p.m.; 4-5:30 p.m.
WLBL 900 Stevens Point, Wis., <i>CST.</i> 8 a.m.-3 p.m.	WNOX 560 Knoxville, Tenn., <i>CST.</i> 6:45 a.m.-11 p.m.	WPTF 680 Raleigh, N. C., <i>EST.</i> 6:45 a.m.-8:30 p.m.
WLBW 1260 Erie, Pa., <i>EST.</i> 8 a.m.-1 a.m. next day.	WNYC 570 New York City, <i>EST.</i> 11 a.m.-noon; 6-8:30 p.m.	WQAM 560 Miami, Fla., <i>EST.</i> 7 a.m.-mid.
WLBZ 620 Bangor, Maine.	WOAI 1190 San Antonio, Tex., <i>CST.</i> 6:30-9:30 a.m.; 11:15 a.m.-3 p.m.; 4:45-10:45 p.m.	WQAN 880 Scranton, Pa., <i>EST.</i> 9 a.m.-9:30 a.m.; 12:30-1:30 p.m.; 4:30-5:30 p.m.
WLEY 1370 Lexington, Mass., <i>EST.</i> Noon-3 p.m.; 6-9 p.m.	WOAX 1280 Trenton, N. J., <i>EST.</i> Noon-2 p.m.	WQAO 1010 New York City.
WLIT 560 Philadelphia, Pa., <i>EST.</i> 9-9:45 a.m.; 11 a.m.-1 p.m.; 2-3 p.m.; 4:30-6 p.m.; 7 p.m.-1 a.m. next day.	WOB 580 Charleston, W. Va., <i>EST.</i> 9 a.m.-noon; 2-4 p.m.; 8:30 p.m.-mid.	WQBC 1360 Vicksburg, Miss., <i>CST.</i> 7:30 a.m.-2:30 p.m.; 5-10 p.m.
WLOE 1500 Boston, Mass.	WOC 1000 Davenport, Iowa, <i>CST.</i> 7 a.m.-11 p.m.	WQDM 1370 St. Albans, Vt.
WLS 870 Chicago, Ill., <i>CST.</i> 6-10:15 a.m.; 11:45 a.m.-3:30 p.m.; 7-8:30 p.m.	WOCL 1210 Jamestown, N. Y., <i>EST.</i> Noon-mid.	WQDX 1210 Thomaston, Ga.
WLTH 1400 Brooklyn, N. Y., <i>EST.</i> 1:30-4 p.m.; 9-10:30 p.m.	WODA 1250 Paterson, N. J.	WRAC 1370 Williamsport, Pa., <i>EST.</i> 8:30 a.m.-2:30 p.m.; 4:30-10:30 p.m.
WLVA 1370 Lynchburg, Va., <i>EST.</i> 1-3 p.m.; 6:30-10 p.m.	WODX 1410 Mobile, Ala., <i>CST.</i> 9 a.m.-4 p.m.; 5:30-9 p.m.	WRAM 1370 Wilmington, N. C., <i>EST.</i> 7:30 a.m.-3 p.m.; 6:30-11 p.m.
WLW 790 Cincinnati, Ohio, <i>EST.</i> 6:30 a.m.-1 a.m. next day.	WOI 640 Ames, Iowa, <i>CST.</i> 6:30 a.m.-4:30 p.m.	WRAP 1310 Reading, Pa.
WLWL 1100 New York City	WOK 430 Albany, N. Y., <i>EST.</i> 9 a.m.-1 a.m. next day.	WRAX 1020 Philadelphia, Pa., <i>EST.</i> 7 a.m.-sunset.
WMAC 570 Syracuse, N. Y.	WOL 1310 Washington, D. C., <i>EST.</i> 7 a.m.-1 p.m.; 3-9 p.m.	WRBL 1200 Columbus, Ga., <i>CST.</i> 7 a.m.-9 p.m.
WMAL 630 Washington, D. C., <i>EST.</i> 8 a.m.-mid.	WOMT 1210 Manitowoc, Wis., <i>CST.</i> 7 a.m.-9 p.m.	WRBK 1410 Roanoke, Va.
WMAQ 670 Chicago, Ill., <i>CST.</i> 7 a.m.-mid.	WOOD 1270 Gd. Rapids, Mich., <i>CST.</i> 7 a.m.-mid.	WRD 1370 Augusta, Maine, <i>EST.</i> 7:30 a.m.; 10:30 a.m.-1:30 p.m.; 3:30-10 p.m.
WMAS 1420 Springfield, Mass.	WOPI 1500 Bristol, Tenn., <i>EST.</i> 7 a.m.-2 p.m.; 4-9 p.m.	WRDW 1500 Augusta, Ga., <i>EST.</i> 8 a.m.-2 p.m.; 5-11 p.m.
WMAZ 1180 Macon, Ga., <i>EST.</i> 7 a.m.-9:30 p.m.	WOQ 1390 Kansas City, Mo., <i>CST.</i> 6-7 a.m.; 8:35-9:05 a.m.; 11-11:30 a.m.; 2-3 p.m.; 9-10 p.m.; 11 p.m.-mid.	WREC 600 Memphis, Tenn.
WMBC 1420 Detroit, Mich., <i>EST.</i> 7:30 a.m.-mid.	WOR 710 Newark, N. J., <i>EST.</i> 6:45 a.m.-mid.	WREN 1220 Lawrence, Kans., <i>CST.</i> 7 a.m.-mid.
WMBD 440 Peoria, Ill., <i>CST.</i> 6-9:30 a.m.; 1-2:30 p.m.; 8 p.m.-mid.	WORC 1200 Worcester, Mass., <i>EST.</i> 8 a.m.-mid.	WRHM 1250 Minneapolis, Minn., <i>CST.</i> 6:15-9:45 a.m.; 10:35 a.m.-12:30 p.m.; 1-7 p.m.; 10 p.m.-1 a.m.
WMBG 1210 Richmond, Va., <i>EST.</i> 7:30 a.m.-1:30 p.m.; 5-11 p.m.	WORK 1000 York, Pa., <i>EST.</i> 7:55 a.m.-sunset.	WRJN 1370 Racine, Wis., <i>CST.</i> 8 a.m.-10:30 p.m.
WMBH 420 Joplin, Mo.	WOS 630 Jefferson City, Mo.	WRNY 1010 New York City.
WMBI 1080 Chicago, Ill., <i>CST.</i> 7:30 a.m.; 10:30-11:30 a.m.; noon-1:30 p.m.; 3-4:30 p.m.; 5:30-8 p.m.	WOW 590 Omaha, Neb., <i>CST.</i> 6:15-10 a.m.; 10:45 a.m.-3:30 p.m.; 4-9 p.m.; 10 p.m.-mid.	WROL 1310 Knoxville, Tenn., <i>CST.</i> 7 a.m.-10 p.m.
WMBO 1310 Auburn, N. Y., <i>EST.</i> 9 a.m.-9 p.m.		WRR 1280 Dallas, Texas, <i>CST.</i> 6:30 a.m.-11 p.m.
WMBQ 1500 Brooklyn, N. Y.		WRUP 830 Gainesville, Fla., <i>EST.</i> 8 a.m.-7:15 p.m.
WMBR 1370 Tampa, Fla., <i>EST.</i> 6:45 a.m.-10 p.m.		WRVA 1110 Richmond, Va., <i>EST.</i> 7 a.m.-mid.
WMC 780 Memphis, Tenn., <i>CST.</i> 7 a.m.-11 p.m.		WSAI 1330 Cincinnati, Ohio, <i>EST.</i> 8 a.m.-11 p.m.
WMCA 570 New York City, <i>EST.</i> 8-11 a.m.; noon-6 p.m.; 8:30 p.m.-2 a.m. next day.		WSAJ 1310 Grove City, Pa. Silent.
WMIL 1500 Brooklyn, N. Y., <i>EST.</i> 2-6 p.m.; 8-10 p.m.		WSAN 1440 Allentown, Pa.
		WSAR 1450 Fall River, Mass., <i>EST.</i> 8 a.m.-3:30 p.m.; 5-10 p.m.

