





Sunday Time on the Air for All Stations Short Wave Stations of the World by Countries What the New Season Offers in All-Wave Receivers The New Fall Hour-by-Hour Chain Programs Do Verifications Really Verify?

SEPTEMBER DX CALENDAR

A Huba and the second s		and the second s
1 - THURSDAY		
11:00 PST	CHWK	Chilliwaek, B. C.
12:00- 2:30 EST	WMIL	Brooklyn, N. Y.
2 FRIDAY		
11:30- 1:00 MST	KGEK	Yuma, Colo.
11:30-12:30 CST	WCAJ	Lincoln, Neb.
12.00- 2.00 PST	CEJC	Kamloops, B. C.
12:00- 2:00 PST 1:00- 3:00 EST	WCAJ CFJC CKCL	Toronto, Ont.
3 SATURDAY	WKY	Oklahoma City
11:00-12:00 CST 11:30 PST	CKWX	Vancouver B C
	CKWX KDKA	Vancouver, B. C. Pittsburgh, Pa.
11:30- 2:00 CST 12:00- 2:00 EST	WBBZ	Ponca City, Okla.
12:00- 2:00 EST	WCAH WGBI	Columbus, Ohio
12:00-2:00 561	WGBI	Ponca City, Okla. Columbus, Ohio Scrauton, Pa.
12:00 EST	WWRL	Woodside N 1
12:30- 2:30 CST 1:00- 5:00 CST	WOW WJAK	Omaha, Neb. Elkhart, Ind.
	WJAK	Elknar), Ind.
4 — SUNDAY	1170 1 77	
12:00- 1:00 EST	WSAZ	Huntington, W. Va.
5 - MONDAY		
10:30-10:45 CST	WMAQ	Chicago, Ill.
12:00- 2:00 MST 12:00- 2:30 EST	KOY	Phoenix, Ariz,
12:00- 2:30 EST	WMIL	Brooklyn, N. Y.
6 TUESDAY		
11:00-12:00 CST	XEH	Monterrey, Mex.
12:00- 2:00 PST	CFJC WOPI	Monterrey, Mex. Kamloops, B. C. Bristol, Tenu.
11:00-12:00 CST 12:00- 2:00 PST 3:00 EST	WOPI	Bristol. Tenn.
7 WEDNESDAY		
11:00-12:00 CST	WHBL	Sheboygan, Wis.
11:30 PST	CKWX	Sheboygan, Wis. Vancouver, B. C.
8 - THURSDAY		
12:00- 2:30 EST	WMIL	Brooklyn, N. Y.
9 FRIDAY 11:30- 1:00 MST	KGEK	Vuma Cala
11:30-12:30 CST	WCAL	Yuma, Colo. Lincoln, Neb.
12:00- 2:00 PST	WCAJ CFJC	Kamloops, B. C.
1:00- 3:00 EST	CKCL	Toronto, Ont.
10 - SATURDAY		
11:00-12:00 CST	WKY	Oklahoma City
11:30 PST	CKWX	Vancouver, B. C.
11:30 EST	KDKA	Pittsburgh Da
11:30- 2:00 CST	WBBZ	Ponca City, Okla, Vermillion, S. D. Columbus, Ohio
12:00 CST	KUSD	Vermillion, S. D.
12:00- 2:00 EST	WCAH	Columbus, Ohio
12:00- 2:00 EST	WCAH WGBI WWRL	Scranton, Pa. Woodside N. Y.
12:30- 2:30 CST	WOW	Woodside, N. Y. Omaha, Nebr.
12:00-2:00 EST 12:00 EST 12:30-2:30 CST 1:00 EST	KOV	Pittsburgh, Pa.
1:00- 5:00 CST	KQV WJAK	Elkhart, Ind.
11 - SUNDAY		
12:00- 1:00 EST	WSAZ	Huntington, W. Va.
12 - MONDAY		
10:30-10:45 CST	WMAQ KOY	Chicago, Ill.
12:00- 2:00 MST 12:00- 2:30 EST	KOY	Phoenix, Ariz.
	WMIL	Phoenix, Ariz. Brooklyn, N. Y.
13 — TUESDAY		
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11:30 PST 3:00- 5:00 CST	KFBI	Abilene, Kans.
15 - THURSDAY		
12:00- 2:30 EST	WMIL	Brooklyn, N. Y.
16 - FRIDAY		
10 - PRIDAT 11:30- 1:00 MST	KGEK	Yuma, Colo.
11:30-12:30 CST	WCAJ	Lincoln, Nebr.

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16 — FRIDAY — Cent 12:00- 2:00 PST 1:00- 3:00 EST	CFJC CKCL	Kamloops, B. C.
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17 - SATURDAY		
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12:00- 2:00 EST	WGBI	Scranton, Pa.
12:00 EST	WGBI WWRL WOW	Woodside, N. Y. Omaha, Nebr
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1:00- 5:00 CST	KQV WJAK	Elkhart, Ind.
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18 — SUNDAY		
12:00-1:00 EST	WSAZ	Huntington, W. Va.
19 — MONDAY		
10:30-10:45 CST	WMAQ	Chicago, Ill.
12:00- 2:00 MST	KOY	Phoenix, Ariz,
10:30-10:45 CST 12:00- 2:00 MST 12:00- 2:30 EST	WMIL	Chicago, Ill. Phoenix, Ariz. Brooklyn, N. Y.
20 - TUESDAY	XEH	Montorney May
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21 - WEDNESDAY		
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11:30 PST	CKWX	Vancouver, B. C.
22 — THURSDAY		
12:00-12:30 EST	WMIL	Brooklyn, N. Y.
23 - FRIDAY	KCEZ	Vuma Cala
11:30- 1:00 MST	KGEK	Yuma, Colo.
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12:00- 2:00 PST 1:00- 3:00 EST	CKCL	Toronto, Ont.
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24 — SATURDAY		
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12:00 EST	WWRL	Woodside N Y
12:30- 2:30 CST	WOW	Omaha, Nebr.
1:00 EST	KOV	Pittsburgh, Pa.
1:00- 5:00 CST	KQV WJAK	Elkhart, Ind.
2:00- 4:00 CST	KDLR	Devils Lake, N. D.
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26 – MONDAY		A 1. I 1
10:30-10:45 CST	WMAQ	Chicago, Ill.
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2:00- 3:00 MB1	AFOF	Denver, Colo.
27 — TUESDAY		
11:00-12:00 CST 12:00- 2:00 PST 1:30- 2:30 CST	XEH	Monterrey, Mex. Kamloops, B. C. Janesville, Wis.
12:00- 2:00 PST	CFJC WCLO	Kamloops, B. C.
	WCDD	Janesville, Wis.
28 - WEDNESDAY		
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12:00-12:30 EST	WMIL	Brooklyn, N. Y.
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12:00- 2:00 PST	CFJC	Kamloops, B. C.
12:00- 2:00 PST 1:00- 3:00 EST	CKCL	Toronto, Ont.

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Please mention RADEX

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SEPTEMBER 1, 1932



NINTH YEAR





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LET'S LISTEN to ALL the WAVES

OR a number of years radio listeners have tuned their sets to the broadcasts made within the limits of the 200 to 550 meters wave band. If they wished to hear the fascinating short waves between 15 and 200 meters, it became necessary to use a special set made for the purpose. Then arrived an era of the short-wave "Adapter," which prevented standard broadcast receivers from being discarded when short waves were tuned in. Soon the "Converter" appeared, and this device quickly became combined with the broadcast receiver in a more sightly and efficient arrangement. But radio engineers still were not satisfied; they wanted a compact receiver capable of tuning in all stations on both short and long waves with the same simplicity displayed in modern radio broadcast receivers.

Now the goal has been reached, and we have the single-control "all-wave" receiver capable of tuning within the limits of 15 to 550 meters. And this fall and winter will see still greater improvement, and the development of worldwide radio reception on all waves. A twist of a dial and the setting of a wave selector knob tunes instantly from some short-wave station half way around the world to a favorite nearby broadcast studio. When a modern "all-wave" receiver is used the listener changes queikly by means of the wave changing knob through several groups of wave bands. This presents one extra operation which is very simple. The purpose is mentioned more fully at another point.

The All-Wave Receiver

At the present time much short-wave and all-wave reception is in the hands of the professional listener and other enthusiastic fans who are more seriously inclined, such as the many thousands of real DXers who tune carefully from station to station in search of records and thrills of distance. Many listeners in the broadcast class do not understand or realize the possibilities of short-wave reception and the international all-wave radio thrills that abound in the air.

The New Sets By B. FRANCIS DASHIELL

And it is for this reason that a number of large radio concerns have not as yet commenced the commercial production of all-wave sets; they continue to cater to the wants of the large class of broadcast listeners. But a number of other and more progressive radio set builders, we might say, are working seriously in designing remarkably efficient allwave receivers for a large and growing class of buyers. The coming winter months will see more and more of the strictly broadcast listeners turning to the fascination of all-wave reception.

Changing Coils

It is a difficult thing to design a satisfactory radio set embodying superheterodyne principles that will operate on alternating current and bring in clearly all short waves between 15 and 200 meters. When this was first accomplished by means of changeable or "plug-in" coils in tuned radio frequency circuits the feat was hailed by delight. But, at



Virginia Rea, who gained fame as "Olive Palmer," is returning to radio as featured soloist with Paul Whiteman. NBC-WEAF, Aug. 26th and every third Friday thereafter.

last, this operation has been eliminated by the development of single control tuning and a switching method of remarkable efficiency, which is used in principle on all of the modern "allwave" receivers. The sole remaining barrier is that which is set up by nature, for static, serious fading, and the strange skip phenomenon, are conceded on all hands to be with us always. Man may never overcome their disheartening effects.

Automatic Band Selection

Without question the important feature in all-wave receivers is the modern wave changing method. We all know that it is far from practicable to use only one large inductance coil to cover all wave bands below 200 meters as is now done in the broadcast set for the 200-550 meters wave band. Manually operated coils of the plug-in variety, as previously used in adapters and converters, solved the coil problem for a while. Then was developed, first for a converter about a year or so ago, a method of wave changing by mounting the individual coils on a chassis with a switching arrangement so they could be cut in or out at will. This scheme, of course, has been known for a long time, but its inherent fault was the distributed capacity and other effects in the leads and switch and coil dead-ends which spoiled all attempts at efficient tuning on the shorter waves.

The modern all-wave receiver accomplishes its tuning through a single dial control. There are no additional movements for the purpose of adjusting the tuning condensers or to compensate for inequalities in capacities in critical lowwave circuits. This is a remarkable achievement, and the only additional controls operate volume, local-distance, and power. The coil switching system automatically takes care of all waveband changes, and is controlled by a four point switch lever or knob on the panel. The moving of this lever permits the listener to change immediately to any one of the short-wave groups into which the circuit is divided: Namely, 15-25 meters, 25-60 meters, 60 - 200meters, and the standard 200-550 meters broadcast channel.

If a station, say, of 46 meters is to be tuned in, the switch lever is set on the 25-60 meters coil, and the dial tuned to the 46 meters short-wave figures of the proper sector. Great care of calibration in the newer all-wave sets is such that stations will be found very close to the actual frequency ratings. When a set is used as a regular broadcast receiver the switch is set to the 200-550 meters coil position, and the dial calibration between 550 and 1500 kilocycles used. The whole method is so simple that a child can tune to any desired frequency in the all-wave bands.

There are a number of excellent "All-Wave" radio receivers on the market, and, without doubt, more will be seen during the winter and at the usual radio shows. The following list presents a few of the outstanding characteristics of the well-known receivers which have actual performance records of amazing distant station logs.

Some of the New Sets

The new Scott (E. H. Scott Radio Laboratories, Inc., 4450 Ravenswood Ave., Chicago, Ill.) de-luxe all-wave receiver covers the wave bands between 15 to 550 meters. It has 12 tubes in all, nine of which are in the tuner proper, and three in the audio and power unit. The tuner has one tuned radio-frequency stage, first and second detectors, oscillator, three intermediate-frequency stages, two audio-frequency stages with push-pull amplification.

The Pilot company (Pilot Radio & Tube Co., Lawrence, Mass.) has a

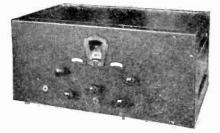


[4]

remarkable all-wave set known as the "Dragon." It is a superheterodyne of compact construction and uses but six tubes. It covers the wave bands from 18 to 550 meters with nine coils and single control. Its outstanding achievement is the wave changing switch of 46 contacts which moves to four positions. The unused "catacomb" coils are automatically and electrically isolated from the circuit so as to avoid all dead-end losses.

The Lincoln (Lincoln Radio Corporation. 329 South Wood Street, Chicago, Ill.) de-luxe receiver (SW 33) covers the entire all-wave band with single dial control between 15 to 550 meters. The dial has a variable ratio to enable critical tuning on the short waves. The set uses volume control, 11 tubes, and three stages of push-pull give it remarkable signal strength on weak and distant stations. A visual meter tells when the set has been tuned to its greatest resonance and efficiency. This tends to reduce all background, or the noise level, to a minimum, and the signal may better he heard.

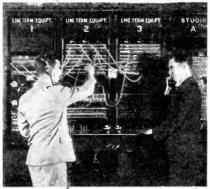
The Hammarlund Comet



The Hammarlund (Hammarlund-Roberts, Inc., 424 West 33rd St., New York City) all-wave set is known as the "Comet," and it covers the band between 15 and 550 meters. The circuit employs eight tubes with single control. The Stewart-Warner Company, and the Midwest Radio Corporation, build all-wave receivers, but some of these, as well as those by other manufacturers, use the older scheme of two-dial tuning, which means the set is a combination of converter and broadcast receiver in one cabinet.

For a description of the new Silver-Marshall 728-SW all-wave receiver, see (Continued on page 18)

SUCCEED IN RADIO



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There is a great need for *trained* men in the radio industry. There is no place for *untrained* men. Experience must be accompanied by technical knowledge.

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Do VERIFICATIONS Really VERIFY?

THAT a tempest in a tea-pot was stirred up by the publication in the May and June issues of this magazine, of the claims of certain reception. We refer particularly to those of Messrs. Halpern, Lilley and Caddell. We have received a dozen or more letters from DXers whose emotions were mightily aroused. Most of these were too peevish to print and all of them would fill two or three editions of this journal, one correspondent alone requiring nine pages of typewritten matter properly to relieve his feelings. Why all the excitement and ill-temper? Every reader certainly has the right to object to any and all claims published in RADEX but why get so excited about it?

These critics accuse your Editor of knowing nothing whatever about DXing or he would know what is possible and what is not. Let us say here that there is no man in the world wise enough to know whether any claim of DX reception is possible or not. Radio is altogether



Adele Vasa, diminutive soprano, on the Columbia Cathedral Hour

How Shall We Prove Reception?

too peculiar to be analyzed. Probably every DXer in the country has at some time or other brought in a certain station which he had never before nor since been able to get. Now according to these good critics, if a listener tunes in any station he should always thereafter be able to produce that station. Some of these writers even suggest that committees be appointed to visit the claimant and insist that he tune a station in as proof that he once had it. That would be like a fisherman saving: "Come out to the river tomorrow and I will pull in a forty pound muscallonge" or the golfer inviting his friends to watch him next Tuesday afternoon make a hole in one!

Is There a Yard-Stick?

Another favorite argument is, if a New Zealand station can be brought in in Brooklyn why can't it be brought in in California, which is much nearer. There are still listeners who think of DXing in terms of distance. According to them, no one further from the station than they themselves are can possibly bring in a station they cannot get. This argument is so far-fetched that it is useless to try to meet it. Everyone who ever turned a dial has brought in certain stations of lower power or greater distance than those ordinarily received. One writer went so far as to claim that no Japanese station could be heard east of the Mississippi River. Just how he figured that the Jap's signals stop at the Mississippi is not known. Another admitted that 1000-watt Australians might be heard in the eastern part of the country but nothing smaller. If 1000 watts can come through why not 900 or 800 or even 100 or 50? Just how does one go about it to figure the wattage necessary to carry signals a certain distance?

The editor freely confesses that he cannot look at a record and say definitely that it is or is not true. There are certain spots in the country where it seems to be impossible for KDKA to be heard. Should the editor before publishing a report of the reception of KDKA try to decide whether or not it is possible for KDKA to be heard in that particular vicinity? It is manifestly absurd for this magazine to try to prove the authenticity of the claims that are published and certainly we do not intend to do so.

Counting the Tubes

Another favorite formula of the critics is to calculate possibility of reception upon the number of tubes in a set. If, they argue, a ten-tube set doesn't get a certain station, how then can one with only two tubes? The writer has brought in a certain minor Cuban station with a one-tube set of his own construction which station he has never been able to bring back with eight and even twelve tubes in exactly the same location and using the same aerial and ground. Who will explain this and how would your editor go about it trying to decide the validity of a claim of such reception?

The writer is fast coming to the conclusion that every radio signal in the world is present in the ether everywhere and that as our knowledge of radio science advances and our sets become more and more sensitive, we will pick up signals we have never had before just as each new and greater telescope brings out stars that we never knew existed.

What Would a Lie Profit?

While there may be some so-called DXers who lie about their catches, we feel sure the number of such is extremely small. Can one imagine a coin collector going around bragging about possessing some rare coin which he does not own or a stamp collector claiming to have a rare stamp which he never even saw? If certain readers claim reception they never made, they will destroy themselves sooner or later. Give them rope enough and they will hang themselves. But a claim of reception that seems to be properly verified is DX news and as such it belongs in RADEX and there it will be found. If it is a dishonest claim, that is too bad and we are very sorry but we do not purpose keeping DX news from our readers for fear some unearned credit will go to a faker.

The sad thing about all these letters



Mary Roberts Rinehart's famous story, "Tish," is now on the air — NBC-WJZ three times weekly. "Tish" Marion Barney, center; "Lizzie," Helen Lowell, left; "Aggie," May Buckley, right.

is that they take the position that verifications do not verify. They point out that Halpern, Lilley, and Caddell may have some wireless amateur in the various countries send them code messages giving them sufficient information upon which to base a claim of reception. They accuse these DXers of getting information regarding programs from the magazines published in various countries. RADEX receives these magazines from England to Australia and never yet have we received one that contained a program that was not already over before the magazine got here. It is not RADEX that will destroy DXing, even though it occasionally published a dishonest claim. If DXing is destroyed it will be by those who take the position that verifications do not verify. Let the impression become general that stamps and verifications are worth nothing and where does that leave DX?

This discussion has brought many letters of commendation as well as condemnation and other verifications of most unusual reception. We had intended to publish these here but perhaps it would be better to play safe and reproduce them under Ripley's wellknown title of "Believe it or Not."

LITTLE STORIES of the BIG STARS

THE McCravy Brothers, of Laurens, South Carolina, may sing songs of the south and of the soil, but they insist most emphatically that they are not hillbillies.

Frank and James never did much radio work before they came to the N.B.C. studios for an audition. They had been on local stations in different parts of the country at various times, but for the most part they were busy with recording contracts. Their phonograph records, incidentally, have passed the two million mark.

The boys have been singing together ever since Jim, the younger, graduated from Furman University, in South Carolina. Since that time they have appeared in forty-one states before various



Harmonizing heart songs in their soft Southern manner, the McCravy Brothers, Jim and Frank, are heard cach Monday and Tuesday, 11 p.m., EDST., Sunday, 8 p.m., over NBC-WJZ network.

clubs and at church benefits. They also have been on the Chautauqua circuit.

Although their air programs consist mostly of unique song duets with occasional solos, they entertain their friends

"Betty's" Page of Radio Gossip

off the air in other ways. Frank is an accomplished amateur magician and likes to tell stories in Negro dialect. Jim plays the violin and guitar.

They were persuaded to come north for an audition by Louis Katzman, an NBC artist, who was associated with them in a recording studio. A surprising feature to the boys is the fact that much of their fan mail has come from New England and other northern areas. They expected to hear mostly from the south.

You have probably noticed that they offer sentimental, modern spirituals and semi-religious songs. They sing no "hot" tunes or "low-down stuff." They write many of their own numbers and do the arranging of their old favorites.

Nor are their activities limited to the business of entertaining. Frank has carried on an active political career. He has already served two years in the South Carolina General Assembly and has begun his second term. "So you see," says Frank, "we don't get much spare time, with the legislative sessions and everythin' but when we do get a day or so off we spend it fishin' or huntin'."

The McCravy Brothers may be heard over the NBC-WJZ network Sundays at 8 p.m., EDST, Mondays and Tuesdays at 11 p.m., EDST.

Among the winners of the annual radio popularity contest, conducted by the Radio Editor of the New York Daily Mirror, were:

Norman Brokenshire, veteran announcer, with a total of 176,831 votes to lead the announcers' division and to take clear supremacy in the number of ballots accorded any entrant.

Ruth Etting, star of "Music That Satisfies," was made "Queen of Radio," with 96,510 votes. Other Columbia winners were Morton Downey in the male singers' group; Myrt and Marge in the talking skit division, and the Boswell Sisters in the harmony team section. The victory achieved by Myrt and Marge was particularly outstanding because that program was off the air during the time the contest was being held.

Some of the NBC victors were Harry Richman, "King of Radio;" Rudy Vallee, "the most popular orchestra leader," and Baby Rose Marie, "Princess of the Air."

Perhaps one of the reasons why Guy Lombardo's music comes over the air so well is that before each performance Guy, himself, supervises studio arrangements. A good many minutes before the other Royal Canadians reach their broadcasting chamber, their leader is on the job adjusting microphones and personally placing the chairs of his musicians.

George Burns and Gracie Allen received an hilarious welcome upon their return from the west, where they had been making a picture with Bing Crosby, Eddie Lang, and other stars, called "The Big Broadcast." In the movie, George will be seen and heard as the studio manager, while Gracie will be seated at the information desk. Imagine the answers to fans' questions! Incidentally, Gracie, who knows her public, says that she'd rather have more fans in the summer than in the winter months — because, after all, fans are so much nicer to turn on when it's warm.

* *

Isham Jones has written many tunes, yet often is prevented by circumstances from airing them over the Columbia network. CBS rules require band leaders to submit selections in advance, with "first come, first served," to avoid monotony. New York conductors get the jump on Isham, who must mail his choices from Atlantic City. Invariably another has beaten him to his own compositions. Isham Jones, a pioneer in the popular field, has authored such hits as "I'll See You in My Dreams," "It Had to Be You" and "Indiana Moon." More recently, he went on a song-writing spree that produced three current successes --- "I Can't Believe It's True," "Let's Try Again" and "If You Were Only Mine."

Their First Jobs

Fred Uttal, the announcer, was an electrician and locksmith's helper, earning more in tips than in salary.

William Hall lent his stentorian tones to selling newspapers.

Col. Lemuel Q. Stoopnagle "pushed" lumber in his father's lumber yard.

Louis Dean clerked in his grandfather's general store at Valleyhead, Alabama, his remuneration being all the candy he could take without being seen.

Ruth Etting sang and danced in the chorus of a Chicago night club in order to earn her tuition for the Academy of Design.

Buddy Rogers worked for his father on the Olathe (Kansas) Mirror as reporter and printer's devil.

Ben Alley worked with a West Virginia road gang.

Freddie Rich played the piano fourteen hours a day in a New York movie house, earning eight dollars a week.

Singin' Sam left home to join a minstrel troupe and became known as the "Boy Basso."

Frank Knight ran messages for a banking house in St. John's, Newfound-land.

Kate Smith, as a result of winning several "Wednesday Night" contests, earned her first money in local vaudeville appearances. She was just eleven.

Harry von Zell sold hot-dogs at the beach in Venice, Calif.

Morton Downey sold candy, newspapers and magazines to commuters on the N.Y., N.H. & H. railroad.

The Boswell Sisters made an appearance in a New Orleans theater, but only two of them. The third was still too young.

Before Jack Fulton, the Croon Prince of Paul Whiteman's band, brought his trombone and tenor to radio he was a laundryman in his home town of Phillipsburg, Pa.

Last-minute notice comes that Ben Bernie and "all the lads" will switch to NBC-WEAF Tuesday nights beginning September 13th. East of Salt Lake City, the time will be 9:00 to 9:30 EDST; west of Salt Lake, 12:30 a.m., EDST. Forty stations will carry the contract with the "Alma Malter" for 52 weeks.

TROUBLES Common to ALL SETS

The Technical Editor Comments and Advises

Volume Control Wears Out

The volume control on my Philco 87 set seems to wear out too frequently and soon becomes noisy. Why is this? Also, when I turn the dial of the set I get loud crackling and sputtering noises.

There seems to be no good reason for the volume control wearing out as it does. It is a very simple form and carries no current, being a 10,000 ohm resistance connected between the aerial and ground with a sliding contact lever attached to the radio frequency or antenna coil. But this form of control will become noisy as soon as it is worn or loose and does not make a smooth sliding contact. Perhaps its construction is light and it does not stand constant manipulation. You must use a regulation ungrounded aerial with this set.

Noises heard when the dial is turned are caused by bits of dirt and dust between the plates of the variable condensers. The remedy is to clean between the plates. Also make sure that the plates do not rub at certain points. Examine the contacts between the rotor plates and the frame. All traces of grease and oil should be removed from the shaft. The contacts should be firm and electrically and mechanically continuous, for the least looseness will cause crackling sounds when the dial is turned.

The Two-Volt Pentodes

I have a new Crosley 8-tube "Playboy" receiver which uses the 2-volt tubes with an Air-Cell battery. It uses two -30s in pushpull, but I am wondering whether I can change these -30s to -33s (pentodes) in much the same way that -45s are changed to -47s. What do you recommend in my case?

Of course you must not lose sight of the fact that this is a new and modern set and the tubes used in it are found to be best by the manufacturer. We believe however that the pentodes could be substituted for the -30s, or even -31s (power amplifiers) in place of the -30s and the contemplated -33s. This arrangement might prove better than the two -33s in push-pull. When pentodes are used it is not always necessary to use the push-pull circuit, but simply one -33 alone. But there is a matter of B battery and filament drain on the air-cell battery. The -31s require 135 volts on the plate whereas the -30s require only 90. The -31s need a C bias of 221/2 volts, but the -30s take only 4.5 volts. The filament of the -31 will consume twice as much A battery as the -30 tube, and the -33 pentode still more. Therefore it is battery economy and essential current drain watchfulness to use the -30s instead of -31s and -33s. Two -31s will draw .15 amperes more than two -30s. Your set as it now is will draw close to .47 ampers and when you add that needed for the -31 tubes or -33 pentodes the total consumption will be more than .62 to .70 amperes. The Air-Cell battery should never have a current drain in excess of .60 amperes. For this reason we do not recommend any change in the tubes used in push-pull, and we doubt very much whether additional tone and volume will be worth the battery exhaustion that is sure to follow.

More About Two-Volt Tubes

I use a Radiola model 20 set with four -99 tubes and one -20 power tube. The dry cells I use run down too fast. But since I have a 32-volt Delco light plant I am wondering if I can change to the two-volt tubes and use this 32-volt supply or if an Air-Cell battery would be best.

The Air-Cell battery would be best for its voltage is very regular and constant. If you used the 32-volt supply it would be necessary to use a carefully built resistance and then the low voltage tubes might be subjected to serious fluctuations at times. If you get an Air-Cell battery you will need to replace the -99s with -30s and the -20 with a -31 tube. The new tubes will not draw as much current as the older ones. The B battery and C bias characteristics of the old -99s and -20 tube will be close enough to the two-volt tubes so that no



Frederic William Wile, the famous political analyst of the CBS. Photo copyright by Harris & Ewing.

change will be called for. Turn the present rheostats full way on, or remove them entirely, for no resistance is needed. A one ohm resistor may be placed in series with the Air-Cell battery for the first few weeks, or until the initial excess voltage has dropped to normal.

Slow Heating and Fading

Why does my Zenith 52 set give a mushy and weak sound when it is first turned on? It takes about a minute for it to clear up. The volume drops several times and then comes back by itself, but I usually turn up the volume to bring back the music which does not stop entircly when it weakens.

The tubes heat slowly and take some time to get in action. Perhaps they are old and need replacing. Your service man can test them and advise you. The fading in volume may be due to the natural cause, but we assume you are familiar with that. If it is in the set, and since the volume seems to indicate this, we suggest that you either replace or clean and grease the volume control, as explained in a preceding answer. Perhaps your current supply tends to fluctuate somewhat and causes the drop in volume.

Non-Oscillating at All Frequencies

I have a two-tube regenerative set that has brought in 200 radio stations. It oscillates only from 750 to 1200 kilocycles. How can I make it regenerate over the balance of the broadcast band so as to get additional stations?

Regenerative receivers frequently fail to oscillate over the higher frequencies, but seldom over the range you have mentioned. Not knowing the particular circuit you are using we are not able to advise you as to mechanical changes in your arrangement. But, the usual trouble is that the adjustable coil or tickler does not develop sufficient feed-back or coupling on the higher waves. On the shorter waves a smaller tickler will do the work, while on higher waves a larger tickler is needed. It is suggested that you add about 25 per cent more turns of wire to your present tickler, or slightly increase the B battery voltage on the plate of your detector tube if it can be done without causing the set to whistle or howl.

Changing Power Tubes

How can I substitute a -45 tube for the -71 A now in my Atwater Kent Model 44 set? I am anxious to get more power from this receiver.

Remove the -71A tube from the socket and open either the red-green or black-green wire leading to one of the filament contacts of the socket. Insert a 2-ohm resistance unit in series with the circuit. This reduces the 5-volt supply to 2.5 volts required for the present -45 tube in place of the -71A. But as the -45 takes six times the amperage required by the -71A it may be that this circuit can not stand the extra current drain. If heating in the power unit or resistance and wires is noticed there is no alternative but to replace the -71A tube.

The wiring of your set is such that the change can only be made at some sacrifice of proper B voltage and C bias required by the -45. It is not practicable, however, to make alterations in the power pack or voltage divider to correct this deficiency.

Screen Grid Regeneration

My Pilot Wasp A.C. receiver uses a -27 tube for detector. How can I change to

a -24 screen-grid tube so as to control the regeneration in an easier manner?

There are two general methods of rewiring your circuit for the -24 tube and variable screen-grid voltage, namely the potentiometer method and the bleeder or series method. With the former the end leads of a potentiometer are connected to the 45-volt positive and negative ends of this portion of the power unit or B battery, and the slider goes to the screen-grid terminal of the tube socket. The potentiometer should have a value of about 50,000 ohms. Bypass the screen terminal with the usual $\frac{1}{4}$ to $\frac{1}{2}$ mfd. condenser. The grid, plate, filaments and cathode of the -24 tube are wired in the conventional manner.

The bleeder or series method is a controlled circuit using a 100,000 ohm variable resistance in series with the 45-volt positive screen grid lead, with a bypass condenser inserted as indicated above.

25 Cycle Current

I expect to move to another locality where only 25-cycle alternating current is available. As my present Philco radio set uses 60 cucle current I should like to know what changes may be necessary in my set to adapt it to 25 cycles?

Your set cannot give satisfaction on 25 cycles. The slower alternations will not give the same voltage or amperage and the filtering portion of the set will not smooth out all the hum. The transformer in the power pack may need replacing with one wound differently for increased efficiency when 25 cycles are used. We advise you to write the Engineering Department of the Philadelphia Storage Battery Co., Philadelphia, Pa., and obtain their recommendations. As sets are made for both 25 and 60 cycle current, we are confident the can furnish the necessary makers changes.

Control Trouble

When I turn up the volume of my set the signal or music cuts on and off, and seems loud then weak. There is considerable noise when working the control. What is the trouble?

You have not given the make of your set, but we believe that the volume control is defective. If it is of the wirewound type we suggest that you clean the surface of the wire and the sliding arm, and then place a bit of clock oil on the wire and rub it over carefully. If the control is of the carbon type it may be packed and need replacing. You might also examine the tubes and sockets for loose or poor contacts.

Tuning Adjustment

I undertook to clean the condensers, etc., of my Gloritone receiver, but it now tunes too broadly, some stations are out of position on the dial, and it tends to howl at times. Why is this and how can I make it as good as it was at first?

Some displacement occurred when you cleaned the set. It is easy to do this. Make sure you do not have the control-grid and screen-grid connections reversed, and also that the proper control-grid (top) wires are connected to the proper tubes. If any of the coil connections are reversed this will cause a shifting of the dial readings.

It is quite possible that in the attempt to clean and adjust the tuning condensers you have permitted the dial to slip on the condenser shaft. The condensers may have gotten out of line due to displacement in the direction of rotation, or in an "off-center" displacement back and forth - due to loose plate construction, uneven centering, or one or more bent plates. The celluloid band with its calibrations may have become displaced around the dial surface. Check these points carefully, and make sure you have replaced all connections correctly.

If the howling again reappears test the 0.1 mfd. condenser connected between the two detector plate resistors, and also the ground and grid connections. The condenser can be tested by shunting another across it temporarily.

Antenna Compensator

My Zenith, model 35, receiver, has a control that is built like a variometer which puzzles me. Beyond 1200 kcs. I am compelled to manipulate it in order to get signals at their best. What is the purpose of this device?

It is an antenna compensator because it balances to some extent the ability of your antenna to carry all frequencies of the broadcast band at the same time.

"BELIEVE IT OR NOT"

RESENTING as we do this month, some most unusual reports of reception of far-distant stations, and in view of the discussion as to the authenticity of other claims published in recent issues of this magazine, it seems quite appropriate to borrow Mr. Ripley's famous phrase as the title of this article. And speaking of "Rip," did you see his cartoon of May 8th, last, in which he reproduced a picture of William Mac-Donald, 644 Fourth Ave., Chula Vista, California? According to Ripley, Mr. MacDonald has heard 1225 stations in 65 countries on his radio! There's a record. In a letter to RADEX. Mr. MacDonald says: "During the past nine years that I have been DXing, I have never written a line myself for publication. I happened to be situated in a most excellent location, and having the time and the patience to develop the natural resources of the situation, I have attracted thousands of radio fans who came to my home to hear a little distance that



Ed Sullivan, celebrated Broadway columnist, now in "Gem Highlights," CBS Sundays, 10 p.m., EDST.

More Difficult Diet for DXers

could not be heard elsewhere. The 'Believe It or Not' feature alone has brought me to date over 40,000 letters so please tell your readers that it would be physically impossible for me to reply to those who write in but that I appreciate their interest.

"I do not profess to know anything more about radio than anyone else, relying wholly upon natural elements, namely, a good location and equipment that is maintained at the highest point of efficiency. My set is an now-out-of-date Magnaformer and is no better than hundreds of like sets except that it was carefully constructed, a feature that I have found to be lacking in the vast majority of kit sets that have come under my observation."

Radio Gardens of Eden

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. Undoubtedly Mr. MacDonald is located in one of these gardens of Eden of Radio. Our readers will recall that other great California DXer whose marvelous records have appeared in this magazine from time to time, Mr. Ollie Ross, of Vallejo, California. We have another interesting letter from Mr. Ross from which we quote:

"I certainly enjoyed the article about the Doubting DXers. There are thousands of DXers who think that if they cannot tune in a certain station, why it is impossible for anyone to do so." Mr. Ross goes on to quote some of his most unusual receptions and sends us the verifications he received in confirmation of them. One of them is from C46 of Montivideo, Uruguay, then a 50-watter. We quote from their letter in their own vernacular: "On the hour and the day that you say, we played the two phonograft reproductions. Re the large distance that we are separate from your country (10,500 km.) we would estimate that you please confirmating the trasmition that we above explain also if you can heard daily or temporaly or anything particulars that you think convenient at the conclusion of that so we can publicate on one of daily paper in our city." Another written entirely by hand is from TJW, a 12-watter in Hamilton, Bermuda: "Received your very kind letter and would like to let you know how much we appreciated your writing us. It is almost impossible to believe that you could have received our broadcast, as our station is probably the smallest commercial broadcasting station in the world with an output of only twelve watts, and your letter from California came as a most pleasant surprise to us in Bermuda. Our station was started to provide entertainment for our local residents during the summer months when we are bothered by static excessively . . ." Another is from Prague, Czecho-Slovakia, although the name of the station is not given: "We have indeed sent, on the 21st ult., a program with the violin recitals you have received as well as the regular announcement of program vou mentioned."