WSAZ 580	Huntington, W. Va., <i>EST.</i> 6-9 a.m.; noon-2 p.m.; 4-8:30 p.m.	WTFI 1450	Athens, Ga., <i>EST.</i> 8 a.m.-4 p.m.; 6-10 p.m.	XEL 1000	Saltillo, Mex., <i>CST.</i> 11 a.m.-1 p.m.; 6-9 p.m.
WSB 740	Atlanta, Ga., <i>EST.</i> 6:25 a.m.-11:30 p.m.	WTIC 1060	Hartford, Conn., <i>EST.</i> 4 p.m.-mid.	XEM 1300	Tampico, Mex.
WSBC 1210	Chicago, Ill.	WTJS 1310	Jackson, Tenn., <i>CST.</i> 7 a.m.-1 p.m.; 3-9 p.m.	XEN 711	Mexico City, Mex., <i>CST.</i> 10 a.m.-noon; 2-4 p.m.; 7-11 p.m.
WSBT 1230	South Bend, Ind.	WTMJ 620	Milwaukee, Wis., <i>CST.</i> 6:45 a.m.-mid.	XEO 940	Mexico City, Mex. 2-3 p.m.; 6:25-11 p.m., <i>CST.</i>
WSEN 1210	Columbus, Ohio, <i>EST.</i> 8 a.m.-11 p.m.	WTOC 1260	Savannah, Ga., <i>EST.</i> 7 a.m.-mid.	XEP 1400	Laredo, Mex.
WSFA 1410	Montgomery, Ala., <i>CST.</i> 6:30 a.m.-sunset. 9-11 p.m.	WTSL 1310	Laurel, Miss.	XEQ 750	Juarez, Mex., <i>MST.</i> 9 a.m.-2 p.m.; 5-11 p.m.
WSIX 1210	Springfield, Tenn.	WWAE 1200	Hammond, Ind.	XER 735	Villa Acuna, Mex. 24 hours daily.
WSJS 1310	Winston-Salem, N. C., <i>EST.</i> 8 a.m.-mid.	WWJ 920	Detroit, Mich., <i>EST.</i> 7:30 a.m.-mid.	XES 1055	Tampico, Mex., <i>CST.</i> 9-10:30 a.m.; noon-2 p.m.; 7:15-10 p.m.
WSM 650	Nashville, Tenn., <i>CST.</i> 6:30 a.m.-mid.	WWL 850	New Orleans, La., <i>CST.</i> 8 a.m.-8:30 p.m.	XET 690	Monterrey, Mex., <i>CST.</i> 9 a.m.-2 p.m.; 6-10 p.m.
WSMB 1320	New Orleans, La., <i>CST.</i> 7 a.m.-mid.	WWNC 570	Asheville, N. C., <i>CST.</i> 7 a.m.-mid.	XETA 1140	Mexico City, Mex.
WSMK 1380	Dayton, Ohio, <i>EST.</i> 7 a.m.-8 p.m.; 10 p.m.-mid.	WWRL 1500	Woodside, N. Y., <i>EST.</i> 8-9 a.m.; 11 a.m.-noon; 1-2 p.m.; 10 p.m.-mid.	XETB 1380	Torreón, Mex.
WSOC 1210	Gastonia, N. C., <i>EST.</i> 8 a.m.-10 p.m.	WWSW 1500	Pittsburgh, Pa., <i>EST.</i> 8 a.m.-1:30 p.m.; 3-11:30 p.m.	XETC 1000	Jalapa, Mex.
WSPA 1420	Spartanburg, S. C., <i>EST.</i> 7:30 a.m.-11 p.m.	WWVA 1760	Wheeling, W. Va., <i>EST.</i> 7:30 a.m.-9 p.m.	XETF 630	Veracruz, Mex., <i>CST.</i> 7-8 a.m.; noon-2 p.m.; 7 p.m.-mid.
WSPD 1340	Toledo, Ohio, <i>EST.</i> 7:30 a.m.-mid.	WXYZ 1240	Detroit, Mich.	XETG 1000	Torreón, Mex.
WSUI 880	Iowa City, Iowa, <i>CST.</i> 9-10 a.m.; 11 a.m.-12:30 p.m.; 2-4 p.m.; 6-10 p.m.	XEA 1155	Guadalajara, Mex., <i>CST.</i> 11 a.m.-noon; 2-3 p.m.; 5-11 p.m.	XETQ 1230	Mexico City, Mex.
WSUN 620	St. Petersburg, Fla. Silent.	XEB 1030	Mexico City, Mex., <i>CST.</i> 8 a.m.-mid.	XETR 610	Mexico City, Mex.
WSVS 1370	Buffalo, N. Y.	XEC 1000	Toluca, Mex.	XEU 1007	Veracruz, Mex., <i>CST.</i> 7-8 a.m.; 10-11 a.m.; noon-3 p.m.; 6:30-11 p.m.
WSYB 1500	Rutland, Vt., <i>EST.</i> 10 a.m.-1 p.m.; 5-10 p.m.	XED 965	Reynosa, Mex.	XEV 1000	Puebla, Mex.
WSYR 570	Syracuse, N. Y., <i>EST.</i> 7 a.m.-3 p.m.; 4-11 p.m.	XEE 1000	Oaxaco, Mex.	XEW 910	Mexico City, Mex.
WTAD 1440	Quincy, Ill., <i>CST.</i> 9:30 a.m.-1 p.m.; 2:30-8 p.m.	XEF 735	Villa Acuna, Mex. 24 hours daily.	XEX 1210	Mexico City, Mex.
WTAG 580	Worcester, Mass., <i>EST.</i> 8 a.m.-11:15 p.m.	XEFA 1250	Mexico City, Mex.	XEY 1000	Merida, Mex.
WTAM 1070	Cleveland, Ohio, <i>EST.</i> 6:30 a.m.-1 a.m. next day.	XEFB 1315	Monterrey, Mex., <i>CST.</i> 11 a.m.-2 p.m.; 6-10 p.m.	XEZ 780	Mexico City, Mex.
WTAQ 1330	Eau Claire, Wis., <i>CST.</i> 7 a.m.-8 p.m.	XEFC 1050	Merida, Mex.	XFG 810	Agascalientes, Mex.
WTAR 780	Norfolk, Va., <i>EST.</i> 7 a.m.-mid.	XEFD 845	Tijuana, Mex.	XFF 875	Chihuahua, Mex.
WTAW 1720	College Station, Texas.	XEFE 1000	Laredo, Mex.	XFG 683.3	Mexico City, Mex.
WTAX 1210	Springfield, Ill.	XEFJ 1000	Chihuahua, Mex.	XFX 867	Mexico City, Mex.
WTBO 1420	Cumberland, Md., <i>EST.</i> 7 a.m.-1:30 p.m.; 2:30-8 p.m.	XEFS 1000	Queretaro, Mex., <i>CST.</i> 7:30-10:30 p.m.	10-AB 1200	Moose Jaw, Sask., <i>MST.</i> 6-7 p.m.
WTEL 1310	Philadelphia, Pa., <i>EST.</i> 7-9 a.m.; noon-1 p.m.; 6:30-8 p.m.	XEFZ 1370	Coyoacan, Mex., <i>CST.</i> 8-11 p.m.	10-AK 1200	Stratford, Ont., <i>EST.</i> 6-8 p.m.
		XEG 1070	Mexico City, Mex.	10-AT 1155	Trail, B. C.
		XEH 1132	Monterrey, Mex., <i>CST.</i> 9 a.m.-1:30 p.m.; 6-10 p.m.	10-BI 1200	Prince Albert, Sask., <i>MST.</i>
		XEI 1310	Morelia, Mex., <i>CST.</i> 2-3:30 p.m.; 8:30-10 p.m.	10-BP	Noon-1 p.m.; 6-8 p.m. 1199 Wingham, Ont. Silent.
		XEJ 1000	Juarez, Mex., <i>CST.</i> 11 a.m.-4 p.m.; 6-11 p.m.	10-BQ 1200	Brantford, Ont., <i>EST.</i> 8-10 p.m.
		XEK 990	Mexico City, Mex.	10-BU 1200	Canora, Sask.

For converting their time on the air to that of your own zone, the new RADEX Time Converter and Radio Map of the World will be found most convenient. See inside of back cover.

The time on the air for a different day of the week is given in each issue of RADEX. The Sunday time was in the September number of which a few copies are still available. The Tuesday time will appear next month.

The November issue will have a complete list of all the short wave stations in the United States and Canada, arranged by states and provinces.

The World Short Wave Stations

According to Frequencies in Megacycles (thousands of kilocycles) and Wave Lengths in Meters. For time on the air, see the list by countries in the September RADEX, No. 61. Next month the Short Wave Stations of North America will be given in geographical order.

Megs.	Meters	Call	City, State or Country	Megs.	Meters	Call	City, State or Country
1.558	192.43	KGPD	San Francisco, Calif.			WPDP	Philadelphia, Pa.
		WEY	Boston, Mass.			WPDT	Kokomo, Ind.
1.574	190.48	KGPY	Shreveport, La.			WPDZ	Fort Wayne, Ind.
		WMP	Frammingham, Mass.			WPFC	Memphis, Tenn.
		WRDS	East Lansing, Mich.			WRDQ	Toledo, Ohio
1.596	187.85	WCF	New York City	2.502	119.83	KGPV	Des Moines, Iowa
		WKDT	Detroit, Mich.	2.735	109.62	VE9CI	London, Ont.
		WRDU	Brooklyn, N. Y.	2.750	109.00	VE9BZ	Vancouver, B. C.
1.712	175.13	KGJX	Pasadena, Calif.	2.830	105.90	VE9AK	Red Deer, Alta.
		KGPC	St. Louis, Mo.	2.850	105.20	VE9AF	Montreal, Que.
		KGPI	Beaumont, Texas			VE9AR	Saskatoon, Sask.
		KGPL	Los Angeles, Calif.	3.030	98.95	VE9AR	Saskatoon, Sask.
		KGPR	Fort Worth, Texas			W9XL	Motala, Sweden
		KGZB	Houston, Texas	3.076	97.47	W9XL	Chicago, Ill.
		KVP	Dallas, Texas	3.100	96.72	KGPI	Kingman, Ariz.
		WKDU	Cincinnati, Ohio			KGTD	Wichita, Kans.
		WPDB	Chicago, Ill.			KGTD	Las Vegas, Nev.
		WPDC	Chicago, Ill.			KGTR	St. Louis, Mo.
		WPDD	Chicago, Ill.			KSI	Los Angeles, Calif.
		WPDU	Pittsburgh, Pa.			KST	Kansas City, Mo.
		WPED	Arlington, Mass.			KSW	Amarillo, Texas
		WPEH	Sommerville, Mass.			KSX	Albuquerque, N. M.
1.900	157.8	RW69	Odessa, U.S.S.R.			KSY	Tulsa, Okla.
2.004	149.61	VE9RM	Toronto, Ont.			WAEA	Indianapolis, Ind.
2.100	142.80	VE9OS	Montreal, Que.			WAEB	Columbus, Ohio
2.143	140.00	.....	Surabaya, Java			WABC	Pittsburgh, Pa.
2.414	124.20	KGPA	Seattle, Wash.			WAED	Harrisburg, Pa.
		KGPS	Bakersfield, Calif.			WAEF	Camden, N. J.
		WCK	Detroit, Mich.			WAEF	Newark, N. J.
		WMO	Highland Park, Mich.	3.124	95.97	WOO	Deal, N. J.
		WPDA	Tulare, Calif.	3.156	95.00	PK2AG	Samarang, Java
		WPDJ	Passaic, N. J.	3.170	94.58	KDD	Pasco, Wash.
		WPDM	Dayton, Ohio			KFO	Oakland, Calif.
		WPDX	Detroit, Mich.			KJE	Reno, Nev.
		WPDY	Atlanta, Ga.			KKO	Elko, Nev.
		WRDR	Grosse Pt. Village, Mich.			KMP	Omaha, Neb.
2.416	124.09	KGPB	Minneapolis, Minn.			KMR	No. Platte, Neb.
		KGZA	Fresno, Calif.			KQC	Rock Springs, Wyo.
		WPDS	St. Paul, Minn.			KQD	Salt Lake City, Utah
2.422	123.79	KGPE	Kansas City, Mo.			KQE	Cheyenne, Wyo.
		KGPG	Vallejo, Calif.			KQM	Des Moines, Iowa
		KGPP	Portland, Ore.			KQQ	Iowa City, Iowa
		KGPM	Denver, Colo.			KRA	Boise, Idaho
		KSW	Berkeley, Calif.			KRF	Lincoln, Neb.
		WMDZ	Indianapolis, Ind.			WQDU	Aurora, Ill.
		WMJ	Buffalo, N. Y.	3.178	94.34	KFM	Sacramento, Calif.
		WPDE	Louisville, Ky.			KGE	Medford, Ore.
		WPDH	Richmond, Ind.			KGT	Fresno, Calif.
		WPDW	Washington, D. C.			KVO	Portland, Ore.
2.430	123.45	WPDI	Columbus, Ohio			KZJ	Seattle, Wash.
2.442	122.77	WPDF	Flint, Mich.			KQX	Bakersfield, Calif.
		WPDL	Lansing, Mich.	3.189	94.01	KEU	Burbank, Calif.
		WPEB	Grand Rapids, Mich.	3.256	92.08	W9XL	Chicago, Ill.
2.450	122.40	KGPH	Oklahoma City, Okla.	3.488	85.96	HB9XD	Zurich, Switzerland
		KGPO	Tulsa, Okla.	3.490	85.91	KGUA	El Paso, Texas
		KGPP	Honolulu, Hawaii			KGUC	Fort Worth, Texas
		KGPR	Wichita, Kans.			KGUF	Dallas, Texas
		WPKD	Milwaukee, Wis.			KGUG	Big Springs, Texas
		WPEE	Brooklyn, N. Y.			KGUK	Shreveport, La.
		WPEF	Bronx, N. Y.			KGUL	Ahilene, Texas
		WPEG	New York, N. Y.			WQDP	Atlanta, Ga.
		WRBH	Cleveland, Ohio			WSDB	Jackson, Miss.
2.458	121.97	WPDG	Youngstown, Ohio			WSDE	Tuscaloosa, Ala.
		WPDN	Auburn, N. Y.	3.560	84.22	OZ7R	Copenhagen, Denmark
		WPDO	Akron, Ohio			RW65	Peredivka, U.S.S.R.
		WPDR	Rochester, N. Y.	3.583	83.68	G2NM	Sonning-on-Thames, Eng.
		WPDV	Charlotte, N. C.	3.750	79.95	F8KR	Constantine, Tunis, Africa
		WPEA	Syracuse, N. Y.			FMSKR	Constantine, Algeria
2.470	121.40	KGQZ	Cedar Rapids, Iowa			ISRO	Rome, Italy
		KGPD	San Francisco, Calif.			.....	Turin, Italy
		KGPI	Omaha, Neb.	3.998	75.00	PK1AA	Batavia, Java
		KGPK	Sioux City, Iowa	4.105	73.03	NAA	Arlington, Va.
		KGPM	San Jose, Calif.	4.116	72.87	WOO	Deal, N. J.
		KGPN	Davenport, Iowa	4.120	72.77	.....	Constantine, Algeria
		KGPV	Salt Lake City, Utah	4.174	71.82	GDLJ	S.S. Homeric

Megs.	Meters	Call	City, State or Country.	Megs.	Meters	Call	City, State or Country
		GFVV	S.S. Majestic			WSDC	Newark, N. J.
		GKFY	S.S. Minnetonka			WSDM	Albany, N. Y.
		GLSQ	S.S. Olympic			WSDO	Buffalo, N. Y.
		GMBJ	S.S. Empress of Britain			WSDQ	Cleveland, Ohio
		GMJQ	S.S. Belgenland	5.689	52.70	FIUI	Tananarive, Madagascar
		GTSD	S.S. Monarch of Bermuda	5.710	52.51	HCJB	Quito, Ecuador
		WSBN	S.S. Leviathan			VE9CL	Winnipeg, Man.
4.273	70.65	RW15	Khabarovsk, U.S.S.R.	5.766	52.00	XAM	Merida, Yucatan
		RW54	Moscow, U.S.S.R.	5.868	51.09	WNB	Lawrenceville, N. J.
4.280	70.05	OHK2	Vienna, Austria	5.875	51.03	CN8MC	Casablanca, Morocco
4.610	65.04	HIX	Santo Domingo, Dom. Rep.	5.879	51.00	HKB	Tunja, Colombia
4.700	63.79	W1XAB	Portland, Maine			XDA	Mexico City, Mex.
4.748	63.13	WOO	Ocean Gate, N. J.	5.925	50.60	HKO	Medellin, Colombia
4.760	62.99	LL	Paris, France	5.968	50.26	HVJ	Vatican City, Rome
4.770	62.86	ZL2XX	Wellington, N. Z.	5.996	50.00	HKD	Barranquilla, Colombia
4.782	62.70	CGA	Drummondville, Que.	6.000	49.97	EAJ25	Barcelona, Spain
4.792	62.56	VE9BY	Wellington, Ont.			PK2AF	Djocjocarta, Java
4.795	62.53	W3XZ	Washington, D. C.			REN	Moscow, U.S.S.R.
		W9XAM	Elgin, Ill.			RFN	Moscow, U.S.S.R.
		W9XL	Chicago, Ill.			RW59	Moscow, U.S.S.R.
4.797	62.50	W2XV	Long Island City, N. Y.			YV2BC	Caracas, Venezuela
4.920	60.94	LL	Paris, France			ZL3ZC	Christchurch, N. Z.
4.975	60.27	W2XV	Long Island City, N. Y.				Bucharest, Roumania
		GBC	Rugby, England				Paris, France
5.000	59.96	RW71	Petropavlovsk, U.S.S.R.				Tananarive, Madagascar
		XCTE	Shanghai, China	6.005	49.93	VE9DN	Montreal, Que.
5.045	59.42	VRT-ZFA	Hamilton, Bermuda			VE9DR	Drummondville, Que.
5.143	58.30	PMY	Bandoeng, Java	6.015	49.84	VE9CX	Wolfville, N. S.
5.144	58.33	DIQ	Nauen, Germany	6.020	49.80	W9XF	Chicago, Ill.
5.169	58.00	OK1MPT	Prague, Czechoslovakia			DJC	Konigs Wusterhausen, Ger.
5.170	57.99	PMB	Surabaya, Java			XEW	Mexico City, Mex.
5.357	55.96	XDA	Chapultepec, Mex.	6.040	49.64	PK3AN	Surabaya, Java
5.450	55.01	F8BP	Ruggles, France	6.045	49.60		Tandjong Priok, D.E.I.
5.502	54.50	W2XBH	Brooklyn, N. Y.	6.055	49.56	VE9CF	Halifax, N. S.
5.515	54.38	RW38	Moscow, U.S.S.R.			VE9HX	Halifax, N. S.
5.560	53.92	KGPL	Kingman, Ariz.	6.057	49.50	CMCI	Havana, Cuba
		KGTD	Wichita, Kans.			OXO-OXZ	Copenhagen, Denmark
		KG TJ	Las Vegas, Nev.			ZL2ZX	Wellington, N. Z.
		KGTR	St. Louis, Mo.	6.060	49.48	W8XAL	Cincinnati, Ohio
		KSI	Los Angeles, Calif.			YQ7LO	Nairobi, Kenya, Africa
		KST	Kansas City, Mo.	6.065	49.44	SAJ	Motala, Sweden
		KSW	Amarillo, Texas			SBG	Motala, Sweden
		KSX	Albuquerque, N. M.	6.070	49.39	VE9CS	Vancouver, B. C.
		KSY	Tulsa, Okla.	6.072	49.37	UOR2	Vienna, Austria
		WAEA	Indianapolis, Ind.			ZTJ	Johannesburg, So. Africa
		WAEB	Columbus, Ohio	6.076	49.34	W9XAA	Chicago, Ill.
		WAE C	Pittsburgh, Pa.	6.080	49.31	VE9EH	Charlottetown, P.E.I.
		WAE D	Harrisburg, Pa.			HS2PJ	Bangkok, Siam
		WAE E	Camden, N. J.			TIRA	Electra Cartago, Costa Rica
		WAE F	Newark, N. J.	6.090	49.23	VE9BJ	St. John, N. B.
5.600	53.54	KDD	Pasco, Wash.	6.092	49.22	VE9GW	Bowmanville, Ont.
		KFO	Oakland, Calif.	6.094	49.20	JB	Johannesburg, So. Africa
		KJE	Reno, Nev.	6.095	49.19	W9XF	Chicago, Ill.
		KKO	Elko, Nev.	6.096	49.18	W3XAL	Boundbrook, N. J.
		KMP	Omaha, Neb.	6.110	49.07	VVD	Bombay, India
		KMR	No. Platte, Neb.	6.120	48.99	W2XE	Richmond Hill, N. Y.
		KQC	Rock Springs, Wyo.			EAR25	Barcelona, Spain
		KQD	Salt Lake City, Utah			FL	Paris, France
		KQE	Cheyenne, Wyo.			PTH	Rio de Janeiro, Brazil
		KQM	Des Moines, Iowa				Motala, Sweden
		KQQ	Iowa City, Iowa				Toulouse, France
		KRA	Boise, Idaho	6.125	48.95	YV11BMO	Maracaibo, Venezuela
		KRF	Lincoln, Neb.	6.130	48.91	VE9BA	Montreal, Que.
		WQDU	Aurora, Ill.	6.131	48.90	HKA	Barranquilla, Colombia
5.614	53.40	RW38	Moscow, U.S.S.R.	6.140	48.83	KZRM	Manila, Philippine Islands
5.630	53.25	KGUA	El Paso, Texas			W8XK	E. Pittsburgh, Pa.
		KGUC	Fort Worth, Texas	6.150	48.75	VE9CL	Winnipeg, Man.
		KGUF	Dallas, Texas	6.205	48.35	HKC	Bogota, Columbia
		KGUG	Big Springs, Texas	6.220	48.20	I2RO	Rome, Italy
		KGUK	Shreveport, La.	6.250	47.97	CN8MC	Casablanca, Morocco
		KGUL	Abilene, Texas	6.280	47.74		Strasbourg, France
		WQDP	Atlanta, Ga.	6.335	47.33	VE9AP	Drummondville, Que.
		WSD B	Jackson, Miss.	6.378	47.00	HKS	Calif. Columbia
		WSD E	Tuscaloosa, Ala.	6.380	46.99	CT2AG	Madeira Islands
5.657	53.00	KEU	Burbank, Calif.			HCIDR	Quito, Ecuador
		KFM	Sacramento, Calif.			XIF	Mexico City, Mex.
		KGE	Medford, Ore.	6.386	46.96	W3XL	Boundbrook, N. J.
		KGT	Fresno, Calif.	6.420	46.70	RW62	Minsk, U.S.S.R.
		KQX	Bakersfield, Calif.	6.425	46.66	W9XL	Anoka, Minn.
		KVO	Portland, Ore.	6.426	46.64	VE9BY	London, Ont.
		KZJ	Seattle, Wash.				