Here's a Real Record

"Some time before leaving for Europe on my recent trip," Mr. Ross goes on, "I tuned in on station WOKO, Poughkeepsie, N. Y., about 10:00 a.m. PST., or 1:00 p.m., EST., and sent for verification which was sent back to me via air mail. Their curiosity was aroused by this daytime reception and they wrote asking various questions concerning the reception of their station as well as to make of set I used, etc., and mentioned the fact that they considered it almost a miracle that I should receive their program so well at that time of day. I decided to try to show them a real miracle and so I tuned them in every day for a solid week from 11:00 a.m. to 2:00 p.m., PST, and had the entire week of reception verified. Over 2,000 miles across the continent, daytime reception, day after day for a whole week is really a feat unbelievable but it is true nevertheless." We agree with Mr. Ross. Due to some atmospheric freak, some one low-powered and far-distant station may

come in once on any set never to be tuned in again, but to tune in a 500-watt station in the middle of the day — not once, but seven days in succession on a frequency (then 1440) used by four other stations, including a Californian, certainly requires a "Believe It or Not." Here is the verification:

"Thanks for your very complete and descriptive letter of our programs for one week. It is indeed gratifying to get such a report from you. I must say that you either live in a very wonderful location or have something in the line of a receiving set of which I have not heard. If all the radio listeners made the effort and submitted comprehensive reports to stations such as you have, it would be about the most gratifying thing in the world for the broadcaster."

Two More Claim 2ZI

The report of the reception of the 10-watt 2ZI in Hastings, New Zealand, by Karl J. Halpern, of Brooklyn, N. Y., in the May RADEX sent a dozen DXers on the warpath with tomahawks waving. Now comes Robert R. Rawstron, of Claremont, N. H. (and incidentally Frank A. Johnson, of Chicago) to share



Dean of Chicago announcers, Harlow Wilcox, of the CBS



Jacques Fray and Mario Braggiotti, piano duo heard each Friday over CBS at 10:15 p.m. Mondays at 9:45 p.m., EDST.

with Mr. Halpern the ignominy of this reception! Says Mr. Rawstron: "Browsing through the midsummer issue and noting that ye olde skeptic is once more in print, brings back memories of my first RADEX in September, 1930. I saw records printed therein which I doubted very, very much. To one who has never heard a foreign station, doubting the reception of one who has is a very natural reaction; so I am sure those whose records were assailed will hold no permanent antipathies. To further close the discussion regarding Mr. Halpern's 2ZI reception, will say that I am one of the U.S. trio who has verifications from 2ZI. Mr. Halpern heard him first, then Frank A. Johnson, of Chicago, and lastly the writer."

"In Every Way Correct"

Following we quote from Mr. Rawstron's verification: "We must apologize for not answering your report of the 25th of January, 1932, on our broadcast of that date, but we have been to quite a deal of trouble getting this verified as to time, etc., and find it to be in every way correct. Now, sir, we wish to thank

you for this report, and strangely enough by the same mail we received a report from Mr. F. A. Johnson, of Chicago, on another broadcast which is also correct in every detail. This brings our total to three American reports now and we are 'tickled to death' to think that our station, which is rated in power at only fifteen watts, should reach U.S.A." To this 2ZI adds: "To Whom It May Concern: This is to verify that the report of R. R. Rawstron, of Claremont, N. H., was mailed to us less than seven hours following his 2ZI reception and on the same day by his local postmark." Mr. Rawstron states that a later letter from 2ZI gives the information that Mr. Johnson has just submitted a report of a second reception giving him two verifications for this small station

A Letter from 3GL

Upon receipt of letters questioning the reception of 3GL, Geelong, Australia, by Richard D. Caddell, Pittsburgh, we wrote to that station asking if they felt sure from Mr. Caddell's report that he had actually received them. They write: "We can quite understand that Mr. Caddell's claim to have picked up our station would create a good deal of comment. Although Mr. Caddell did not give a detailed report of our programme. he gave sufficient for us to accept his word that he had picked the station up. Although our power is only 50 watts, this is the aerial rating and would mean 150 or 200 watts input, and as we have also received a report from a listener in Philadelphia and another in Vancouver, we are quite willing to believe that Mr. Caddell has been successful in bringing in our station. Geelong is situated about 45 miles from Melbourne on the sea coast and we receive many reports from New Zealand about 1200 miles away, and Western Australia nearly 2,000 miles away. In regard to Mr. Heuter (of Philadelphia) we received a report from him in December advising us that he picked up our station but as were were not satisfied, we asked for a further report which he has since sent us and we believe that it is correct."

From George Lilley, West Chester, Pa., whose report of reception of LR-5, a 500-watter in Buenos Aires, Argentine. was among those criticized, comes a defense of Mr. Caddell and a fair summary of the controversy. He writes: "As far as Caddell and his Rio de Janeiro verifications are concerned. I feel perfectly sure that he really received those stations. Although I do not know Mr. Caddell personally, I have no doubt as to the accuracy of his reception. I realize that the early evening hours are best for reception from South America and that those stations can be heard so early in the evening. The reception is very logical as when it is 9 p.m., EST., it is 11 p.m. in Rio de Janeiro. I myself heard CX-26, Montivideo, Uruguay, at 7 p.m., EST. Because the average fan cannot get the Pacific Coast at this time of day (because it is only 4 p.m., PST., and broad daylight there) he fails to see how a more distant station in South America can be tuned in at that time of day. The answer is, of course, that it is later than 7 p.m. at the point of transmission and there is darkness all the way between the transmission and reception points. A fan may reason that when he can just pick up a whisper from some Pacific coast station, how in the world can another fellow receive a station not only as far as the Pacific, but also all the way across the Pacific. His conclusion is that it can't be done. His conclusion may seem logical but it just isn't correct.

"There are those in the DX game who may use false methods in obtaining their verifications. However, I think that a careful study of the verification will in most cases show up the owner. There are those who cheat in any game; they are not only hurting 'themselves, but making the sport of the real DXer a hard one to travel. I think myself that the cheaters are very few; the skeptics seem to be the more numerous. Some fellows just will not believe that something can be done which they cannot do, and even when shown positive proof, they will say 'No.'"

More Verifications for the 2-Tuber

Mr. Lilley submits more of his verifications and while they have no bearing on his reception of LR-5, they do indicate a successful DXer. We quote from a few of them: "We have looked up our records and the times mentioned by you, which synchronize with 8:24 p.m. to 8:30 p.m. (our time) show that 2BL was just concluding a Church Service and the short prayer of about one minute's duration, was the benediction. This service was broadcast from the Killara Congregational Church and you are to be congratulated on your excellent reception on a two-tube receiver." 2BL is located in Sydney, Australia, and broadcasts on 855 kcs. with 1000 watts.

"We thank you for your letter dated 8th May reporting having received our station on that date. We have checked up on our Station Log and find details given by you to be correct. Your report is a most interesting one and, seeing that your set is only a two tube, our engineers consider your reception of this station to be phenomenal." This is from 4BH, Brisbane, Australia, on 1380 kcs. with 600 watts.

"We are in receipt of your letter of the 1st ultimo reporting reception of our 3LO programme which checks up with our log." 3LO is in Melbourne, Australia, on 800 kcs., with 1000 watts.

"We are in receipt of your letter postmarked April 5th reporting reception from 4RK on this same morning. Reference to our log confirms your report and we have pleasure in congratulating you." 4RK is in Rockhampton, Australia, on 910 kcs. with 2000 watts.

Here's One from New Zealand

We will now close this discussion by quoting from a letter regarding reception the other way around, that is by a reader in Dunedin, New Zealand, of the U.S.A. stations. This reader is F. H. A. Bartlett, operator of Radio Station 4ZO and vicepresident of the New Zealand DX Club. He begins by saying: "I came into contact with your wonderful publication through hearing KFEQ in St. Joseph. Mo. They published my report in the local newspaper and a radio fan there (Mr. Jacob N. Mitchell) sent me out a copy. I live in the city of Dunedin, but do not do much of my DXing there as there is generally too much interference from power lines, electric trams, etc. I therefore go out of town during the

(Continued on page 18)

The Puzzle Page

TN spite of the three months given to find the correct solutions to the June puzzles, only a few readers succeeded in solving all of them. The designer's solution of No. 1 was:

> WWWKWWNW MONTREAL TLJMRWAS

Several readers solved this problem correctly with the word "Brooklyn."

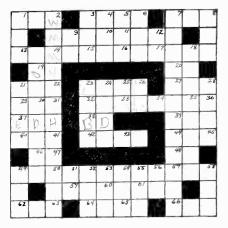
In the mathematical puzzle, No. 2, RADEX was transposed into 07518 and PRESS into 60144.

It was the palindrome, No. 3, which gave most of our readers their trouble. Several reported that it couldn't be worked and one usually successful solutionist offered to take a year's subscription if a solution was possible. (Note to the Circulation Manager: Add one more subscription.) Here is the correct answer: WMCA, CJCJ, WWVA, KWCR, WWAE. CKCR. KWEA WKRC. KCRC, WKAV, WWJ, CJCA, CMW.

Following is the correct solution of the No. 4 Cross-call:

CK	WO .	JOK	K	
CKW	IX 0	WO	RK	
AOK	HR	ΒL	OW	
WKBV	WA	BW	WGE	BB
CKY K	F	0S	H	IIX
YWNC	IS .	AV	WWS	SW
AHW	I KV	LS	BH	
AWI	S 0	WB	AA	-
KF	°СВ	WJB	K	

We warned our readers several months ago that the puzzle well was running dry. The Editor himself has only a vacuum left and the desired help from our readers has not been forthcoming. There are only a limited number of calls that may be used in forming crosscall puzzles particularly in the corners of the squares and new cross-calls are becoming more or less repetitive of those that have gone before. We will however continue to publish from time to time those which are submitted by our readers materially different from those already published. The offer of free copies of RADEX, however, is withdrawn, as the



solution of a single cross-call is too simple a task.

The "G" puzzle is submitted this month by Edward L. Walters, Roanoke. Va. In this problem Mr. Walters has concealed the names of four states. All of the calls appeared in the June issue.

Key

- Across
- Pacific agricultural.
- 3 A newspaper station.
- Insurance fraternity. 13 In two states.
- Frequency is 15 times the power. 15
- A 30-watter. 17
- Middle two of station on 1370. 19
- $\overline{20}$ Ditto on 1420.
- One of the fifties.
- 21 23 27 Ten kilowatts.
- Shares wave with two Illinois stations.
- $\overline{29}$ Last three of Coloradoan.
- 32 Benson Polytechnic.
- $\mathbf{34}$ A railroad station.
- 37 Last three of Dispatch-Herald.
- 38 Last two of Peorian. $\overline{39}$ 4th, 3rd and 1st of Cuban.
- $\overline{40}$ Dots and dashes.
- A 100-watter on 1500. $\mathbf{42}$
- 3rd, 2nd and 1st of North Carolinaian. 44
- 46 Last two of Albaman.
- 48 First two of 17.
- 49Power same as frequency.
- 52Johnson-Kennedy radio.
- 56 One k.w. on 1250.
- 101 watts. 62
- Italian educational. 64
- 66 Radio investment.

Down

- A blue with one k.w. 1
- Holt-Rowe Broadcasting. NBC with 500. 2 3
- 4 Westinghouse.
- 1st, 3rd and 4th in B. C. Ditto in Pennsylvania. 6
- $\dot{7}$ CBS.
- Ŕ 750 watts.
- 9 Last two of agricultural school.
- 2nd and 4th in B. C. 12
- 21 In I-26.
- 22Columbia on 1430.
- 23 Down towards zero.

- 24 A newspaper with 250 watts.
- $\overline{25}$ Middle letters of two. 26 Last two of a high school.
- 27 On 1200.
- 28 A mining school.
- 47 A tobacco station.
- 48 Methodist university.
- 49 A music company.
- 51 First two of five. **5**2
- 1st, 3rd and 4th of Illinois station. 53 First three of London station.
- 54 In G-7.
- First two of radio news. 56
- 58 On 1310.

"Believe It or Not"

(Continued from page 16)

week-ends to a place 14 miles along the coast from Dunedin. The receiver used is a Majestic Model 21, 8-tube superhet and I have yet to hear a receiver that will drag in the DX like this one.

"My verified stations to date are 207 from all parts of the world, but mostly from your country. Some of the best 'scalps' are the following 100-watters: WLBF, Kansas City, Kans.; KCRC, Enid, Okla.; KFBK, Sacramento, Calif.; KFJM, Grand Forks, N. D.; KFJY, Fort Dodge, Iowa; KFQU, Holy City, Calif.; KFXD, Nampa, Idaho; KGBX, St. Joseph, Mo.; KGCX, Wolf Point, Mont.; KGFF, Shawnee, Okla.; KGFJ, Los Angeles, Calif.; KICK, Red Oak, Iowa; KJBS, San Francisco, Calif.; KMJ, Fresno, Calif.; KPCB, Seattle, Wash.; KRE, Berkeley, Calif.; KREG, Santa Ana, Calif.; KWCR, Cedar Rapids, Iowa; KWG, Stockton, Calif.; KXO, El Centro, Calif.; KXRO, Aberdeen, Wash.; KFOR, Lincoln, Nebr.; KFXR, Oklahoma City; KGEK, Yuma, Colo.; CKMO, Vancouver, B. C.; CKOV, Kelowna, B. C.; and the 50-watt KGFX, Moorhead, Minn."

There, you skeptics, mull that over. That would be a good log for a DXer in Kansas. There they are, hundred-watters, practically all on crowded frequencies. If a DXer in New Zealand can pile up a list like that with a Model 21 Majestic, what could he do with a Model 60? Altogether Mr. Barnett has verified 138 stations in the U.S., seven in Canada, and two in Mexico. Other countries heard are Russia, France, Spain, Germany, Siam, South Africa, British India, Holland and Japan with 11 stations in the last named country.

Let's Try All Waves

(Continued from page 5)

another article in this issue, "A Dub Tries the Short Waves."

While modern all-wave receivers are capable of remarkable results and, with patient manipulation, will reward the listener with international reception, it should be remembered that no one can tune to stations on short waves as easily as on the higher broadcast waves. The considerably greater frequency of the short-wave signal makes it more difficult to tune the circuit to perfect resonance. Tuning must be done very slowly, for a station can be passed over without knowing it. A signal may seem too weak to hear, but with careful adjustment and tuning it can be brought out quite loud.

But fading often is very bad on the short waves, and stations may be missed during the period of faded or minimum signal strength. Stations also are limited to certain portions of the short-wave dial, and these spots must be located after careful search. Not many distant stations above 35 meters are heard during the day, and very few below 25 meters after dark. Below 15 meters the waves are very short and respond only to experimental and specially designed receivers and aerials.

The time of foreign broadcasts must be watched carefully since few of them are heard after 8 or 9 p.m. EST. Anyone expecting to tune immediately to London, New Zealand, Paris, Rome, or South America, will surely be disappointed. There is little that is consistent about the very short waves from afar, and it may be weeks before stations can be located, but once found and logged, they can be picked up easily during their hours of broadcasting at any time in the future. Ship to shore, police and amateur broadcasts should be heard easily on the higher portions of the short-wave dial, and, of course the standard broadcast waves will be heard as always.

Various kinds of aerials may be used for the all-wave sets, some ranging from 20 to 100 feet in length. It is best to experiment because of the location and type of receiver in use.

OLD FRIENDS and NEW IDEAS

With the Inventors and Manufacturers

A SYSTEM whereby as many as 3,000 radio receiving sets can operate independently on the same antenna without interfering with each other has been perfected, according to an announcement by the Western Electric Company. By adding further apparatus, the number of sets can be increased indefinitely without impairing the quality of reception. The sets can be of any make the individual chooses. A city's roofs freed of the fire hazard and the unsightly tangle of innumerable individual antennas thus becomes a scientific possibility.

The system is designed primarily for hotels, apartments and other multiple dwellings and is aimed to overcome the increasing problems which dwellers in such buildings face in obtaining good antenna facilities for their radios at reasonable cost. Modified forms of the system have also been designed to operate a much smaller number of radio sets. The same technical improvements devoted to the large community receiving system are embodied in these smaller forms and are made available on a scale that is suitable even for the individual home owners and his one radio set.

The system was designed by engineers of Bell Telephone Laboratories and employs the principles used in long distance telephone circuits.

"B" Power for Auto Radio

Making the automobile radio all-electric and thus getting rid of the B battery nuisance, has long been an ambition of



radio engineers. Now comes the P. R. Mallory & Co., Inc., of Indianapolis, with their "Elkonode" which they claim will provide the same high quality and dependable reception from automobile radios that is secured from all-electric sets in the home. The device is compact – 10 in. x 7 in. x 3¼ in.— and may be placed in any one of a dozen places in and about the car. It uses no water, has no rotary parts and does not set up interference. It is energized by the "A" battery of the car which, in turn, is, of course, constantly renewed by current from the automobile generator. No additional switch is required to operate the eliminator.



The new Balkeit Junior manufactured by Balkeit Radio Co., North Chicago, Ill., employs a full-sized dynamic speaker, with a hum bucking coil, three-gang ballbearing variable condenser, and dry electrolytic condenser, with full-vision illuminated dial. It uses the new series tubes — one '57 triple-grid amplifierdetector, one '58 triple-grid super control amplifier, one '47 output pentode and one '80 rectifier. It is 10 in. wide, $15\frac{1}{2}$ in. high and 8 in. deep.

Radio Watches the Baby

An ingenious father has installed a miniature broadcasting system near his

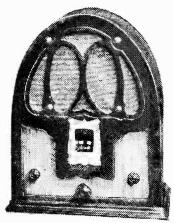
baby's cradle so that the slightest sound in the nursery is transmitted through the radio set to the parents in the living room. All the apparatus required is a Universal Baby Mike and a Junior Input Stage both of which are manufactured by the Universal Microphone Co., Ltd., Inglewood, Calif. They are said to be extremely simple and inexpensive. The microphone is so sensitive that if the radio set is placed in the mother's bedroom she can hear the steady, even breathing of her child.

Using Ground Waves

From the factory of the Western Coil & Electrical Co., at Racine, Wisconsin, comes the "Radiodyne Groun-tenna" which is claimed to bring in distant stations strongly and clearly with great selectivity and minimum interference. It takes the signals from the ground and hence is non-directional. It can be used of course, with any type of set. It attaches direct to the set and hence the antenna system follows the set when it is moved from one place to another. There is an inner metallic cylinder which



picks up the signals from the ground and transfers them to an inductance coil. The cylinder and coil together act as a condenser building up the signal strength. A high resistance in series with the ground lead, blocks radio-frequency impulses, forcing them through cylinder and coil. This resistor also serves, it is said, to pass eddy currents from set to ground thus minimizing hum. The same company manufactures the "Radi-aerial" which is claimed to have the capacity of the average outside aerial 75 feet in length. It too takes the signals from the ground.



The Simplex

A new long and short wave set is introduced by The Simplex Radio Co., Sandusky, Ohio. It is their Model P and is made for either direct or alternating current. It is a superheterodyne with five tubes and is said to have ten-kilocycle selectivity with extraordinary range. It is but nine inches wide and 12 inches high and weighs but 13 pounds. It tunes from 550 to 4000 kilocycles and is equipped with tone control, static suppressor, built-in antenna and provision for phonograph connection. The dial is illuminated and is calibrated in kilocycles.

All Waves and Television

An All-Wave Radio with television is being produced by W. C. Rawls & Co., Bankers Trust Building, Norfolk, Va. Of this set the manufacturers say: "The Rawls Short Wave Unit in connection with the broadcast receiver, has been especially designed for long distance short wave reception from 15 to 200 meters, the superheterodyne circuit incorporating nine tubes. To switch from one s.w. band to another, a click of the panel switch and the change is made automatically. In the broadcast receiver six tubes are used - two '35s multi mu, one '24A detector, one '27 and one '47 pentode output with '80 rectifier. The eight-inch dynamic speaker handles the tremendous output of the pentode tube without distortion. In the television receiver eight tubes are used. (Continued on page 29)

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AFTER the EDITOR'S VACATION

H OW do you do, ladies and gentlemen, how DO you do?" Norman Brokenshire's famous greeting seems appropriate after this absence of three months. We hope you have had a pleasant summer and that you are looking forward to an interesting radio fall and winter. In this interim RADEX has not been idle and celebrates its entry into its ninth year with a number of new features which your Editor feels, will add greatly to your convenience and satisfaction.

Questionnaires covering a number of subjects were sent to all broadcasting stations in North America and the response was quite gratifying. The official data of the Radio Commission regarding frequency, power, owners, etc., was verified and corrected and much more detailed information regarding the policy of verification was secured.

In order to present fully the information gathered, we are adopting new symbols for the Index by Frequencies. These permit us to convey a vast amount of data in very little space. The actual policy of stations regarding stamps ought to save our DXers considerable money in dimes. The new information on miscellaneous chains should aid in identification of stations received. With the increase in postage to three cents in the

Back to Business as Usual

United States as well as in Canada, Cuba and Mexico, makes it more than ever essential that listeners send return postage or coins for their verifications. Stations which failed to reply to the questionnaire or to certain questions are marked with the small "z." Replies are still being received and the Index will be corrected from time to time.

In response to hundreds of requests from our readers, we are at last giving the time on the air for all stations. It being impossible to give the space necessary to include the time for the entire week, we have adopted the plan of giving the time for Sunday in the September issue, Monday in October, Tuesday in November, etc. Readers should therefore be sure to save the next seven editions of this magazine and thus have the time on the air for all stations for every day of the week.

On the inside front cover of this issue will be found the September calendar of special DX programs. This covers those stations which will have, during September, special programs for DXers particularly those outside their regular broadcasting hours. We know this feature will be especially welcome to our DXers.



Don't be alarmed. This is only "Bill and Jane." Their adventures are recounted each weekday morning except Saturday at 7:45 EDST over WJZ.

Many stations indicated on their questionnaire that they would give such programs irregularly during the winter. A second inquiry is being sent to such stations asking for specific information in advance of their programs and the information received will be incorporated in future calendars.

The inclusion of short wave information and articles necessitates the increase in pages in this issue to eighty as compared with 68 a year ago and 64 in 1930. We feel sure our readers will be gratified by this increase in the service rendered by their favorite radio magazine. We do hope that they may in turn reciprocate by telling their friends about the pleasure they derive from it and thus enable us to extend our sphere. What a wonderful thing it would be if each reader were to secure one new reader and thus double our circulation at one fell swoop.

A New Map of the World

To assist in this doubling we have designed and published a new device which we feel sure each reader will want to add to his radio equipment. This is the RADEX Radio Map of the World and Time Converter. They will agree, we are sure, that this is one of the most convenient, informing and clever devices they have ever seen. A small cut of the Converter appears on the inside back cover. The dial is merely turned until the particular hour is opposite a particular zone and the Converter then shows the current time in every zone of the world. Thus, if you live in the Mountain Standard Time zone and you desire to convert 8:00 p.m. into New Zealand time, you turn 8:00 p.m. opposite MST. and at once you see that it is 3:30 tomorrow afternoon in N.Z. The hours of twilight, darkness and dawn are graphically shown in their relation to these hours. Or, if you desire to tune in a program in Honolulu at 9:00 p.m., their time, and you want the EST. time for tuning, you turn 9:00 p.m. opposite the Hawaii zone and at once you see that it is 2:30 tomorrow morning in EST.

On the double page inside spread of the converter is a large map of the world with all the principal cities shown and with the time zones correctly drawn. This map is six times the size of this page of RADEX. At the top of each zone is a number corresponding to the numbers shown in the outer circumference of the Converter. On the back cover is a list of all the countries of the world with the call letters assigned to each and the zone number which either locates the country on the map or the time zone on the Converter. All in all. this map and converter make a big contribution of radio information. And the price is but 25 cents or free with a vear's subscription.

So much for business; now let's see

INSURE YOUR RADIO ENJOYMENT SEND THIS BLANK TODAY

Cleveland, Ohio.		
Enclosed find \$ as checked below:	for which send me postpaid my choice of your	offers
One radio map of No	rth America	15c
One Radio World Ma	p and Time Converter	25c
One copy of the next	RADEX	25c
□ Trial subscription, next five issues of RADEX\$1.		
□ One year's subscription to RADEX, 10 issues and Time Converter, free 1.7		
Two subscriptions to RADEX with one leatherette cover and Time Converter, both free 3		
One two-year subscription	ption with leatherette cover and Time Converter, both free	3.50
Leatherette Cover		.50
	Write Name Plainly	
	Street and Number	
61	City and State No extra charge outside the U.S.A.	

what our readers are thinking and doing.

Some months ago we published a letter from a reader in the Bronx, N. Y., regarding a new aerial he had erected. We are advised that when other readers wrote him for information regarding this aerial, he notified them that he had had the material printed and would have to charge one dollar for it. This magazine is published for and in the interests of the radio listeners and we strongly object to any reader trying to make money out of other readers. If they have information of so much value that they have to make a charge for it, we urge them to keep it to themselves in future. From now on we shall have to insist upon diagrams and full data on any home-made set or aerial so that if our readers are interested in it, it can be published for the benefit of all.

This same fellow in the Bronx is trying another "racket" upon our readers and probably upon those of other magazines as well. He sends them a card stating that their name recently appeared in a prominent magazine and that he will send them a clipping for a quarter. If they bite, he sends them a clipping from RADEX which, of course, they have already seen. We are powerless to prevent such petty graft except to warn our readers against responding to this fellow's bait.

Defends CMCY

"Permit me to say a few words in behalf of Mr. M. D. Autran, Calle G No. 215, Vedado, Havana, Cuba, over whom our comrade, Mr. P. E. Donnelly, 901 Third Ave., Los Angeles, Calif., has let out a cry of warning (April RADEX, page 20)," writes Rudolph Kure, 3633 Vine St., Cincinnati, Ohio, "I have exchanged several letters with Mr. Autran. owner of Station CMCY, and received the pleasant impression of dealing with a fine fellow. He has mailed me not one, but two, verifications. He has also given me, at my request, complete specifications of his mighty efficient plant. How many broadcasters would bother about doing that for an humble DX fan? I am convinced the fault lies not with him but perhaps with us DXers. I can recall M. D. Autran telling me that on several



"Whispering Jack Smith" has returned to the air over NBC-WJZ, Monday, Wednesday and Thursday, 10:15 p.m., EDST.

occasions mail destined for him has been forwarded to wrong stations instead (there are so many broadcasters in Havana), on account of either illegible or else insufficiently or otherwise faultily addressed fan mail. He has urged me likewise to be sure and write his full and correct address and write it in plain, clear print."

No Increases Shown

"I would like to know whether the following stations have changed their power or not," requests F. S. Keeble, 323 Ozark St., Hot Springs, Ark. "KVOO, WSB, WRUF, KOA, WHAS and WSM, Since XER has been on the air. I have had interference from it in getting WSB, but lately I get WSB clearly and loudly without this interference even before the sun goes down. I also get KVOO louder and clearer than ever. WRUF and KOA both operate on 830 kcys., but along toward evening I get WRUF clearly and loudly till 7:30 p.m., CST., when it goes off the air. I can't get KOA till the former station vacates the channel. In this connection, I would like to state that something should be done about KWKH broadcasting off its wave lergth. It jumps from 830 to 870 kcys, and very seldom completes a program on its assigned frequency of 850 kcys. I know this condition is not caused by any fault in my set, for I have a very good Atwater Kent, Model 55, and have just recently had the set tested and a new set of Cunningham tubes installed."

New Australian List

"I am enclosing herewith a copy of an authentic list of the Australian broadcasting stations that I had the pleasure of receiving from Mr. Robinson, Manager for the Queensland group," writes Fred W. Janssen, 118 S. Santa Cruz St., Ventura, Calif. "It gives the address of the stations also, and I thought that perhaps you would care to print it in your coming issue of RADEX for the benefit of your readers interested in trans-Pacific reception. As you no doubt know, the trans-Pacific stations will start coming through again in the month of September, and it might be well for the fans to have some authentic dope on them."

If we aren't able to find space in this issue for Mr. Janssen's list, it will appear in an early edition of this magazine.

Shake-Up Coming in Canada

As the daily press has noted at considerable length, a great shake-up is coming in the Dominion of Canada. The Government is taking over all broadcasting along the lines of the British Broadcasting System. A number of the Canadian stations will doubtless disappear and Ian Murdoch, 17 Main Street, Grimsby, Ontario, has this suggestion to make: "Those readers who hear some of the Canadian stations so regularly that they consider them like locals and do not have them verified, ought to verify them all at once for they may be deleted in the coming reallocation and DXers will then lose them entirely. It is rumored that Canadian stations will go on 690, 1050 and 1100 kcs. When they do readers may find it difficult, because of their interference, to hear stations they now get regularly on those waves such as KFBI and KNX on 1050. DXers ought therefore to see that such stations as these are verified now while they can get them clearly," Mr. Murdoch's log now stands at 855 and he would like to know if he is anywhere near the point where he might

claim the DX championship of Canada. How about it, Canadian DXers?

The United States Civil Service Commission asks us to warn our readers against paying money for "coaching courses" in preparation for the Federal civil service examinations. They say: "Schools which sell such courses under present conditions accept money under false pretenses. Comparatively few appointments are being made in the Federal civil service. Vacancies which must be filled are filled by the transfer of those already in the service or the reinstatement of those who have been in the service. Money paid for civil service coaching courses at this time might almost as well be thrown to the four winds."

Another Outlaw?

From Earl R. Roberts, 105 Gomber Ave., Cambridge, Ohio, comes the report of a new station of which the FRC gives no record. Can it be another outlaw? "It's WAIR, located in New Philadelphia, Ohio, just 40 miles northeast of Cambridge. Heard it first last Saturday (July 9th), from 3:50 p.m. to 5:30 on 885 kes.; Sunday noon on 1040, and Monday on 860. It comes in fairly loud, so must use around 50 watts. Plays records usually and announces only every half-hour." In a later letter, Earl says he has received a verification from WAIR "The Voice of the Air" signed by Ray Wilson and operated by the Eastern Ohio Air Service Co. on 850 kcs., daylight only. Their schedule is 9:30 a.m.-1:30 p.m.; 3-30-5:30 p.m., EST. Their transmitter is latest type Master-Oscillator Amplifier circuit employing a type 520 tube in output stage and radiates about one ampere. Earl counts this as his 802nd station. No. 801 was his farthest off — 3LO, Melbourne, approximately 9,937 miles. The last season boosted Earl's log from 570 to 802 - a mighty good record.

Some Little Kinks

A very simple little change will often improve the reception from a set — this is to pull out the plug from the electric line and put it back the other way. There are two wires leading to an electric light outlet. One of these goes direct to the generator at the central power-plant. The other usually goes to the ground. The plug which you insert into the lightsocket or outlet has two prongs. With many sets it makes an important difference how these prongs are inserted. If your set hums or fades badly or if snapping a light on affects the volume, try pulling these prongs out and inserting them into the opposite holes of the socket.

Joseph Stokes, 7318 Woodlawn Ave., Swissvale, Pa., writes of a little stunt he tried which added a number of stations to his log. "I use a Silver No. 30 and can greatly increase the sensitivity by removing the shield. This causes the set to oscillate and by careful manipulation of the volume control, many more stations can be logged. Try this, you of broadcast stations in the United States," comments Frank E. Switalski, 2819 Victoria Ave., Cincinnati, Ohio. "XEF (formerly XER) of Villa Acuna, Mexico, operates with 75,000, and the most powerful broadcaster in the world is at Warsaw, Poland, with 158,000 watts on the long waves. The Federal Radio Commission has just authorized WLW, Cincinnati, to test a transmitter in about a year with 500,000 watts."

A new station, XENT, is rumored for Neuvo Laredo, Mexico, to use 150 k.w. power. It is said it will be built by Norman T. Baker, formerly of KTNT at Muscatine, Iowa, who had a run-in with the FRC and lost out.



Jane, Helen and Patti Pickens, NBC's harmony trio, 7 p.m. Sunday, 9 p.m. Saturday, EDST., NBC-WJZ.

seekers of Japan. "Using this method I log from 30 to 50 stations every noon from Boston to Gainesville." Mr. Stokes writes that a member of their club, the World Radio Reception Club, visited Richard Caddell to check up on his article in the May RADEX and witness that Radioloa 60 in operation. Mr. Stokes says the visitor came away disgusted — with his own G.E. Super. Joseph reports rumors of a new station in Florence, Italy, using 20 k.w. on 599 kcs. and another new one in France using 7 k.w. on 671 kcs. He says EAJ7 in Barcelona, Spain, is working on 1190 kcs. and will soon use wither six or ten kilowatts.

"50,000 watts is the maximum power

The biggest station in the world, so far as power is concerned, is announced for Junglinster, Luxemburg. It will use 200 k.w. on 1250 kcs.

From J. E. Beardshaw, Bacacay 2547, Dept. 2, Buenos Aires, Argentina, comes the following: "We are very advanced on radio here, and three broadcasts, LR5, LR4 and LR3, have bought new transmitters of great power, which are just now mounting. I noticed three mistakes RADEX with respect to the waves of LS3, LR6 and LS9, which are as follows: 630 kcys. in place of 1270, more or less; 865 in place of 990, and 1270 in place of 1386, respectively."

"Am writing to express my apprecia-(Continued on page 27)

A DUB TRIES the SHORT WAVES

THE first reaction of the beginner on the short waves is one of disappointment. Used as he is to turning the dial carelessly and picking up the broadcast band stations without effort, he finds it difficult to reconcile himself to the delicate tuning necessary to bring in the short wave signals. For most of the short-wave stations must be tuned to the sharpness of a razor edge.

The broadcast band signals usually come in well above the noise level, but with the short waves, the noises seem to be always with us so much so that others in the room are apt to find they have business elsewhere. When signals are heard, however, they can by patient manipulation be brought out well above the noise level. Another unpleasant byproduct of the short waves is the code which in recent years has pretty well disappeared from the broadcast band. In the short waves, as the dials are turned, one is constantly passing through these code bands with more or less annoyance. Television signals too are picked up frequently with their high-pitched staccato.

We have given you the worst side of the picture at the beginning for that is the way the neophyte will find it when first experimenting with the short waves. One has to learn to "play" the short waves with the same patience and persistence he would require to play a musical instrument. The writer has had his set too short a time to acquire the necessary skill and knowledge the short waves require. A later article will set forth the actual results he is able to get in the high frequency bands.

The Editor's New Set

The set that was purchased was the Silver-Marshall 728-SW — a brand new design just out of the laboratories and workshop of Silver-Marshall, Inc., 6401-6451 West 65th Street, Chicago. This set was chosen on a sort of an "eenymeeny" basis without any tests of this or competing receivers. A detailed description of this set — the newest product of a well-known maker should be of interest.

A B. C. L. Turns to the High Frequencies

The illuminated drum-dial is divided into four bands of four colors. One of these, numbered in kilocycles, covers the broadcast band from 550 to 1500. The other three bands are numbered in megacycles (thousands of kilocycles) which we believe to be the ideal method of indicating the short-wave frequencies and one that will ultimately be adopted by all manufacturers in preference to either kilocycles or meters. The vellow scale covers the frequencies from 1550 to 4800 kcs.; the green from 3600 to 10,000 kcs.; and the orange from 9600 to 25,350 kcs. Any one of the four bands may be brought into use instantly by turning a knob to one of the four colors marked thereon.