Megs.	Meters	Call	City, State or Country	Megs.	Meters	Call	City, State or Country
6.430	46.63	PCM	The Hague, Holland	7.940	37.76	VK2ME	Sydney, Australia
		REN	Moscow, U.S.S.R.	8.100	37.01	EATH	Vienna, Austria
6.438	46.58	PBF5	The Hague, Holland			HS4PJ	Bangkok, Siam
6.480	46.27	TGW	Guatemala City, Guatemala			J1AA	Tokyo, Japan
6.515	46.02	WOO	Deal, N. J.	8.111	36.96	RW19	Toms, U.S.S.R.
6.560	45.70	RFN	Moscow, U.S.S.R.	8.120	36.92	PLW	Bandoeng, Java
6.610	45.36	RW72	Moskva, U.S.S.R.	8.180	36.65	PSK	Rio de Janeiro, Brazil
6.611	45.35	REN	Moscow, U.S.S.R.	8.328	36.00	DAN	Norden, Germany
6.618	45.31	PRADO	Riobamba, Ecuador	8.328	36.00	DDAC	S.S. Europa
6.625	45.25	HKM	Bogota, Columbia			DDAS	S.S. Bremen
6.648	45.09	IAC	Coltana, Italy			DDBR	S.S. Berlin
6.660	45.02	FM8KR	Constantine, Algeria			DDCB	S.S. Columbus
6.662	45.00	PK3CH	Surabaya, Java			DDCG	S.S. Resolute
6.667	44.98	IIAX	Rome, Italy			DDCP	S.S. Cap Polonio
		XFD	Mexico City, Mex.			DDDT	S.S. Deutschland
6.675	44.91	DGK	Nauen, Germany			DDDX	S.S. Hamburg
6.678	44.90	TGW	Guatemala City, Guatemala			DDEA	S.S. Cap Arcona
6.732	44.54	WEJ-				DDED	S.S. New York
		W2XBJ	Rocky Point, N. Y.			DDFF	S.S. Reliance
6.752	44.41	WOA	Lawrenceville, N. J.			DDFT	S.S. Oceana
		WOB	Lawrenceville, N. J.			DDNY	S.S. Albert Ballin
6.753	44.40	WND	Deal, N. J.	8.333	35.98	RW3KAA	Leningrad, U.S.S.R.
6.800	44.09	VOBZ	St. Johns, Nfld.	8.400	35.69	VBS	Glace Bay, N. S.
6.818	44.00	XDA	Mexico City, Mex.	8.450	35.48	PRAG	Porto Alegre, Brazil
6.840	43.83	CFA	Drummondville, Que.	8.562	35.02	WOO	Ocean Gate, N. J.
6.860	43.71	KEL	Bolinas, Calif.	8.570	34.98	G2AA	London, England
		.....	Paris, France			HC2JM	Guayaquil, Ecuador
6.875	43.61	D4AFF	Colthen, Germany			RW15	Khabarovsk, U.S.S.R.
		F8MC	Casablanca, Morocco	8.630	34.74	WOO	Deal, N. J.
6.877	43.60	.....	Rabat, Morocco			W2XDO	Ocean Gate, N. J.
6.888	43.54	KEQ	Kahuku, Hawaii	8.645	34.68	VE9BY	London, Ont.
6.900	43.45	IMA	Roma, Italy	8.650	34.66	W2XCU	Ampere, N. J.
6.976	43.00	EAR110	Madrid, Spain			W2XV	Long Island City, N. Y.
6.989	42.90	GBS	Rugby, England			W3XE	Baltimore, Md.
6.993	42.87	HKD	Barranquilla, Columbia			W3XX	Washington, D. C.
6.995	42.85	GBS	Rugby, England			W4XG	Miami, Fla.
7.005	42.80	F8KR	Constantine, Tunisia			W8XAG	Dayton, Ohio
7.020	42.71	EAR125	Madrid, Spain			W9XL	Chicago, Ill.
7.055	42.50	VS8AB	Johore Baru, Brit. Malaya	8.690	34.50	W2XAC	Schenectady, N. Y.
7.105	42.20	HKN	Medellin, Columbia			HKF	Bogota, Columbia
7.122	42.10	HKT	Cali, Colombia	8.820	33.99	VK3UZ	Melbourne, Australia
7.139	42.00	HKK	Manizales, Colombia	8.830	33.95	GDLJ	S.S. H6meric
7.140	41.99	HKX	Bogota, Colombia			GFVW	S.S. Majestic
7.143	41.95	HKF	Bogota, Colombia			GKFY	S.S. Minnetonka
7.184	41.75	CM2MK	Havana, Cuba			GLSQ	S.S. Olympic
7.195	41.67	VK6AG	Perth, Australia			GMBJ	S.S. Empress of Britain
		VS1AB	Singapore, Straits Settlement			GMJQ	S.S. Belgenland
7.207	41.60	EAR58	Teneriffe, Canary Islands			GTSD	S.S. Monarch of Bermuda
7.220	41.53	HB9D	Zurich, Switzerland			WSBN	S.S. Leviathan
		.....	Budapest, Hungary	8.872	33.79	NAA	Arlington, Va.
7.300	41.07	CM6DW	Cienfuegos, Cuba			NPO	Cavite, Manila, Ph. Is.
7.312	41.00	CM5RY	Matanzas, Cuba	8.897	33.70	ZLT	Wellington, N. Z.
7.329	40.90	ZTJ	Johannesburg, So. Africa	8.900	33.69	EATH	Posen, Poland
7.396	40.54	WEM-		8.945	33.52	WEL-	
		W2XBJ	Rocky Point, N. Y.			W2XBJ	Rocky Point, N. Y.
7.400	40.52	ZTD	Durban, So. Africa	8.950	33.50	TGX	Guatemala City, Guatemala
7.402	40.50	HKI	Bogota, Columbia	9.012	33.27	KEJ	Bolinas, Calif.
7.410	40.46	.....	Eberswalde, Germany	9.022	33.25	GBS	Rugby, England
7.460	40.19	YR	Lyons, France	9.030	33.20	CFH	Halifax, N. S.
7.500	39.98	.....	Radio Touraine, France	9.090	32.98	VK3ME	Melbourne, Australia
7.518	39.89	KDK-				LL	Paris, France
		KKH	Kahuku, Hawaii	9.091	32.97	XFD	Mexico City, Mex.
7.520	39.87	CGE	Calgary, Alta.	9.110	32.91	SUS	Cairo, Egypt
7.530	39.82	.....	Riobamba, Ecuador	9.125	32.86	HAT	Szokesfehervar, Hungary
7.550	39.71	CGE	Calgary, Alta.	9.130	32.84	HB9OC	Berne, Switzerland
		CKS	Calgary, Alta.	9.162	32.72	WNA	Lawrenceville, N. J.
7.562	39.65	KWY	Dixon, Calif.	9.200	32.59	GBS	Rugby, England
7.605	39.42	KWX	Dixon, Calif.	9.230	32.48	FL	Paris, France
7.610	39.40	HKF	Bogota, Columbia			VK2BL	Sydney, Australia
7.660	39.14	FTL	St. Assise, France	9.250	32.41	GBK	Bodmin, England
7.715	38.86	KEE	Bolinas, Calif.	9.290	32.27	.....	Rabat, Morocco
7.758	38.65	.....	Kootwijk, Holland	9.310	32.20	GBC	Rugby, England
7.770	38.59	FTF	St. Assise, France	9.340	32.10	CGA	Drummondville, Que.
		PKC	Kootwijk, Holland	9.350	32.07	KN2MK	Havana, Cuba
7.775	38.57	F8BZ	Paris, France	9.369	32.01	VK3LO	Melbourne, Australia
7.790	38.49	HBP	Geneva, Switzerland	9.370	32.00	CT3AQ	Funchel, Madeira
7.830	38.29	PDV	Kootwijk, Holland			TGGA	Guatemala City, Guatemala
7.876	38.07	J1AA	Kemikawa-Cho, Japan	9.373	31.98	.....	Hongkong, China
7.890	38.00	J1AA	Tokyo, Japan	9.375	31.97	OZ7MK	Copenhagen, Denmark
		PK2AG	Samarang, Java			XDA	Mexico City, Mex.
		VPD	Suva, Fiji Islands			VK3VZ	Melbourne, Australia

Megs.	Meters	Call	City, State or Country	Megs.	Meters	Call	City, State or Country
9.380	31.96	HB9XD	Zurich, Switzerland	10.520	28.50	VK2FC	Sydney, Australia
9.410	31.86	PLF	Bandoeng, Java			VK2ME	Sydney, Australia
		PLY	Bandoeng, Java	10.540	28.44	WLO	Lawrenceville, N. J.
9.448	31.74	WES-				WOK	Lawrenceville, N. J.
		W2XBJ	Rocky Point, N. Y.			VLK	Sydney, Australia
9.450	31.73	.....	Rio de Janeiro, Brazil	10.630	28.20	PLR	Bandoeng, Java
9.460	31.69	.....	Buenos Aires, Argentina	10.664	28.12	CEC	Santiago, Chile
9.480	34.63	PLW	Bandoeng, Java	10.700	28.02	VAS	Glace Bay, N. S.
9.488	31.60	WEF-		10.710	28.00	CT1BO	Lisbon, Portugal
		W2BJ	Rocky Point, N. Y.			F8MC	Casablanca, Morocco
		OXO-OXZ	Copenhagen, Denmark	10.800	27.76	EATH	Posen, Poland
9.492	31.58	PRBA	Rio de Janeiro, Brazil			GBX	Rugby, England
9.500	31.56	OZ7RL	Copenhagen, Denmark			PCP	Kootwijk, Holland
		.....	Hamilton, Bermuda			TGW	Guatemala City, Guatemala
		.....	Konigswusterhausen, Ger.	10.830	27.68	KWV	Dixon, Calif.
9.516	31.52	TGX	Guatemala City, Guatemala	10.962	27.35	OCI	Lima, Peru
9.520	31.49	OXY	Copenhagen, Denmark	10.980	27.30	ZLW	Wellington, N. Z.
9.530	31.46	W2XAF	Schenectady, N. Y.	11.100	27.01	.....	Vienna, Austria
9.548	31.40	VK3ME	Melbourne, Australia	11.111	26.98	XFD	Mexico City, Mex.
9.552	31.38	DJA	Zeesen, Germany			.....	Leningrad, U.S.S.R.
9.555	31.37	VE9DR	Drummondville, Que.	11.308	26.51	FYA	Paris, Pontoise, France
9.560	31.36	K1XR	Manila, Ph. Is.	11.310	26.50	.....	Radio Goldberg, Java
		DJA	Konigswusterhausen, Ger.	11.340	26.44	DAN	Nordreich, Germany
		ZL2XX	Wellington, N. Z.	11.435	26.21	DHC	Nauen, Germany
9.570	31.33	KZRM	Manila, Ph. Is.	11.440	26.20	K1XR	Manila, Ph. Is.
		W1XAZ	Springfield, Mass.	11.470	26.15	IBDK	S.S. Electra
		SR1	Poznan, Poland	11.490	26.10	GBK	Bodmin, England
9.580	31.30	.....	Tandjonk Priok, D.E.I.	11.530	26.00	XAM	Merida, Yucatan
		VE9DN	Montreal, Que.	11.644	25.75	PPQ	Rio de Janeiro, Brazil
9.585	31.28	W3XZU	Philadelphia, Pa.	11.680	25.67	FYA	Pontoise, France
		VK2ME	Sydney, Australia			YVQ	Maracay, Venezuela
9.590	31.26	PCJ	Eindhoven, Holland	11.690	25.65	KIO	Kahuku, Hawaii
		TIRA	Electra Caratgo, Costa Rica	11.700	25.62	V4BV	Valencia, Venezuela
9.592	31.25	CT1AA	Lisbon, Portugal	11.705	25.63	VE9BA	Montreal, Que.
9.600	31.23	LGN	Bergen, Norway			.....	Paris, France
		LQA	Buenos Aires, Argentina	11.712	25.59	HKV	Medellin, Columbia
9.616	31.18	VQ7LO	Nairobi, Kenya	11.720	25.58	VE9JR	Winnipeg, Man.
9.670	31.00	TI4NRH	Heredia, Costa Rica			PK6K	Makassar, Celebes, D.E.I
9.742	30.77	WOF	Lawrenceville, N. J.			.....	Pontoise, France
9.750	30.75	WNC	Deal, N. J.	11.750	25.51	G5W	Chelmsford, England
		VK2ME-		11.760	25.50	DJD	Konigswusterhausen, Ger.
		VLK	Sydney, Australia			SAS	Kalsborg, Sweden
		.....	Agen, France	11.763	25.49	XDA	Mexico City, Mex.
9.772	30.68	EAM	Madrid, Spain	11.780	25.44	XDA	Chapultepec, Mex.
9.790	30.63	GBW	Rugby, England	11.790	25.42	VE9DR	Drummondville, Que.
9.798	30.60	GCW	Rugby, England			W1XAL	Boston, Mass.
9.810	30.56	LSOR	Buenos Aires, Argentina	11.800	25.40	T2R	San Jose, Costa Rica
		LSRD	Buenos Aires, Argentina			UOR2	Rome, Italy
9.836	30.49	.....	Poznan, Poland	11.820	25.39	K1XR	Vienna, Austria
9.840	30.47	FTI	St. Assise, France	11.840	25.34	KZRM	Manila, Ph. Is.
9.862	30.40	WON	Lawrenceville, N. J.			KZRM	Manila, Ph. Is.
		EAQ	Madrid, Spain			W2XE	Richmond Hill, N. Y.
9.890	30.32	LSA	Buenos Aires, Argentina	11.860	25.28	W2XAA	Chicago, Ill.
9.895	30.30	LSN	Buenos Aires, Argentina	11.870	25.27	VE9CA	Calgary, Alta.
9.928	30.20	HJY	Bogota, Columbia	11.872	25.25	VUC	Calcutta, British India
9.940	30.16	VK2ME	Sydney, Australia	11.895	25.21	W8XK	Pittsburgh, Pa.
9.942	30.15	GBU	Rugby, England	11.898	25.20	VE9DN	Montreal, Que.
9.993	30.00	LSL	Buenos Aires, Argentina	11.923	25.16	FYA	Pontoise, France
10.000	29.98	.....	Belgrade, Yugo Slavia	11.945	25.10	RW50	Moskva Imeni Popova, USSR
10.013	29.94	CM2LA	Havana, Cuba	11.969	25.05	KKQ	Bolinas, Calif.
10.051	29.83	SUV	Cairo, Egypt	11.993	25.00	KKQ	Bolinas, Calif.
10.054	29.82	DHI	....., Germany	12.000	24.99	PK6KZ	Makassar, Celebes, D.E.I.
10.060	29.80	VRT-ZFB	Hamilton, Bermuda	12.045	24.89	FZG	Saigon, Indo-China
10.090	29.70	EAJ7	Madrid, Spain			NAA	Arlington, Va.
		OPM	Leopoldville, Belgian Congo	12.090	24.80	NSS	Annapolis, Md.
10.150	29.58	DIZ	Nauen, Germany	12.150	24.68	.....	Tokyo, Japan
10.160	29.51	DHC	Nauen, Germany	12.190	24.60	FQO-FQE	St. Assise, France
10.167	29.48	HS2PJ	Bangkok, Siam			GBS	Rugby, England
10.212	29.35	PSH	Rio de Janeiro, Brazil	12.245	24.49	GBX	Rugby, England
10.250	29.25	.....	Hongkong, China	12.250	24.46	K1XR	Manila, Ph. Is.
10.300	29.00	LSN	Buenos Aires, Argentina			K1XR	Manila, Ph. Is.
		LSX	Buenos Aires, Argentina			FTN	St. Assise, France
10.340	28.99	ORK	Brussels, Belgium	12.290	24.40	GBS	Rugby, England
10.345	29.98	LSX	Buenos Aires, Argentina			GBU	Rugby, England
10.390	28.85	GBX	Rugby, England			PLM	Bandoeng, Java
10.410	28.80	KEZ	Bolinas, Calif.	12.470	24.00	ZLW	Wellington, N. Z.
		LSY	Buenos Aires, Argentina			CR3AQ	Funchel, Madeira
		PDK	Kootwijk, Holland	12.700	23.61	DAN	Norden, Germany
		PKP	Medan, Sumatra	12.780	23.46	FW4	St. Assise, France
10.510	28.53	.....	Leningrad, U.S.S.R.	12.785	23.45	GBC	Rugby, England
						IAC	Coltana, Italy