How It Operates

The S-M 728-SW has six control knobs. One turns the dial by friction vernier action. At the extreme left is the knob which combines the on-off switch and the volume control. These two knobs are used on either the b.c. or the s.w. bands. For the b.c. band only one of the other knobs is used that of the tone-control. This control is quite effective, a very marked difference in the pitch of the tones appearing as it is turned. This control seems to eliminate a great deal of static by turning it to the bass notes.

In short-wave operation, the scaleknob is turned to the band desired. The center knob is a noise suppressor with an action somewhat similar to that of a local-distance switch on some b.c. receivers. The next knob to the right is a non-critical auxiliary short-wave trimmer and is used to bring out the signals clearly after the dial is set. The b.c. dial is very well calibrated there being only a very slight discrepancy between stations at the upper and lower parts of the b.c. band and their marked frequencies. The set is quite critical in the b.c. band and selective within ten kilocycles even with the powerful local stations. WTAM

can be tuned out on 1070 and WBT on 1080 and WTIC on 1060 tuned in without interference.

Can be Tuned Visually

Due to the sharp selectivity of the set. the dial must be set with great accuracy in order to get a full and perfect tone. This result is materially aided by a visual tuning meter just above the dial. The hand of this meter swings violently to the right as a signal is passed in turning the dial. In tuning a station in, the set will be perfectly synchronized to the signal when this hand is as far to the right as it will go. Stations may, in fact, be tuned in silently by this meter alone. With the volume control turned down and the dial revolved, this meter hand will swing when a signal is passed. If the dial is set for any one of these signals with the hand to the extreme right and then the volume control is turned up, the station will come in perfectly synchronized -- tuned in by sight alone.

In short wave operation, the band is chosen by the selector, the volume control is set and the noise-suppressor placed at a point that will give the greatest volume with minimum noise. The dial is turned very slowly and when a signal is heard, the trimmer knob is turned right and left until the signals are brought out with the greatest clearness.

This particular set is mounted in a very beautiful console with doors. It has two speakers in order to cover the entire tone scale and to pass the great volume the twelve tubes provide ---said to be over eight watts of undistorted power. In the b.c. band, the set uses ten tubes - a '58 detector and '56 oscillator, an i.f. amplifier using two '58 tubes, a '56 A. V. C. tube, '56 second detector, a '45 first audio or driver stage and a push-pull '45 output stage with, of course, an '82 mercury vapor rectifier tube. For the short waves, an additional '58 first detector and '56 oscillator are brought into play.

The first few days' operation brought in only a few identified short-wave stations — two or three of the relay stations, police stations in several cities, a number of airport stations and numerous amateurs. In a later article we will describe the results that are secured after this listener has acquired some experience in the operation of the short-wave portion of the set.

With the Editor

(Continued from page 25)

tion of the many friendships and acquaintances that I have made through the medium of your magazine RADEX," says John M. Lennon, 122 Linden St., Camden, N. J. "I have made many friends by letter and even some by personal contact. When my inquiries were printed in RADEX I received many replies from all over this country and Canada. These enabled me to increase my total of stations and this is primarily the aim of all DXers."

"Every radio magazine we pick up these days is chain, chain, chain," complains John H. Malone, Sparland, Ill. "The program listing is bad enough. Why do you insist on so much chain stuff? If you must go 'stationish' tell us of the artists on the smaller stations. You'd at least be different."

Those VE Short-Wavers

From Harvey Kees, Beulah, N. Dak .: "Last night, in the feature 'Short Wave Chat' from CJRW, the speaker stated that VE9JR operates on 25.50 meters with an output of 2000 watts and VE9CL operates on 48.85 meters with an output of about 3500 watts. These two stations operate alternately, relaying the program of CJRW. He also said that VE9JR (formerly CJRX) was Canada's first s.w. broadcasting station. The operators of these stations do not seem to have much faith in long distance on the broadcast band but they have quite a few short wave DX broadcasts."

"XEF, Villa Acuna, Mexico, has NOT taken the place of XER," postcards Rudolph Kure, 3633 Vine St., Cincinnati, Ohio. "XER is still broadcasting. A few nights ago at exactly 10 p.m., EST., XEF signed off saying: 'Please stand by for our sister station XER,' and then XER took the air."

"I have a Zenith super 8 set. It has two '45 power tubes. Will it help to get greater distance if I replace the '45s with '47s?" asks Harry R. Kenny, 607 Mt. Vernon St., Camden, N. J. We doubt if the 47's would increase the range; the only noticeable difference would be in the tone. What do our readers think? Harry has received 315 stations in ten months. He uses an aerial of 65 feet, including lead-in. He would like to hear from other DXers.

Here's a tip from Ray E. Everly, 102 W. Washington St., Newton, Ill., which we haven't been able to verify officially: "KFDM, Beaumont, Texas, 560 kcs., is moving to Port Arthur, Texas. It will have studios in Port Arthur Radio College and has been leased by Port Arthur Broadcasting Co. The college has a s.w. station W5YH."

"Speaking of my favorite magazine, here's a suggestion for the cover," suggests Murray D. Bryce, R.M.D. 1, Royal Oak, V. I., B. C., Canada. "No, I'm not particularly wanting a picture of a radio station, but a very ornamental cover would be a good picture of Ethel Shutta (Mrs. George Olsen) who sings so well with her husband's fine orchestra. If you saw Eddie Cantor's picture 'Whoopee' you will surely remember Miss Shutta."

The war of the newspapers against radio is further intensified by the New Orleans newspapers which, it is reported, have discontinued their radio programs and are ignoring the existence of radio. Will the newspapers of other cities follow this example?

MOONSHINE and

By ROBERT S. STEPHAN Radio Editor, The Cleveland Plain Dealer

I N a somewhat barren, air-cooled studio in the heart of Manhattan today, I sat with a crowd of the curious and tried to recall the beauties of southern mountains as I watched Lulu Vollmer's cast portray over the air the 100th episode of the popular serial, "Moonshine and Honeysuckle."

It is a far cry from the moderndressed Broadway actor and actress to the boy in galluses and the girl in homespun. But even with this modern Fifth Avenue setting the spirit of "Moonshine and Honeysuckle" intrigues you.

Louis Mason, a rather tall and very friendly Kentuckian does the leading role of Clem Betts. A similar role in Lulu Vollmer's "Dunce Boy" gave Mason his big chance with the late David Belasco.

He has been a part of the theater since boyhood.

Strauss a Veteran

Robert Strauss plays the role of Pink Freeze. He is rather short and slightly bald. Another veteran of the speaking stage, he has played Cleveland many times, doing comic characterizations with Fritz Leiber's Shakespeare company. Strauss also has done the role of Inch Spencer with the Stebbins Boys.



Anne Elstner plays the role of Cracker

The cast of "Moonshine and Honeysuckle." Our readers will have to decide for themselves which is which. We don't know.

Honeysuckle

Gaddis and tells me she also does the roles of Myra, Ma Carter and Ma Betts. Sara Haden plays the part of the Whining Piney Hyatt and Therese Marie Wittler, a very personable young actress does the role of Gypsy Carter. These three young women are former Theater Guild stars.

A big, six-foot strapping fellow, Bradley Barker, makes those sounds of the birds, the cackle of the chickens, and Barks of "Bones," and finishes a busy half hour by playing the role of a doctor.

The program's theme song is played by four musicians, two violinists, a cellist and pianist. Add to these a sound effect man who bangs doors, a director who flits in and out of the studios like Hamlet's ghost, and the usual announcer and you have "Moonshine and Honeysuckle."

The cast is friendly, chatting informally with guests before and after the broadcast. Louis Mason was doing an impromptu dance today as the ensemble played the interlude after the first half of the sketch. The entire cast reads the lines of the sketch from script and the male members are bespectacled when working before the mikes.

Cooper Dies

Mason tells me that Claude Cooper, who played the role of Peg Leg Gaddis, died a few days ago. Perhaps you recall that gruff, old diction of his over the air. It was due, Mason says to the creeping paralysis which had affected his lower jaw and later caused his death. Although several actors have tried out for the Gaddis role, Miss Vollmer is undecided whether to continue it since Cooper did such an excellent portrayal of this character.

Mason tells me that the Moonshine and Honeysuckle cast will be going on the road soon. Stage appearances will be made in costume with scenic background. At present, Miss Vollmer is wondering if "Cracker" and "Clem" should be married in the story. What do you think?

"Moonshine and Honeysuckle" has enjoyed unusual popularity on the air. It is one of the first radio series ever at-

tempted by a recognized Broadway playwright. Miss Vollmer is the author of "Sunup" and other Broadway shows. The series began when Louis Mason said to her one day: "You know, Miss Lulu, write something which is really the mountains — something with moonlight and the smell of honeysuckle in it." Miss Vollmer lived with the mountain people of the south and at the age of ten cried herself to sleep because she wasn't a mountaineer's child. They could fight, swear and chew, but she had to be "a little lady." It took Miss Vollmer one hour to write the first sketch of this series. Now she spends nearly a week on each episode.

Old Friends and New Ideas (Continued from page 20)

The duralumin lens disc is 16 inches in diameter and is driven by a heavy-duty synchronous motor with switch and framing device operated from the front panel. The picture is projected on a screen in the panel and is large enough for a group to sit by and enjoy."



The Rawls All-Wave and Television Receiver

On ALL the Waves with Our DXERS

TT seems to be customary for the RADEX family to write to the ditor, so here's my contribution," says Richard Abrahams, 1310 Hutton St., Troy, N. Y. "I'm probably a rather recent arrival into the circle, but no less enthusiastic than the Radexers who grew up with the magazine. I was introduced to it last September while looking for a radio magazine written primarily for the public which just 'listens.' I am a student at the Rensselaer Polytechnic Institute at Troy and, while there during the winter, I like to do a little DXing on a Sunday morning using a Dubilier 600 which I bought last fall. In this time I managed to hear 162 stations, which I don't consider to be a poor record, considering the quality of the receiver. My best catches were WQDX, KICK, WBBZ, CMBD and KOY. I would like to correspond with anyone using a Dubilier 600 receiver."

A Good Report from Wisconsin

"I have been DXing about a month or so less than two years and to date my log contains 719 stations," reports Paul L. King, 1523 Madison St., Madison, Wis. "All my verifications are in and the season brought me four new ones from across the seas. They include 2CO of Corowa, Australia, from which I received two verifications on different programs about two weeks apart, one program of an hour and a half duration; 4BH, Brisbane, Australia, 600 watts; 3GL, Geelong, Australia, 50 watts; and the last one from Munich, Germany. The German has no call letters, but operates on 560 kcys. with 1700 watts. I heard numerous other foreigners, mostly from Australia or New Zealand, but the weather or some of the various other troubles which best DXing prevented my getting enough for verification. One morning I managed to pick up what I thought was the famous 2LO, but I could understand only a word here and there. One of the catches which I record, 3GL, is so unusual that my claim may be disputed by some. However, I have their verification, along with the others

Reports, Complaints and Et Cetera

named, before me as I write and I shall welcome examination of it at any time. The Munich letter was written entirely in German and as I am not well acquainted with that language, I had to have it translated for me before I was sure what it contained."

Heard a New Brazilian

"I have just written to the Radio Club of Brazil at Rio de Janeiro, advising them, in accordance with their request to listeners-in, that I picked up their program very clearly," comments W. F. Rendell, MacDonald Club, St. Johns, Nfd. "Experimental station PRBA has just concluded a program of Brazilian music broadcast on 31.58 meters. I heard them for an hour at 9:15 p.m. Nfd. Daylight Saving Time (7:45 p.m., EDST.) My set is an 8-tube G.E. Super heterodyne (long wave) with a 3-tube converter attached for short wave. My aerial is 12 feet of bell wire strung across the room, and my ground is a radiator."

Joe Maertz, 3118 West Scott St., Milwaukee, Wis., reports the reception of 5CK of Adelaide. We quote from his verification: "We have your report of May 10th and in reply are glad to say that the station you heard was 5CK, the central regional station of the National Broadcasting Service, which relays the 5CL Adelaide programmes. The call-sign for both stations is '5CL Adelaide and 5CK.' 5CK is located at Crystal Brook, 100 miles north, by airline, from Adelaide. The input power is 15 k.w. and aerial power 71/2 k.w., wavelength 472 metres, frequency 625 kc. It has now been in operation about four months."

Samuel F. Owens, 233 Roberts Ave., Glenside, Pa., also reports reception of 5CK.

Waiting for the New Season

"Well, it seems good to write you again, for the starting of DX with RADEX is soon at hand," greets Arthur Collins, 68 Amber St., Buffalo, N. Y. "I am waiting anxiously for the opening issue in September, as there are many changes in stations and kilocycles. I open the season with a fairly good list of verifications from last winter's efforts. Here are some of my best (and all verified): 2YA, Wellington, N. Z.; 4QG, Brisbane, Australia; 1BC, Caracas, Venezuela (960 kcys., 5KW power; their hours are 7-8 a.m.; 10:30 a.m.-2 p.m.; 5-11 p.m., EST.); 10AB, Moose Jaw, Sask. (25) watts power), and 30 Californian stations. My log is 428 stations to date. I would like to have correspondence with DXers and may be able to help them on some tips. I have an RCA model R50, 10-tube pentode and at present am using a 300-foot aerial and six grounds (one of them the Ross copper)."

Some Good Records

"I've been DXing since 1926 and have 546 stations logged, but up until now I've only verified the low-powered and distant ones," writes Leo Shelly, 125 Lake St., St. Catherines, Ont. "Starting now, I'm trying to verify every single one. We own a Sparton Equasone with seven tubes, and our old set was a Guilfillan neutrodyne battery set. In your May issue you asked if the call letters CKOW were ever used. I heard them one night two years ago and CKOW was used. Nestle's Milk Company were the owners, probably accounting for the KOW in the call."

"I started DXing last October and from October 31st to April, 1932, I have logged 340 stations and have verifications from 274 so far," reports H. Burstrom, 899 Alhambra Road, Cleveland, Ohio. "Included in my list are 17 Canadians, 4 Mexican, 6 Cubans, both in Honolulu, and also have logged 21 100-watt, 10 50-watt, two 25-watt, two 15-watt and one 10-watt. I have a 1930 Philco 8-tube neutrodyne and the only aerial I have had is an Elimino on top of my cabinet. But for ground I have two pipes 8-feet deep and rock salt buried around them. Both pipes have one wire soldered to ground wire."

"Have just finished reading my second copy of RADEX and do not see how I have done without the little book," writes E. L. Kimmons, 309 Leland St., Austin, Texas. "Have only been DXing about nine months, but have nothing much to brag about. My location is very unfavorable for distant reception. Only logged 306 stations, with about 180 verified. About the best catch was 10AB on their last DX program. I am thinking of getting a shortwave receiver and think the new department devoted to the short waves will be a great help to the fellows, on these frequencies."

Has Tried 'Em All

A regular experimental laboratory is Clyde W. Ham, 1002 S. Lafayette Street, Shelby, N. C. He says he has tried five different Majestics, Zeniths, DeForests, RCA-Victors and Kolsters, and now he has a Silver-Marshall G-6 Super with ten tubes. His log for last season included 2LO London; Stuttgart, Germany; seven JO's in Japan; four Australians; three Zealanders; HIX. VPN and RUS in North America, and a whole String of B.C. stations in Cananda and the U.S. Even at that he thinks he has a poor location. Anyone with a log of almost 800 should kick on his location!

"My log is up to 722 with 465 verified," reports Lester Reinmund, 1120 So. 76th St., West Allis, Wis. "I started DXing the latter part of December, 1929, and until last winter the most distant catch I made was WKAQ, Porto Rico. Now I have verified stations from Hawaii, Japan, Australia, and New Zealand. The above countries did not come in only once but I could receive them on any decent morning. I have verifications from JOBK, 4QG, 2YA, 2BL, and 4BC, a 600-watter."

Heard Airplanes Describe Fire

"During the spring I received my second and third airplanes direct," reports Alden P. Bowser, 358 Pleasant St., Brockton, Mass. "They were circling over the Quincy fire and talking about it. I would like to identify them. Reception has been good this summer and my best catches are KWSC, KGMB, XEB, KROW, KOIN, and others. Does anyone know the location of Tuinucu in Cuba? I have looked on large maps and have been unable to find it. My total to date is 438 stations and going up."

"I am beginning my second DXing season with a log of 543 stations," says Paul E. Jolicoeur, 93 Sewall St., Augusta, Maine. "This is not so bad considering the fact that I live in a remote section of the country. I have logged every state but Wyoming, and I am sure that can be accomplished now that they have changed frequencies. Here is the line-up: 47 Canadians, 17 Mexicans, 19 Cubans, Porto Rico, Haiti, and Santo Domingo. I would like to hear from owners of the Stromberg-Carlson Model 19."

"Am proud of my record of 450-plus stations logged in less than three months," boasts Roberts U. Densmore, 910 74th St., Kenosha, Wis. "As a high school student I have little time for DXing, but have verified 10AB, 25 watts, Moosejaw, Sask.; KGEK, 100 watts, 1200 kcys., Yuma, Colo, and a number of others. Have 44 states logged and patiently await the other four. Have an 8-tube Lyric, which does fine in spite of weather and location."

"Reception has been very good here the last three months on long and short waves," advises Anthony Arsenault, P.O. Box 444, Summerside, P. E. I., Can. "On a 3-tube shortwave receiver, using 201B tubes, I have heard Australia, Italy, Germany, Switzerland, France, England, South America, and Cuba. What I like best on short wave are the 20 and 75-meter amateur phones. My best DX 20-meter phone is in California. I heard it on a Sunday afternoon."

"Since beginning DX on the short waves two years ago," Clement Van Velsor, 1033 Sanford Ave., Irvington, N. J., reports, "I have logged 26 countries: U.S.A., England, Holland, Germany, Canada, Honduras, Argentina, Italy, Colombia, British Guiana, Mexico, Australia, Morocco, Vatican State, France, Spain, Ecuador, Japan, Venezuela, Cuba, Chile, Hawaii, Brazil, Bermuda, Denmark, and Switzerland."

"A letter from JQAK states that they now use the 645 kcy. channel, having relinquished the 760 kcy. channel in March," advises Robert R. Rawstron, 296 Main St., Claremont, N. H. "This season's best catches include 2ZI, JQAK, 4YA, KZRM, 4RK, 2GD, 3BO (first trans-Pacific report), 2UW, 10AB, and after two years of effort, WSMK has finally weakened and sent me a verification. Total stations now 726, with 592 verified."

All-Wave Better Than Converters

"I have a Philco superhet nine-tube short and long wave set. I have tried three short wave converters but this Philco set is the only one I have had any success with," comments Eugene Chilson, 5610 Franklin St., Omaha, Nebr. He has had 38 police stations, 12 U.S. s.w. broadcasters and a grand total of 303 stations since November, 1931. Eugene would like to correspond with other 14-year-olds.

Archie Ferrie, 38 Humbercrest Blvd., Toronto, Ont., says he is a short wave DXer with a b.c. set! He has received WMP, WRDS, W3XJ, W3XK, W2XAR and W1XAU on his b.c. receiver. He wants information on VE3EW which he heard calling W3RUX or something like that. They came in on 1520 kcs.

"Here is my record since January 1, 1932, when I discovered RADEX and became interested in DXing," says Leo J. Halpin, 17 Minder St., Rochester, N. Y. "22 police stations and 372 other stations, or a total of 394 stations. All stations were received on a 6-tube Sparton. Would like to correspond with other DX fans."

CKTB Reaches Across Ocean

"Our local station, CKTB, received letters from England, Scotland and Ireland in answer to their only DX program," advises Leo Shelly, 125 Lake St., St. Catharines, Ont. "How's that for 500 watts? They use CKOC's transmitter, but they seemed to get a greater response than CKOC, which was on the same night. How come?"

"I thought you might like to hear from another 14-year-old DXer," writes Murray Bryce, Route 1, Royal Oak, V.I., B.C., Can. "My set is a 4-tube battery set about five years old. In five months I have had 173 stations, with 94 over 1000 miles, and 30 over 2000. Among my catches are six Japs and eight Mexicans. You might be interested to know that WTAM is by far the best received of any distant station."

"I have just recently purchased a Brunswick S-126 Model (1929) with a Philco converter," writes Arthur Foerster, 1213 Bosart Ave., Indianapolis, Ind. "I immediately became a DX fan and purchased your magazine. It has been a great help, for I have already logged 368 stations, many of them verified (291 in fact)."

"I have been in the DX game for two years and have logged, on a two-tube set of my own build, 524 stations in the broadcast band," reports Kazimir Nowotarski, 2484 Thurman Ave., Cleveland, Ohio. "I have logged 12 in Cuba, eight in Mexico, 28 in Canada, and 45 stations on the Pacific coast."

"My log has increased since last October to April 13th by 245, all verified," reports Hedley Simmonds, 23 Clyde St., Hamilton, Ont. "Complete log 672 with 602 verified to date and 15 yet to hear from. The rest are deleted."

"I have a total of 446 stations on my Philco 7-tube set; over 400 are varified. I have 20 from California, 13 from Cuba, 10 from Mexico, and the only station in Porto Rico and the one station in Hamilton, Bermuda, which is only $7\frac{1}{2}$ watts. All of these are verified," John S. Wyborski, 3011 Agate St., Philadelphia, Pa.

"I have logged 128 stations on a onetube home-made receiver," writes Clyde Pauley, Penn Ave. and 24th St., Owens, W. Va. "On short wave I have VE9GW, VE9DR, W3XAL, W9XF, W1XAZ, W2XZ, W2XBR and W8XK."

"I have a log of 310 stations, every frequency, and 41 states," says Joseph Fee, 822 Peralta St., Pittsburgh, Pa., and adds that WQDX has changed its call letters to WTDX.

"Since writing my last letter I have received three very nice specific verifications, namely, from 4YA, 4RK and 5CL," reports Clyde W. Ham, 1002 S. Lafayette St., Shelby, N. C.

"I received KFQD, Anchorage, Alaska, the night of July 2nd, at 1:30 a.m., and held them until 2 a.m. Have written for verification," states R. M. Ballard, Visalia, Calif.

Radio Troubles

(Continued from page 12)

The device is naturally more critical in adjustment on the high frequencies, or shorter waves, as you state. It is intended



Here's the way you heard those conventions. A page-boy with new lapel mike rushed to each speaker to catch his eloquence.

to be operated just as you have described. A station is first tuned in and the compensator is then set for maximum volume, and the volume control adjusted to suit the listener. Although apparent shifting of stations is possible to a limited degree with this compensator, it does not improve the selectivity of the set very much.

Set Cuts On and Off

My Knight 8 receiver tend to cut on and off at times after it has been turned on. Can you tell me why this is?

It is likely that the set has a defective power switch with a poor contact that varies greatly in resistance. Also, the prongs of some of the tubes may not be fitting perfectly in their scckets, and when they warm up cause expansions that cause momentary breaks in the circuit. This is particularly true in the speaker-plate and grid circuits to the sockets and tubes. Look for a broken or loose connection in the leads to the caps of the screen-grid tubes, as well as in the volume control itself.

Broadcast Band vs. Short Waves

To tell the truth, although I have a good SW receiver, I seldom listen on the short waves because DX is not as good there as it is on the B.C. band.

The above statement may seem rather strange, but here is my definition of DX as I understand it. DX is the reception of stations near or far which are seldom received on the ordinary receiver, due to low power, distance, or poor conditions for reception. For instance, the reception of Australians on the broadcast band, especially low-powered one, is very good DX for this state, as I very seldom hear of anyone in Michigan who has heard even the high-powered Australians. However, any short-wave receiver, if it is any good at all, will tune in VK2ME and VK3ME. Therefore, I think that the latter should not be considered DX.

Due to the wavelength employed, it is as natural to tune them in as it is for a B.C. receiver in this district to hear WGN or WTMJ. Also, the reception of the S.W. Australians on six feet of antenna, as advertised by one very wellknown maker of a 12-tube all-wave superhet, is not phenomenal because of the fact that short waves do not require nearly as large an aerial for optimum reception. Nevertheless, if I were financially able, I would not hesitate to buy this set, not because it will tune in VK2ME with a six-foot antenna, but because of its fraction of a microvolt sensitivity on the B.C. band, along with very low background noise.

My reason for listening to short waves at all is the same as that for which I usually listen to B.C. stations; i.e., entertainment. I never listen to a S.W. station unless it has at least fair speaker volume and such stations are not very numerous on a 3-tube set even if it does use two screen grids and a pentode. However, I have logged in addition to amateur phones all over the U.S.A. and Canada, VK2ME, VK3ME, HKA, HKD, HKF, HKC, PRADO, YVQ, LSN, CMCI, EAQ, G5SW, Pontoise on about 25.5, GBW, and Zeesen on 19.72. There is nothing unusual about this list; anyone with a good S.W. re-

T. Colegrove Writes of His Experiences

ceiver ought to hear these and many more. However, even short waves have given me a thrill once in a while. For instance, the first Australian ham I heard on 40 meters was with 1-tube, a '99.

It may interest you to know that my B.C. log is up to 564 now and includes every state in the Union, all but one province in Canada, three of the four stations in Brisbane, and all of the stations in at least half a dozen states.

I am going to try for some long wave European DX this winter, as the National Company has just brought out coils extending my range to 2000 meters.

Here is my idea for an antenna. Erect as long an antenna as possible, also as high as possible. Of course about 500 feet is as long as is necessary for B.C. reception; 150 feet is high enough. Then, if your receiver is not selective enough. place a variable condenser in series with your antenna and regulate the length of your antenna to that amount at which you can hear the station you wish to receive without interference. Bend one of the plates so that, at maximum capacity, the condenser is shorted out of the circuit. This is very useful for early morning reception when great sensitivity but not much selectivity is required. In some receivers it is possible to tune the antenna circuit for maximum reception in this manner, especially where a ground is used. In fact, a long aerial actually decreases the volume in these sets on the lower part of the B.C. band. Some of the later type superheterodynes seem to have sufficient selectivity to give 10 kc. separation, regardless of antenna length. A counterpoise seems to give better selectivity than a ground on some receivers.

If most DX is wanted, wire a jack into the detector output so that the phones can be plugged in there. Many signals can be heard on the phones which would not actuate the grid of the first audio tube. Signal to background noise ratio is also reduced in this manner.

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 quickly to the one that has the feature you want.

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

Call	Dial	Call	Dial	Call	Dial	Call	Dial	Call	Dial	Call	Dial
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TIME - ED Eastern Daylight Saving; E Eastern Standard; C Central Standard; M Mountain Standard. For Pacific Time subtract one hour from Mountain. Stations are Arranged Alphabetically.

MONDAY

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

CFCF CKGW KFYR KPRC KSTP KTBS WAPI WBEN WCAE WCFL WCKY WCSH WDAF WEAF WEEI WFI WFLA wJAX WJDX WPTF W WGY WFBR. WIOD WIS WJAR WJAX WJDX WKY WOAI WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WWJ WWNC

ED-9:00 a.m., E-8:00, C-7:00, M-6:00 - Little Jack Little

CFRB CKOK KFH KFJF KMBC KTRH WAAB WABC WBCM WBIG WBRC WBT WCAH WDAE WDBJ WDBC WBT WCAH WDAL WDBY WDBO WDOD WDRC WDSU WEAN WFBL WFEA WGR WGST WHAS WHEC WHP WJAS WKBN WLBW WMAL WMBD WOKO WORC WPG WQAM WSFA WSPD WTAQ WTAR WTOC WWVA

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

KDKA KFYR KOA KOIL KPRC KV00 KSL KSTP KWK WAPI WBAL WBZ WBZA WCKY WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJR WJZ WKY WMC WOAI WPTF WREN WRVA WSB WSM WSMB WTMJ WWNC

ED-12:30 p.m., E-11:30, C-10:30, M-9:30 - Columbia Revue £ -

CFRB CKOK KDYL KFAB KFBK KFH KFJF KFRC KHJ KLRA KLZ KOL KRLD KSCJ KTRH KVOR WBBM WBIG WBT WCAH WABC WCAO WDBJ WDBO WDOD WDRC WDSU WEAN WFAN WFBL WFEA WGR WGST WHAS WHEC WIBW WIP WISN WJAS WKBH WKBN WLBW WMAL WNAC WNAX WNOX WODX WOKO WORC WOWO WPG WQAM WREC WSFA WTAQ WTAR WTOC WWVA

ED-1:30 p.m., E-12:30, C-11:30, M-10:30 B - National Farm and Home Hour KDKA KFYR KOA KOIL KPRC KSTP KTBS KTHS KVOO KWCR KYW WAPI WBAL KWK WBZ WBZA WCKY WDAF WDAY WEBC WFAA WFLA WGAR WHAM WHO WJAX WIDX WIOD WIS WIBA WJR WJZ WKY WLW WMC WOAL WOC WOW WPTF WRC WREN WRVA WSB WSM WSMB WTMJ WWNC

ED-5:15 p.m., E-4:15, C-3:15, M-2:15 R — Whiteman's Rhythm Boys WBEN WCAE WCSH WEAF WEEI WENR WFBR WGY WJAR WLIT WRC WSAI WTAG WTAM WWJ

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

R — Andy Sannella and Orchestra CFCF KEX KGA KJR KOA KPO KSD KSTP KTBS WBEN WDAF WEAF WEBC WGY WIOD WJAR WJDX WKY WMAQ WOW WRC WSM WTAG WTAM WTIC WWJ WWNC

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

KDKA WBAL WBZ WBZA WJR WJZ

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

C-licen Beasley CFRB CKOK KDYL KFAB KFH KFJF KLRA KMBC KSCJ KTRH KVOR WAAB WABC WBBM WBIG WBRC WBT WDAE WDBJ WDBJ WBRC WBT WDAE WDBJ WEBU WDOD WDRC WDSU WFAN WFBL WFEA WGST WHAS WIBW WIP WISN WJAS WKBH WKBW WLBW WMAL WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WTAQ WTAR WTOC

R — Waldorf-Astoria Orchestra KSD KYW WBEN WCAE WDAF WEAF WEEI WFBR WGY WIOD WJAR WMAQ WRC WSM WTAG WWJ WWNC

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

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

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Vaughn DeLeath KLRA WAAB WABC WBIG WBRC WDAL WDBJ WDBO WDOD WDSU WFEA WGST WORC WREC WSFA WTAR WTOC

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

CFRB CKOK KDYL KFAB KFJF KLRA KLZ KSCJ F KFH KEJF KLRA KLZ NOOS WBRC WAAB WABC WBBM WBIG WBRC WCAO WCAU WDAE WBT WCAH WCAO WCAU WDAE WDBJ WDBO WDOD WGST WHAS WHP WISN WJAS WKBH WKBN WKBW WLBW WNAX 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 WEAF WFBR WFI WHO WIS WMAQ WOC WSAI WSB WSM WWJ WWNC

CKGW KDKA WBAL WBZ WBZA WGAR WHAM WJR WJZ WLW

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 C — Myrt and Marge KMOX WABC WADC WCAO WCAU WDRC WEAN WFBL WGR WJAS

WKRC WMAL WNAC WOKO WSPD WWVA R — Harriet Lee and Her Leaders

KFI KFSD KGO KHQ KOA WBEN WEAF WJAR WMAQ WTAG

B — Amos'n' Andy CKGW KDKA WBAL WBZ WBZA WCKY WJAX WJZ WLW WPTF WRVA WRC

THE WITH WERN WAAL WISN WJAS WKBH WKBN WMAL WNAC WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WTAQ WTOC

B — Tastyeast Jesters KDKA WBAL WBZ WBZA WCKY WJZ

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 **R** — Maxwell House Program WBEN WCAE WCSH WEAF WEEI

WIOD WIS WFBR WFLA WGY WIOD WIS WJAR WJAX WLIT WPTF WRC WRVA WSAI WTAG WTIC WWNC WFLA WGY WIOI WJAX WLIT WPTF B - Stebbins Boys

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

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

CFRB CKOK KFAB KFF KMBC KRLD KSCJ KTRH KFAB KFH WABC WBBM WBCM WBIG WBRC WBT WCAH WCAO WCAU WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHP WISN WJAS WHEC WHK WEBN WMAL WNAC WNAX WNOX WODX WOKO WORC WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

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

B — Billy Jones and Ernie Hare

KDKA KOIL KPRC KWK WAPI WBAL WBZ WBZA WCKY WFAA WFLA WGAR WHAM WIOD WIS WJAX WJDX WJZ WKY WMAQ

Monday-Continued

WMC WOAI WPTF WREN WRVA WSB WSM WSMB WWNC

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

C--Edwin C. Hill CFRB CKOK KDYL KFAB KFJF KFPY KFRC KGB KHJ KMBC KOH KOL KRLD KSCJ KTRH KVI WABC WACO WBCM WBIG WBRC WBT WCAO WCCO WDAE WDBJ WDB0 WDOD WDRC WDSU WEAN WCAO WCCO WDAE WDBU WEAN WFAN WFBL WFBM WGL WGR WHEC WHK WHP WIP WGST WIP WISN WKBH WKBN WMAL WNAC WNAX WNOX WODX WOKO WQAM WSFA WTAQ WTAR WTOC WWVA WSFA WTAQ WAAT R - Soconyland Sketches WEAF WEAF WEEI WGY

WBEN WCSH WEAF WJAR WTAG WTIC

- Carnation Contented Program R KDKA KOIL KWK WBAL WCKY WHAM WJR WJZ WLS WREN ED-8:15 p.m., E-7:15, C-6:15, M-5:15

C - Singin' Sam C -- Singin Sam CKOK KMBC KMOX WABC WADC WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGN WGR WHK

WJAS WKRC WMAL WNAC WOKO WSPD

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

C--- Kate Smith, La Paina CKOK KFAB KFH KFJF KMBC KMOX WABC WADC WBCM WCAH WCAO WCAU WCCO WFBI, WFBM WGN WGA WHAS WHEC WHK WISN WJAS WKBN WKRC WMAL WOKO WSPD

Voice of Firestone

R — Voice of Firestone CFCF CKGW KPRC KSD KTBS KTHS KVOO WAPI WBEN WCAE WCSH WDAF WEAF WEEI WFAA WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WJDX WKY WLIT WMAQ WMC WOAI WOC WOW WPFF WRC WRVA WSAI WSB WSM WSMB WTAG WTAM WTIC WWJ WWNC

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

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 R — A. & P. Gypsies KSD WBEN WCAE WCSH WEAF WEEL WGY WHO WJAR WAQ WOC WOW WRC WTAG WTAM WTIC WWJ WLIT WSAI

B — Sinclair Wiener Minstrels KDKA KFYR KOIL KPRC KSTP KTBS KVOO KWCR KWK WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WEA WGAK WHAM WHBA WHOD WIS WJAX WJDX WJZ WKY WLS WMC WOAI WPTF WREN WRVA WSB WSM WSMB WTMJ WWNC

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

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

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

C -- Surprise Package CFRB CKOK KDYL KFBK KFH KFJF KFRC KHJ KLRA KLZ KMBC KRLD KSCJ KTRH KVOR WABC WBBM WBCM WBIG WBRC WBT

WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFBM WFEA WHAS WHEC WHK WIBW WISN WJAS WKBH WKBW WLBW WMAL WNAC WNAX WNOX WODX WOKO WORC WQAM WREC WSPD WTAQ WTAR WTOC

R — General Motors Program KFI KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP WBEN WCAE WCSH WDAF WEAF WEEI WEAR WCAR WCAR WEAF WEAF WEAR WKAA WFBR WGY WHO WJAR WKY WLIT WMC WOAI WOC WOW WRC WSAI WSB WSM WTAG WTAM WTIC WTMJ WWJ

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

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

CKOK KDB KDYL KERN KFBK KFH KFJF KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KRLD KTRH KTSA KOI KOI KOI KRID KIRH KISA KVI KWG WABC WBC WBC WBT WCAO WCAU WCCO WBBJ WDRC WDSU WEAN WFBL WFBM WGN WGST WHAS WHEC WHK WISN WJAS WKBW WKRC WLAC WLBZ WMAL WMBG WMT WNAC WOKO WWO WDD WDCO WDCO WOKO WOWO WPG WREC WRUF WSPD WTAR

R — National Radio Forum

KFSD KFYR KGHL KGIR KGO KFSD KFYR KGHL KGIR KGO KGW KOA KOMO KPRC KSD KSL KSTP KTBS KVOO WBEN WCSH WDAY WEAF WEBC WEEI WENR WFLA WGY WHO WIBA WIOD WJAR WJDX WKY WLIT WMC WOAI WOC WOW WPTF WRC WRVA WSAI WSB WSM WTAG WTAM WWJ WWNC $\mathbf{B} \rightarrow \mathbf{P} \mathbf{E}^{\text{Hilber Locd}} Constants$

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

ED-10:15 p.m., E-9:15, C-8:15, M-7:15 B — Whispering Jack Smith

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

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

C — Guy Lombardo and Orchestra CFRB CKOK KDYL KFBK KFH KFJF KFRC KHJ KLRA KLZ KMBC KFJF KFRC KHJ KLKA KLZ KMBU KMOX KOL KRLD KSCJ KTRH KVOR WAAB WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDAE WDBJ WJBM WFEA WGST WHEC WHK WHP WIBW WLS WJEDI WEDW WIDW WHAI WJAS WKBH WKBW WLBW WMAL WMBD WNAX WNOX WODZ WOKO WORC WOWO WQAM WREC WSPD WTOC

"Tish" B —

CFCF KFYR KSTP KTBS KVOO KWCR KYW WBAL WCKY WEBC WHAM WIBA WIOD WIS WJAX WJZ WREN WSM WWNC

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

CKOK KDYL KFBK KFPY KFRC KHJ KLZ KMBC KMJ KOIN KOL WBBM WCCO WHAS

B - Jane Froman and Orchestra

KWCR KYW WBAL WCKY WHAM WJZ WREN

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ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C - Howard Barlow's Symphony

C — Howard Barlow's Symphony GFRB CKOK KDYL KFAB KFBK KFJF KFRC KHJ KLRA KMBC KMOX KSCJ KTRH KVOR WAAB WABC WBCM WBIG WBRC WBT WCAH WCAO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFBM WGAST WHAS WHK WHP WIMAI WMBD WNAX WNOX WMAL WMBD WNAX WNOX WOKO WORC WOWO WPG WQAM WREC WSFA WSPD WTOC

R - Paul Whiteman and Orchestra.