Megs.	Meters	Call	City, State or Country	Megs.	Meters	Call	City, State or Country
12.820	23.38	.....	Rabat, Morocco	15.950	18.80	PLG	Bandoeng, Java
12.836	23.36	WOC	Ocean Gate, N. J.	18.024	18.71	KKP	Kahuku, Hawaii
12.850	23.33	W2XCU	Ampere, N. J.	18.060	18.66	NAA	Arlington, Va.
		W9XL	Anoka, Minn.	18.150	18.56	GBX	Rugby, England
13.010	23.04	FZG	Saigon, Indo-China	18.162	18.55	PSA	Rio de Janeiro, Brazil
13.040	23.00	DDAC	S.S. Europa	18.200	18.51	FZR	Saigon, Indo-China
		DDAS	S.S. Bremen	18.260	18.44	WLK	Lawrenceville, N. J.
		DDBR	S.S. Berlin	18.300	18.39	WLO	Lawrenceville, N. J.
		DDCB	S.S. Columbus			PCL	Kootwijk, Holland
		DDCG	S.S. Resolute	16.320	18.37	VLK	Sydney, Australia
		DDCP	S.S. Cap Polonio			VK2ME	Sydney, Australia
		DDDT	S.S. Deutschland			G2GN	S.S. Olympic
		DDDX	S.S. Hamburg	16.601	18.06	DAN	Norden, Germany
		DDEA	S.S. Cap Arcona	17.080	17.55	GBC	Rugby, England
		DDED	S.S. New York	17.110	17.52	W2XDO	Ocean Gate, N. J.
		DDFF	S.S. Reliance			WOO	Ocean Gate, N. J.
		DDFT	S.S. Oceana	17.300	17.33	W2XCU	Ampere, N. J.
		DDNY	S.S. Albert Ballin			W2XK	Schenectady, N. Y.
13.043	22.98	OBE	La Punta, Peru			W6XAJ	Oakland, Calif.
		TGCA	Guatemala City, Guatemala			W7XA	Portland, Ore.
13.074	22.93	J1AA	Kemikawa-Cho, Japan			W7XC	Seattle, Wash.
13.220	22.68	GDLJ	S.S. Homeric			W8XL	Dayton, Ohio
		GFVV	S.S. Majestic			W9XL	Anoka, Minn.
		GKFY	S.S. Minnetonka	17.380	17.25	J1AA	Tokyo, Japan
		GLSQ	S.S. Olympic	17.580	17.05	GDLJ	S.S. Homeric
		GMBJ	S.S. Empress of Britain			GFVV	S.S. Majestic
		GMJQ	S.S. Belgenland			GKFY	S.S. Minnetonka
		GTSD	S.S. Monarch of Bermuda			GLSQ	S.S. Olympic
		WSBN	S.S. Leviathan			GMBJ	S.S. Empress of Britain
13.296	22.55	CGA	Drummondville, Que.			GMJQ	S.S. Belgenland
13.380	22.40	WMA	Lawrenceville, N. J.			GTSD	S.S. Monarch of Bermuda
13.400	22.37	WND	Deal, N. J.			WSBN	S.S. Leviathan
13.591	22.06	GBB	Rugby, England	17.640	16.99	PLF	Malabar, D.E.I.
		GBC	Rugby, England	17.750	16.89	HSIPJ	Bangkok, Siam
13.628	22.00	F8BZ	Paris, France	17.760	16.88	DJE	Konigswusterhausen, Ger.
13.690	21.90	KKK	Bolinas, Calif.	17.772	16.87	W3XAL	Bound Brook, N. J.
13.776	21.77	KKW	Dixon, Calif.	17.775	16.87	PHI	Huizen, Holland
13.816	21.70	SUZ	Cairo, Egypt			PHO	Huizen, Holland
13.860	21.63	W1Y-		17.780	16.86	W8XK	Pittsburgh, Pa.
		W2XBJ	Rocky Point, N. Y.	17.830	16.82	PCV	Kootwijk, Holland
13.950	21.50	YO1	Bucharest, Roumania	17.850	16.80	W2XAO	New Brunswick, N. J.
14.150	21.17	KKZ	Bolinas, Calif.			PLF	Bandoeng, Java
14.310	20.95	G2NM	Sonning-ør-Thames, England	18.000	16.67	KQJ	Bolinas, Calif.
14.420	20.80	VPD	Suva, Fiji Islands	18.100	16.56	GBK	Bodmin, England
14.450	20.75	GBW	Rugby, England	18.105	16.56	W9XAA	Chicago, Ill.
14.464	20.73	WMC	Lawrenceville, N. J.	18.124	16.54	GBW	Rugby, England
14.480	20.70	WNC	Deal, N. J.	18.170	16.50	CGA	Drummondville, Que.
		W8XK	E. Pittsburgh, Pa.			PMC	Bandoeng, Java
		LSN	Buenos Aires, Argentina	18.240	16.44	FRO-FRE	St. Assise, France
14.530	20.65	LSA	Buenos Aires, Argentina			FTE	Maracay, Venezuela
14.550	20.60	HBJ	Geneva, Switzerland	18.296	16.39	YVQ	St. Assise, France
14.582	20.56	WMN	Lawrenceville, N. J.	18.310	16.38	FZS	Saigon, Indo-China
14.620	20.51	XDA	Mexico City, Mex.			GBS	Rugby, England
14.630	20.50	XDA	Chapultepec, Mex.	18.340	16.35	WLA	Lawrenceville, N. J.
14.682	20.42	PSS	Rio de Janeiro, Brazil			ZLW	Wellington, N. Z.
14.796	20.27	WKU-		18.350	16.35	WND	Deal, N. J.
		W2XBJ	Rocky Point, N. Y.	18.365	16.32	FZA	Saigon, Indo-China
14.850	20.19	HVJ	Vatican City, Italy	18.400	16.29	PKC	Kootwijk, Holland
15.000	19.99	LSJ	Monte Grande, Argentina	18.444	16.25	HJY	Bogota, Columbia
		VK6AG	Perth, W. Australia	18.600	16.12	PDM	Kootwijk, Holland
15.066	19.90	T14NRH	Heredia, Costa Rica	18.620	16.10	GBJ	Bodmin, England
15.120	19.83	HVJ	Vatican City, Italy			GBU	Rugby, England
15.190	19.73	VE9BA	Montreal, Que.	18.670	16.06	OCI	Lima, Peru
		DJB	Zeesen, Germany	18.820	15.93	PLE	Bandoeng, Java
15.200	19.72	DJB	Konigswusterhausen, Ger.	18.958	15.82	LSR	Buenos Aires, Argentina
15.204	19.72	W8XK	Pittsburgh, Pa.	19.012	15.77	WKW-	
15.220	19.71	PCJ	Hilversum, Holland			W2XBJ	Rocky Point, N. Y.
15.234	19.68	FYA	Pontoise, France	19.194	15.62	ORG	Brussels, Belgium
15.280	19.62	W2XE	Richmond Hill, N. Y.	19.207	15.61	WKF	Lawrenceville, N. J.
15.300	19.53	OXO-OXZ	Copenhagen, Denmark	19.220	15.60	WNC	Deal, N. J.
		OXY	Lynby, Denmark	19.240	15.58	DFA	Nauen, Germany
		.....	Konigswusterhausen, Ger.	19.270	15.57	PPU	Rio de Janeiro, Brazil
15.320	19.57	W2XAD	Schenectady, N. Y.	19.282	15.55	FTM	St. Assise, France
15.336	19.55	.....	Tandjonk Priok, D.E.I.	19.350	15.50	.....	Nancy, France
15.344	19.54	KWU	Dixon, Calif.	19.400	15.45	FRO-FRE	St. Assise, France
15.410	19.46	KWO	Dixon, Calif.			VK2ME	Sydney, Australia
15.456	19.40	F8BZ	Paris, France	19.460	15.40	FZU	Tamatore, Madagascar
15.750	19.03	F31CD	Saigon, Indo-China	19.678	15.24	CEC	Santiago, Chile
15.760	19.02	EAJ1	Barcelona, Spain	19.684	15.23	EAQ	Madrid, Spain
		J1AA	Tokyo, Japan	19.816	15.13	WKN	Lawrenceville, N. J.
15.860	18.90	FTK	St. Assise, France	19.830	15.12	FTD	St. Assise, France

Megs.	Meters	Call	City, State or Country	Megs.	Meters	Call	City, State or Country
19.850	15.10	WMI	Deal, N. J.	21.054	14.24	WKA	Lawrenceville, N. J.
19.895	15.07	LSG	Buenos Aires, Argentina	21.129	14.19	LSM	Buenos Aires, Argentina
19.950	15.03	DIH	Nauen, Germany	21.400	14.01	WLO	Lawrenceville, N. J.
20.028	14.97	DHO	Nauen, Germany			WKK	Lawrenceville, N. J.
		OFL	Leopoldville, Belgian Congo	21.420	14.00	W2XDJ	Deal, N. J.
20.140	14.88	DWG	Nauen, Germany	21.540	13.92	W8XK	Pittsburgh, Pa.
20.400	14.70	GBA	Rugby, England	24.000	12.48	W6XQ	San Mateo, Calif.
20.500	14.63	W6XF	Chicago, Ill.	24.380	12.30	VE9GW	Bowmanville, Ont.
20.600	14.55	PMB	Bandoeng, Java	25.960	11.55	G6SW	Chelmsford, England
20.680	14.50	FSR	Paris-Saigon, Indo-China	27.800	10.78	W6XD	Palo Alto, Calif.
		LSN	Monte Grande, Argentina	31.000	9.67	W8XI	Pittsburgh, Pa.
		LSX	Buenos Aires, Argentina	34.600	8.67	W2XB	New Brunswick, N. J.
20.710	14.47	LSY	Buenos Aires, Argentina	42.530	7.05	.....	Berlin, Germany
21.000	14.28	OKI	Podebrady, Czechoslovakia	51.400	5.83	W2XBC	New Brunswick, N. J.
21.020	14.27	LSN	Buenos Aires, Argentina	51.724	5.79	RW61	Moskva Vei, U.S.S.R.
				59.964	5.00	PK4PA	Palembang, Sumatra

The Trans-Pacific Broadcasting Stations

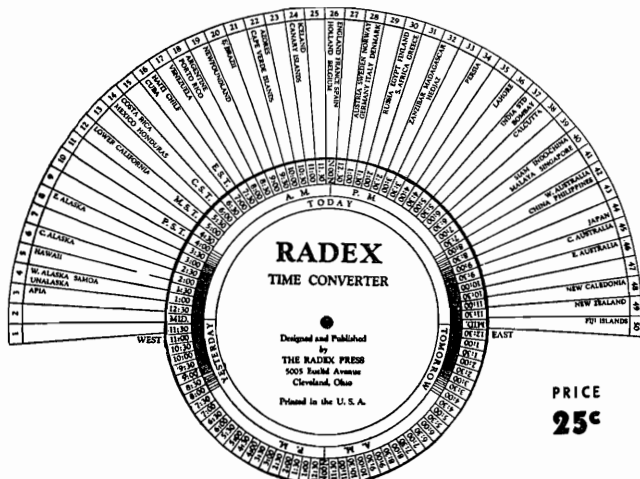
Note—In some cases the power is figured differently than is the rule in the United States, making it four or five times as much as American stations of the same wattage.

Kcs.	Call	Power	City and Country	Zone	Kcs.	Call	Power	City and Country	Zone
560	2CO	7500	Corowa, N.S.W.	46	790	JOGK	10000	Kumamoto, Japan	44
			National Broadcasting Station, relay 3LO and 3AR.		800	3LO	5000	Melbourne, Vict.	46
580	7ZL	3000	Hobart, Tasmania	46				National Broadcasting Station, 120A Russell St., 7-8:15 a.m.; 10:30 a.m.-12:30 p.m.; 1-1:30 p.m.; 2-11:30 p.m. Sun., 10 a.m.-12:30 p.m.; 3-10 p.m.	
			National Broadcasting Station, Elizabeth St. 7:30-8:30 a.m.; 11 a.m.-2 p.m.; 3-4 p.m.; 6-11 p.m.; Sunday, 10:30 a.m.-noon; 3-4 p.m.; 8-10 p.m.		810	JOCK	10000	Nagoya, Japan	44
590	JOAK	10000	Tokyo, Japan	44	820	3ZE	20	Greymouth, N. Z.	49
600	ZZK	120	Wanganui, N. Z.	49				Schaeff's Garage, Wed.-Sat., 8-10 p.m.	
			Morrison & Son, Wed. and Sun., 7-10 p.m.			3ZR	100	Greymouth, N. Z.	49
610	3AR	5000	Melbourne, Victoria	46	830	JOIK	10000	Sapporo, Japan	44
			National Broadcasting Station, 120A Russell St., 8:15-11 a.m.; noon-5:45 p.m.; 6:15-11:30 p.m.; Sunday, 11 a.m.-10 p.m.			2ZP	25	Wairoa, N. Z.	49
625	JOQK	500	Niigata, Japan	44	850	JOFK	10000	Hiroshima, Japan	44
630	IZH	40	Hamilton, N. Z.	49	855	2BL	5000	Sydney, N. S. W.	46
			G. S. Anchor, Tuesday, 7-10 p.m.					National Broadcasting Station, 96-98 Market St., 8:15-11 a.m.; noon-2 p.m.; 2:30-6 p.m.; 6:15-10:30 p.m. Sun., 11 a.m.-3 p.m.; 4:30-5 p.m.; 6:30-10 p.m.	
635	JONK	500	Nagano, Japan	44	870	JOAK	10000	Tokyo, Japan	44
	5CK	7500	Crystal Brook, S. Aus.	45	880	6PR	200	Perth, W. Aus.	42
			National Broadcasting Station. Relays 5CL.					Nicholsons Ltd., Barrack St., 10:30-11:30 a.m.; 12:30-1:30 p.m.; 4:30-5:30 p.m.; 6:30-10:30 p.m.; Sun., 10-11 a.m.; 12:30-1:45 p.m.; 6:30-10 p.m.	
650	4YA	500	Dunedin, N. Z.	49	890	7HO	50	Hobart, Tas.	46
			National Broadcasting Service.					Commercial Broadcasters, Ltd., 82 Elizabeth St., 12:30-2 p.m.; 6:30-10:30 p.m.	
665	2FC	5000	Sydney, N. S. W.	46	900	1YA	5000	Auckland, N. Z.	29
			National Broadcasting Station, 96-98 Market St., 7:00-8:15 a.m.; 10:30 a.m.-12:30 p.m., 1-4:30 p.m.; 5:45-8 p.m.; 8-11 p.m. Sunday, 11 a.m.-12:30 p.m.; 3-4:30 p.m.; 6-10:30 p.m.					National Broadcasting Service.	
670	JFAK	10000	Tokyo, Japan	44	910	4RK	2000	Rockhampton, Queens.	46
680	JOLK	500	Fukuoka, Japan	44				National Broadcasting Station. Relays 4QG.	
690	6WF	5000	Perth, W. Aus.	42	930	3UZ	500	Melbourne, Vict.	46
			National Broadcasting Station, Hay St., 7:30-8:30 a.m.; 11 a.m.-2 p.m.; 3-4:30 p.m.; 6-11 p.m.; Sunday, 10:30 a.m.-noon; 3-4 p.m.; 6-10:30 p.m.					Oliver J. Nilsen & Co., 45 Bourke St., 7:30-8:30 a.m.; 9 a.m.-12:30 p.m.; 1-4:30 p.m.; 5:30-11 p.m.	
	JODK	1000	Keijo, Korea	44	950	2GB	3000	Sydney, N. S. W.	46
700	JOKK	500	Okayama, Japan	44				Theosophical Broadcasting Station, 29 Bligh St., 7-11 p.m. Sun., 10 a.m.-9:45 p.m.	
710	JOJK	300	Kanazawa, Japan	44	960	5DN	500	Adelaide, S. Aus.	45
720	2YA	5000	Wellington, N. Z.	49				Hume Broadcasters, Ltd., Franklin St., Parkside, 4-11:30 p.m.	
			National Broadcasting Service.		970	3BO	200	Bendigo, Vict.	46
730	5CL	5000	Adelaide, S. Aus.	45				Amalgamated Wireless, Ltd., Kangaroo Flat, 8:00-10:30 p.m.	
			National Broadcasting Station, Hindmarsh Sq., 7:30-8:30 a.m.; 11 a.m.-2 p.m.; 3-4:30 p.m.; 5:30-11 p.m. Sun., 10:30 a.m.-12:30 p.m.; 3-10 p.m.		980	3YA	5000	Christchurch, N. Z.	49
741	JOSK	1000	Kokura, Japan	44				National Broadcasting Service.	
750	JOBK	10000	Osaka, Japan	44	1000	4GR	50	Toowoomba, Queens.	46
760	JQAK	1000	Dairen, Manchuria	44				Gold Radio Service, Ruthven St., 9-10 a.m.; 12:30-1:20 p.m.; 7:20-10 p.m. Sun., 1 a.m.-1 p.m.; 7:30-10:30 p.m.	
	4QG	5000	Brisbane, Queens.	46	1010	3HA	200	Hamilton, Vict.	46
			National Broadcasting Station, State Ins. Bldg., 7:30-8:30 a.m.; 11 a.m.-2 p.m.; 3-4:30 p.m.; 6-11 p.m. Sun.; 10:30 a.m.-12:15 p.m.; 3-4:30 p.m.; 6-11 p.m.					Western Province Radio Co., 37 Gray St.	
770	JOHK	10000	Sendai, Japan	44	1025	2UE	1000	Sydney, N. S. W.	46
778	JOPK	500	Shidzuoka, Japan	44				Radio House, 617 George St., 7:15-8:33 a.m.; 9:30 a.m.-noon; 6:15-11 p.m. Sun., 11 a.m.-noon; 6-10:15 p.m.	
					1041	5PI	50	Port Pirie	..
								Midlands Broadcasting Service, Ellen St.	