WEAF WEEI WFBR WJAR WLIT WRC

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

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

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

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

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

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C--Charles Carille, Tenor CKOK KFBK KFJF KFRC KLRA KMBC KMOX KSCJ KTRH KVOR WAAB WABC WBCM WBIG WBRC WBT WCCO WDAE WDBJ WDBO WDOD WDRC WDAE WDBJ WDBO WGST WHAS WHEC WHP WJAS WKBN WKAS WNOX WOKO WORC WMBD WNAX WNOX WOKO WORT WOWO WQAM WREC WSFA WSPD WTAR WTOC

R - Voice of Firestone

KFI KFSD KFYR KGHL KGIR KGO KGU KGW KHO KOA KOMO KSL KSTP KTAR WDAY WEBC WIBA WTMJ

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

C – Freddie Martin's Orchestra CFRB CROK KDYL KFAB KFBK KFJF KFRC KHJ KLRA KMBC KOL KSCJ KTRH KVOR WAAB WABC WBCM WBIG WBRC WBT WCAH WCAO WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFAN WFBL WFBM WGL WGST WHAS WHEC WHP WIBW WIA WISN WKRN WEBW WIA WISN WKBN WKBW WLBW WMP WISN WKBN WKBW WLBW WMAL WMBD WNAX WNOX WOKO WORC WQAM WREC WSFA WSPD WTAR WTOC WWVA

R — Baron Lee and Orchestra WEAF WEEI WFBR WJAR WRC WTIC

ED-12:00 m., E-11:00, C-10:00, M-9:00 Eddie Duchin and Orchestra C — Eddie Duchin and Orchestra CKOK KDYL KYAB KFBK KFH KFJF KLRA KMRC KMOX KOL KRLD KSCJ KTRH KVOR WABC WBCM WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDRO WDOD WCSU WEAN WFBL WFBM WGL WGST WHAS WHEC WHP WIBW WASN WEAN WFBW WUTAW WMAI

WISN WEAS WHEC WHP WIBW WISN WEBN WEBW WEBW WMAL WMBD WNAC WNAX WNOX WOKO WPG WQAM WEEC WSFA WSPD WTAR WTOC WWVA

ED-12:05 a.m., E-11:05, C-10:05, M-9:05 R – Budy Rogers and Orchestra KSTP WAPI WCAE WCKY WDAF WDAY WEAF WENR WIOD WLIT WMAQ WRC WTAM WWJ

ED-12:30 a.m., E-11:30, C-10:30, M-9:30 B — Clyde McCoy's Orchestra KOIL KWCR WBAL WJR WJZ WLW B - Billy Jones and Ernie Hare KFI KFSD KGO KGW KHQ KOA KOMO KSL KTAR

TUESDAY

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

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

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

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

C - Columbia Revue, See Monday

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

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

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C - Irene Beasley, See Monday

R - Waldorf-Astoria Orch., See Mon. ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Jack Miller and Orchestra WDBO WDOD WDSU WFEA WGST WNOX WORC WREC WSFA WTAR WTOC

B — Sheer Romance, Drama B — Sneer Konance, Drama KDKA KFI KFYR KGO KOA KOIL KSTP KTBS KWCR WBAL WHAM WIBA WIOD WJDX WJZ WKY WIBA WIOD WJDX WJZ WK WLW WMC WREN WSM WWNC

ED-6:45 p.m., E-5:45, C-4:45, M-3:45 R — Back of the News in Washington K — Back of the News in Washington KFI KFSD KGHL KGIR KGO KOA KSD KTAR WAPI WEAF WFBR WFI WIOD WIS WJAR WJDX WMAQ WOW WFF WRC WSM WSMB WTAG WWNC B - Lowell Thomas, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 R — Mid-Week Hymn Sing KFI KGIR KGO KOA KSD KTAR WAPI WBEN WEAF WJAR WJDX WMAQ WSAI WSMB WTAG C — Myrt and Marge, See Monday B — Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 ED-rits p.m., E-bils, C-5:ls, M-4:lb C -- Keenan and Phillips, Piano CFRB CKOK KFH KLZ KMBC KOH KSCJ KTRH KTSA KVOR WABC WACO WBCM WBIG WBRC WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDCC WDSU WEAN WFBL WGR WGST WHAS WHEC WHAT WGR WGST WHAS WHEC WHP WISN WJAS WKBH WKBN WMAL WNAC WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAQ WTOC

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

R – Ray Perkins KSD KYW WBEN WCAE WCSH WEAF WEEI WFBR WFI WGY WHO WJAR WOC WOW WRC WSAI WTAG WTAM WWJ

B - Stebbins Boys, See Monday

ED-7:45 p.m., E-6:45, C-5-45, M-4:45 C — Chase & Sanborn, Georgie Price CKOK KMBC KMOX WABC WBBM

WKRC WNAC WORO

R - The Goldbergs, See Monday

B — Gene Austin, Tenor CFCF KDKA KGO KOIL WBAL WBZ WBZA WCKY WGAR WHAM WJR WJZ WKY WMAQ WMC WREN

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

C − Edward C, rint, See Monday R − Blackstone, Sanderson-Crumit KSD KSTP KYW WBEN WCAE WCSH WDAF WEAF WEBC WEEC WFI WGY WHO WJAR WOCC WOW WRC WSAI WTAG WTAM WWJ

ED-8:15 p.m., E-7:15, C-6:15, M-5:15 C — Abe Lyman and Orchestra CKOK KMBC KMOX WABC WADC WCAO WCAU WDRC WEAN WFBL

WFBM WGN WGR WHK WJAS WKRC WMAL WNAC WOKO WSPD ED-8:30 p.m., E-7:30, C-6:30, M-5:30

C - Kate Smith, See Monday

- Walter Smith and Orchestra R .

KSD WCSH WDAF WEEI WEAF WFBR WFI WGY WHO WJAR WOC WRC WSAI WTAG WTAM WTIC WWJ

ED-8:45 p.m., E-7:45, C-6:45, M-5:45 B --- Rosa Low, Song Recital CKGW KDKA KEX KI

KFYR K IR KOIL KPO KSTP KTBS KVOO WBAL WGAR WHAM WIBA WIOD WJR WJZ WKY WMAQ WREN

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C — Jay C. Flippen-cies

CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPY KHJ KLRA KLZ KFH KFJF KFPY KIJ KLRA KLZ KMBC KMOX KOL KRLD KTRH KVOR WABC WACO WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WFBL WFBM WFEA WGL, WGST WHAS WHEC WHO WDIRC WDSD WFDD WDDA WGL WGST WHAS WHEC WHP WIBW WISN WJAS WKBH WKBN WKBW WMAL WNAC WNAX WNOX WODX WORC WQAM WREC WRUF WSPD WTAQ WTAR WTOC WWVA

WSPD WIAQ WIAR WIOC WWA R - National Artists' Series CKGW KEX KGA KJR KOA KPO KTAR KTBS WBEN WCAE WCSH WDAF WEAF WFBR WFI WFLA WGY WHO WIOD WJAR WKY WMAQ WMC WOAI WOC WTAG WTAM WWNC

B — Household Program KDKA KWK WBAL WBEN WBZ WBZA WEBC WHAM WIBA WJR WJZ WLS WTMJ

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

C— Eno Crime Club CKOK KMBC KMOX WABC WADC WCAO WCAU WDRC WEAN WFBL WCN WIHK WJAS WKBW WKRC WMAL WNAC WSPD

R — Ed Wynn-Don Voorhees CFCF KFI KFSD KFY

CFCF KFI KFSD KFYR KGHL KCIR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTBS KVOO WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WCEH WFPR WFI WGY WHO WFBR WFI WEAF WEBC WEEI WFBR WFI WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOC WOW WPTF WRC WRVA WSAI WSB WSMB WTAG WTAM WTMJ WWJ WWNC

B - Friendship Town

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

WCAO WCAU WGR WHK WJAS ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C - Music That Satisfies, See Monday R Lucky Strike Dance Hour

R — Lucky Strike Dance Hour KFI KFSD KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTBS KTHS KVOO WBAP WBEN WCAE WCSH WDAY WEAF WEBC WEEI WENR WFAR WFI WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMC WOAI WOC WOW WRC WRTA WCAI WSD WSM WSMR WSAI WSB WSM WSMB WTAG WTAM WTMJ WWJ WWNC

B - Phillips Lord, See Monday

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

C – Musical Fast Freight CKOK KFH KFJF KLRA KMBC KMOX WAAB WABC WADC WBBM WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WHK WJAS WKBW WKRC WMAL WOKO WOWO WQAM WSPD WTOC B — Sigmund Spaeth, Tune Detective CFCF KWCR WBZ WBZA WGAR

WJZ

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — Isham Jones and Orchestra

CFRB CKOK KDYL KFBK CFRB CKOK KDYL KFBK KFH KFJF KFRC KGB KHJ KLRA KLZ KMBC KOH KSCJ KTRH KTSA KVI KVOR WAAB WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WCCO WDAE WDBJ WDBO WDOD WACC WDSU WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WINS WKBH WHK WHP WIBW WKBN WUDD WJAS WKBH WLBW WMAL WMBD WNAX WNOX WODX WOKO WORC WOWO WPG WQAM WREC WSPD WTOC

B - Tish See Monday

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

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C-Columbia Symph. Orch., See Mon. B -- Amos 'n' Andy, See Monday

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

B – Cesare Sodero Concert Orchestra CFCF CKGW KDKA KEX KFYR KGA KJR KOA KPO KSTP KTBS KWCR WBAL WCKY WENIX WJAX WHAM WIOD WIS WJAX WJZ WKY WRC WREN WSM WWNC

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

C – Luttle Jack Luttle CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPY KFRC KGB KHJ KLRA KLZ KMBC KMOX KOH KOL KKLD KSCJ KTRH KTSA KVI KVOR WAAB WABC WACO WBCM WBIG WBRC WARD WARD WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WFBL WFBM WGST WHAS WHEC WHK WHP WIBW WISN WKBN WKBW WLBW WMAL WMBD WNAX WNOX WMAL WMBD WNAX WNOX WORC WOWO WQAM WREC WSFA WSPD WTAR WTOC

R — Jack Denny and Orchestra KSD WCAE WDAF WEAF WEEL

KSD WCAE WDAF WEAF WEEI WFBR WFI WJAR WMAQ WTAM WWJ

ED-11:45 p.m., E-10:45, C-9:45, M-8:45 C-Freddie Martin's Orch., See Mon. ED-12:00 m., E-11:00, C-10-00, M-9:00 C — Harold Stern and Orchestra CKOK KDYL KFAB KFH KFJF KFPY KFRC KGB KLRA KLZ KMBC KMOX KOII KSCJ KTRH

Tuesday-Continued

KVOR WABC WACO WBCM WBRC WBT WCAH WCAU WDAE WDBJ WDBO WDOD WDSU WEAN WFBM WGST WHAS WHEC WHP WIBW WISN WKBN WKBW WLBW WMBD WNAC WNAX WNOX WOKO WOWO WOAM WREC WSFA WSPD WTAR WTOC

ED-12:05 a.m., E-11:05, C-10:05, M-9:05 R - Paul Whiteman and Orchestra CFCF KEX KGA KGO KGW KHQ KJR KPO KTBS WBEN WCAE WDAF WEAF WFAA WFBR WFLA WGY WKY WMAQ WMC WOW WRC WSB WSM WTAM WWJ WWNC ED-12:30 p.m., E-11:30, C-10:30, M-9:30 B — Chas. Agnew and Orchestra KWCR WBAL WHAM WJR WJZ WMAQ WREN

WEDNESDAY

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

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

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

ED-12:30 p.m., E-11:30, C-10:30, M-9:39 C -- Columbia Revue, See Monday

ED-1:30 p.m., E-12:30, C-11:30, M-10:30 National Farm and Home, See Mon. R

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

R-- Little Orphan Annie, See Monday

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Irene Beasley, See Monday

Waldorf-Astoria Orch., See Monday R ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — William Vincent Hall

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

R — Harding Sisters, Organ-Piano KEX KFSD KGA KJR KTBS WAPI WEAF WFBR WFI WIOD WJAR WMAQ WMC WRC WSAI WTAG WWJ

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

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

- Funnyboners, See Monday - Donald Novis, See Monday C

R B -- Lowell Thomas, See Monday

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

B - Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C -- Melodeers, Male Quartet CKOK KFH KHJ KLZ KMBC KMOX

WSPD WIAQ WIOC B - Royal Vagabonds, Ward Wilson KDKA KFI KGO KGW KHQ KOA KOIL KOMO KPRC KWK WAPI WBAL WBZ WBZA WCKY WEBC WGAR WIOD WJAX WJDX WJZ WKY WMAQ WMC WOAI WPTF

WREN WRVA WSB WSM WSMB WTMJ WWNC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 R - Maxwell House Program, See Mon. B - Stebbins Boys, See Monday

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

C -- Connie Bosweil CFRB CKOK KFAB KFH KFPY KHJ KLZ KMBC KOH KRLD KSCJ KTRH KVOR WABC WACO WBCM WBIG WBC WBT WCAH WCAO WCAU WDBJ WDBO WDRC WBSU WCAY WCDJ WCDU WCAU WCAU WEAN WEBL WFBM WFEA WGR WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WISN WJAS WKBN WNAC WNAX WNOX WODX WOKO WORC WOWO WQAM WFEC WSFA WSPD WTAQ WTAR WTOC WWVA R

The Goldbergs, See Monday Billy Jones & Ernie Hare, See Mon. R

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

R — Big Time, Johnny Hart KSD WBEN WCAE WC KSD WBEN WCAE WCSH WDAF KSD WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WHO WJAR WLIT WLS WOC WOW WRC WSAI WTAG WTAM WTIC

WWJ

B — American Taxpayers' League KDKA KFSD KFYR KGIR KGO

KDAA KFSD NFIR KOIR KGG KOA KOIL KOMO KTAR KTBS KWCR KWK KYW WBAL WDAY WFAA WFLA WIBA WIOD WJAX WJDX WJZ WKY WMC WOAI WFTF WREN WSM WWNC

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

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

KDKA WBAL WGAR WHAM WJR WJZ WLS WLW

ED-8:45 p.m. E-7:45 C-6:45 M-5:45 - Col. Stoopnagle and Budd, See C Monday

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

CKOK KFJF KMBC KMOX KTRH KTSA WABC WADC WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGN WHK WJAS WKBW WKRC WMAL WNAC WOKO WOWO WRR WSPD

R — Goodyear Program KFYR KPRC KSD KSTP KTHS KVOO KYW WBEN WCAE WCSH WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WFDR WFLA WGY WHO WBA WIOD WIS WJAR WJAX WJDX WKY WLIT WMC WOAI WOO WOW WPTF WRC WRVA WSAI WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC WOC WTAM В

- Island Boat Club Dance WGAR WHAM WJR WJZ WLW WMAQ WREN

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

R - Mobiloil Concert K — Mobiloil Concert KFI KFYR KGO KGW KHQ KOA KOMO KPIRC KSD KSL KSTP KTAR KVOO WBEN WCAE WCSH WDAF WDAY WEAF WEBE WCSH WDAF WDAY WEAF WEBE WEEI WENR WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLIT WMC WOAL WOC WOW WDC WGAT WSB WOAL WOC WOW WRC WSAI WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC

B - Jack Benny, Geo. Olsen, See Mon.

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 - Music That Satisfies, See Monday - Corn Cob Pipe Club R

KFI KGHL KGIR KGO KGW KHQ KOA KOMO KSD KSL WBEN WCAE WCSH WDAF WEAF WEEI WENR WFBR WGY WHO WJAR WLIT WOC WOW WRC WRVA WSAI WTAG WTAM WTIC WWJ B - Phillips Lord, See Monday

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

C — Adventures in Health CKOK KMBC KMOX KRLD WAAB WABC WADC WBBM WCAO WCAU WCCO WDRC WDSU WEAN WFBL WHAS WHK WJAS WKBW WKRC WMAL WOKO WOWO WSPD

B - Whispering Jack Smith, See Mon. ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — Isham Jones and Orch., See Tues.

Archer Gibson, Organist R

K— Archer Gibson, Organist KECA KEX KFYR KGA KGHL KGIR KJR KOA KPO KSL KTBS WCAE WCSH WEAF WEBC WGY WIBA WIDD WJAR WLIT WMC WPTF WWNC

B - Tish, See Monday

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

R Jane Froman and Orch., See Mon.

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

Ř Nellie Revell

CFCF CKGW KSD WEAF WLIT WRC WWJ B -- Amos 'n' Andy, See Monday KSD WEAF WGY

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 R — Maxwell House, See Monday B — Cesare Sodero's Orch., See Tuesday C - Ozzie Nelson and Orchestra

CFRB CKOK KDYL KFAB KFJF KFPY KFRC KGB KLRA KLZ KFPY KFRC KGB KLRA KLZ KMBC KMOX KOH KRLD KSCJ KTRH KTSA KVI KVOR WAAB WABC WACO WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBM WGST WHAS WHEC WHK WHP WIBW WISN WKBW WMAL WMBD WLBW WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAR WTOC

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C - Charles Carlile, See Monday

ED-12:00 m., E-11:00, C-10:00, M-9:00 C — Eddie Duchin and Orch., See Mon. B — Baron Lee and Orchestra KDKA, KOIL KWCR WBAL WCKY

WJZ WMAQ WRC

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

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

ED-12:30 a.m., E-11:30, C-10:30, M=3:30C — Duke Ellington and Orchestra CKOK KDYL KFAB KFH KFJF KLRA KLZ KMBC KOH KTRH KVOR WABC WACO WBCM WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WGST WHAS WHEC WHP WIBW WISN WKBW WIEC WHP WIDW WISN WAD WLBW WMAL WMBD WNAC WNAX WNOX WOKO WQAM WREC WSFA WSPD WTAR WTOC

B - Jones and Hare, See Monday

THURSDAY

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

Thursday-Continued

ED-9:00 a.m., E-8:00, C-7:00, M-6:00 C - Little Jack Little, See Monday ED-10:15 a.m., E-9:15, C-8:15, M-7:15 B — Clare, Lu 'n' Em, See Monday ED-12:30 p.m., E-11:30, C-10:30, M-9:30 C -- Columbia Revue, See Monday ED-1:30 p.m., E-12:30, C-11:30, M-10:30 B - National Farm and Home, See Mon. ED-5:15 p.m., E-4:15, C-3:15, M-2:15 R — Whiteman's Rhythm Boys, See Mon. ED-5:45 p.m., E-4:45, C-3:45, M-2:45 B - Little Orphan Annie, See Monday ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C - Irene Beasley, See Monday R --- Waldorf-Astoria Orch., See Monday ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Jack Miller and Orch., See Tuesday **B** – - Old Songs of Church KEX KFSD KGA KJR KOA KOIL KPO KTBS KWCR WBAL WGAR WJZ WKY WLW WMAQ WREN ED-6:45 p.m., E-5:45, C-4:45, M-3:45 B - Lowell Thomas, See Monday ED-7:00 p.m., E-6:00, C-5:00, M-4:00 C - Myrt and Marge, See Monday R - Clyde Doer, Saxophone Octet KGO KOA WAPI WBEN WI WFI WJAR WMAQ WTAM WEAF B - Amos 'n' Andy, See Monday ED-7:15 p.m., E-6:15, C-5:15, M-4:15 B--- Ward Wilson, See Wednesday ED-7:30 p.m., E-6:30, C-5:30, M-4:30 R - Ray Perkins, See Tuesday - Stebbins Boys, See Monday B ED-7:45 p.m., E-6:45, C-5:45, M-4:45 C — Georgie Price, See Tuesday R — The Goldbergs, See Monday B - Gene Austin, See Tuesday ED-8:00 p.m , E-7:00, C-6:00, M-5:00 C — Edwin C. Hill See Monday R — Fleischmann, Rudy Vallee CFCF CKGW KFI KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSI KSTP KTAR KVOO WAPI WBAP KSTP KTAR KVOO WAPI WBAP WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFI WFLA WGY WHO WIOD WJAR WJAX WJDX WKY WMAQ WMC WOAI WOC WOW WPTF WRC WSAI WSB WSM WSMB WRVA WTAG WTAM WTMJ WWJ B — Regimentalists, Male Chorus KOIL KWCR KWK WBZ WENR WGAR WHAM WJZ WBZA ED-8:15 p.m., E-7:15, C-6:15, M-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 ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C — Gerardine Program CKOK KMBC KMOX WAAB WABC WADC WCAO WCAU WDRC WFBL WFBM WGN WGR WHK WKRC WMAL WOWO WSPD WJAS B — Rin Tin Tin Thriller KDKA KOIL KWK WBZ WBZA WHAM WJZ WLS WLW WGAR

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

R — School Room Frolics KFYR KGHL KGIR KOA KPRC KSD KSL KSTP KTBS KTHS KVOO WAPI WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI

WGY WILL WJAX WFBR WFI WFLA WGY WIBA WIOD WIS WJAR WIBA WIOD WIS WAR WOAR WJDX WKY WMAQ WMC WOAI WOC WOW WPTF WRC WRVA WOC WOW WPTF WRC WSAI WSB WSM WSMB WTAG WTAM WTMJ WWJ WWNC

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

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

C — Love Story Hour CKOK KMBC KMOX WABC WADC WCAO WCAU WDRC WEAN WFBL WGN WHK WJAS WKBW WMAL WNAC WSPD WKRC

R — G. Washington Coffee Concert CFCF CKGW KSD WBEN WCAE WCSH WDAF WEAF WEEI WENR WFI WGY WHO WJAR WOC WOW WRC WSAI WTAG WTAM WWJ — Thompkins Corners

KDKA KFI KFSD KGO KGW KHQ KOA KOIL KOMO KPRC KSL KSTI WTLA WGAR WHAM WIOD WJAX WJDX WJR WJZ WKY WLW WMC WOAI WREN WRVA WSB WSM WSMB WTMJ WWNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 - Music That Satisfies, See Monday C R — Lucky Strike, See Tuesday B — Phillips Lord, See Monday ED-10:15 p.m., E-9:15, C-8:15, M-7:15 C — Musical Fast Freight, See Tuesday

Whispering Jack Smith, See Mon. ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C Isham Jones and Orch., See Tues.

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

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C -- Columbia Symph. Orch., See Mon. R -- Paul Whiteman and Orch., See Mon.

B - Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 R - Cesare Sodero's Orch., See Tuesday ED-11:30 p.m., E-10:30, C-9:30, M-8:30

C-Little Jack Little, See Tuesday

ED-11:45 p.m., E-10:45, C-9:45, M-8:45 C-Ozzie Nelson and Orch., See Wed.

ED-12:00 m., E-11:00, C-10:00, M-9:00 C-Noble Sissle and Orchestra

CKOK KDYL KFAB KFBF KFH KFJF KFPY KFRC KLRA KLZ KMBC KMOX KOH KOL KRLD KSCJ KTRH KTSA KVI KVOR WABC WBCM WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WGST WHAS WHEC WHP WIBW WISN WKBN WKBW WLBW WMBD WNAC WNAX WNOX WODX WOKO WOWO WQAM WREC WSPD WTAR WTOC

ED-12:05 a.m., E-11:05, C-10:05, M-9:05 R - Tom Gerun and Orchestra

KEX KGA KGHL KJR KPO KSD KSTP KTAR KTBS WCKY WDAF WEAF WENR WIOD WRC WTIC WWJ

ED-12:30a.m., E-11:30, C-10:30, M-9:30 B - Pacific Serenaders

KFYR KOA KOIL KPRC KTBS KTHS KVOO KWCR WBAL WENR WFLA WHAM WIBA WJR WJZ WKY WLW WMC WREN WSM WSMB WWNC

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FRIDAY

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

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

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

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

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

B — National Farm and Home, See Mon.

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

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Irene Beasley, See Monday

R - Waldorf-Astoria Orch., See Monday ED-6:15 p.m., E-5:15, C-4:15, M-3:15

B — Graham Prince and Orchestra KFYR KOIL KSTP KTBS KWCR WBAL WHAM WIBA WJZ WKY

WLW WMAQ WREN ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Vaughn DeLeath, See Monday

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

CFRB CKOK KDYL KFAB KFH KFJF KLRA KLZ KOH KSCJ KTRH KTSA WAAB WABC WBCM WBIG WBRC WCAH WCAO WDBJ WDBO WDOD WDSU WFBL WGST WHAS WISN WJAS WKBH RW WNAX WNOX WHEC WHP WKBW WLBW WOKO WORC WOWO WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

R — Merry Madcaps Dance Orchestra KGO KOA KSD WCAE WEAF WIOD WJAR WRC WTAG WTIC WWJ B - Lowell Thomas, See Monday

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

R Amos 'n' Andy, See Monday

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

- Isham Jones, See Monday B - Ward Wilson, See Wednesday

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

R -- Stebbins Boys, See Monday

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

C - Connie Boswell, See Wednesday

R - The Goldbergs, See Monday

B - Billy Jones & Ernie Hare, See Mon.

 $\begin{array}{l} \underline{B} \longrightarrow Billy Jones & \underline{c} \ true \ tare, \ beg \ show.\\ \hline \underline{ED-8:00 \ p.m., \ E-7:00, \ C-6:00, \ M-5:00}\\ C \longrightarrow Edwin C, \ Hill, \ see \ Monday \\ R \longrightarrow Cities \ Service \ Orchestra \\ CKGW \ KOA \ KPRC \ KSD \ KSL \ KSTP \\ KTBS \ KTHS \ KVOO \ KYW \ WBEN \\ WCAE \ WCSH \ WDAF \ WEAF \ WEBC \\ WEAE \ WFAA \ WFBR \ WGY \ WHO \\ WJAR \ WKY \ WLIT \ WOAI \ WOAI \ WOAI \\ WOAI \ WCAT \ WTAM WCon WFAA WFL WKY WLIT WOAL WRC WSAL WTAG WTAM WOW WRC WTIC WTMJ WWJ

B - Nestle's Program

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

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

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C – Andre Kostelanetz' Orchestra CFRB CKOK KFAB KFBK KFJF KFPY KGB KHJ KLRA KMBC KMOX KOH KSCJ KTRH KVI KVOR WABC WBIG WBRC WBT LRA KTRH KVI WBT WCAH WCAO WCAU WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBM WFEA WGL WGR WHAS WHEC WHP WISN WJAS WKBH WMAL WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSPD WORC WPG WQAM WREC WTAQ WTAR WTOC WWVA

M LAG WI AR WI OC WWYA B - Candle Lightin' Time KDKA KOIL KTBS WBAL WBZ WBZA WCKY WFAA WFIA WGAR WHAM WIOD WIAX WJR WJZ WKY WMAQ WMC WOAI WREN WSP WSA WKY WMA WSB WSM

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C — Kodak Week-End Hour CKOK KLZ KMBC KMOX WABC WADC WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGN WHEC WHK WJAS WKBW WKRC WMAL WHK WJAS WKBW WKRC WMAL WHX WJAS WKBW WKRC WMAL

R — Cliquot Club

KSD WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WHO WJAR WLIT WMAQ WOC WOW WSAI WTAG WTAM WTIC WRC WWJ

B - First Nighter

KFSD KOA KSL KSTP KTAR WEBC WJZ WTMJ

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

C – To the Ladies CKOK KMBC KMOX KRLD WABC WADC WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGN WGST WHAS WHK WJAS WKBW WKRC WMAL WNAC WOKO WSPD

WMAL WAAC WORD WSFD R - Pond's Program KSD WBEN WCAE WCSH WDAF WEAF WENR WFBR WGY WHO WJAR WLIT WOC WOW WRC WSAI WTAG WTAM WWJ

WSAI WTAG WIAM WWJ B — Armour Program KDKA KFI KGO KGW KHQ KOA KOIL KOMO KPRC KSL KSTP KWK WAPI WBAL WBZ WBZA WEBC WFAA WGAR WHAM WIOD WJAX WJR WJZ WKY WMAQ WMC WOAI WREN WRVA WSB WSM WSMB WTMI WWNC WSM WSMB WTMJ WWNC

ED-9:45 p.m., E-8:45, C-7:45, M-6:45 C — Jay C. Flippen, 4 Eton Boys CFRB CKOK KDYL KFBK KFH KFJF KFRC KHJ KLRA KLZ KMBC KMOX KOH KOL KRLD KSCJ KMOX KOH KOL KRLD KSCJ KTRH KVI KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD) WDRC WDSU WEAN WFBJ WFBM WCL WCG WCAT KMOX WFBM WFEA WGL WGST WHAS WHP WIBW WISN WJAS WKBH WKBW WLBW WMAL WNAC WNAX WNOX WOKO WORC WQAM WREC WSFA WSPD WTAQ WTAR WTOC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C - Music That Satisfies, See Monday R – Paul Whiteman and Orcheson KFI KFYR KGO KGW KHQ KOA KOMO KSD KSL KSTP WBEN WCAE WCSII WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WLIT WOC WOW WRC WJAR WLIT WOC WOW WRC WRVA WSAI WTAG WTAM WTIC WTMJ WW.J

B - Phillips Lord, See Monday

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

ED-10:15 p.m., E-9:15, C-8:15, M-7:15 C — Fray and Braggiotti CFRB CKOK KDYL, KFH KFPY KFRC KGB KLZ KMBC KOH KOL KRLD KSCJ KTRH KVI WAAB WABC WBCM WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN

WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WJAS WKBW WLBW WMAL WKBH WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WTOC

B - Song Fellows, Male Quartet CKGW KDKA KOIL KTBS KWCR WBAL WGAR WHAM WIOD WJZ WKY WMAQ WMC WSM

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — Guy Lombardo and Orch., See Mon. R — RKO Mystery Drama CFCF CKGW KFI KFSD KFYR

KGHL KGIR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTF KOMO KPRC KSD KSL KSTP KTAR KTBS WAPI WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WENR WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLIT WMC WOC WOW WRC WSAI WSB WSM WSMB WRVA WTAG WTAM WTIC WTMJ WWJ WWNC ED-10:45 p.m., E-9:45, C-8:45, M-7:45 C — Myrt and Marge, See Monday

Jane Froman and Orch., See Mon. R

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 Columbia Symp. Orch., See Monday Amos 'n' Andy, See Monday Ř

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 R - Maxwell House, See Monday

Β-Cesare Sodero's Orch., See Tuesday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 - Charles Carlile, See Monday

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

ED-12:00 m., E-11:00, C-10:00, M-9:00 C-Ozzie Nelson and Orchestra

C — Uzzie Neison and Urcnessta CKOK KDYL KFAB RPH KFJF KFPY KFRC KLRA KLZ KMBC KMOX KOH KOL KSCJ KTRH KTSA WABC WACO WBCM WBRC WBT WCAH WCAU WDAF WDBJ WDBO WDOD WDSU WEAN WFBM WGL WGST WHAS WHEC WHP WGL WGST WHAS WHEC WHP WIBW WISN WKBW WLBW WMBD WNAC WNAX WNOX WODX WOKO WPG WQAM WREC WSPD WTAR WTOC WWVA

B - Baron Lee and Orch., See Wed.

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

SATURDAY

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

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

ED-1:30 p.m., E-12:00, C-11:30, M-10:30

B - National Farm and Home, See Mon.

ED-5:15 p.m., E-4:15, C-3:15, M-2:15 R-Whiteman's Rhythm Boys, See Mon.