Kcs.	Call	Power	City and Country	Zone	Kcs.	Call	Power	City and Country	Zone
1050	2ZF	150	Palmerston, N. Z.	49		2ZE	85	Eketahuna, N. Z.	49
			Manowatu Radio Club, Wed. 6:15-9 p.m.; Fri., 7-9 p.m. Sun., 7-9 p.m.			G. R. S. Allen, Sun. 4:30-6:30 p.m.			
	2CA	50	Canberra, N. S. W.	46		1ZM	50	Manurewa, N. Z.	49
			A. J. Ryan, Kingston.		1220	2NV	50	Moss Vale, N. S. W.	46
1060	2ZO	50	Palmerston, N. Z.	49				Moss Vale Broadcasting Service, North St., Noon-1 p.m.; 7-10 p.m.	
1070	2KY	1500	Sydney, N. S. W.	46		6KG	100	Kalgoorlie, W. Aus.	42
			Trades & Labor Council, Goulburn St., 10 a.m.-noon; 6-10 p.m. Sun., 6-10 p.m.					Goldfields Broadcasters, Ltd., Bourke St.	
1080	3SH	50	Swan Hill, Vict.	46		4ZL	250	Dunedin, N. Z.	49
			Swan Hill Broadcasting Co., 7:30-10 p.m. Sun., 12:15-2:15 p.m.; 4:15-6 p.m.; 7:30-10 p.m.					Radio Service, Ltd.	
	4ZW	300	Dunedin, N. Z.	49	1230	2YB	120	New Plymouth, N. Z.	49
			Radio Sales & Exchange, Ltd., Sat., 7:30 p.m.-mid.					Sun., Mon., 8-10 p.m. Wed., Sat., 6:30-10 p.m.	
	4ZO	35	Dunedin, N. Z.	49	1245	2NC	2000	Newcastle, N. S. W.	46
			Barnett's Radio Supplies, Mon., 7-11 p.m. Fri., 7-Mid.					National Broadcasting Station, relays 2FC-2BL.	
	4ZM	45	Dunedin, N. Z.	49	1260	3WR	50	Wangaratta, Vict.	46
			Thos. Begg & Co., Ltd., Tues., 8-11 p.m. Sun. 7-10 p.m.					Wangaratta Broadcasting Pty., Ltd., Reid St., 7:45-10 p.m.	
	4ZF	5	Dunedin, N. Z.	49		2ZH	120	Napier, N. Z.	49
	4ZB	20	Dunedin, N. Z.	49				C. B. Hausen & Co., Wed., 6:30-10:30 p.m. Sun., 7-9:30 p.m.	
1090	1ZR	200	Auckland, N. Z.	49	1270	2SM	1000	Sydney, N. S. W.	46
			Lewis Eady, Ltd., Tues., Thurs., Fri., 5:45-10 p.m. Sat., 5:45-11:45 p.m.					Catholic Broadcasting Co., Australia House.	
	1ZB	32	Auckland, N. Z.	49	1280	3TR	50	Trafalgar, Vict.	46
			LaGloria Gramophone Co., Ltd., Mon., 7:30-10 p.m. Wed., 8-10 p.m.					Gippsland Broadcasting Service, P.O. Box 89, Noon-1 p.m.; 7-10 p.m. Sun., 7-9 p.m.	
1100	7LA	200	Launceston, Tas.	46	1290	4BK	200	Brisbane, Queens.	46
			Findlay & Willis, 67 Brisbane St., 3-4:30 p.m.; 6-10 p.m.					Brisbane Broadcasting Co., King House, Queen St., 12:30-1:30 p.m.; 4:30-10 p.m. Sun., 7-9 p.m.	
1110	2HD	200	Newcastle, N. S. W.	46	1300	3BA	50	Ballarat, Vict.	46
			Airsales Broadcasting Co., Civic Centre, 8:15-10:15 a.m.; 12:30-1:30 p.m.; 6-10 p.m. Sun. 10-11 a.m.; 7-9 p.m.					Ballarat Broadcasters Pty., Armstrong St., 11-a.m.-noon; 7-10:30 p.m. Sun., 1-3 p.m.; 6:30-10 p.m.	
1120	2ZW	400	Wellington, N. Z.	49		2ZB	8	Napier, N. Z.	49
			Nimmo & Sons		1310	5AD	1000	Adelaide, S. Aus.	45
1125	2UW	1500	Sydney, N. S. W.	46				Advertiser Newspaper, Ltd., Weymouth St., 2-3:15 p.m.; 6-11 p.m. Sun., 5:30-10 p.m.	
			Radio Broadcasting, Ltd., Paling's Bldg., Ash St., 7:30-9 a.m.; 10:30 a.m.-2 p.m.; 2:30-5 p.m.; 5:15-10:30 p.m. Sun., 10:30 a.m.-1 p.m.; 3-10:30 p.m.		1320	1ZJ	25	Auckland, N. Z.	49
1135	6ML	300	Perth, W. Aus.	42				Johns, Ltd., Wed., 7:30-9:30 p.m.	
			Musgroves, Ltd., Lyric House, 11 a.m.-noon; 12:30-2 p.m.; 3-4 p.m.; 5:45-10 p.m. Sun., 7-10 p.m.		1330	2MO	50	Gunnedah, N. S. W.	46
1145	4BC	600	Brisbane, Queens.	46				M. J. Oliver, P.O. Box 78, 7:45-8:30 a.m.; 1-2 p.m.; 6-9 p.m. Sun., 8-10 p.m.	
			J. B. Chandler & Co., 43 Adelaide St., 10:30 a.m.-noon; 2-3 p.m.; 5:45-10 p.m. Sun., 6-10:30 p.m.			2ZI	15	Hastings, N. Z.	49
	3YB	25	Melbourne, Vict.	46		2ZL	20	Hastings, N. Z.	49
			Mobile Broadcasting Service, 430 Little Collins St.		1340	2XN	50	Lismore, N. S. W.	46
1150	2ZM	110	Gisborne, N. Z.	49				G. W. Exton, P.O. Box 138B, 7-8 a.m.; noon-2 p.m.; 6-10 p.m.	
			Atwater Kent Radio Service, Thurs., 8-11 p.m. Sun., 7-10 p.m.		1350	3KZ	200	Melbourne, Vict.	46
	2ZJ	20	Gisborne, N. Z.	49				3KZ Broadcasting Station, 40 Victoria St., 8:30 a.m.-1:15 p.m.; 6-11 p.m. Sun., 2:30-4:30 p.m.; 6-10 p.m.	
	4ZP	300	Invercargill, N. Z.	49	1360	2ZR	50	Nelson, N. Z.	49
			Parson's Radio Supplies, Mon., Tues., Thurs., 8-10 p.m.; Fri., 8-11 p.m.			4ZR	25	Balclutha, N. Z.	49
1170	4ZI	10	Invercargill, N. Z.	49	1365	2XL	50	Broken Hill, N. S. W.	46
	4TO	100	Townsville, Queens.	46				Barrier Broadcasting Co., Ltd., Argent St., 7-8 a.m.; noon-2 p.m.; 6-10 p.m. Sun. 7-9:30 p.m.	
			Amalgamated Wireless, Ltd., 6:30-7 p.m.; 8-10:15 p.m.		1380	4BH	600	Brisbane, Queens.	46
	1ZB	25	Auckland, N. Z.	49				Broadcasters Ltd., 90-92 Queen St.	
1180	3DB	500	Melbourne, Vict.	46	1390	2GN	50	Goulburn	
			3DB Broadcasting Station, Pty., 36 Flinders St., 7-9 a.m.; 10:45 a.m.-12:30 p.m.; 2-10:45 p.m. Sun., 6-9:45 p.m.					Goulburn Broadcasting Co., Auburn St.	
	2ZD	5	Masterton, N. Z.	49	1400	3GL	50	Geelong, Vict.	46
1190	4MK	100	Mackay, Queens.	46				Geelong Broadcasting Pty., Ltd., National Mutual Bldg., 9:30-11 a.m.; 2:30-3 p.m. Thurs., 7-10:30 p.m. Sun., 7-10 p.m.	
			Williams' Agencies, Ltd., P.O. Box 165, 7:40-9:30 p.m.		1415	2KO	200	Newcastle, N. S. W.	46
	1ZQ	15	Auckland, N. Z.	49				Newcastle Broadcasting Co., 57 Hunter St., 6:30-10 a.m. Sun., 9-10 a.m.; 7-9 p.m.	
1200	5KA	300	Adelaide, S. Aus.	45	1420	1ZS	15	Auckland, N. Z.	49
			Sport Radio Broadcasting Co., Ltd., 81 Flinders St., 6:30-8 a.m.; 2:45-4 p.m.; 5:45-10:15 p.m. Sun., 10-11 a.m.; 3-4 p.m.; 7-9:30 p.m.		1425	3AW	300	Melbourne, Vict.	46
	3ZC	250	Christchurch, N. Z.	49				Vogue Broadcasting Co., Ltd., His Majesty's Theatre.	
			3ZC Broadcasting Service, Ltd., Tues., 5:45-10:15 p.m. Wed., 7:30-11 p.m. Sun., 7-8 p.m.; 9-10 p.m.		1435	2WL	50	Wollongong, N. S. W.	46
1210	2CH	1000	Sydney, N. S. W.	46				Wollongong Broadcasting Co., 149 Crown St., 6:30-10 p.m. Sun., 7-9 p.m.	
			Council of Churches, 77 York St.		1480	2AY	50	Albury, N. S. W.	46
								Charles Rice, 610 Dean St., 7-10 p.m. Sun., 7:30-8:45 p.m.	
					1500	3AK	200	Melbourne, Vict.	46
								Akron Broadcasting Service, Ltd., 490 Elizabeth St.	

RADEX RADIO MAP of the WORLD

Showing all Countries and their Principal Cities
with Call Letters and Time Zones of each Country



PRICE
25c

DIRECTIONS—Turn the desired hour, either A.M. or P.M., in the sector marked "TODAY" opposite your own zone and the current time in all other zones to the world will be shown. It will also be indicated which of the other zones are "Yesterday" and which are "Tomorrow." The position of twilight, darkness and dawn is graphically shown. Or, if you desire to tune in a New Zealand program, turn the hour of the program (say 9:00 a.m.) to the New Zealand zone and you will find that it is 4:30 A.M. some day in Eastern Standard Zone or 11 P.M. yesterday in Hawaii.

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Something Every DXer Will Want

JUST turn the dial to the hour of the day in your zone and instantly the time is shown for all countries in the world. Simple as a push-button. The location of twilight, darkness and dawn is graphically shown. Tells you when to tune your time for a program in any part of the world. Size, 11 x 11 inches.

On the double page inside is a big map of the world (the size of six pages of RADEX) with all the principal cities and the time zones plainly shown.

On the back is a list of all countries of the world with the call letters assigned to each and the zone key for use on the Converter.

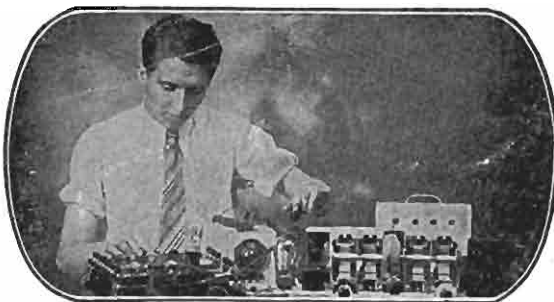
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THE RADEX PRESS, INC.

5005 Euclid Avenue

Cleveland, Ohio, U. S. A.



Sometimes I think there ought to be a law to make everyone do a little studying every week. I didn't think that a year ago because it looked like all the cards were stacked against me. But I am certainly rolling in the money now. Maybe my story will show you the way to larger earnings also.

I Thought Radio Was a Plaything

But Now My Eyes Are Opened, and I'm Making Over \$75.00 a Week!

\$50 a week! Man alive, a year ago I thought anyone making that much was just plain lucky.

Twelve months ago I was just barely getting by. It was the same old story—a little job; a salary as small as the job.

If you had told me that twelve months later I would be making \$75 a week in my own Radio business—I'd thought you were crazy.

But I am getting ahead of my story—let me tell you how it all started. I was hard up a year ago because I had been kidding myself—that's all—not because I had to be. I thought a fellow either had to be lucky or have a string of college degrees a half a mile long to make good money.

One day I picked up a magazine and the headline of an ad attracted me because it seemed to fit my case. It said, "I will show you how to start a spare time or full time Radio business of your own WITHOUT CAPITAL."

"They're trying to kid somebody," I thought "but I'll find out what it is all about anyway."

I wrote in and within a few days received a 64-page book telling about the opportunities in Radio, how I could prepare right at home in my spare time, and how they would show me how to start making money in my neighborhood selling and repairing Radio sets. It would probably have sounded too good to be true if the promises had not been backed up by 100 letters from fellows who had taken their course and were very enthusiastic about it.

What has happened since seems almost like a dream to me now. I took their course and in about a month I was ready to start making money in my neighborhood—as much as \$5 and \$15 a week. It wasn't long until I had saved enough money to start a little business of my own.

That business has since grown to the point where I am clearing an average of \$75 a week. All this took place under the watchful guidance of my friends at the National Radio Institute. They also offered to train me for other lines—in case I wasn't interested in having my own business. Broadcasting stations, Radio Manufacturers, Operating on Board Ship, Servicing Sets, Aircraft Radio, Tele-

vision and Talking Movies are other fields their training covers. And to think, until the day I wrote for that book, I'd been waiting, "I have never had a chance—will never have one because I have no pull and have never had the advantage of a good education!"

Friend—you may not be as bad off as I was—but think it over—are you satisfied? Are you making as much money as you need? Would you sign a contract to stay where you are for the next ten years at the same salary? Those are the things you have to think about—because no one is going to make it his business to push you ahead—you must make it your own business.

Take my tip—write for their book. It won't cost you anything—only a three-cent stamp. It shows you a lot of things which I don't believe you know now—a lot of facts and figures on the opportunities in this new, fast-growing field. Where the jobs are, what they pay, how to get ready for one. Beginners as well as experienced men are making as much as \$1,000 to \$2,000 a year more as a result of N. R. I. training. You place yourself under no obligation because the book is free and is gladly sent to anyone who is ambitious and wants to get ahead. Just address J. E. Smith, President National Radio Institute, Dept. 2KO, Washington, D. C.

J. E. Smith, President,
National Radio Institute,
Dept. 2KO, Washington, D. C.

Dear Mr. Smith: Send me your free book, "Rich Rewards in Radio," which points out the opportunities for spare time and full time jobs in Radio and your famous 50-50 method of training men to become Radio Experts through home study. I understand this request places me under no obligation.

Name.....

Address.....

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