ED-5:30 p.m., E-4:30, C-3:30, M-2:30 R — Andy Sannella, See Monday

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

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

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

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Jack Miller and Orch., See Tuesdya R — Opry House Tonight KEX KFSD KGA KJR KOA KPO

KTBS WCAE WEAF WIBA WKY WMC WRC WSM WTAM WWNC

ED-6:45 p.m., E-5:45, C-4:45, M-3:45 ED-6:45 p.m., E-5:45, C-4:45, M-3:45 C--02zie Nelson and Orchestra CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPY KFRC KGB KHJ KLRA KLZ KMOX KOH KOL KSCJ KTRH KTSA, KVI KVOR WABC WACO WBBM WFCM WBIG WBRC WACO WBBM WFCM WBIG WBCC WBT WCAH WCAO WCCO WDAE WDAJ WDBO WDOD WDIC WDSU WEAN WFAN WFL WFFA WGST WHAS WHECC WHP WIBW WIP WISN WJAS WKBH WKBW

WIAS WHEC WHE WIBW WIF WISN WJAS WKBII WKBW WIBW WNAC WNAX WNOX WORC WOWO WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

R - Donald Novis, See Monday

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

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

C — William Vincent Hall CFRB CKOK KPBK KFH KFPY KFRC KGB KHJ KLZ KMBC KMOX KOH KOL KSCJ KTRH KTSA KVI KVOR WABC WACO WBBM WBCM WBIG WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WEAN WGR WGST WHAS WHEC WHP WIBW WISN WJAS WHEC WHP WIBW WISN WJAS WKBH WNAC WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA B -- Frankie Masters and Orchestra KOIL KWCR WBAL WCKY WIOD

WJZ

WGZ ED-7:30 p.m., E-6:30, C-3:30, M-2-V — Keenen and Phillips CFRB CKOK KFAB KFBK KFH KFJF KFPY KFRC KGB KHJ KLZ KMBC KOL KRLD KSCJ KTRH KTSA KVI KVOR WABC WACO WBBM WBCM WBIG WBRC WACO WBOD WBCW WBA WBBL WBA WCAO WCAU WDAE WDBJ WDBO WDOD WDSU WEAN WFBL WFEA WGL WGR WGST WHAS WHP

WGL WGR WGST WHAS WHP WIBW WISN WJAS WMAL WNAC WNAX WNOX WOKO WORC WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

B — Cuckoo Program, Ray Knight CKGW KEX KGA KJR KOA KTBS KWCR WBAL WFLA WGAR WHAM WIBA WJDX WJR WAR WHAM WRVA WSB WSM WWNC

ED-7:45 p.m., E-6:45, C-5:45, M-4:45 C — Do Re Mi, Female Trio CFRB KFAB KFBK KF

KFPY KFRC CFRB KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KOH KOL KRLD KSCJ KTRH KVI KVOR WARC WACO WBBM WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHP WIBW WISN WJAS WNAC WNAX WNOX WOKO WORC WOWO WQAM WREC WSPA WSPD WTAQ WTAR WTOC WWVA R - The Goldbergs Spo Monday

R - The Goldbergs, See Monday

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

R - Harlem Fantasy

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

B - The Play's the Thing

Saturday-Continued

KDKA KOIL KWCR WCKY WGAR WHAM WJR WJZ WLS WREN ED-8:15 p.m., E-7:15, C-6:15, M-5:15

C – Vaughn DeLeath CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPY KFRC KGB KHJ KLZ KMBC KOH KOL KSCJ KTRH KVI KVOR WABC WACO WBCM WBIG WBRC WCAO WCAU WCCO WDBJ WDBO WDOD WDSU WEAN WFBL WFEA WGR WGST WHP WFBL WFEA WGR WGST WHP WJAS WKBH WMAL WNAC WNAX WNOX WOKO WORC WOWO WQAM WSPA WSPD WTAQ WTAR WTOC WWVA

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C-U.S. Army Band CFRB CKOK KDYL KFBK KFH

KFJF KFPY KFRC KGB KHJ KLRA KLZ KMBC KMOX KOH KOL KMOX KOH KTRH KVI KOL KRLD KSCJ KTRH KVI KVOR WABC WACO WBCM WBIG WBRC KVOR WABC WACO WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDDO WDSU WEAN WFBL WFBM WFEA WGL WGR WGST WHAS WHEC WHK

WEAN WFBL WFBM WFEA WGL WGR WGST WHAS WHBC WHK WHP WISN WJAS WKBH WLBW WMAL WNAC WNAX WNOX WOKO WORC WFG WQAM WREC WSFA WTAQ WTAR WTOC WWVA $\mathbf{R} - \mathbf{K}$ -7, Drama FFI KFYR KGO KGW KOA KOMO KSD KSL KSTP KTBS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WPBR WFI WFIA WGY WHO WIBA WIOD WJAR WJAX WKY WOC WOW WRC WSAI WSM WTAG WTAM WWJ WWNC $\mathbf{B} - \mathbf{D}$ ance with Countess d'Orsay

B – Dance with Countess d'Orsay CFCF CKGW KDKA KWK WBAL WBZ WBZA WGAR WHAM WJR WJZ WMAQ WREN

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

C — Ann Leaf at Organ CFRB CKOK KDYL KFAB KFBK KFH KFJF KFRC KGB KHJ KLRA KLZ KMBC KOH KOL KSCJ KTRH KLZ KMBC KOH KOL KSCJ KTRH KVI KVOR WABC WACO WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WFEA WGL WGST WHAS WHEC WHK WHP WIBW WISN WJAS WJBH WKBW WLBW WMAL WMAC WNAX WNOX WORC WABH WABW WEBW WMAL WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WTAQ WTAR WTOC WWYA

WTOC WWVA R - Nationa Light Opera CFCF CKGW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFI WFLA WGY WHO WIOD WJAR WKY WMAQ WMC WOC WRC WSAI WSB WSM WTAG WTAM WWJ WWNC B Con Voo Pickens Siters

WWJ WWNO B -- Gus Van, Pickens Sisters KDKA KOIL KPRC KWCR KWK WAPI WBAL WBAP WBZ WBZA WGAR WHAM WDX WJR WJZ WLS WMC WREN WSB WSM WSMB

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C--Isham Jones and Orchestra CFRB CKOK KDYL KFBK KFH KFJF KFPY KFRC KGB KHJ KLRA KLZ KMBC KMOX KOH KOL KSCJ KTRH KVI KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD 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

ED-10-00 p.m., E-9:00, C-8:00, M-7:00 C - Music That Satisfies, See Monday R - Lucky Strike, See Tuesday

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

C — Public Affairs Institute KDYL KFBK KFH KFJF KFPY KPRC KGB KHJ KLRA KLZ KMBC KMOX KOH KOL KSCJ KTRH KTSA KVI KVOR WAAB WABC WBBM WBCM WBIG WBRC WBT WCAO WCCO WDAE WDBJ WDBO WDOD WDSU WEAN WFEM WFEA MOOT WHAS WHEA WHEM WFEM WGST WHAS WHEC WHP WIBW WJAS WKBH WKBW WLBW WMAL WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WPG WTOC

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 B — Twenty Fingers of Harmony CFCF CKGW KDKA WCKY WGAR

WHAM WJZ WREN

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

R — Ralph Kirbery, Dream Singer CFCF CKGW WCAE WEAF WFBR WFI WFLA WGY WIOD WIS WRC WTAG WTAM WWJ WWNC B - Amos 'n' Andy, See Monday

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

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Harold Stern and Orchestra

CFRB CKOK KDYL KFAB CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPC KFRC KGB KHJ KLRA KLZ KMBC KMOX KOH KRLD KSCJ KTRH KTSA KVI KVOR WAAB WABC WBCM WBT WCAO WCCO WDAE WDBJ WDBO WDOD WDRC 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 WEAF WEEI WFI WGY WJAR WMAQ WRC WTAM WWJ

ED-12:00 m., E-11:00, C-10:00, M-9:00 C — Guy Lombardo and Orchestra

C — Guy Lombardo and Orchestra CKOK KDYL, KFAB KFBK KFJF KFPY KFRC KGB KHJ KLRA KLZ KMBC KMOX KOH KOL KRLD KSCJ KTRH KTSA KVI KVOR WABC WBCM WBRC WBT WCAH WCAU WCCO WDAE WBJ WDBO WDOD WDSU WEAN WFBL WFBM WGL WGST WIAS WHEC WIR WHP WIBW WISN WKBW WHIK WHP WIBW WISN WKBW WLBW WMAL WMBD WNAC WNAX WNOX WODX WOKO WQAM WREC WSPD WTAR WTOC WWVA B — Jack Denny and Orchestra

KWCR WBAL WHAM WJZ WRC WREN

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

ED-12:30 a.m., E-11:30, C-10:30, M-9:30 B - Charles Agnew Orch., See Tuesday

SUNDAY

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

R — Major Bowes Family KEX KFYR KGA KJR KOA KPO KSL KSTP KTBS WAPI WCSH WDAF

WEAF WFLA WGY WIOD WLIT WMAQ WMC WPTF WRC WSM WTAM WWJ WWNC

ED-12:00 n., E-11:00, C-10:00, M-9:00 C — Voice of St. Louis

C — Voice of St. Louis CFRB KDYL KFAB KFBK KFJF KFRC KLRA KMBC KMOX KOL KSCJ KTRH KVOR WAAB WABC WBRC WCAH WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WFBL WFEA WGR WGST WHAS WHP WIBW WJAS WKBH WKAS WHA WMBD WNAX WNOX WODX WOKO WORC WOWO WPG WQAM WREC WTAQ WTAR WTOC WWYA

ED-12:30 p.m., E-11:30, C-10:30, M-9:30 Reis and Dunn

C - Reis and Dunn CFRB KDYL KFAB KFBK KFJF KFRC KHJ KLRA KMBC KMOX KOL KRLD KSCJ KTRH KVOR WAAB WABC WBBM WBRC WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WFBL WFEA WGR WGST WHAS WHP WIBW WJAS WKBH WKEN WMAL WMBD WNAX WNOX WODX WOKO WORC WPG WQAM WREC WSFA WTAQ WTAR WWVA P - Size Flute

R — Silver Flute WBEN WCKY WDAF WEAF WF1 WGY WHO WJAR WOC WRC WTAG WTAM

B - Summer Idylls, Catharine Field KEX KFYR KGA KJR KOA KPO KWCR KWK WBAL WENR WGAR WIOD WJZ WKY WLW WREN WSM

ED-12:45 p.m., E-11:45, C-10:45, M-9:45 C - Emery Deutsch and Orchestra

C — Emery Deutsch and Urchestra CFRB CKOK KDYL KFAB KFBK KFJF KFRC KHJ KLRA KMBC KOL KRLD KSCJ KTRH KVOR WAAB WABC WBBM WBCM WBRC WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDDU WDAU WGAU WDBO WDOD WDDU WFBL WGR WGST WHAS WHEC WIBW WISN WTLS WCHH WKRN WI BW WMAL WJAS WKBH WKBN WLBW WMAL WMBD WODX WOKO WORC WOWO WPG WQAM WREC WSFA WTAQ WTAR WWVA

ED-1:00 p.m., E-12:00, C-11:00, M-10:00 R - Garcia's Marimba Band

KEX KFYR KGA KJR KOA KPO KSL KTAR KTBS WBEN WCAE WCKY WDAF WDAY WEAF WFI WCKY WDAF WDAY WEAF WFI WFLA WGY WHO WIOD WJAR WMAQ WOC WTAM WWJ WWNC ED-1:15p.m., E-12:15, C-11:15, M-10:15

- Four Clubmen C CFRB CKOK KDYL KFAB KFBK KFJF KFRC KHJ KOL KSCJ KVOR WAAB WABC WBBM WBCM WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WFBL WOBO WOOD WDRC WDSU WFBL WGR WCST WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WKBN WLBW WMAL WMBD WODX WOKO WOWO WPG WQAM WREC WSPD WTAQ WTAR WWVA

ED-1:30 p.m., E-12:30, C-11:30, M-10:30 R — Great Composers (Symphony) CKGW KFI KFYR KGO KGW

ί κω KOMO KSTP KTBS KTBS WBEN KOMO KSTP KTBS KTBS WBEN WCAE WDAF WDAY WEAF WEEI WFAA WFBR WFI WFLA WGY WJAR WLIT WMAQ WOAH WRC WSAI WSM WSMB WTAG WTAM WWJ WWNC

B - Clyde Doerr's Saxophone Octet KDKA KFI KFSD KGO KHQ KOA

Sunday—Continued

KOMO KWCR WBAL WDAY WGAR WHAM WJZ WLW

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

C — Thirty-Minute Men CFRB CKOK KDYL KFJF KMBC KMOX KDYL KFAB KFBK KMOX KOL KSCJ KTRH KVOR WABC WBBM WBCM WBRC WBT WCAO WCAU WCCO WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDDC WDSU WEAN WFBL WFPAM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WKBN WLBW WMAL WNAC WNOX WODX WCAO WORC WOWO WQAM WSFA WTAQ WTAR WTOC WWVA

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

C — Ann Leaf at Organ CFRB CKOK KDYL KFAB KFJF KFRC KHJ KMOX KOL KSCJ KTRH WOR WABC WBBM WBCM WBRC WBT WCAH WCAO WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFEA WGL WGR WCST WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WLBW WMAL WNAC WNOX WODX WOKO WORC WQAM WSPD WTAQ WTAR WTOC WWVA

R — Moonshine and Honeysuckle

KSD WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHO WJAR WLIT WMAQ WOC WOW WRC WTAG WTAM WWJ

B - Yeast Foamers

KDKA KFI KFSD KFYR KGHL KDKA KFI KFSD KFYR KGHL KGO KGW KHQ KOIL KOMO KSTP KTAR KTHS KVOO KWCR KWK KYW WAPI WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WBA WIOD WIS WJAX WJDX WJR WJZ WLW WPTF WREN WRVA WSB WSM WSMB WTMJ WWNC

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

C-Symphonic flour 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 WDOD WDRC WDSU WCAU WCAU WCAU WCAU WDBJ WDBO WDOD WDRO "DOG WEAN WFBL WFBM WFEA WGL WHAS WHEC WHK WGAN WFBL WFBA 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 WWVA

- Gus Arnheim and Orchestra

KFI KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTBS KTHS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEEI WFAA WFBR WGY WIBA WJAR WKY WLIT WEBC WHO WIBA WOAI WOC WOW WRC WSAI WTAG WTAM WTMJ WWJ

B - Picadilly Circus

KDKA KOIL KWCR KWK WBAL WCKY WFLA WGAR WIOD WJDX WJR WJZ WREN WSM WWNC

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

R – National Sunday Forum KFYR KFHL KGIR KGO KGW KHQ KOA KPRC KSL KSTP KTAR KTBS KVOO KYW WBEN WCAE WCSH WDAF WFAF WEBC WEDI WFAA WFBR WFLA WGY WIBA WIOD WIS WJAR WJAX WJDX WKY WOAI WOW WPTF WRC

WRVA WSAI WSB WSM WSMB ED-5:15 p.m., E-4:15, C-3:15, M-2:15 WTAG WTAM WWJ WWNC R -- Kremlin Art Quintet

B — 43th Highlanders Military Band CKGW KDKA KOIL KWCR WBAL WBZ WBZA WGAR WHAM WJR WJZ WLW WMAQ WREN

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

CFRB CKOK KDYL KFAB KFBK KFH KFJF KFRC KHJ KLRA KMBC KMOX KOL KSCJ KTRH KMBC KMOX KOL KSCJ KTRH KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WKDN WALL WMBD WNAC WNOX WODX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA WTOC WWVA

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

- Temple of Song

KDKA KOIL KWCR WBAL WBZ WBZA WCKY WFLA WGAR WIIAM WJR WJZ WMAQ WREN

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

B — Highlights of Bible 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 WBZA WCKY WDAY WEEC WENR WFAA WFLA WGAR WIBA WIOD WIS WJDX WJR WIZ WEZ WMO WOAL WPTE WIBA WIOD WIS WJDX WJR WJZ WKY WMC WOAI WPTF WREN WRVA WSB WSM WSMB WWNC

ED-4:45 p.m., E-3:45, C-2:45, M-1:45

R — Pastels, String Quartet CKGW KSD WBEN WCAE WCSH WDAF WEAF WEEI WENR WFBR WFI WGY WHO WJAR WOC WOW WRC WSAI WTAG WTAM

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

ED-5:00 p.m., E-4:00, C-3:00, M-2:00 C — Irene Beasley, Round Towners CPRB CKOK KDYL KFAB KFBK KFH KFJF KFRC KHJ KLRA KMBC KMOX KOL KRLD KSCJ KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFEM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WHEBW WIBN WJAS WKBH WKBN WLBW WMBD WNAC WNOX WODX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

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

R — Sweetheart Days KEX KFSD KGA KJR KPO KTAR

R - Kremlin Art Quintet

CKGW WCAF WCSH WEAF WEEI WENR WFBR WFI WGY WJAR WRC WTAG

ED-5:30 p.m., E-4:30, C-3:30, M-2:30 C — Poet's Gold, David Ross

CFRB CKOK KDYL KFBK KFH KEFF KFRC KHJ KLRA KMBC KMOX KOL KRLD KSCJ KVOR WABC WBCM WBIG WBRC WBT WABC WBCM WBIG WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WFAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHP WIBW WISN WJAS WKBH WKBN WLBW WNAC WNOX WODX WOKO WORC WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

R - Pop Concert, Walter Logan KFSD KGO KGW KHQ KOA KSTP KTAR KTBS WAPI WBEN WCAE WCSH WDAF WEAF WEBC WEEI WESH WEAF WEAF WEDC WEER WENR WFBR WFI WFLA WGY WHO WIOD WJAR WKY WMC WOC WOW WRC WRVA WSAI WSB WSM WTAG WTAM WWJ WWNC

B - Road to Romany

KOIL KWCR KWK KYW WGAR WHAM WJR WJZ WLW WREN ED-5:45 p.m., E-4:45, C-3:45, M-2:45 C-Little Jack Little CFRB CKOK KDYL KFBK KFH

KFJF KFRC KHJI KLRA KMBC KFJF KFRC KHJI KLRA KMBC KOL KRLD KSCJ KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WKBN WLBW WNAC WNOX WODX WOKO WORC WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

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

CFRB CKOK KDYL KFAB KFBK KFJF KFRC KHJ KLRA KMOX KOL KRLD KSCJ KVOR WABC KFJF KFRC KHJ KLRA KMOX KOL KRLD KSCJ KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDOD WDRC WDBU WEAN WFBL WEFA WCFA WCJ WCD WEDD WEFA WEFA WEFA WEFA WEFA WEL WGR WGST WHAS WHEC WHK WHP WIBW WJAS WKBH WKBN WLBW WMAL WNAC WNOX WODX WOKO WORC WPG WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

R — Catholic Hour

R — Catholic Hour KEX KYSD KFYR KGA KGHL KGIR KJR KOA KPO KPRC KSTP KVOO WAPI WBAP WBEN WCAE WCSH WDAF WEAF WEEN WCY WIDAF WFAF WEAF WGY WHO WIBA WIOD WJAR WJAX WJDX WKY WLIT WMC WOAI WOC WOW WRC WRVA WSAI WSM WSYD WYGC WTYA WWI WWYO WSMB WTAG WTAM WWJ WWNC

B - Paul Whiteman and Orchestra

KGW KOIL KWCR KWK WBAL WBZ WBZA WCKY WGAR WHAM WJR WJZ WMAQ WREN

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

C-ROSES and Drums CKOK KMBC KMOX KRLD WAAB WABC WADC WBBM WCAO WDSU WFBM WGR WGST WHK WJAS WKRC WMAL

Sunday—Continued

WBEN WCAE WEAF WEEI WFBR WFLA WGY WIOD WIS WJAR WFLA WJAX WLIT WRVA WTAG WTAM ED-7:00 p.m., E-6:00, C-5:00, M-4:00

C - Four Eton Boys

CKOK KDYL KFAB KFBK KFH KFIF KFRC KHJ KMBC KMOX KOL KRLD KSCJ KTRH KVOR WABC WBBM WBCM WBIG WBRC WBT WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFAN WFBL WFBM WFEA WGL WGST WHAS WHEC WHP WGR WGDI WHAS WHEC WHP WIBW WIP WISN WJAS WKBH WKBN WLBW WMAL WNAC WNAX WNOX WODX WOKO WRC WPG WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWYA WIBW

R - Donald Novis, Tenor

R — Donald Novis, lenur KFSD KFYR KGO KGW KHQ KOA KSL KSTP KTAR KTBS KVOO WHEN WCSH WDAF WEAF WEBC WHEI WFBR WFLA WGY WHO WEEI WFBR WFLA WGY WHO WIBA WIOD WJAR WJDX WKY WLIT WMAQ WOC WOW WSAU WSM WTAG WTAM WWJ WWNC

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

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

CKOK KDYL KFAB KFH KFJF KFRC KHJ KMBC KMOX KOL KRLD KSCJ KTRH KVOR WABC KOL WBCM WBIG WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGL WGR WCST WHAS WHEC WHP WIBW WISN WHAS WHEE WHE WIDW WHAS WJAS WKBH WKBN WLBW WMAL WNAC WNAX WNOX WODX WOKO WORC WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

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

B - Commodores, Male Quartet KDKA KFI KFSD KFYR CFCF CFCF KDKA KFI KFSD KFYR KGO KHQ KOA KOIL KSL KSTP KTAR KTBS KWCR KWK WAPI WBAL WFLA WGAR WHAM WIOD WJR WJZ WKY WLS WLW WRVA WSB WSM WWNC WREN

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

CKOK KDYL KFAB KFH KFJF KHJ KMBC KMOX KSCJ KTRH KVOR KOI KFRC WABC KRLD WBIG WBRC WBT WCAH WBCM WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WFBL WFBM WDOD WDRC WDSU WFBL WFBM WFEA WGL WGR WGST WHAS WHEC WHK WHP WINW WISN WJAS WKBH WLBW WMAL WNAC WNAX WNOX WODX WOKO WORC WPG WQAM WREC WSPA WSPD WTAQ WTAR WTOC WWVA

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

CKOK KDYL KFAB KFH KFJF KFRC KHJ KMBC KMOX KOL KFRC KHJ KMBC KMOX KOL KSCJ KTRH KVOR WABC WBCM WBIG WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBM WFEA WGL WCR WCST WHAS WHEC WHP WIBW WISN WJAS WKBH

WKBN WLBW WMAL WNAC WNAX WODX WOKO WORC WQAM WREC WSFA WSPD WTAR WTOC WWVA

R — Chase and Sanborn Hour

CFCF CKGW KFI KFSD KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTHS KV00 WAPI WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WFAA WGY Who WFBR WFLA WHO WIOD WJAX WJAR WIS WKY WLIT WLS WMC WOAI WOC WPTF WSAI WRC WRVA WSAI WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC

B -

B — McCravy Brothers KDKA KOIL KTBS KVOO KWCR KWK WBAL WFLA WGAR WHAM WIS WJR WJZ WKY WMAQ WOAI WREN WWNC

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

B — New York Concert Orchestra KDKA KOIL KWCR WBAL WGAR WJR WJZ WLW WREN

ED-9:00 p.m., E-8:00, C-7:00, M-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 WPTF WSM WSMB WTAG WWNC

— Enna Jettick Melodies

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

ED-9:15 p.m., E-8:15, C-7:15, M-6:15 R — Album of Familiar Music

KFI KFSD KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTHS WAPI WBEN WCAE WCSH WDAY WEAF WEBC WENR WFAA WFBR WFI WFLA WGY WFAA WFBR WFI WFLA WGY WHO WIBA WIOD WJAR WJDX WKY WMC WOAI WOC WOW WRC WSAI WSB WSM WSMB WOC WON WOC WON WTAG WTAM WTMJ WWJ

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

CKOK KFJF KLRA KMBC KMOX KTSA WABC WADC WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WGN WGR WGST WHEC WHK WJAS WKRC WLAC WLBZ WMAL WNAC WOKO WSPD

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

R - Sheaffer Lifetime Review CKGW KSD WBEN WCAE WCSH WDAF WEAF WEEI WENR WFBW WFI WGY WHO WJAR WOC WOW WRC WSAI WTAG WTAM WTIC WWJ

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

C — Gem Highlights, Jack Denny CKOK KLZ KMBC KMOX KRLD WAAB WABC WADC WBBM WBT WCAO WCAU WCCO WDRC WDSU WFBL WFBM WCST WHK WJAS WKBW WKRC WMAL WOKO WSPD

ED-10:15 p.m., E-9:15, C-8:15, M-7:15 R - L'Heure Exquise

CKGW KSD KSTP KTBS WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFI WFLA WGY WHO

WJAR WKY WOC WRC WRVA WSAI WSMB WTAG WTAM WTIC WWJ WWNC

B - Old Singing Master

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

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 R - Sunday at Seth Parker's

CFCF KECA KFSD KFYR KGHL KCIR KCO KGW KHQ KOA KOMO KCIR KCO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTBS KYW WAPI WBEN WCAE WCSH WDAF WEDAY WEAF WEBC WEEL WFAA WFBR WFI WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMC WOAI WOC WOW WPTF WRC WRVA WS WSM WTAM WTMJ WWJ WSAI WSB

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

CFRB CKOK KDYL KEAB KEBK KFH KFJF KFRC KHJ KLRA KMBC KMOX KOL KRLD KSCJ KTRH KVOR WAAB WABC WBCM WBRC WBT WCAH WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFAN WFBL WFBM WGL WGR WHAN WHEL WHEM WGL WGR WHAS WHEW WHP WISN WJAS WKBN WLBW WMAL WMBD WNOX WOKO WPG WQAM WREC WSPD WTAR WTOC WSFA

- Malik Mystery Drama B -

KOIL KWCR WBAL WCKY WHAM WJZ WMAQ WREN

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 R — Beau Balladeer

KFI KGHL KGO KGW KHQ KSTP KTBS WCAE WEAF WFBR WFI WFLA WGY WHO WIOD WJAR WJDX WMAQ WOC WOW WRC WSAI WSM WSMB WTAM WWJ WWNC

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 - Ozzie Nelson and Orchestra

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

C — Pennzoil Parade

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

R - Mood Oriental

KFI KFSD KFYR KGHL KGO KGW KHQ KOA KOMO KSTP KTAR KTBS WCAE WDAF WEAF WEBC WFBR WFI WGY WIBA WJAR WMAQ WOW WRC WSB WSM WMAQ WWI WTAM |

ED-12:00 m., E-11:00, C-10:00, M-9:00 C - Gus Arnheim and Orchestra

CKOK KFAB KFBK KFBK KFJF KIRA KSCJ KTRH WABC WBCM WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WFBM WGL WGR WHAS WHK WHP WIBW WISN WEAN WHEC WHK WMAL WLBW WMBD WKBN WNAC WNAX WNOX WOKO WQAM WREC WSFA WSPD WTAR WTOC

B - Wm. Stoess and Orchestra KGHL KGO KGW KOA KOIL KOMO KSTP KTBS KWCR WDA KOIL KOMO KSTP KTBS KWCR WDAY WENR WFLA WGAR WHAM WIOD WJR WJZ WKY WLW WMC WREN WSB WWNC

CLASSIFIED INDEX to CHAIN PROGRAMS

Time in Eastern Daylight Standard

BANDS

48th Highlanders, 3:30 p.m., Sunday, B. Garcia's Marimba Band. 1:00 p.m., Sunday, R. Little German Band. 6:00 p.m., Saturday, B. U.S. Army Band, 8:30 p.m., Saturday, C.

CHILDREN

Lady Next Door, 4:45 p.m., daily, ex. Sat. and Sun.; 4:30 p.m., Saturday, R.

Little Orphan Annie, 5:45 p.m., daily, ex. Sunday, B.

CONCERTS

- Ballad Hour, 6:00 p.m., Sunday, C. Howard Barlow Symphony, 11:00 p.m., daily, ex. Saturday and Sunday, C. Cities Service, 8:00 p.m., Friday, R.

- Citics Service, 8:00 p.m., Friday, R. Gauchos, 11:00 p.m., Sunday, C. Great Composers, 1:30 p.m., Sunday, R. Andre Kostelanetz, 8:30 p.m., Friday, C. Kremin Art Quintet, 5:15 p.m., Sunday, R. U'Heure Exquise, 10:15 p.m., Sunday, R. Mobiloi, 9:30 p.m., Wednesday, R. Mobiloi, 9:30 p.m., Wednesday, R. Modol Oriental, 11:30 p.m., Sunday, R. National Light Opera, 9:00 p.m., Saturday, R. New York Orchestra. 8:15 p.m., Sunday, R. Pastels, String Quartet, 4:45 p.m., Sunday, R. Cesare Sodero, 11:15 p.m., Sunday, R. Swentheart Days, 6:30 p.m., Janday, C. Waldorf-Astoria, 6:00 p.m., daily, ex. Sunday, R.

DANCE BANDS

- DANCE BANDS Charles Agnew, 12:30 a.m., Tuesday and Saturday, B. Gus Arnheim, 3:00 p.m., Sun, R, 12 mid., Sun., C. Ben Bernie, 9 p.m., Tuesday; 12:30 a.m., Wednesday, R. Jack Denny, 11:30 p.m., Tuesday, R; 12 mid., Saturday, B; 10:00 p.m., Sunday, C. Clyde Doerr, 7:00 p.m., Thursday, R; 1:30 p.m., Sunday, B. Duke Ellington, 12:30 a.m., Wednesday, Friday, C. Tom Gerun, 12 mid., Thursday, R. Lloyd Huntley, 12:30 a.m., Sunday, B. Jsland Bnat Club, 9:00 n.m. Wednesday, B.

- Jaya Boat Club, 9:00 p.m., Wednesday, B.
 Isham Jones, 7:15 p.m., Mon. and Fri; 10:30 p.m., Tues., Wed., Thurs: 9:30 p.m., Sat., Cr.i; 10:30 p.m., Tues., Baron Lee, 11:45 p.m., Monday, R; 12 mid., Wednesday
- and Friday, B.
- and Friday, B. Guy Lombardo, 10:30 p.m., Mon., Fri.; 9:00 p.m., Wed.; 12:00 mid., Saturday, C. Lucky Strike, 10 p.m., Tues, Thurs, and Sat., R. Abe Lyman, 8:15 p.m., Tuesday and Thursday, C. Freddie Martin, 11:45 p.m., Mon., Tues., Fri., C. Frankie Masters, 7:15 p.m., Saturday, B. Clyde McCoy, 12:30 a.m., Monday, B. Merry Madcans, 6:45 p.m., Friday, R.

- Haline maeries, 170 p.m., Vacutay, B.,
 Clyde McCoy, 12:30 a.m., Monday, B.,
 Merry Madcaps, 6:45 p.m., Friday, R.,
 Jack Miller, 6:30 p.m., Tues, Thurs, and Sat., C.,
 Ozzie Nelson, 11:30 p.m., Sun.; 11:45 p.m., Wed. and
 Thurs, 12:00 mid., Fri; 6:45 p.m., fat., C.,
 George Olsen, 9:30 p.m., Monday and Wednesday, B.,
 Pacific Serenaders, 12:30 a.m., Thursday, B.,
 Graham Prince, 6:15 p.m., Friday, B.,
 Buddy Rogers, 12 mid., Mon., Wed. and Sat., R.,
 Andv Sanella, 5:30 p.m., Monday and Saturday, R.,
 Noble Sissle, 12:00 mid., Thursday, C.,
 Walter Smith, 8:30 p.m., Tuesday, R.,
 Harold Stern, 12:00 mid., Sunday, B.,
 Rudy Valke, 8:00 p.m., Thursday, R.,
 Paul Whiteman, 11 p.m., Mon., Thurs, 12:05 a.m., Tues, ;
 10:00 p.m., Fri; 11:30 p.m., Stat., R;

Amos 'n' Andy. 7:00 and 11:00 p.m., daily, ex. Sunday, B. Big Time, 8:00 p.m., Wednesday, R.

DIALOG-Continued

- Burns and Allen. 9:00 p.m., Wednesday, C. Clara, Lu'n' Em. 10:15 a.m. daily, ex. Sat. and Sun., B. Cuckoo, Ray Knight, 7:30 p.m., Saturday, B. Funnyboners, 6:45 p.m. Monday and Wednesday, C. Jones and Hare, 7:45 p.m. and 12:30 a.m., Mon., Wed. and Fri B. Jones and Hare, 7:45 p.m. and 12:30 a.m., Mon., Wed. and Fri. B. Opry House, 6:30 p.m., Saturday, R. Ray Perkins, 7:30 p.m., Tuesday and Thursday, R. Reiss and Dunn. 12:30 p.m., Sun.; 6:15 p.m., Mon., C. Stebbins Boys, 7:30 p.m., daily, ex. Sat. and Sun. B. Col. Stoopnagle and Budd, 8:45 p.m., Mon. and Wed., C. Tastyeast lesters, 7:15 p.m., Monday, B. Tish, 10:30 p.m., Monday, Tuesday and Wednesday, B. Ward Wilson, 7:15 p.m., Wed., Thurs. and Fri., B.

DRAMA

- DRAMA Eno Crime Club, 9:30 p.m., Tues. and Wed., C. First Nighter, 9:00 p.m., Friday, B Friendship Town, 9:30 p.m., Tuesday, B. Goldbergs, 7:45 p.m., daily, ex. Sunday, R. K-7. 8:30 p.m., Saturday, R. Pnillips Lord, 10:00 p.m., daily, ex. Sat.and Sun., B. Love Story Hour, 9:30 p.m., Thursday, C. Malik Mystery, 11:00 p.m., Sunday, B. 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. Myrt and Marge, 7:00 and 10:45 p.m., daily Sun, C. Rin Tin Tin, 8:30 p.m., Thursday, B. RKO Mystery, 10:30 p.m., Friday, R. Roses and Drums, 6:30 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 Braggioti, 10:15 p.m., Friday, C. Archer Gibson, 10:30 p.m., Wednesday, R. Harding Sisters, 6:30 p.m., Wed., R.; 10:45 p.m., Sat., B. Kcenan and Phillips, 7:15 p.m., Tues; 7:30 p.m., Sat., C. Ann Leaf, 2:30 p.m., Sunday; 9:00 p.m., Saturday, C.

POPULAR PROGRAMS

A & P Gypsies, 9:00 p.m., Monday, R. Armour Program, 9:30 p.m., Friday, B. Jack Benny, 9:30 p.m., Monday and Wednesday, B.

- Jack Benny, 9:30 p.m., Monday and Wednesday, B. Major Bowes, 11:30 a.m., Sunday, R. Carnation Contented, 8:00 p.m., Monday, B. Chase and Sanborn, 8:00 p.m., Monday, R. Cliequot Cub, 9:00 p.m., Friday, R. Columbia Revue, 12:30 p.m., daily, ex. Sat. and Sun., C. Countess d'Orsay, 8:30 p.m., Sturday, B. Enna Jettick Melodies, 9:00 p.m., Sunday, B. Jay C. Flippen, 9:00 p.m., Tues., 9:45 p.m., Frii, C. Jack Frost Melody, 8:30 p.m., Mednesday, B. Gerardine Procram, 8:30 p.m., Monday, R. Gerardine Procram, S:30 p.m., Mursday, C.

Genardine Program, S.30 p.m., Monday, K. Gerardine Program, S.30 p.m., Thursday, C. Goodyear Program, 9:00 p.m., Wednesday, R. Harlem Fantasy, 8:00 p.m., Saturday, R. Household Program, 9:00 p.m., Tuesday, B. Kodak Week-End, 9:00 p.m., Friday, C. Maxwell House, 7:30 and 11:15 p.m., Mon., Wed. and Exist Descent

Fri R. Musical Fast Freight, 10:15 p.m., Tues, and Thurs., C. Nestle's Program, 8:00 p.m., Friday, B. Pennzoil Parade, 9:30 and 11:30 p.m., Sunday, C. Picadilly Circus, 3:00 p.m., Sunday, B. Pond's Program, 9:30 p.m., Sunday, R. Road to Romarny, 5:30 p.m., Sunday, R. School Room Frolices, 9:00 p.m., Thursday, R. Silver Flute, 12:30 p.m., Sunday, R. Silver Flute, 12:30 p.m., Sunday, R.

Sinclair Wiener Minstrels, 9:00 p.m., Monday, B. Ed Wynn, 9:30 p.m., Tuesday, R. Yeast Foamers, 2:30 p.m., Sunday, B.

Fri R

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OUARTETS

Candle Lightin' Time, 8:30 p.m., Friday, B. Commodores, 7:30 p.m., Sunday, B. Corn Cob Pipe Club, 10 p.m., Wednesday, R. Dandies of Yesterday, 6:30 p.m., Wednesday, B. Dandles of Yesterday, b:30 p.m., Wednesday, B. Four Clubmen, 1:15 p.m., Sunday, C. Four Eton Boys, 7:00 p.m., Sun,; 9:45 p.m., Fri., C. Melodeers, 7:15 p.m., Wednesday, C. Rills Bros, 9:15 p.m., Monday and Thursday, B. Sear Fellowa, 10:15 p.m. Fixiday, B. Song Fellows, 10:15 p.m., Friday, B.

RELIGIOUS

Cathedral Hour, 4:00 p.m., Sunday, C. Catholie Hour, 6:00 p.m., Sunday, R. Chicago Knights, 7:15 p.m., Sunday, R. 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. World of Religion, 5:00 p.m., Sunday, B.

SINGERS

Gene Austin, 7:45 p.m., Tuesday and Thursday, B. Irene Beasley, 5:00 p.m., Sun.; 6:00 p.m., daily, ex. Sat. and Sun., C.

- and Sun., C. Beau Balladeer, 11:15 p.m., Sunday, R. Connie Boswell, 7:45 p.m., Weduesday and Friday, C. Boswell Sisters, 10:00 p.m., Mon.; 9:00 p.m., Thurs., C. Charles Carlile, 11:30 p.m., Mon., Wed. and Fri., C. Richard Crooks, Firestone, 8:30 and 11:30 p.m., Mon., R. Vaughn DeLeath, 6:30 p.m., Mon. and Fri.; 8:15 p.m., Sat., C. Do Re Mi, 7:45 p.m., Saturday, C. Ruth Etting, 10:00 p.m., Wed.; and 9:00 p.m., Sat., C. Catharine Field, 12:30 p.m., Sunday, B. Jane Froman, 4:00 p.m., Sunday, B. Jane Froman, 4:00 p.m., Sunday, B. Tito Guizar, 7:45 p.m., Mon.; 9:30 p.m., Fri., 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.

SINGERS-Continued

- Theo Karle, 7:45 p.m., Sunday, C. Ralph Kirbery, 11:00 p.m., Saturday, 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. Rosa Low, 8:45 p.m., Tuesday, B. Madison Singers, 6:45 p.m., Friday, C. McCravy Bros., 8:00 p.m., Sunday, B. Frank Munn, 9:15 p.m., Sunday, R. Doneld Nucie 7:00 p.m. Sun 6:45 p.m. Mon. Wed and

Donald Novis, 7:00 p.m., Sun.; 6:45 p.m., Mon., Wed. and Sat., R.

- Sat., R. Old Singing Master, 10:15 p.m., Sunday, B. Pickens Sisters, 7:00 p.m., Sun.; 0:00 p.m., Saturday, B. Georgie Price, 7:45 p.m., Tuesday and Thursday, C. 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. Temple of Song, 4:00 p.m., Sun.; 10:30 p.m., Thurs., Fri. and Sat B. Sat., B.
- Gus Van, 9:00 p.m., Saturday, B. Gus Van, 9:00 p.m., Saturday, B. Whispering Jack Smith, 10:15 p.m., Mon., Wed. and Thurs., B.
- Whiteman's Rhythm Boys, 5:15 p.m., Mon., Thurs. and Sat., R.

TALKS

Adventures in Health. 10:15 p.m., Wednesday, C. Cheerio, 8:30 p.m., daily, except Sunday, R. William Hard, 6:45 p.m., Tuesday, R. Edwin C. Hill, 8:00 p.m., daily, ex. Sunday, C. David Lawrence, 9:00 p.m., Sunday, R. National Farm and Home. 1:30 p.m., daily, ex. Sun., B. Porte Geld, 5:20 p.m., Sunday, R.

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.

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

- Verifies reception for return postage. a
- Verifies only occasionally. ь
- C
- Does not verify. Verification 25c; reply card 10c. Sends Ekko stamp for 10c. d
- e
- Sends Ekko stamp for 5c.

- Sends Ekko stamp for postage
- ß Sends own station stamp for 10c
- Sends own station stamp for 5c.
- Sends own station stamp for postage.
- k Has no stamps.

- These stations are synchronized. National "Blue" Network. B
- č Columbia network.
- Ď Daytime only.
- Dn Daytime with occasional evening hours
- ĒFG Trans-Canada network.
- Canadian National Railways network
- All Canadian networks.
- Ĥ Yankee network
- J K
- Tankee network. Orange and gold networks. Mexican networks. Canadian Pacific Ry. network (Dominion) Canadian Radio Corp. network. National "Red" and "Blue" networks. I
- м
- Has construction permit only.

Failed to reply. 7

Fourth Column Symbols

45 1

- Great Lakes network. National "Red" network. Sunday only.
- R
- Ŝ
- Don Lee System. Dixie network.
- Ū Maritime Broadcasting network. Curtis-Indiana network.
- ŵ
- X Y Has permit to increase power

No information

- Has permit to change location.
- Has permit to change frequency. 7.
- a-b-c. Small letters show stations using same transmitter.
- 1-2-3. Figures denote stations sharing time.

				NOTICE OF COPY engths or frequencies w righted each year since ngths, with dial reading ill be vigorously prosect	as c e th	devised by The Radex Press in 1924 and hat time. The arrangement of stations in connection therewith is fully suggest by
			FOR	KEY TO SYMBOLS	s se	E PAGE 45
540 1	kilo	cycle	es 555	.6 meters		94
CKOK	ae	5000	CG	Windsor, Ont.		Essex Broadcasters, Ltd.
550 1	ciloo	cycle	es 545	.1 meters	-	46
KFDY	ae	500	(1) 1 2(1)	Brookings, S. D. St. Louis, Mo.	·	South Dakota State College
KFUO KFYR KOAC	ae ah	500 1000	2(1) 1N(2.5)	St. Louis, Mo. Bismarck, No. Dake	hta	Evangelical Lutheran Church Meyer Broadcasting Co.
KOAC	ak	1000		Corvallis, Ore.	Ju	Oregon State Agricultural College
KSD WDEV	ak ae	$\frac{500}{500}$	2R D	St. Louis, Mo.		Pulitzer Publishing Co. Harry G. Whitehill
WGR	ae	1000	č	Waterbury, Vt. Buffalo, N. Y.		Buffalo Broadcasting Corp.
WKRC	ak	1000	С	Cincinnati, Ohio		WKRC, Inc., Hotel Alms
560 1	cilo	cycle	es 535	.4 meters		
KFDM	ak	500	(1)	Beaumont, Texas		Sabine Broadcasting Co., Inc.
KLZ KTAB	ae ae	1000 1000	C	Denver, Colo. San Francisco, Cali	c	Revnolds Radio Co., Inc.
WFI	ae	500	1R	Philadelphia, Pa.	1.	Associated Broadcasters, Inc. WFI Broadcasting Co.
WIBO WLIT	ae z	1000 500	(1.5)a 1R	Chicago, Ill.		WFI Broadcasting Co. Nelson Bros. Bond & Mtg. Co.
WNOX	åk	1000	C(2)	Philadelphia, Pa. Knoxville, Tenn.		Lit Bros. Store So. Carolina Broadcasting Co., Inc.
WPCC	ak	500	Sa	Knoxville, Tenn. Chicago, Ill.		North Shore Congregational Church
WQAM	ae	1000	С	Miami, Fla.		Miami Broadcasting Co.
570 1	cilo	cycle	es 526	.0 meters		
KGKO KMTR	z z	250 500	(.5)	Wichita Falls, Texas	s	Wichita Falls Broadcasting Co.
KVI	z ae	500	C	Hollywood, Calif. Tacoma, Wash.		KMTR Radio Corp. Puget Sound Broadcasting Co.
TGW	z	50		Guatamala		r uger sound broadcasting co.
WEAO WKBN	ae ak	750 500	1 1C	Columbus, Ohio		Ohio State University
WKBN WMCA	ak	500	3	Youngstown, Ohio New York, N. Y.		WKBN Broadcasting Corp. Knickerbocker Broadcasting Co., Inc.
WNAX WNYC	ae	1000 500	C	New York, N. Y. Yankton, S. D.		House of Gurney, Inc. Dept. of Plant & Structures
WSYR	ak ak	250	3 R2a	New York, N. Y. Syracuse, N. Y.		Dept. of Plant & Structures Clive B. Meredith Estate (WMAC)
WWNC	ae	1000	N	Asheville, N. C.		Citizens Broadcasting Co., Inc.
580 1	cilo	cycle	es 516	.9 meters		
	agj	500	Sa	Toronto, Ont.		The Dominion Battery Co.
CFCL CFCY	ae	500	E	Charlottetown, P. E	E. I.	Island Radio Broadcasting Co., Ltd.
CHMA CKCL	z agj	250 500	4S а	Edmonton, Alta.		Christian & Missionary Alliance
CKUA	ak	500	4F	Toronto, Ont. Edmonton, Alta.		The Dominion Battery Co. University of Alberta
KMJ	ak	500	CT	Fresno, Calif.		McClatchy Radio Stations (Fresno Bee
KSĂC WDBO	ak ae	$\frac{500}{250}$	2(1) CU	Manhattan, Kans. Orlando, Ela		State Agricultural College
WIBW	ae	1000	CU C2	Orlando, Fla. Topeka, Kans.		Orlando Broadcasting Co., Inc. Capper Publications WOBU, Inc., Ruffner Hotel WSAZ, Inc.
WOBU WSAZ	ak ak	250 250	1(.5) 1(.5)	Charleston, W. Va. Huntington, W. Va.		WOBU, Inc., Ruffner Hotel
WTAG	ae	250	R(.5)	Worcester, Mass.	•	Worcester Telegram Pub. Co., Inc.
590 l	cilo	cycle	es 508	.2 meters		71 2 -
	ae	5000	595GZ	London Ont		Free Press Printing Co., Ltd.
CJGC KHQ WCAJ	ak	1000	N(2)	Spokane, Wash.		Louis Wasmer, Inc.
WCAJ WEEI	ae ak	$\begin{array}{c} 500 \\ 1000 \end{array}$	1 R	Spokane, Wash. Lincoln, Neb. Boston, Mass.		Nebraska Wesleyan University Edison Electric Illuminating Co.
WKZO	ae	1000	D	Kalamazoo, Mich.		WKZO, Inc., Burdick Hotel Woodmen of the World
wow	aeh	1000	1R	Omaha, Neb.		Woodmen of the World
				[46]		

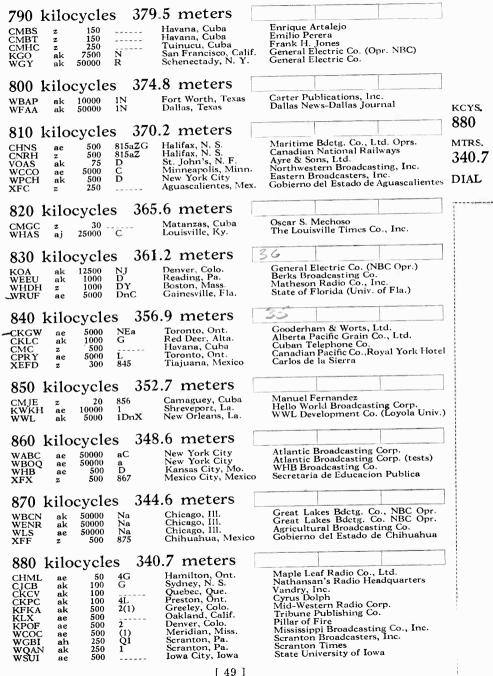
600 kilocycles 499.7 meters KCYS. 670 CNRO 500 F Canadian National Railways ak Ottawa, Ont. Ñ(1) San Diego, Calif. Airfan Radio Corp. KFSD ah 500 Connecticut Agricultural College Monumental Radio Co. Bridgeport Bdctg. Station, Inc. 31st Street Baptist Church WCAC 250 alc 2 Storrs, Conn. MTRS. WCAO ae 250 С Baltimore, Md. 2H(.5) WICC 250 Bridgeport, Conn. 447.5ae W JED WMT 250 PD Indianapolis, Ind. Waterloo Broadcasting Co. C C(1) Waterloo, Iowa 500 ak WREC DIAL 500 Memphis, Tenn. WREC, Inc. 7. 610 kilocycles 491.5 meters 4 1000 KFRC С San Francisco, Calif. Don Lee. Inc. ae Development Board VPN 500 Nassau, Bahama Kansas City, Mo. 7 WDAF Kansas City Star Co. WIP-WFAN Broadcasting Co. 1000 R ae WIP WJAY XETR Philadelphia, Pa. 500 С ak Ď Cleveland Radio Broadcasting Corp. z 500 Cleveland, Ohio 2500 Mexico City, Mexico Cia. Difusora Mexicana S. A. 7 620 kilocycles 483.6 meters KGW 1000 Oregonian Publishing Co. Portland, Ore. 86 KTAR 500 NI(1)Phoenix, Ariz. KTAR Broadcasting Co. ae WFLA WLBZ 1000 Na(2.5) Florida West Coast Bdct. Co., Inc. Clearwater, Fla. 80 Maine Broadcasting Co., Inc. Florida West Coast Bdctg. Co., Inc. Journal Company 500 Bangor, Maine C 7. WSUN Na(2.5) St. Petersburg, Fla. 80 1000 WTMJ N(2.5) Milwaukee, Wis. 1000 ae 630 kilocycles 475.9 meters CFCT CJGX CKOC CKTB CMCJ CMQ CNRA 500 Victoria Broadcasting Assn. G Victoria, B. C ae 500 FL Yorkton, Sask. Winnipeg Grain Exchange яe Wentworth Radio Bdctg. Co., Ltd. Wentworth Radio Bdctg. Co., Ltd. 1000 635aG Hamilton, Ont. 80 1000 St. Catharines, Ont. 635aL aej z 250 Havana, Cuba Havana, Cuba Rafael Rodriguez 250 Jose Fernandez z ae 700 F Moncton, N. B. Canadian National Railways HIX 1000 Santo Domingo, D. R. The Dominican Government ah Columbia, Mo. Pierre, S. D. Evansville, Ind. KFRU Stephens College Dana McNeil яk 500 1 KGFX 200 Đ z WGBF WMAL WOS ŵ 500 Evansville On the Air, Inc. яе M. A. Leese Radio Corp., Inc. Missouri State Marketing Bureau 250 C(.5) Washington, D. C. Jefferson City, Mo. ae 500 1 z XETF ak ĥ Veracruz., Ver., Mexico Manuel Angel Fernandez 500 640 kilocycles 468.5 meters CHIRC 645aG Quebec, Que. Quebec, Que. Waterloo, Ont. CHRC, Ltd., Victoria Hotel ak 100 CKCI CKCR KFI 645a Le Soleil, Ltd. Mitchell & Liddle ck 100 645G ak 100 яh 50000 NI Los Angeles, Calif. Columbus, Ohio Earle C. Anthony, Inc American Insurance Union WAIU 500 яe 5000 ñ State College of Agriculture WOI Ames, Iowa яe 650 kilocycles 461.3 meters KPCB WSM Seattle, Wash. Nashville, Tenn. Queen City Broadcasting Co. 100 Ň 50000 National Life & Accident Ins. Co. aei 454.3 meters 660 kilocycles 100 CHWK ak 665 Chilliwack, B. C. Chilliwack Broadcasting Co., Ltd. CJRM CJRW CMAF Jas. Richardson & Sons, Ltd. Jas. Richardson & Sons, Ltd. 665 z 500 Moose Jaw, Sask. Fleming, Sask. z 1000 665 Havana, Cuba Havana, Cuba 500 International Broadcasting Co. z **CMCO** 250 J. L. Stowers z Republic of El Salvador RUS 500 664 Salvador z WAAW Omaha, Neb. Omaha Grain Exchange 500 D 7 50000 National Broadcasting Co., Inc. WEAF ak R New York City 670 kilocycles 447.5 meters WMAO ae 5000 N Chicago, Ill. WMAQ, Inc. (NBC Lessees)

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INDEX BY FREOUENCIES AND DIAL NUMBERS 680 kilocycles 440.9 meters KFEQ Scroggin & Co. Bank 2500 ae D St. Joseph, Mo. KPO WPTF San Francisco, Calif. National Broadcasting Co., Inc. 5000 Ñ ak N Dn ae 1000 Raleigh, N. C Durham Life Insurance Co. Mexico, Mexico XFG 2000 683.3 Sria. de Guerra y Marina z 690 kilocycles 434.5 meters £ 1G CM 1LE CFAC CFRB яk 500 Calgary, Alta. Calgary Herald, Ltd. Toronto, Ont. Rogers-Majestic Corp., Ltd. 10000 ae CJCJ NAA VAS 500 Albertan Publishing Co., Ltd. $\mathbf{a}\mathbf{k}$ Calgary, Alta. z 1000 Arlington, Va. U. S. Navy Glace Bay, N. S. Monterrey, Mexico Halifax, N. S. Canadian Marconi Co. 2000 685 Z XET ck 500 Cadena Radio Difusora Mexicana S. A. VCX 100 Sambro Lightship 7. 700 kilocycles 428.3 meters WL.W 50000 в Cincinnati, Ohio The Crosley Radio Corporation ae 422.3 meters 710 kilocycles KMPC 500 Beverly Hills, Calif. Newark, N. J. R. S. MacMillan Dn z WOR X 711K Bamberger's'Broadcasting Service, Inc. Cerveceria Modelo S. A. ak 5000 XEN agj 1000 Mexico City 720 kilocycles 416.4 meters WGN 25000 WGN, Inc., Drake Hotel ak C Chicago, Ill. 730 kilocycles 410.7 meters CHLS CHYC CKAC CKCD 100 1b Vancouver, B. C. W. G. Hassell (Province Bldg.) ak 5000 Sa CaM Montreal, Que. Montreal, Que. Northern Electric Co., Ltd. \mathbf{z} ak 5000 La Presse Publishing Co., Ltd. Vancouver, B. C Vancouver Daily Province 100 50 1b 7 United Church of Canada Sprott-Shaw Radio Co. Western Broadcasting Co., Ltd. CKFC CKFC CKMO CKWX CMK ak Vancouver, B. C. 1 100 1 Vancouver, B. C. z īL ak 100 Vancouver, B. C National Broadcasting Co. of Cuba Villa Acuna Broadcasting Co., Inc. 5000 Havana, Cuba aeh 75000 735 XEF-XER z Villa Acuna, Mexico 740 kilocycles 405.2 meters CJCA KMMJ WSB 500 745EL Edmonton Journal, Ltd. M. M. Johnson Co. (R/C Lincoln) Atlanta Journal, Biltmore Hotel Granite State Broadcasting Co. Edmonton, Alberta ae bk 1000 Dn Clay Center, Neb. ND Atlanta, Ga. 5000 aeh WHEB z 250 Portsmouth, N. H. 750 kilocycles 399.8 meters KGU VOWR 2500 NX Honolulu, Hawaii Advertiser Publishing Co. Wesley United Church WJR, The Goodwill Station, Inc. Radio Difusora National S. A. ak 500 St. John's, N. F. WJR XEO 10000 B Detroit, Mich. Juarez, Chih., Mexico ak aeh 5000 760 kilocycles 394.5 meters 250 American Radio Tel. Co. KXA ae (.5)Seattle, Wash. WEW 1000 Ď St. Louis, Mo. St. Louis University ae WJZ \mathbf{ck} 30000 в New York City National Broadcasting Co., Inc. 770 kilocycles 389.4 meters 5000 KFAB WBBM KFAB Broadcasting Co. WBBM Bdctg. Corp. (Wrigley Bldg.) 90 1C 1C Lincoln, Neb. 25000 Chicago, Ill. ae 780 kilocycles 384.4 meters Winnipeg, Man. Burbank, Calif. Los Angeles, Calif. Providence, R. I. Memphis, Tenn. Manitoba Telephone System Magnolia Park, Ltd. Pickwick Broadcasting Corp., Ltd. CKY KELW 5000 z 2 500 aeh KTM WEAN 2(1) CH(.5) ae 500 Shepard Broadcasting Corp., Ltd. Shepard Broadcasting Service, Inc. Memphis Commercial Appeal, Inc. WTAR Radio Corp. (Norfolk) 250 ak WMC WPOR 500 Ň (Ì) ak aeh 500 ь Portsmouth, Va. WTAR ъС WTAR Radio Corp. 500 Norfolk, Va. aeh XEZ z 500 Mexico, Mexico Joaquin Capilla

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					D DIAL NUMBERS
890	kilo	cycle	es 33	6.9 meters	
CFBO	z	500		St. John, N. B.	C. A. Munro, Ltd.
CKCO CKPR	zak	100 50	3 3G	Ottawa, Ont. Fort William Out	Dr. G. M. Geldert
CMCF CMX	ak	250	1	Fort William, Ont. Havana, Cuba	Dougall Motor Car Co., Ltd. Raoul Karman, Casa DelaPorte
CMX KARK	ae	3000	1	Havana, Cuba	Raoul Karman, Casa DelaPorte Casa "Lavin" Francisco A.Lavin, Adm.
KFNF	ak ak	250 500	2(1)	Little Rock, Ark.	Arkansas Radio & Equipment Co.
KSEI	ae	250	(.5) 2	Shenandoah, Iowa Pocatello, Idaho	Henry Field Company Radio Service Corporation
KUSD	ae	500	2	Vermillion, S. Dak.	Radio Service Corporation University of South Dakota The Gaiety Theatre
VOGT WGST	z∕ ae	100 250	C(.5)	Vermillion, S. Dak. Wabana, N. F. Atlanta, Ga. Urbana, III.	The Gaiety Theatre
WILL	ak	250	C(.5) 2(.5) (.5)R	Urbana, III.	Southern Broadcasting Co. University of Illinois
WJAR WMMN	ae aeh	250 250	(.5)R (.5)	Providence, R. I. Fairmont, W. Va.	The Unitlet Co.
				Fairmont, w. va.	Holt-Rowe Broadcasting Co.
900	kilo	cycle	es 33.	3.1 meters	
KGBU	z	500		Ketchikan, Alaska	Alaska Radio & Service Co.
KHJ WBEN	ae ae	$1000 \\ 1000$	C T R	Los Angeles, Calif. Buffalo, N. Y.	Don Lee, Inc. WBEN, Inc., Buffalo Evening News City of Jacksonville
WJAX	aeh	1000	N	Jacksonville, Fla.	WBEN, Inc., Buffalo Evening News
WJAX WKY	ае	1000	N	Oklahoma City, Okla Stevens Point, Wis.	City of Jacksonville • Oklahoma Publishing Co.
WLBL	ae	2000	D	Stevens Point, Wis.	Wis. Dept. Agriculture & Markets
910 1	kilo	cycle	es 32	9.6 meters	
CFLC CFOC TICR	ae	100	915	Prescott, Ont.	Radio Association of Prescott
CFQC	z z	500 50	911	Saskatoon, Sask.	The Electric Shop, Ltd.
XEW	z	5000	911	San Jose, Costa Rica Mexico City, Mexico	Mariao Musia Ca
020.1	_•1	4		-	Mexico Music Co.
920 1				5.9 meters	
CMCD CMCN HHK	aeh z	250 250	925 925	Havana, Cuba	Angel Bertematy y Garcia
HHK	ž	1000	925	Havana, Cuba Port au Prince, Haiti	Antonio Ginard Republic of Haiti
KFEL	ak	500	1	Denver, Colo.	Gene O'Fallon (Albana Ustat)
KFXF KOMO	z aj	500 1000	1	Denver, Colo. Denver, Colo. Seattle, Wash.	Colorado Radio Corp.
KPRC	ae	1000	N N(2.5)	Houston Texas	Fisher's Blend Station, Inc.
WAAF WBSO	ak	500	D	Houston, Texas Chicago, Ill. Babson Park, Mass.	Colorado Radio Corp. Fisher's Blend Station, Inc. Houston Printing Co. (Houston Post) Drovers Journal Publishing Co. Broadesting, Soviac Overs Los
WWJ	ae ak	500 1000	D R	Babson Park, Mass. Detroit, Mich.	Broadcasting Service Org., Inc. The Detroit News
•					The Detroit News
930 1				2.4 meters	
CFCH	aj z	100	3LM 3(.25)	North Bay, Ont. Kingston, Ont. Brandon, Manitoba	Northern Supplies, Ltd.
CKX	ak	50 500	E	Brandon, Manitoba	Queen's University
CFRC CKXI CMJF KFWI	z .	225		Camaguey, Cuba	Manitoba Telephone System John L. Stowers
KFWI	aj ak	500 500	$\frac{1}{2(1)}$	San Francisco, Calif.	John L. Stowers Radio Entertainments, Ltd.
KMA	ae	500	$\hat{2}(1)$	York, Neb. Shenandoah, Iowa	
KROW	ak	500	1 2(1) 2(1) 1(1) C(1) C(.5)	Oakland, Calif.	Earl E. May Seed & Nursery Co. Educational Broadcasting Corp.
WBRC WDBJ	ak ae	500 250	C(1)	Birmingham, Ala.	Birmingham Bdctg. Co., Inc. Times-World Corp.
WIBG	aeh	25	D.3	Roanoke, Va. Glenside, Penna.	Limes-World Corp.
940 1	rila	wo1-	210		WIBG, Inc. (Keswick Bldg.)
940 1 koin		2yCle		9.0 meters	
WAAT WCSH	ae	300	CT D	Portland, Ore. Jersey City, N. J.	KOIN, Inc. (New Heathman Hotel)
WCSH WDAY	ae	1000	R(2.5)	Jersey City, N. J. Portland, Maine Fargo, No. Dakota	Bremer Broadcasting Corp. Congress Square Hotel Co. WDAY Inc. (Block Bldg.)
WFIW	ae ae	$1000 \\ 1000$	N C	Fargo, No. Dakota	WDAY, Inc. (Black Bldg.) WFIW, Inc.
WHA	ak	1000	Ď	Hopkinsville, Ky. Madison, Wis	WFIW, Inc.
XEO	z	5000		Madison, Wis. Mexico City, Mexico	University of Wisconsin National Revolucionario Party
950 k	ciloc	cycle	s 315	5.6 meters	
CMHD KFWB	z	250 1000	2	Caibarien, Cuba	Manual Alvarez
KFWB KGHL	ak ak	1000 1000	NI(2.5)	Los Angeles, Calif.	Warner Bros Broadcasting Caus
KMBC	ak	1000	NJ(2.5) C	Billings, Mont. Kansas City, Mo	Northwestern Auto Supply Co.
VONA	z	30 500		Kansas City, Mo. St. John's, N. F.	Northwestern Auto Supply Co. Midland Bdctg. Co. (Pickwick Hotel) Lane, Gillard & Avery
WRC	z	500	R	Washington, D. C.	National Broadcasting Co., Inc.
				[= 0]	

960 k	ilocy	cle	s 312	.3 meters		
CHWC CKCK CKNC CMBC CMBD CMJL	ak ak ak ach z z	100 500 500 500 500 150 50 000	V 3FL 3FL M 965a 965a	Charlottetown, P. E. I Regina, Sask. Toronto, Ont. Havana, Cuba Havana, Cuba Camaguey, Cuba Reynosa, Mexico	. J. A. Gesner & W. E. Burke R. H. Williams & Sons, Ltd. Leader Post, Ltd. (Leader Bldg.) Canadian National Carbon Co., Ltd. Domingo Fernandez Luis Perez Garcia Enrique Artimes International Broadcasting Co.	
970 k	ilocy	cle	s 309	1 meters	•	
K JR WCFL		000 500	N RX	Seattle, Wash. Chicago, Ill.	Northwest Broadcasting System, Inc. Chicago Federation of Labor	
980 k	ilocy	cle	s 305	.9 meters		
CFCN KDKA		000	985FL B	Calgary, Alberta Pittsburgh, Pa.	The Voice of the Prairies, Ltd. Westinghouse Elec. & Mfg. Co.	
990 k	ilocy	cle	s 302	.8 meters	I	CYS.
WBZA	ak 1 z	50 000 000 101 500	987 BA BA DP	Matanzas, Cuba Boston, Mass. Springfield, Mass. Mexico City, Mexico Tupelo, Miss.	Bernabe R. de la Torre Westinghouse Elec. & Mfg. Co. Westinghouse Elec. & Mfg. Co. Arturo Martinez Britt A. Rogers, Jr.	1040 ATRS.
1000 1	ciloc	ycle	es 299	9.8 meters		288.3
WHO WOC WORK XEC XEE XEFE	z 5 ak 5 aj 1 z z z z z z z	$\begin{array}{c} 250\\ 000\\ 000\\ 50\\ 105\\ 100\\ 100\\ 40\\ 100\\ 25\\ 100\\ 100\\ 100\\ 100\\ 100\\ 105\\ \end{array}$	Dn RAX RAX D 	Los Angeles, Calif. Des Moines, Iowa Davenport, Iowa York, Pa. Toluca, Mexico Onxaca, Oax., Mexico Onxaca, Oax., Mexico Queretaro, Mexico Juarez, Mexico Jalapa, Ver., Mexico Torreon, Coah., Mex. Veracruz, Mexico Puebla, Pue., Mex. Merida, Yuc.	Los Angeles Broadcasting Co. Central Broadcasting Co. Central Broadcasting Co. York Broadcasting Co. Jesus R. Benavides Alfonso Zorilla B. c. Rafael T. Carranza Feliciano Lopez Islas Salvador Sandhez Juan G. Buttner & Leo Allande Antonio Garza Castro y J. T. Perez Juventino Sanchez Feliciano Lopez Islas Baltasat Pazos Sosa Ciro Molina Partido Socialista S. E.	DIAL
1010 1	kiloc	ycle	es 29	6.8 meters		
CKIC CMBZ KGGF KOW WHN WIS WNAD WPAP WQAO WRNY	z ak ae z ae z z z z z	50 150 500 250 500 250 250 250 250 250	2 T 1 N(1) 2 1 1 1	Wolfeville, N. S. Havana, Cuba So. Coffeyville, Okla. San Jose, Calif. New York City Columbia, S. C. Norman, Okla. New York City New York City New York City	Acadia University Manuel & Guillermo Salas Powell & Platz Pacific Agricultural Foundation, Ltd. Marcus Loew Booking Agency South Carolina Bdctg. Co., Inc. University of Oklahoma Calvary Baptist Church Calvary Baptist Church Aviation Radio Station, Inc.	
1020 1	kiloc	ycl	es 29	3.9 meters		
KYW WRAX	ae 10 ae	0000 250	N D	Chicago, Ill. Philadelphia, Pa.	Westinghouse Elec.& Mfg. Co.(KFKX) WRAX Broadcasting Co.	
1030 1	kiloc	ycl	es 29	1.1 meters		
CFCF CMHI CMKC CNRV XEB	ae ck z ak ak	500 200 150 500 1000	NG a 1034 a	Montreal, Que. Santa Clara, Cuba Santiago de Cuba Vancouver, B. C. Mexico City, Mexico	Canadian Marconi Co. Laviz & Paz M. P. Martinez Canadian National Railways El Buen Tono, S. A.	
1040	kiloc	ycl	es 28	8.3 meters		
CMGH KRLD KTHS WKAR	ae l	150 0000 0000 1000	1C 1N D	Matanzas, Cuba Dallas, Texas Hot Springs, Ark. East Lansing, Mich.	Alberto Alvarez KRLD Radio Corp. (Adolphus Hotel) Chamber of Commerce Michigan State College	

		INDE	EX BY	FREQUENCIES AN	ND DIAL NUMBERS
	kilo	ocycl	es 2	85.5 meters	
CMJG KFBI KNX XEFC XES	z ae ae z adk	$50 \\ 5000 \\ 5000 \\ 10 \\ 500$	Dn X 1055K	Camaguey, Cuba Abilene, Kans. Hollywood, Calif. Merida, Yuc. Tampico, Mexico	Jose Antonio Lefran Farmers & Bankers Life Ins. Co. Western Broadcast Co. Hugo Molina Font Wendell Cox
1060	kilo	ocycl	es 2	82.8 meters	
KWJJ WBAL WJAG WTIC	z ae ak ak	500 10000 1000 50000	Dn 1B Dn 1R	Portland, Ore. Baltimore, Md. Norfolk, Neb. Hartford, Conn.	KWJJ Broadcast Co., Inc. Consolidated Gas, Elec. L. & Pwr. Co. Norfolk Daily News Travelers' Bdctg. Service Corp.
1070	kilo	ocycl	es 2	80.2 meters	
CMBG CMCB KJBS WCAZ WDZ WTAM XEG	z af ac z ak ak z	225 150 100 50 100 50000 250	D D D R	Havana, Cuba Havana, Cuba San Francisco, Calif. Carthage, 111. Tuscola, 111. Cleveland, Ohio Mexico City, Mexico	Francisco Garrigo Metropolitan-Radio de Cuba Julius Brunton & Sons Co. Superior Bdetg. Service, Inc. James L. Bush National Broadcasting Co., Inc. Miguel Yarza
1080	kilo	ocycl	es 2	77.6 meters	
WBT WCBD WMBI	ae ae ck	25000 5000 5000	CU 1Dn 1Dn	Charlotte, N. C. Zion, III. Chicago, III.	Station WBT, Inc. Wilbur Glenn Voliva Moody Bible Institute
1090	kilo	ocycl	es 2	75.1 meters	
KMOX	ak	50000	С	St. Louis, Mo.	Voice of St. Louis, Inc.
1100	kilo	cycl	es 2	72.6 meters	
KGDM WLWL WPG	ak z ae	250 5000 5000	D 1 1C	Stockton, Calif. New York City Atlantic City, N. J.	E. F. Peller Missionary Society of St. Paul Municipality of Atlantic City
1110	kilo	cycl	es 22	70.1 meters	
KSOO WRVA	ae ae	$1000 \\ 5000$	Dn(2.5) N	Sioux Falls, So. Dak. Richmond, Va.	Sioux Falls Broadcast Assn., Inc. Larus & Bros. Co., Inc.
1120	kilo		es 20	67.7 meters	
CFCA CFJC CHGS CJOC KFIO KRSG KRKD KRSC KTRH WDEL WHAD WISN WTAW	ak ak ce ak ak ak ak ak ak ak ak ak z	500 100 100 100 500 500 250 250 250 250 500	G EL V J J J D 2C (.5) IC 1C 2	Toronto, Ont. Kamloops, B. C. Summerside, P. E. I. Lethbridge. Alta. Spokane, Wash. Los Angeles, Calif. Os Angeles, Calif. Seattle, Wash. Houston, Texas Wilmington, Del. Milwaukee, Wis. 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 Braodcasting Co. (Rice Hotel) WDEL, Inc. Marquette University Evening Wisconsin Co. Agricultural & Mech. College
1130	kilo	cycle	es 26	5.3 meters	
KSL WJJD WOV XEH	ae ze z ak	5000 20000 1000 1000	C Dn D 1132	Salt Lake City, Utah Chicago, 111. New York City Monterrey, Mexico	Radio Service Corp. of Utah WJJD, Inc. (Palmer House) International Broadcasting Corp. Tarnava & Cia.
1140	kilo	cycle	es 26	3.0 meters	
CMBW CMCQ KVOO WAPI XETA	z z ae aj z	$150 \\ 1000 \\ 5000 \\ 5000 \\ 5000 \\ 500$	1N 1N	Havana, Cuba Havana, Cuba Tulsa, Okla, Birmingbam, Ala. Mexico City, Mexico	Alvarez-Moris Andres Martinez Southwestern Sales Corp. WAPI Broadcasting Corp. Manuel Espinosa Tagle

		INDE	IN B	I FREQUENCIES AN		UMBERG		
1150	kilc	cycle	es	260.7 meters				
CMGI CMHJ CMJH WHAM XEA 10-AT	z ae ak ae ak z	30 75 50 5000 500 25	B K115 1155	Colon, Cuba Cienfuegos, Cuba Ciego de Avila, Cuba Rochester, N. Y.	Stromber Radiofond	Lopez (Hotel auri Mendoza g-Carlson Tel.	. Mfg. Co. adalajara,S.A.	
1160	kilc	ocvel	es	258.5 meters	121-			
WOWO WWVA	ae ae	10000 5000	1C 1C	Fort Wayne, Ind. Wheeling, W. Va.	Main Aut West Virg	o Supply Co. inia Broadcas	ting Corp.	
1170	kilo	ocycle	es	256.3 meters				
WCAU	ae	10000	С	Philadelphia, Pa.	Universal	Broadcasting	Corp.	
1180	kilc	ocycl	es	254.1 meters				
	ае	1500 5000	1185 2N	Havana, Cuba Portland, Ore	Troncoso National	y Gil Broadcasting	Co.	
CMW KEX KOB	ak ae	10000	2	Portland, Cuba Portland, Ore. Albuquerque, N. M. Minneapolis, Minn.	N. M. Co	ll. of Agr. & M	Co. Iechanical Arts Corp.	
WDG Y WINS	ak ae	1000 500	Dn	New TORK City	American	Radio News (Corp.	
WMAZ	ak	500		Macon, Ga.	Southeast	tern Broadcas	ting Co.	
1190	kilo	ocycl	es	252.0 meters				
WOAI		50000	Ν	San Antonio, Texas	Southerr	Equipment (Co.	
1200	kild	ocycl	es	249.9 meters				
	ak	100		Kelowna, B. C.	Okanagat Jose Anor	n Broadcasters	s, Ltd.	
CKOV CMGB KBTM	z ak	30 100	1205 D	Matanzas, Cuba Paragould, Ark.	Beard's T	emple of Mus rsfield Broadc	ic	KCYS.
KERN	z	100	C	Bakersfield, Calif. Marshalltown, Iowa	Marshall	Electric Co., I	nc.	1200
KF JB KFWF	z z	100 100	(.25) 5	St. Louis, Mo.	St. Louis	Truth Center Hurt (R/C Bo	, Inc.	1200
KFXD	ae	100 100	(.25)	Nampa, Idaho Fergus Falls, Minn	Iaren Dru	ig Co.	ise)	MTRS.
KGDE KGDY	ae z	100		Huron, S. D. Yuma, Colo.	Voice of S	ig Co. South Dakota lectrical Equi	amont Co	249.9
KGEK	ak ak	$100 \\ 100$	9 9	Ft. Morgan, Colo.	City of Fo	ort Morgan IcGlashan	priterit Co.	D141
KGEW KGFJ KGHI	ae	100	- 55-1	Los Angeles, Calif. Little Rock, Ark.	 Ben. S. M. O. A. Coo 	lcGlashan		DIAL
KGVO	z ak	100 100		Missoula, Mont. Monroe, La.	Mosby's,	Inc. Broadcasting	D	
KMLB	z z	100	D	Monroe, La. Bellingham, Wash.	 Liner's E KVOS, In 	froadcasting 3 ic.	Station, Inc.	
KVOS KWG	aeh	$\begin{array}{c} 100 \\ 100 \end{array}$	CT	Stockton, Calif.	McClatch	y Newspapers		
WABI WABZ	ak z	$100 \\ 100$	1	 Bangor, Maine New Orleans, La. 	Samuel [versalist Socie). Reeks		
WBBZ WBHS	ak	100		Ponca City, Okla.	C. L. Car The Hute	rell (R/C var	ious cities)	
WBHS WCAT	z z	$100 \\ 100$	4	Huntsville, Ala. Rapid City, S. D.	State Sch	ool of Mines		
WCAX WCLO	z ak	100 100		Rapid City, S. D. Burlington, Vt. Janesville, Wis.	WCLO Ra	on Daily News adio Corp. (R	C Beloit)	
WCOD WFAM	z	100	3	Harrisburg, Pa.	Keystone	Broadcasting nd Tribune	Corp.	
WFAM WFBE	z ak	100 100	8 (.25)	South Bend, Ind. Cincinnati, Ohio	The Post	Publishing C	o., Opr.	
WHBY	ak z	100 100		Green Bay, Wis.	WIBX, Ir	ert College (B	ellin Blag.)	
WIBX WIL	ae	100	(.3) 5(.25	Green Bay, Wis. Utica, N. Y. St. Louis, Mo.	Missouri	Broadcasting	Corp.	
W JBC W JBL	ae ae	$100 \\ 100$	6 6	LaSalle, Ill. Decatur, Ill.	Commod	a Broadcastin ore Broadcast	ing, Inc.	
wjbw	ak	100	1	New Orleans, La. Lancaster, Pa.	C. C. Car Lancaste	- Relater Servi	ce. Inc.	
WKJC WLAP	ae ck	$\begin{array}{c} 100 \\ 100 \end{array}$	3 (.25)	Louisville, Ky.	Americar	Broadcastin	g Corp. of Ky.	
WNBO WNBW	aeh z	$\begin{array}{c} 100 \\ 10 \end{array}$		Louisville, Ky. Silverhaven, Pa. Carbondale, Pa.	Spriggs S Home Cu	it Glass & Chi	g Corp. of Ky. hington, Pa.) ina Co.	
WORC	ak	100	CH	Worcester, Mass.	A. F. Kle WLBG, I	indienst		
WPHR WRBL	ae z	100 100	(.25)	Columbus, Gā,	WRBL R	ndio Station, 1 nd-Calumet Be	Inc.	
WWAE 10-AB	z z	100 25	8	Hammond, Ind. Moose Jaw, Sask. Stratford, Ont.	Moose Ja	w Radio Assn. gins Elec. & F	ucig. corp.	
10-AK	ak	15		Stratford, Ont.	M. I. Hig	gins Elec. & H bert Radio Cl	Radio Co. ub	
10-BI 10-BP	ak ak	25 25	1199	Prince Albert, Sask. Wingham, Ont. Brantford, Ont.	W. T. Cri	uickshank		
10-BQ 10-BU	ak z	15 15		Brantford, Ont. Canora, Sask.	Tom Bro Canora R	wn & Harold I adio Assn.	010/01	

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1210	kile	ocycl	es 2-	47.8 meters	
CFCO	ak	250	8G	Chatham, Ont.	John Boundall (Was Ditt II + 1)
CFNB	z	50		Fredericton, N. B.	John Beardall (Wm. Pitt Hotel)
CJOR	ak	500	E	Vancouver, B. C.	James S. Neill & Sons, Ltd.
CKMC	z	100	8	Cobalt, Ont.	George C. Chandler
KASA	ak	100		Elk City, Okla.	R. L. McAdam
KDLR	ak	100			E. M. Woody (Casa Grande Hotel)
KFJI	ak	100		Devils Lake, N. Dak.	KDLR, Inc.
KFOR	ak	100	(.25)	Klamath Falls, Ore. Lincoln, Neb.	KFJI Broadcasters, Inc.
KFPŴ	ak	100	(.23)		Howard A. Shuman
KFVS	ae	100	6	Fort Smith, Ark.	Southwestern Hotel Co.
KFXM	ak	100	ğ	Cape Girardeau, Mo.	Oscar C. Hirsch
KGCR	ah	100		San Bernardino, Cali Watertown, S. Dak.	Contact Key Lee
KGNO	ak	100		Dodge City Kone	Greater Kampeska Radio Corp.
KGY	ak	100		Dodge City, Kans.	Dodge City Broadcasting Co.
KPPC	ak	50	9	Olympia, Wash.	KGY, Inc. (Capitol Park Bldg.)
KWEA	z	100	,	Pasadena, Calif.	Pasadena Presbyterian Church
WALR	ãe	100		Shreveport, La.	nello world Broadcasting Corp.
WBAX	ae	100	1	Zanesville, Ohio	WALK Broadcasting Corp.
WBBL	z	100	2s	Wilkes-Barre, Pa.	John H. Stenger, Jr. (Morris Bldg.) Grace Covenant Pres. Church.
WCBS	ak	100	2	Richmond, Va. Springfield, Ill.	Grace Covenant Pres. Church.
WCRW	ae	100	4	Springheid, III.	Chas. H. Messter & Harold L. Dewing
WEBO	ae	100	6	Chicago, Ill.	Clinton R, White
WEBQ WEDC	z	100	4	Harrisburg, Ill.	First Trust & Savings Bank
WFAS		100	3	Chicago, Ill.	Emil Denemark, Inc.
WGBB	ak z		3	White Plains, N. Y.	Westchester Broadcasting Corp.
WGCM		100 100	5	Freeport, N. Y.	harry H. Carman
WHBF	ae		-	Gulfport, Miss.	Great Southern Land Co.
WHBU	ae	100		Rock Island, Ill.	Beardsley Specialty Co. (Harms Hotel)
WHET	aj	100		Anderson, Ind.	Anderson Broadcasting Corp.
WIBU	ak	100		Troy, Ala.	Troy Broadcasting Co.
	z ak	100	3	Poynette, Wis.	Wm. C. Forrest
WJBI WJBU		100		Red Bank, N. J.	Monmouth Broadcasting Co., Inc.
WJBY	ae	100	1	Lewisburg, Pa.	Bucknell University
WJEJ	z	100	PD	Gadsen, Ala.	Gadsen Broadcasting Co., Inc.
wjw	z	100	PD	Hagerstown, Md.	A. V. Lidmore
WKFI	ae	100	54.35	Mansfield, Ohio	John F. Weimer
WMBG	z	100	5(.25)	Greenville, Miss.	J. Pat Scully
	aj	100	7Č	Richmond, Va.	Havens & Martin, Inc.
WMRJ WOCL	ak	100	3	Jamaica, N. Y.	Peter J. Prinz A. E. Newton
WOMT	ak	50		Jamestown, N. Y.	A. E. Newton
	ae	100		Manitowoc, Wis.	Francis Mangin Kadow
WPAW WPRO	z	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co.
	z	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co
WQDX WSBC	z	100	4	Thomasville, Ga.	Stevens Luke
WSEN	z ak	100		Chicago, Ill.	World Battery Co., Inc.
WSIX		100		Columbus, Ohio	Columbus Bdctg (Corn (Senece Hotel)
WSOC	z	100		Springfield, Tenn.	538 Lire & Vulcanizing Co
WTAX	ae	100	2	Gastonia, N. C.	wsoc, inc.
XEX	z	100	L	Springfield, Ill.	WTAX, Inc.
AEA	z	500		Mexico City, Mexico	Excelsior, Cia Editorial S. A.
	kilo		es 24	15.8 meters	1.2
KFKU	ae	500	1	Lawrence, Kans.	University of Kennes
KTW	z	1000	2	Seattle, Wash.	University of Kansas
KWSC	ae	1000	2 (2)	Pullman, Wash.	First Presbyterian Church
WCAD	ak	500	D	Canton, N. Y.	State College of Washington
WCAE	ae	1000	R	Pittsburgh, Pa.	St. Lawrence University
WDAE	ak	1000	Ĉ	Tampa, Fla.	WCAE, Inc. and Sun-Telegraph
WREN	ak	1000	йв		Tampa Daily Times (Tampa Terrace)
				Lawrence, Kans.	Jenny Wren Co.

ak 1230 kilocycles

CMBY	z	350	1235
CMCA	z	150	1235
KFQD	aj	250	
KGĞM	ak	250	(.5)
KYA	ae	1000	Ň
WFBM	aeh	1000	1C
WNAC	ae	1000	CH
WPSC	ah	500	D
WSBT	z	500	1C
XETQ	z	100	

243.8 meters

Havana, Cuba Havana, Cuba Anchorage, Alaska Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. State College, Pa. South Bend, Ind. Mavico, Maxioo Mexico, Mexico

WCAE, Inc. and Sun-Telegraph Tampa Daily Times (Tampa Terrace) Jenny Wren Co.

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

1240 kilocycles 241.8 meters

20 250 250 1249 3 3 CMAB z KGCU ak ak

Pinar del Rio, Cuba Mandan, N. Dak. Minot, N. Dak.

Francisco Martinez Mandan Radio Assn. John B. Cooley

		INDE	XBIF	REQUENCIES AND	DIAL NOMBERG		
KTAT	z	1000 500	1	Fort Worth, Texas Twin Falls, Idaho	Texas Air Transport Radio Broadcasting Cor	p. of Idaho	
KTFI WACO	ak ak	1000	1C	Waco, Texas	Southwest Broadcasting Radio Corp. of Porto Ric	c Co.	
WKAQ -WXYZ	z z	$\begin{array}{c} 1000 \\ 1000 \end{array}$		San Juan, P. R. Detroit, Mich.	Kunsky-Trendle Broadc	asting Corp.	
1250	kilo	cycle	es 239	9.9 meters			
KFMX KFOX	aj	1000 1000	2 CT	Northfield, Minn. Long Beach, Calif.	Carleton College Nichols & Warinner, In	с.	
-WAAM	ae ae	1000	1(2.5)	Newark, N. J. Northfield, Minn.	WAAM, Inc. St. Olaf College Jos. H. Uhalt		
WCAL WDSU	ae ak	$\begin{array}{c} 1000\\ 1000 \end{array}$	2 C	New Orleans, La.	Jos. H. Uhalt	- C -	
WGCP WLB	ak ak	250 1000	1 2	Newark, N. J. Minneapolis, Minn.	May Radio Broadcasting University of Minnesota Richard E. O'Dea	g C0.	
WODA	z	1000 1000	1 2	Paterson, N. L.	Minnesota Broadcasting	g Corp.	
WRHM XEFA	ae z	250		Minneapolis, Minn. Mexico City, Mexico	Manuel F. Murguia	-	
1260	kilo	cycle	es 238	8.0 meters			
KOIL	ak	1000	в	Council Bluffs, Iowa Harlingen, Texas	Mona Motor Oil Co. KRGV, Inc. (Rio Grande	Na. Life Bldg.)	
KRGV KVOA	ae z	500 500	1 D	Tucson, Arizona	Robert M. Riculfi		
KWWG WHBC	z ak	500 10	1	Brownsville, Texas Canton, Ohio	Frank P. Jackson Edward P. Graham	of Amor	
WLBW WTOC	ae ae	500 500	C(1)Y CU	Oil City, Pa. Savannah, Ga.	Radio-Wire Program Co Savannah Broadcasting	Co., Inc.	
1270	kilo	cvcl	es 236	5.1 meters			
CMCU CMCW	z	150		Havana, Cuba Havana, Cuba	Jorge Garcia Serra Jose Lorenzo		
CMCW KGCA	z ak	$150 \\ 100$	D2	Decorah, Iowa Seattle, Wash.	Chas. W. Greenley		
KOL KVOR	ae ae	$\begin{array}{c} 1000 \\ 1000 \end{array}$	D2 CT C	Colorado Springs, Col	Seattle Broadcasting Co . Reynolds Radio Co., In	с.	
KWLC WASH	ak ak	100 500	DZ a	Decorah, Iowa Grand Rapids, Mich.	Kunsky-Trendle Broade	easting Corp.	
WEAI	ae	1000 500	Ď R	Ithaca, N. Y. Baltimore, Md.	Cornell University Baltimore Radio Show,		
WFBR WJDX	ae ak	1000	N	Jackson, Miss. Grand Rapids, Mich.	Lamar Life Insurance (Kunsky-Trendle Broad	.0.	
wood 1280	ak Irila	500 aval	a os 7 34	4.2 meters			
I 200 KFBB	aeh	1000	(2.5)	Great Falls, Mont.	Buttrey Broadcast, Inc.		KCYS.
WCAM WCAP	aeh	500	1	Camden, N. J. Asbury Park, N. J.	City of Camden (City I Radio Industries Broad	fall Tower)	1300
WDOD	ae ae	500 1000	1C C(2.5)	Chattanooga, Tenn.	WDOD Bdctg. Corp. (H Badger Broadcasting Co	lotel Patten)	MTRS.
WIBA WOAX	ae aeh	500 500	N(1) 1	Trenton, N. J.	Trenton Broadcasting (230.6
WRR	aeh	500	Ċ	Dallas, Texas	City of Dallas (Hilton	Flotel)	
1290	kilo			2.4 meters	10 Intermountain Broadce	esting Corp	DIAL
KDYL KFUL	ak ak	1000 500	C 1	Salt Lake City, Utah Galveston, Texas	News Publishing Co. (Bu	iccaneer Hotel)	
KFUL KLCN KTSA	z ae	50 1000	D 1C(2.5)	Blytheville, Ark. San Antonio, Texas	C. L. Lintzenich Lone Star Broadcast Co	. (Plaza Hotel)	
WEBC	ae ak	1000 1000	N(2.5) C(2.5)	Superior, Wis. Pittsburgh, Pa.	Head of the Lakes Broa Pittsburgh Radio Supp	ly House	
WJAS WNBZ	Z	50	D	Saranac Lake, N. Y.	Smith & Mace		4
1300	kilo	cycl	es 23	0.6 meters			
CMKJ	z	20		Guantanamo, Cuba Los Angeles, Calif.	Luis Morlote Los Angeles Broadcasti	ng Co.	
KFAC KFH	z ae	$\begin{array}{c} 1000 \\ 1000 \end{array}$	C	Wichita, Kans.	Wichita Eagle—Hotel L Ashley C. Dixon—KFJF	assen	
KF JR KTBR	ag z	500 500	C 3 3	Portland, Ore. Portland, Ore.	M. E. Brown	-,	
WBBR WEVD	aej ae	1000 500	1 1	Brooklyn, N. I.	Peoples Pulpit Assn. Debs Memorial Radio I Defenders of Truth Soc	Fund, Inc.	
WFAB	z	1000 500	1 1	New York City New York City Troy, N. Y.	Rensselaer Polytechnic	Institute	
WHAZ WIOD	ae z	1000	N	Troy, N. Y. Miami, Fla. Kansas City, Mo	Isle of Dreams Broadce	sting Corp.	
WOQ XEM	ae z	1000 250		Tampico, Tams, Mex	. Maria T. de Gutirrez		
				[F F]			

1310	kilc	ocyclo	es 22	28.9 meters			
KCRJ	ak	100	D	Jerome, Arizona	Chas. C. Ro	binson	
KFBK	z	100	С	Sacramento, Calif.	Jas. McClat		
KFGQ	z	100	7	Boone, Iowa	Boone Bibli		
KFPL	ck	100		Dublin, Texas	C. C. Baster	r	
KFPM	ae	15	~	Greenville, Texas	New Furnit	ure Co.	
KFXJ	ak	100		Grand Junction, Col	o. Western Slo	pe Broadcas	ting Co.
KFXR	z	100	(.25)	Oklahoma City, Okl	a. Exchange A	ve. Baptist (hurch
KF YO KGBX	z	100	(.25)Z	Lubbock, Texas	T. E. Kirkse	ey	
KGCX	ae	100	Y	St. Joseph, Mo.	KGBX, Inc.	(To Spring	ield, Mo.)
KGEZ	ak	$\begin{array}{c} 100 \\ 100 \end{array}$	(.25)	Wolf Point, Mont.	First State I	Bank of Vida	L
KGFW	aj ah	100		Kalispell, Mont.	Donald C. T	reloar	0
KIT "	ak	100	An in	Kearney, Neb.	Vallas Base	raska Bdctg	. Corp.
KMED	ak	100		Yakima, Wash. Medford, Ore.	Mar W L	dcasters, Inc	
KRMD	ak	100		Shreveport, La.	Mrs. W. J. V	(Infformer I	Jack - 1)
KTLC	ae	100		Houston, Texas	Houston Re	. (Jefferson I oadcasting C	iotel)
KTSM	z	100	a	El Paso, Texas	W S Blader	be & W. T. B	.0. 1 1 11
KXRO	ak	100		Aberdeen, Wash.	KXRO Inc	(Hotel More	ackwen
WBEO	z	100		Marquette, Mich.	Lake Superi	or Broadcast	ting Co
WBOW	ak	100		Terre Haute, Ind.	Banks of Wa	abach Inc	.mg Co.
WBRE	z	100		Wilkes-Barre, Pa.	Louis G. Ba	ltimore	
WCLS	ae	100	b	Joliet, Ill.	WCLS, Inc.	i i i i i i i i i i i i i i i i i i i	
WDAH	z	100	а	El Paso, Texas	Beldsoe & B	lackwell	
WEBR	ae	100	Q(.25)	Buffalo, N. Y.	Howell Broad		tion
WEXL	$\mathbf{a}\mathbf{k}$	50		Royal Oak, Mich.	Royal Oak E		
WFBG	ae	100	3	Altoona, Pa.	The William	n F. Gable Co	D.
WFDF	ae	100		Flint, Mich.	Frank D. Fa	llain (Union	Ind. Bldg.)
WGAL	ae	100	5	Lancaster, Pa.	WGAL, Inc.	(Lancaster N	Newsp. Bldg.)
WGH_	ae	100		Newport News, Va.	Hampton R	oads Broadc	asting Corp.
WHAT	z,	100	4	Philadelphia, Pa.		ce Broadcast	
WIAS	ak	100	7	Ottumwa, Iowa	Iowa Bdctg.	Co. (Hotel ()ttumwa)
WJAC	ae	100	3	Johnstown, Pa.	WJAC, Inc.		
WJAK WKAV	ak	50	6	Elkhart, Ind.	Elkhart Dail		
WKBB	ae	100	b	Laconia, N. H.	Laconia Rac		
WKBC	ae	$100 \\ 100$		Joliet, Ill.	Richard W.		<u> </u>
WKBS	z z	100		Birmingham, Ala.	R. B. Broyle		Co.
WLBC	ak	50	6	Galesburg, Ill.	Permil N. No		
WMBO	ak	100	0	Muncie, Ind. Auburn, N. Y.	D. A. Burtor	A. J. Mar	riott
WNBH	ae	100	H(.25)	New Bedford, Mass.	WMBO, Inc.	Bdata Co	(N. B. Hotel)
WOL	ae	100		Washington, D. C.	American Bi	roadoasting	(N. D. Hotel)
WRAW	z	100	5X	Reading, Pa.	Reading Bro		
WROL	ak	100		Knoxville, Tenn.	Stuart Bdet	g Co (Earr	anut Hotel)
WSAJ	ae	100		Grove City, Pa.	Grove City C	College	Bar Hotel)
WSJŚ	ae	100	C	Winston-Salem, N. C	. Winston-Sal	em Journal	Co
WTEL	ae	100	4	Philadelphia, Pa.	Foulkrod Ra	dio Eng. Co.	. Inc.
WTJS	$\mathbf{a}\mathbf{k}$		(.25)	Jackson, Tenn.	Sun Publish	ing Co. (Sun	Bldg.)
WTSL	z	100		Laurel, Miss.	G. A. House	man	
XEFB	ak		1315	Monterrey, N. L., Me	x. Quintanilla	y Stevenson	
XEI	ak	150		Morelia, Mexico	Carlos Gutier	rrez M.	

1320 kilocycles 227.1 meters

KGHF	ak	250	(.5)	Pueblo, Colo.
KGMB	ak	250	C	Honolulu, Hawaii
KID	ac	250	(.5)	Idaho Falls, Idaho
WADC	ac	1000	C	Akron, Ohio
WSMB	ac	500	N	New Orleans, La.

C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co. KID Broadcasting Co., Inc. Allan T. Simmons WSMB, Inc.

1330 kilocycles 225.4 meters

CMJI	ak	112	1335
KGB	ae	500	CT
KMO	ak	250	
KSCJ	ah	1000	1C(2.5)
WDRC	ae	500	CH
WSAI	ae	500	R(1)
WTAQ	ae	1000	1Ĉ

Ciego de Avila, Cuba San Diego, Calif. Tacoma, Wash. Siou× City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis.

Gilberto Gessa Lopez Don Lee, Inc. (Pickwick Hotel) KMO, Inc. (Hotel Winthrop) Perkins Bros. Co. WDRC, Inc. The Crosley Radio Corp. The Gillette Rubber Co.

1340 kilocycles 223.7 meters

CMCR	z	150	1345
KFPY	ae	1000	CT
WCOA	agj	500	
WSPD	ae	1000	С

Havana, Cuba
Spokane, Wash.
Pensacola, Fla.
Toledo, Ohio

Aurelio Hernandez Symons Bdctg. Co. (Symons Bldg.) Pensacola Bdctg. Co. (San Carlos Hot.) Toledo Bdctg. Co.(Com. Perry Hotel)

1350 kilocycles 222.1 meters

CMCY	ak	500	1355	Havana, Cuba
KIDO	ak	1000		Boise, Idaho
KWK	ae	1000	в	St. Louis, Mo.
WAWZ	ae	250	1	Zarephath, N.
WBNX	ae	250	la	New York City
WCDA	z	250	1	New York City
WEHC	ae	500	D	Emory, Va.
WMSG	ae	250	- 1a	New York City

Boise, Idaho St. Louis, Mo. Zarephath, N. J. New York City New York City Emory, Va. New York City

1360 kilocycles 220.4 meters

KGIR ak WCSC z WFBL ak 1 WGES ae WJKS agj 1	1000 NJ 500 NJ 500 C(2.2) 500 1(1) 000 1Z 500	Long Beach, Calif. Butte, Mont. Charleston, S. C. Syracuse, N. Y. Chicago, III. Gary, Ind. Vicksburg, Miss.
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Consolidated Bdctg. 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 Bdctg. Co.(Post-Herald Station)

M. D. Autran C. G. Phillips & Frank Hill

Thomas Patrick, Inc. (Hotel Chase)

Nonias Partick, Inc. (Noter Chae) Pillar of Fire New York Met. Broadcasting Corp. Italian Educ. Bderg. Co., Inc. Emory & Henry College New York Met. Broadcasting Corp.

1370 kilocycles 218.7 meters

CMGE	z	30	1375	Cardenas, Cuba	Genaro Sebater	
KCRC	ak	100	2(.25)	Enid, Okla.	Enid Radiophone Co. (Oxford Hotel)	
KFBL	aj	50	3	Everett, Wash.	Leese Bros.	
KFJM	zk	100		Grand Forks, N. Dak.	University of North Dakota	
KFJZ	ae	100		Fort Worth, Texas	Fort Worth Broadcasters, Inc.	
ŔFĹX	z	100		Galveston, Texas	George Roy Clough	
KGAR	ae	100	(.25)	Tucson, Arizona	Tucson Motor Service Co.	
KGDA	ak	100	(Mitchell, S. Dak.	Mitchell Broadcasting Corp.	
KĞFG	z	100	2	Oklahoma City	Oklahoma Broadcasting Co., Inc.	
KĞFL	zk	100	4	Santa Fe, N. Mex.	KGFL, Inc.	
KFKL	ak	100	-	San Angelo, Texas	KGKL, Inc. (St. Angelus Hotel)	
KICA	z	100	4CP	Clovis, New Mexico	W. E. Whitmore	
KMAC	āk	100	5	San Antonio, Texas	Walmac Co., Inc. (Blue Bonnet Stud.)	
KONO	ak	100	5	San Antonio, Texas	Mission Broadcasting Co.	
KÖÖS	ae	100		Marshfield, Óre.	H. H. Hanseth, Inc. (Hall Bldg.)	
KRE	ak	100		Berkeley, Calif.	First Cong. Church of Berkeley	
KUJ	ak	100	D	Walla Walla, Wash.	KUJ, Inc. (Marcus Whitman Hotel)	
RVL	z	100	3	Seattle, Wash.	KVL, Inc.	
KWKC	z	100		Kansas City, Mo.	Wilson Duncan Broadcasting Co.	
WBTM	z	100	7	Danville, Va.	Piedmont Broadcasting Corp.	
WCBM	ae	100	Z(.25)	Baltimore, Md.	Baltimore Broadcasting Corp.	
WDAS	aeh	100	(.25)	Philadelphia, Pa.	WDAS Bdetg. Sta., Inc. (Elks Hotel)	
WESG	z	50		Glens Falls, N. Y.	W. N. Parker and H. H. Metcalfe	
WGL	aeh	100	C	Fort Wayne, Ind.	F. C. Zieg	
WHBD	bk	100		Mount Orab, Ohio	F. P. Moler	
WHBO	ak	100		Memphis, Tenn.	Station WHBQ, Inc. (Hotel Claridge)	
WHDF	ak	100	(.25)	Calumet, Mich.	Upper Michigan Broadcasting Co.	
WIBM	aeh	100	i	Jackson, Mich.	WIBM, Inc. (Otsega Hotel)	
WJBK	ae	50	1Q	Detroit, Mich.	James F. Hopkins, Inc. (Curtiss Bldg.)	
WJTL	z	100		Atlanta, Ga.	Oglethorpe University	NONO
WĽEY	aeh	100	(.25)	Lexington, Mass.	Lexington Air Station	KCYS.
WLVA	ck	100	7	Lynchburg, Va.	Lynchburg Broadcasting Corp.	1380
WMBR	ak	100		Tampa, Fla.	F. J. Reynolds	1000
WPFB	z	100		Hattiesburg, Miss.	Hattiesburg Broadesting Co.	
WQDM	z	100		St. Albans, Vt.	A. J. St. Antoine & E. J. Regan	MTRS.
WŔAK	ak	100	6	Williamsport, Pa	C. R. Cummins (Penn Central Bldg.)	217 2
WRAM	ae	100		Wilmington, N. C.	Wilmington Radio Assn., Inc.	217.3
WRDO	ae	100		Augusta. Maine	WRDO, Inc. (Augusta House)	
WRJN	ae	100		Racine, Wis.	Racine Bdctg. Corp. (Hotel Racine)	DIAL
WSVS	z	50		Buffalo, N. Y.	Seneca Vocational School Manuel Zetina	
XEFZ	ae	100		Coyoacan, Mexico	Sun-Gazette Broadcasting Co.	
	z	100	6	Williamsport, Pa.	Jun-Gazette Broaucasting Co.	

1380 kilocycles 217.3 meters

CMIC	z	75	1382	Camaguey, Cuba	Feliciano Isaac
СМЈС КОН	āk	500	C	Reno, Nevada	McClatchy Newspapers
	ak	500	2	Pittsburgh, Pa.	KQV Bdctg. Co. (Investment Bldg.)
RUY	ar		2		Iowa Broadcasting Co.
KQV KSO	z	500		Clarinda, Iowa	
WKBH	ai	1000	1C	LaCrosse, Wis.	WKBH, Inc. (Radio Bldg.)
WSMK	ak	200	2	Dayton, Ohio	Stanley M. Krohn, Jr.
		125		Torreon, Coah., Mex.	Iose A. Beriunen
XETB	z	123		Torreon, Coarr., mex.	Jose III Delanite

1390	kilc	ocyc1	es	215.7 meters	7-21	
CMCG CMCH	z ak	30 100	1395 1395	Havana, Cuba Havana, Cuba	Jose Just	o Moran & Hum. Fontanals Sanchez
CMCH	ak z	100	1395	Havana, Cuba Havana, Cuba	Martinez-	
CMDB	z	40	1395	Havana, Cuba	Julio Pow	ers
KLRA	ae	1000	1C	Little Rock, Ark.		Broadcasting Co.
KOY KUOA	ae bk	500 1000	C 1	Phoenix, Arizona Fayetteville, Ark.	Nielson R Southwes	adio & Sporting Goods Co. tern Hotel Co. (Ft. Smith)
- WHK	ae	1000	ĉ	Cleveland, Ohio		Service Corp. (Higbee Store)
1400	kilc	ocycl	es	214.2 meters		
KLO	ae	500	(5)	Ogden, Utah	Interstate	Bcg. Corp. (Hotel Bigelow)
KOCW WBAA	z ak	250 500	(.5) 1	Chickasha, Okla. Lafayette, Ind. Brooklyn, N. Y. Brooklyn, N. Y.	College fo Purdue U	r women niversity
WBBC	z	500	2	Brooklyn, N. Y.	Brooklyn	Broadcasting Corp.
WCGU WCMA	ak	500	2	Brooklyn, N. Y.	United St	ates Broadcasting Corp.
WFOX	ak z	500 500	1 2	Culver, Ind. Brooklyn, N. Y.	Paramou	roadcasting, Inc. ht Broadcasting Co.
WKBF	ak	500	1 W	Indianapolis, Ind. Brooklyn, N. Y.	Indianapo	lis Broadcasting, Inc.
WLTH	aeh	500	2	Brooklyn, N. Y.	Voice of B	rooklyn, Inc.
XEP	z	200	×	Laredo, Mexico	La Voz La	tino
		cycl		212.6 meters		
KFLV KGRS	ak ae	$\begin{array}{c} 500 \\ 1000 \end{array}$	4 1	Rockford, Ill. Amarillo, Texas	E. B. Gish	Broadcasters, Inc.
KGRS WAAB	ae	500	CH	Boston, Mass.	Bay State	Broadcasting Corp.
WBCM WDAG		500 1000	C	Bay City, Mich. Amarillo, Texas	James E.	Davidson Radio & Bdctg. Corp.
WHBL	ae ae	500	1 4	Sheboygan Wis	The Press	Publishing Co.
WHIS	ak	250	2	Sheboygan, Wis. Bluefield, W. Va.	Daily Tele	graph
WODX	ea	500	3CU	Mobile, Ala.	Mobile Br	oadcasting Corp.
WRBX WSFA	z ak	250 500	2 3C	Roanoke, Va. Montgomery, Ala.		I Development Corp. ery Broadcasting Co., Inc.
						ery broadcasting co., me.
1420	K110	CVCL	es	211.1 meters		
		-	•••	-	Alamo Ba	ta Co. Inc. (Toyac Theatro)
KABC KBPS	ak aj	100 100	4	_ San Antonio, Texas	Alamo Bc Student B	tg. Co., Inc. (Texas Theatre) ody Benson Polytech. School
KABC KBPS KCMC	ak aj ak	100 100 100		- San Antonio, Texas Portland, Ore. Texarkana, Ark.	Student B Texarkan	ody Benson Polytech. School a Gazette & Daily News
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KABC KBPS KCMC KFIZ KGFF KGGW KGIW KGIX KGKX KIDW KORE KUMA KWCR KXL KXYZ	ak ajk ak zz az zaek ae ak aek aek	$\begin{array}{c} 100\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100$	4 5 1 1P B 4	 San Antonio, Texas Portland, Ore. Texarkana, Ark. Fond du Lac, Wis. Shawnee, Okla. San Francisco, Califi Trinidad, Colo. Las Vegas, Nevada Lewiston, Idaho Red Oak, Iowa Lamar, Colo. Eugene, Ore. Yuma, Arizona Cedar Rapids, Iowa Portland, Ore. Houston, Texas 	Student B Texarkan Reporter : KGFF Bac Golden G Leonard E J. M. Hee Sand Poir Red Oak I Southwes Frank L. J. Dr. Albert Cedar Rap KXL Broo Harris Co	ody Benson Polytech. School a Gazette & Daily News Printing Co. Ictg. Co. (Aldridge Hotel) ate Broadcasting Co. 2. Wilson iton at Broadcasting Co. Hill & Curtis G. Phillips : H. Schermann bids Broadcast Co. Idcasters(Hotel Multnomah) unty Broadcast Co.
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KABC KABCS KCMC KGFF KGGCC KGGFK KGGCC KGGX KIDW KGGX KIDW KGGX KIDW KCK KUMA KUMA KUMA KUMA KWCR KXYZ WAC WENS WELS WFDU WHFDL WHFOL WHFDL WHSC WHSI WLM WJBO WJMS WMBH WMBC WMBH WMBC WMBH WSPA	akjkaa zzaakaa aaaaaa zaaaaa zaaaa zaaaa zaaaa zaaaa aaaa zaaaaaa	$\begin{array}{c} 100\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100$	4 5 1 Y 1P B 4 a D D a C C C (.25) (.25)	 San Antonio, Texas Portland, Ore. Texarkana, Ark. Fond du Lac, Wis. Shawnee, Okla. San Francisco, Calif Trinidad, Colo. Las Vegas, Nevada Lewiston, Idaho Red Oak, Iowa Lamar, Colo. Eugene, Ore. Yuma, Arizona Cedar Rapids, Iowa Portland, Ore. Houston, Texas Presque Isle, Maine Cicero, III. Battle Creek, Mich. Americus, Ga. Erie, Pa. Anniston, Ala. Tupper Lake, N. Y. Cicero, III. Wilmington, Del. New Orleans, La. Ironwood, Mich. Cicero, III. Kansas City, Kans. Springfield, Mass. Detroit, Mich. Joplin, Mo. Paducah, Ky. 	Student B Texarkan Reporter KGFF Bc Golden G Leonard E J. M. Hee Sand Poir Red Oak I Southwes Frank L. 1 Dr. Albert Cedar Ra KXL Broo Harris Co Aroostook WEHS, In Enquirer- Americus Erie Bdct, Raymond Tupper L WHFC, Ir Delaware Valdemar WJNS, Ir WKBI, In Belaware Valdemar WJNS, Ir WKBI, In Delaware Valdemar MKBI, In Delaware Valdemar MKBI, In USF Bd Albert S. 1 Michigan Edwin Du Paducah	ody Benson Polytech. School a Gazette & Daily News Printing Co. Ictg. Co. (Aldridge Hotel) ate Broadcasting Co. . Wilson iton at Broadcasting Co. Radio Corp. t Broadcasting Co. Hill & Curtis G. Phillips t Broadcasting Co. Hill & Curtis G. Phillips t Broadcast Co. Broadcast Co. Broadcast Co. C. News Co. Broadcast Co. G. Corp. (Lawrence Hotel) C. Hammett (Alabama Hot.) ake Broadcasting Co. Jensen ic. (St. James Hotel) c. (C. (Aladdin Hotel) Moffet Broadcasting Co. Jensen ic. (St. James Hotel) c. C. (Aladdin Hotel) Moffet Broadcasting Co. dley Aber Bdctg. Co. (Ritz Hotel) of South Carolina
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Los Angeles, Calif. North Platte, Neb. Harrisburg, Pa. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Pennsylvania State Police

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WCAH WFEA WHEC WHP WNBR WOKO	ae ae ak ae ae	500 500 500 500 500 500	CA CH CA 1CA(1 CA	Columbus, Ohio Manchester, N. H. Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y.	Commercial Radio Service Co. New Hampshire Broadcasting Co. WHEC, Inc. (Roch. Sav. Bank Bldg.) WHP, Inc. (Harrisburg Telegraph) Memphis Bdctg. Co. (WGBC) WOKO, Inc. (Hotel Ten Eyck)	
1440	kilo	cycl	es 2	208.2 meters		
CMBI CMBL CMBN KDFN KLS WBIG WCBA WMBD WSAN WTAD	z ak z ak ae ah ae z ak	30 20 30 500 250 500 250 500 250 500	1444 1444 1444 D C(1) 3C(1) a 3	Havana, Cuba Havana, Cuba Havana, Cuba Casper, Wyo. Oakland, Calif. Greensboro, N. C. Allentown, Pa. Peoria, Ill. Allentown, Pa. Quincy, Ill.	Francisco Mayorquin Julio C. Hidalgo Armando Romeu Donald L. Hathaway Warner Bros. No. Carolina Broadcasting Co., Inc. B. Bryan Musselman Peoria Broadcasting Co. Allentown Call Publishing Co., Inc. Illinois Broadcasting Corp.	
1450	kilo	cycl	es 2	206.8 meters		
KTBS WBMS WGAR WHOM WNJ WSAR WTFI	ae ak ak ae ak aeh ak	1000 250 500 250 250 250 500	N 1 B 1 1	Shreveport, La. Hackensack, N. J. Cleveland, Ohio Jersey City, N. J. Newark, N. J. Fall River, Mass. Athens, Ga.	Tri-State Bdctg. System, Inc. WBMS Broadcasting Corp. WGAR Broadcasting Co., Inc. New Jersey Broadcasting Corp. The Radio Investment Co., Inc. Doughty & Welch Electric Co., Inc. Liberty Broadcasting Co.	
1460	kilo	cvcl	es (205.4 meters		
KSTP WJSV	ae ck	10000 10000	N C	St. Paul, Minn. Washington, D. C.	National Battery Broadcasting Co. Old Dominion Broadcasting Co.	
1470	kilo	ocvc1	es (204.0 meters		
KGA WLAC	ak ae	5000 5000	B C	Spokane, Wash. Nashville, Tenn.	Northwest Broadcasting System Life & Casualty Insurance Co.	
1480	kilo	ocvcl	es	202.6 meters 🛛		
KF JF WKBW	ae ae	5000 5000	C C	Oklahoma City, Okla Buffalo, N. Y.	a. Pan American Bdctg. System, Inc. Buffalo Broadcasting Corp.	
1490	kilo	ocvcl	es	201.2 meters 🛛		
WCKY	ae	5000	N	Covington, Ky.	L. B. Wilson, Inc. (Mabley & Carew)	
1500	kilo	ocycl	es	199.9 meters		
CMBQ CMBR	z	50		Havana, Cuba	Gali-Sardinas	
KDB	z ak	$\frac{15}{100}$	СТ	 Havana, Cuba Santa Barbara, Calif Corpus Christi, Texa 	Tomas Basail . Santa Barbara Broadcasters, Ltd.	
KGFI KGFK	aj	100 50	(.25)	Corpus Christi, Texe Moorhead, Minn.	Is Eagle Broadcasting Co., Inc. Red River Broadcasting Co., Inc.	
KGIZ	ak z	100		Grant City, Mo. Tyler, Texas	Grant City Park Corp.	
KGKB KGKY	bk ck	$100 \\ 100$			East Texas Broadcasting Co. Hilliard Co., Inc.	
KNOW	ak z	100 100		_ Austin, Texas	KUT Bdctg. Co. (Driskill Hotel) A. P. Miller	
KPJM KPQ	aj	50		Wenatchee, Wash.	Wescoast Broadcasting Co.	
KRĚG KXO	ak z	100 100		Wenatchee, Wash. Santa Ana, Calif. El Centro, Calif.	J. S. Edwards E. R. Irey and F. M. Bowles	
WFDV WHEF	ak	100 100	(.25)	- Rome, Ga. Kosciusko, Miss.	Rome Broadcasting Corp. Attala Milling & Produce Co.	
WKBV	ak z	100	(.23)	_ Connersville, Ind.	William O. Knox	
WKBZ WLOE	ak z	100 100	(.25)	Ludington, Mich. Boston, Mass.	K. L. Ashbacker Boston Broadcasting Co.	
WMBQ	z	100	1	Brooklyn, N. Y.	Paul J. Gollhofer Arthur Faske	KCYS.
WMIL WMPC	ak ak	100 100	1	Brooklyn, N. Y. Lapeer, Mich.	First Methodist Protestant Church	1500
WNBF WOPI	ae ae	100 100		Binghamton, N. Y. Bristol, Tenn.	Howitt-Wood Radio Co., Inc. Radiophone Bdctg. Station WOPI	1000
WPEN	ae	100 100	(.25)	Philadelphia, Pa.	Wm. Penn Broadcasting Co. Musicove, Inc.	MTRS.
WRDW WSYB	z aeh	100	14	Augusta, Ga. Rutland, Vt.	Philip Weiss Music Co. Long Island Broadcasting Corp.	199.9
WWRL WWSW	ak ae	$\begin{array}{c} 100 \\ 100 \end{array}$	1 X	Woodside, N. Y. Pittsburgh, Pa.	Walker & Downing Radio Corp.	DIAL

[59]

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

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	Birmingham O-21			Stockton J-2			
Huntsville N-21 Mobile Q-20 Mobile Q-20 Troy $F-21$ 100 S00 S00 S00 S00 S00 S00 S00 S00 S00	Godeon O 21	100	WKBC 1310	COLORADO			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Huntsville N-21	100	WBHS 1200	11	1 1000	KVOR	C 1270
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			WODX C 1410 WSFA C 1410		500	KFEL	920
ALASKA 500 KPOF 880 Anchorage 250 KFQD 1230 100 KCPC 1200 ARLZONA Jerome M-6 100 KCPJ 1310 Greeley J-11 100 KFYJ 1310 Phoenix N-6 500 KCPA 1300 KFA 1300 KFYJ 1300 KGW 1200 KGW 1200<	Troy P-21				1000	KLZ	C 560
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ALASKA						
Ketchikan 500 KGBU 900 Greeley J-11 500 KFA 480 ARIZONA Jerome M-6 100 KCRJ 130 KIM 142 100 KIM 1420 Prescott M-6 100 KCRJ 1300 KCRJ 1300 <td></td> <td>250</td> <td>KFOD 1230</td> <td></td> <td>100</td> <td>KGEW</td> <td>1200</td>		250	KFOD 1230		100	KGEW	1200
ARLEONA Pareme M-6 100 KCRJ 1320 Prescott M-6 100 KCRJ 1300 Triniada L-11 100 KCIW 1320 Prescott M-6 100 KCRJ 1300 KCIW 1200 KCIW 1200 Yuma 0-5 100 KCRJ 1300 KCRJ 1300 KCIW 1200 ARKANSAS 100 KUM 1200 KCRV 1200 KCRJ 1200 ARKANSAS 100 KLCN 1200 KCAC 1200 KCAC 1200 KCAC 1200 KCAC <	Ketchikan		KGBU 900	Greeley J-11		KFKA	880
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Phoenix N-6	500 500	KOY C 1390 KTAR N 620	Tuma J-12	100	KGEK	1200
Suma O-5 Strong KVOA 1260 Bridgebrit H=22 Strong WDRC C 0 330 ARKANSAS Bytheville M-19 50 KLCN 1290 Storrs H=28 230 WDRC C 600 Bytheville M-19 50 KLCN 1290 DELAWARE Wilmington J=26 0000 WJIC 1120 Parsequet Keville M-16 1000 KUCA 1390 DELAWARE Wilmington J=26 0000 WJISV 1420 Ittle Rock N-17 10000 KCMC 1200 KCMC 1200 Washington J=26 10000 WJSV C 1600 Paragould M-18 1000 KER 1200 KET 1000 KCMC 1200 Barkesfield L-3 100 KER 1200 Kasonville Q=24 1000 WFLA 620 Burloank M-3 500 KMJ C 1200 Kasonville Q=24 1000 WGLA 620 Burloank M-3 1000 KFC 1200 Miami T=25 1000 WIAX 900 Long Bea		100	KPJM 1500	II			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		500	KVOA 1260	Bridgeport H-27 Hartford H-27		WICC	
AKKANSAS DELAWARE Biytheville M-19 50 KUCN 1290 Fayetteville M-16 1000 KUCA 1390 Fort Smith N-16 100 KUCN 1390 Hot Spring N-17 10000 KTHIS 100 Little Rock N-17 1000 KCHI 1200 Paragould M-18 100 KER 1200 Texarkana O-17 100 KCMC 1200 Bakersfield L-3 100 KER 1200 Berkely J-2 100 KRE 1370 Burbank M-3 500 KMPC 710 Burbank M-3 500 KMPC 710 Burbank M-3 500 KMPC 710 Burbank M-3 500 KMT 750 Chang Beach M-3 1000 KGEA 1300 Ferson K-2 500 KMT 750 Los Angeles M-3 1000 KGEA 1300 Molly Wood M-3 500 KMT 750	Yuma O-5	100	KUMA 1420	f l	50000	WTIC	R 1060
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ARKANSAS			Storrs H-28	250	WCAC	600
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		50		DELAWARE			
Hot Spring N-17 10000 KTHS N 1040 1000 KLM 1020 Little Rock N-17 250 KARK 890 DISTRICT OF COLUMBIA Paragould M-18 100 KERM C1390 Washington J-26 10000 WJSV C 1460 CALIFORNIA Bakersfield L-3 100 KERN C 1200 Gainesville Q-24 1000 WULM 850 Beverly Hills M-3 500 KMRC 1700 KERN C 1200 Gainesville Q-24 1000 WULD N 1300 Bersheld M-3 1000 KMYR 5500 KMTR 570 Gainesville Q-24 1000 WULD N 1300 Long Beach M-3 1000 KECA 1430 Tampa R-24 1000 WUDN N 620 Los Angeles M-3 1000 KERD 1200 KERD 1300 KerN 1370 1000 WENC 1420 0akland J-1 250 KFVD 1300 KerN 1370 1000 WENC 1420	Fort Smith N-16		KUOA 1390 KFPW 1210	Wilmington J-26			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Hot Spring N-17 Little Rock N-17		KTHS N 1040			_	1420
Texarkana O-17 100 KCMC 1420 500 WRC R 950 CALIFORNIA Bakersfield L-3 100 KERN C 1200 KERN C 1310 Berkeley J-2 100 KERN C 1200 KERN C 100 WOL 1310 Beverly Hills M-3 500 KMPC 710 Gainesville Q-24 1000 WFLA N 620 Burbank M-3 500 KMPC 710 Gainesville Q-24 1000 WFLA N 620 Fresno K-2 500 KMJ C 580 Miami 7-25 1000 WIOD 1300 Long Beach M-3 1000 KFCR 1350 Criando R-24 250 WBDO C 580 Los Angeles M-3 1000 KFAC 1330 1000 KFAC 1300 1000 KFAC 1300 KFAC 1300 1000 WENC 1420 1000 KFAC 1300 1000 KFAC 1300 1000 WENC 1420 1000 KFAC<	Bittle Rock IV-II	100	KGHI 1200				
Texarkana O-17 100 KCMC 1420 500 WRC R 950 CALIFORNIA Bakersfield L-3 100 KERN C 1200 KERN C 1310 Berkeley J-2 100 KERN C 1200 KERN C 100 WOL 1310 Beverly Hills M-3 500 KMPC 710 Gainesville Q-24 1000 WFLA N 620 Burbank M-3 500 KMPC 710 Gainesville Q-24 1000 WFLA N 620 Fresno K-2 500 KMJ C 580 Miami 7-25 1000 WIOD 1300 Long Beach M-3 1000 KFCR 1350 Criando R-24 250 WBDO C 580 Los Angeles M-3 1000 KFAC 1330 1000 KFAC 1300 1000 KFAC 1300 KFAC 1300 1000 WENC 1420 1000 KFAC 1300 1000 KFAC 1300 1000 WENC 1420 1000 KFAC<	Paragould M-18			Washington J-26		W JSV WMAL	C 1460 C 630
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CALIFORNIA				100	WOL	1310
	Bakersfield L-3						
	Berkeley J-2 Beverly Hills M-3						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Burbank M-3		KELW 780	Jacksonville Q-24	1000	WJAX [N 900
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Fresno K-2	500	KMJ C 580			WOAM	C 560
	Hollywood M-3		KMTR 570 KNX 1050			WDBO (C 580
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Long Beach M-3	1000	KFOX C 1250	St. Petersburg S-24	1000	WSUN 1	N 620
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Los Angeles M-3	1000	KECA N 1430	Tampa R-24			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				CEORCIA	-		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		500	KFSG 1120		100	WENC	1420
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Athens O-23	500	WTFI	1450
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			KGFJ 1200	Atlanta O-22		WGST (
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		500	KRKD 1120		5000	WSB 1	N 740
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Pasadena M-3	50	KPPC 1210	Savannah O-24	500	WTOC (C 1260
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sacramento J-2 San Bernardino M-3		KFBK 1310 KFXM 1210	I nomasville Q-22	100	wQDX	1210
San Francisco J-1 1000 KFRC C 610 10010100 230 KGMB C 1320 500 KFWI 930 1000 KGU B 1000 KID 1350 1000 1350 1000 1350 1000 1320	San Diego N-3	500	KFSD N 600				
500 KFWI 930 1000 KGC N 730 100 KGGC 1420 IDAHO 7500 KGO N 790 IDAHO 100 KJBS 1070 Boise G-5 1000 KIDO 1350 5000 KPO N 680 Idaho Falls G-7 250 KID 1320 1000 KTAB 560 Nampa G-5 100 KFXD 1200 San Jose J-1 500 KQW 1010 Lewiston E-5 100 KSEI 890	San Francisco J-1	1000	KFRC C 610	Honolulu			
7500 KGO N 790 IDAHO 100 KJBS 1070 Boise G-5 1000 KIDO 1350 5000 KPO N 680 Idaho Falls G-7 250 KID 1320 1000 KTAB 560 Nampa G-5 100 KFXD 1200 San Jose J-1 500 KQW 1010 Lewiston E-5 100 KGX 1420			KFWI 930	TR 4 YEA	1000	100 1	730
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1000 KTAB 560 Nampa G-5 100 KFXD 1200 1000 KYA N 1230 Pocatello H-7 250 KSEI 890 San Jose J-1 500 KQW 1010 Lewiston E-5 100 KGKX 1420		5000	KPO N 680				
San Jose J-1 500 KQW 1010 Lewiston E-5 100 KGKX 1420		1000	KTAB 560	Nampa G-5	100	KFXD	1200
		500	KQW 1010	Lewiston E-5	100	KGKX	
	Sunta Ana IVI-3	100	KREG 1500	I win Falls H-6	500		1240

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

			1				
ILLINOIS	Watts	к	cys.	KANSAS	Watts		Kcys.
Carthage J-18	50	WCAZ	1070	Abilene K-14	5000	KFBI	1050
Chicago I-20	$10000 \\ 10000$		1020 1020	Coffeyville M-15 Dodge City L-13	$ 500 \\ 100 $	KGGF KGNO	1010 1210
	500 25000	WAAF WBBM C	920	Kansas City K-16	100	WLBF	1420
	1500	WCFL R	770 970	Lawrence K-16	500 1000	KFKU WREN B	1220
	$\begin{array}{c} 100 \\ 100 \end{array}$		1210 1210	Manhattan K-15 Topeka K-16	$\frac{500}{1000}$	KSAC WIBW C	580
	50000	WENR N	870	Wichita L-15	1000	KFH C	1300
	500 25000	WGES I WGN C	1360 720	RENTROTA			
	1000	WIBO	560	KENTUCKY	5000	WOULD	
	20000 50000	WLS N	1130 870	Covington K-22 Hopkinsville M-20	$\frac{5000}{1000}$	WCKY N WFIW C	940
	5000	WMAQ N WMBI	670 1080	Louisville L-21	25000	WHAS C	820
	5000 500	WPCC	560	Paducah M-19	$100 \\ 100$	WLAP WPAD	1200 1420
Cicero I-20	$100 \\ 100$		1210 1420				
CICCIO 1-20	100	WHFC	1420	LOUISIANA			
Decatur K-19	$100 \\ 100$		1420 1200	Monroe P-18 New Orleans R-19	100 100	KMLB WABZ	1200 1200
Galesburg J-18	100	WKBS	1310		1000	WDSU C	1250
Harrisburg L-19 Joliet I-19	$\begin{array}{c} 100 \\ 100 \end{array}$		1210 1310		100 100	W JBO W IBW	1420 1200
	100	WKBB 1	1310		500	WJBW WSMB N	1320
La Salle J-19 Peoria J-19	$ \begin{array}{r} 100 \\ 500 \end{array} $	WMBD C 1	1200 1440	Shreveport P-17	5000 100	WWL KRMD	$850 \\ 1310$
Quincy K-18 Rockford I-19	500 500	WTAD	1440 1410		$1000 \\ 100$	KTBS N KWEA	1450 1210
Rock Island I-18	100	WHBF	1210		10000	KWKH	850
Springfield K-19	$\begin{array}{c} 100 \\ 100 \end{array}$		1210	MAINE			
Tuscola K-20	100	WDZ 1	1070	Augusta F-28	100	WRDO	1370
Urbana J-20 Zion I-20	250 5000	WILL WCBD 1	890 1080	Bangor F-29	100	WABI	1200
INDIANA				Portland F-28	$\frac{500}{1000}$	WLBZ C WCSH R	
Anderson J-21	1.00	WHBU	1210	Presque Isle D-29	100	WAGM	1420
Connersville K-21	100	WKBV	1500	MARYLAND			
Culver I-20 Elkhart I-21	500 50	WCMA WJAK	1400 1310	Baltimore J-26	10000	WBAL B	1060
Evansville L-20	500	WGBF	630	isatemiore j=20	250	WCAO C	600
Fort Wayne J-21	$100 \\ 10000$	WOWO C	1370 1160		100 500	WCBM WFBR R	1370 1270
Gary I-20	1000	WJKS	1360	Cumberland J-25	100	WTBO	1420
Hammond I-20 Indianapolis J-21	$\begin{array}{c} 100 \\ 1000 \end{array}$	WFBM C 1	1200 1230	Hagerstown J-25	100	WJEJ	1210
	500 250	WKBF : WJED	1400 600	MASSACHUSE			
Lafayette J-20	500	WBAA	1400	Babson Park G-28 Boston G-23	500 500	WBSO WAAB C	920 1410
Muncie J-21 South Bend I-20	$\frac{50}{100}$	WFAM	1310 1200	Boston G-25	25000	WBZ B	990
	500	WSBT C	1230		$1000 \\ 1000$	WEEI R WHDH	590 830
Terre Haute K-20	100	WBOW	1310		100	WLOE	1500
IOWA				Fall River H-28	1000 250	WNAC C WSAR	1450
Ames I-17 Boone I-17	$\frac{5000}{100}$	WOI KFGQ	640 1310	Lexington G-28 New Bedford H-28	100 100	WLEY WNBH	1370 1310
Cedar Rapids I-18	100	KWCŘ B	1420	Springfield H-27	1000	WBZA B	990
Clarinda J-16 Council Bluffs J-16	500 1000		1380 1260	Worcester G-28	100 100	WMAS WORC C	1420
Davenport I-18	$\begin{array}{c} 5000 \\ 100 \end{array}$	WOC R	1000 1270	Worcester G=20	250	WTAG R	
Decorah H-18	100	KWLC	1270	MICHIGAN			
Des Moines I-17 Iowa City I-18	5000 500	WHO R I WSUI	1000 880	Battle Creek I-21	50	WELL	1420
Marshalltown I-17	100	KFJB	1200	Bay City H-22 Calumet E-19	500	WBCM C	1410
Ottumwa J-17 Red Oak J-16	100 100		1310 1420	Detroit H-22	$100 \\ 50$	WHDF WJBK	$1370 \\ 1370$
			890		$10000 \\ 100$	WJR B WMBC	
Shenandoah J-16	500 500	KFNF KMA	930		1000	WWJ R WXYZ	920
Sioux City I-15 Waterloo I-17	1000 500	KSCJ C WMT C	1330	East Lansing H-21	1000 1000	WXYZ WKAR	$1240 \\ 1040$
water 100 1-1/	300		000	Lust Building H-PI	1000		

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

		11	······································
	Watts Kcys.	NEVADA	Watts Kcys.
Flint H-22 Grand Rapids H-21	100 WFDF 1310 500 WASH 1270	Las Vegas L-5 Reno I-3	100 KGIX 1420 500 KOH C 1380
Ironwood F-18 Jackson I-21	500 WOOD 1270 100 WJMS 1420 100 WIBM 1370	NEW HAMPSHIE	RE
Kalamazoo I-21	100 WKZO 590 100 WMPC 1500	Laconia G-28	100 WKAV 1310 500 WFEA C 1430
Lapeer H-22 Ludington H-20	100 WKBZ 1500	Manchester G-28 Portsmouth G-28	500 WFEA C 1430 250 WHEB 740
Marquette F-19 Royal Oak H-22	100 WBEO 1310 50 WEXL 1310	NEW JERSEY	
MINNESOTA		Asbury Park I-27 Atlantic City J-27	500 WCAP C 1280 5000 WPG C 1100
Fergus Falls F-15	100 KGDE 1200- 5000 WCCO C 810	Camden I-26	5000 WPG C 1100 500 WCAM 1280 250 WBMS 1450
Minneapolis G-17	1000 WDGY 1180	Hackensack I-27 Jersey City I-27	300 WAAT 940
	1000 WLB 1250 1000 WRHM 1250	Newark I-27	250 WHOM 1450 1000 WAAM 1250
Moorhead F-15 Northfield G-17	50 KGFK 1500 1000 KFMX 1250 1000 WCAL 1250		250 WGCP 1250 250 WNJ 1450
St. Paul G-17	1000 WCAL 1250 10000 KSTP N 1460	Paterson I-27	5000 WOR 710 1000 WODA 1250
MISSISSIPPI		Red Bank I-27 Trenton I-26	100 WJBI 1210 500 WOAX 1280
Greenville O-18	100 WKFI 1210	Zarephath I-27	250 WAWZ 1350
Gulfport Q-19 Hattiesburg Q-19	100 WGCM 1210 100 WPFB 1370	NEW MEXICO	
Jackson P-19 Kosciusko O-19	1000 WJDX N 1270 100 WHEF 1500	Albuquerque N-7	250 KGGM 1230 10000 KOB 1180
Laurel P-20 Meridian P-20	100 WTSL 1310 500 WCOC 880	Clovis N-11 Santa Fe M-10	100 KICA 1370 100 KGFL 1370
Tupelo N-20 Vicksburg P-18	500 990 500 WQBC 1360		
	000 N QBC 1000	NEW YORK Albany H-27	500 WOKO C 1430
MISSOURI Cp. Girardeau L-19	100 KFVS 1210	Auburn H-25	100 WMBO 1310
Columbia K-17	500 KFRU 630 100 KGIZ 1500	Binghamton H-26 Brooklyn I-27	100 WNBF 1500 500 WBBC 1400
Grant City J-16 Jefferson City L-17 Joplin M-16	500 WOS 630 100 WMBH 1420		1000 WBBR 1300 500 WCGU 1400
Kansas City K-16	1000 KMBC C 950		500 WFOX 1400 500 WLTH 1400
	100 KWKC 1370 1000 WDAF R 610		100 WMBQ 1500 100 WMIL 1500
	500 WHB 860 1000 WOQ 1300	Buffalo H-24	1000 WBEN R 900 100 WEBR 1310
St. Joseph K-16	2500 KFEQ 680 100 KGBX 1310		1000 WGR C 550 5000 WKBW C 1480
St. Louis L-18	500 KFUO 550 100 KFWF 1200	Conton E 26	50 WSVS 1370
	50000 KMOX C 1090 500 KSD R 550	Canton F-26 Freeport I-27	500 WCAD 1220 100 WGBB 1210
	1000 KWK B 1350 1000 WEW 760	Glens Falls G-27 Ithaca H-25	50 WESG 1370 1000 WEAI 1270
MONTANA	100 WIL 1200	Jamaica H-27 Jamestown H-24	100 WMRJ 1210 50 WOCL 1210
Billings F-9	1000 KGHL N 950	New York City I-27	50000 WABC C 860 250 WBNX 1350
Butte F-7 Great Falls E-8	500 KGIR N 1360 1000 KFBB 1280	1	50000 WBOQ 860 250 WCDA 1350
Kalispell D-7 Missoula E-7	100 KGEZ 1310 100 KGVO 1200	ŧ	50000 WEAF R 660 500 WEVD 1300
Wolf Point E-11	100 KGCX 1310		1000 WFAB 1300 500 WINS 1180
NEBRASKA			250 WHN 1010 30000 WJZ B 760
Clay Center J-14 Kearney J-14	1000 KMMJ 740 100 KGFW 1310		5000 WLWL 1100
Lincoln J-15	5000 KFAB C 770 100 KFOR 1210		250 WMSG 1350
Norfolk I-15	500 WCAI 590		500 WNYC 570 1000 WOV 1130
North Platte J-13	500 KGNF 1430		250 WPAP 1010 500 WPCH 810
Omaha J-15	500 WAAW 660 1000 WOW R 590		250 WQAO 1010 250 WRNY 1010
Scottsbluff I-11 York J-15	100 KGKY 1500 500 KGBZ 930	Rochester G-25	5000 WHAM B 1150 500 WHEC C 1430
		a second s	

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

Watts Kcys. Saranac Lake F-26 50 WNBZ 1290 Schenectady G-27 50000 WGY R 790		Watts	Kcys
Schenectedy G-27 50000 WCV D 700		5000	KEX N 118
Syracuse G-25 1000 WFBL C 1360	ortland E-3	100 500	KBPS 142 KFJR 130
250 WMAC 570 250 WSYR R 570		$1000 \\ 1000$	KGW N 620 KOIN C 940
Troy G-27 500 WHAZ 1300 Tupper Lake F-26 100 WHDL 1420		500 500	KTBR 130 KWJJ 106
Utica G-26 100 WIBX 1200 Woodside I-27 100 WWRL 1500		100	KXL 1420
White Plains I-27 100 WFAS 1210	PENNSYLVANIA	4	
NORTH CAROLINA	llentown I-26	250 250	WCBA 144 WSAN 144
Asheville M-23 1000 WWNC N 570 A	ltoona I-25	100	WFBG 1310
Gastonia M-24 100 WSOC 1210 E	Carbondale H-26 Trie H-24	10 100	WNBW 120 WERE 1420
Greensboro M-24 500 WBIG C 1440 II G	Glenside I-26 Grove City I-24	25 100	WIBG 93 WSA J 131
Wilmington N-26 100 WRAM 1370	larrisburg I-25	500 100	WBAK 1430 WCOD 1200
Winston-Salem M-24 100 WSJS C 1310	obmotoum I 24	500 100	WHP C 1430 WJAC 1310
	ohnstown J-24 ancaster I-26	100	WGAL 1310
Bismarck F-13 1000 KFYR N 550 Devils Lake E-14 100 KDLR 1210	ewisburg I-26	$\begin{array}{c} 100 \\ 100 \end{array}$	WKJC 1200 WJBU 1210
Fargo F-15 1000 WDAY N 940)il City I-24 Philadelphia I-26	500 10000	WLBW C 126 WCAU C 1170
Mandan F-13 250 KGCU 1240		100 500	WDAS 1370 WFAN C 610
Minot E-13 250 KLPM 1240		500	WFI R 560
оню		100 500	WIP C 610
Akron I-23 1000 WADC C 1320		500 100	WLIT R 560 WPEN 1500
Canton I-23 10 WHBC 1260 Cincinnati K-22 100 WFBE 1200		250 100	WRAX 1020 WTEL 1310
1000 WKRC C 550 Pi 50000 WLW B 700	ittsburgh J-24	50000 500	KDKA B 980 KOV 1380
500 WSAI R 1330 Cleveland I-23 500 WGAR B 1450		1000 1000	WČAE R 1220
1000 WHK C 1390	a dina T 26	100	WWSW 150
50000 WTAM R 1070	teading I-26	$\begin{array}{c} 1000 \\ 100 \end{array}$	WEEU 83 WRAW 1310
500 WCAH C 1430	icranton H-26	250 250	WGBI 880 WQAN 880
	ilverhaven J-24 itate College I-25	$100 \\ 500$	WNBO 120 WPSC 123
	Vilkes-Barre I-26	100 100	WBAX 121 WBRE 131
	Villiamsport I-25	100	WRAK 137 137
Youngstown I-23 500 WKBN C 570 Y	ork J-26	1000	WORK 100
Zanesville J-23 100 WALR 1210			
OKLAHOMA	PHILIPPINES Cebu	500	KZRC 937.
Chickasha N-14 250 KOCW 1400 M	Aanila	1000 50000	KZRC 937. KZKA 111 KZRM 618.
Elk City N-13 100 KASA 1210 Enid M-14 100 KCRC 1370		00000	10210101 018.
Norman N-15 500 WNAD 1010 Oklahoma N-15 5000 KFJF C 1480	PORTO RICO		
100 KFXR 1310 S 100 KGFG 1370	San Juan W-34	1000	WKAQ 124
1000 WKY N 900	RHODE ISLAN	C	
Shawnee N-15 100 KGFF 1420 p	Providence H-28	250	WEAN C 78
Tulsa M-15 5000 KVOO N 1140 1140		250 100	WJAR R 89 WPAW 121
OREGON		100	WPRO 121
Corvallis E-2 1000 KOAC 550 Eugene F-2 100 KORE 1420	SOUTH CAROL	INA	
Klamath Falls G-3 100 KFJI 1210 C	Charleston O-25 Columbia N-24	500 500	WCSC 136 WIS N 101
	AND DIA IN-24	100	WSPA 142

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

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SOUTH DAKOT	A Wat	ts	Kcys.	VIRGINIA	Watt	s I	Kcys.
Brookings H-15	500	KFDY	550	Arlington J-25	1000	NAA	690
Huron H-14 Mitchell H-14	100 100	KGDY KGDA	1200 1370	Danville L-25 Emory L-23	100 500	WBTM WEHC	1370 1350
Pierre G-13	200 100	KGFX WCAT	630 1200	Lynchburg L-25	100 100	WLVA WGH	1370 1310
Rapid City H-12 Sioux Falls H-15	1000	KSOO	1110	Newport News L-26 Norfolk L-26	500	WTAR C	780
Vermillion I-15 Watertown G-15	500 100	KUSD KGCR	890 1210	Petersburg L-26 Portsmouth L-26	100 500	WPHR WPOR	1200 780
Yankton I-15	1000		C 570	Richmond K-26	100	WBBL	1210
					$100 \\ 5000$	WMBG C WRVA N	1210 1110
TENNESSEE				Roanoke L-24	250 250	WDBJ C WRBX	930 1410
Bristol L-23 Chattanooga N-21	100 1000	WOPI WDOD	1500 C 1280		250	WRDA	1410
Jackson N-20	100	WTJS	1310	WASHINGTON			
Knoxville M-22	1000 100	WNŎX WROL	C 560 1310	Aberdeen D-2	100	KXRO KVOS	1310 1200
Memphis N-19	100	WHBQ	1370	Bellingham C-3 Everett C-3	100 50	KFBL	1370
	500 500	WNBR	N 780 1430	Olympia D-3 Pullman E-5	100 1000	KGY KWSC	1210 1220
Nashville M-21	500 5000	WREC WLAC	C 600 C 1470	Seattle C-3	5000	KJR N	970
	50000	WSM	N 650		1000 1000	KÔL C KOMO N	1270 920
Springfield M-20	100	WSIX	1210		10 0	KPCB	650
TEXAS					100 1000	KRŠC KTW	$1120 \\ 1220$
Amarillo N-12	1000	KGRS	1410		100 250	KVL KXA	1370 760
	1000	WDAG	1410	Spokane D-5	100	KFIO	1120
Austin Q-14 Beaumont R-17	100 500	KNOW KFDM	$1500 \\ 560$		1000 50 0 0	KFPY C KGA B	1340 1470
Brownsville U-15	500	KWWG	1260		1000	KHQ N	590
College Sta. Q-15 Corpus Christi S-14	500 100	ŴTAŴ KGFI	1120 1500	Tacoma D-3	250 500	KMÓ KVI C	1330 570
Dallas P-15	10000	KRLD	C 1040	Walla Walla E-5	100	KUJ	1370
	50000 500	WFAA WRR	N 800 C 1280	Wenatchee D-4 Yakima D-4	50 100	KPQ KIT	1500 1310
Dublin P-14 El Paso P-9	100 100	KFPL KTSM	1310 1310	WEST VIRGIN	гл		
	100	WDAH	1310	Bluefield L-24	250	WHIS	1410
Fort Worth P-15	$100 \\ 1000$	KFJZ KTAT	1370 1240	Charleston K-23	250	WOBU	580
Galveston R-16	10000		N 800 1370	Fairmont J-24 Huntington K-23	250 250	WMMN WSAZ	890 580
Galveston K-10	500	KFLX KFUL	1290	Wheeling J-24	5000	WWVA C	1160
Greenville O-15 Harlingen T-14	15 500	KFPM KRGV	1310 1260	WISCONSIN			
Houston R-16	1000	KPRC 1	N 920	Eau Claire G-18	1000	WTAQ C	1330
	100 500	KTLC KTRH ($\begin{array}{c} 1310 \\ C 1120 \end{array}$	Fond du Lac H-19	100	KFIZ	1420
Lable to D	100	KXYZ	1420	Green Bay G-19 Janesville I-19	$100 \\ 100$		1200 1200
Lubbock O-12 San Angelo Q-13	100 100	KFYD KGKL	1310 1370	La Crosse H-18 Madison H-19	1000 100 0	WKBH C WHA	1380 940
San Antonio R-14	100 100	KABC	1420		500	WIBA N	1280
	100	KMAC KONO	1370 1370	Manitowoc H-20 Milwaukee H-19	100 2 5 0	WOMT WHAD C	1210 1120
	1000 50000	KTSA (WOAL 1	C 1290 N 1190		250	WISN C	1120
Tyler P-16	100	KGKB	1500	Poynette H-19	$1000 \\ 100$	WTMJ N WIBU	620 1210
Waco Q-15 Wichita Falls O-14	1000 250	WACO (KGKO	C 1240 570	Racine I-20	100	WRJN	1370
				Sheboygan H-20 Stevens Point G-19	500 2000	WHBL WLBL	1410 900
UTAH				Superior F-17	1000	WEBC N	1290
Ogden I-7	500	KLO	1400	WYOMING			
Salt Lake City I-7	2500 5000	KDYL (KSL (2 1290	Casper H-10	500	KDFN	1440
	5000	KSL (. 1150				
VERMONT				CAN	JADA		
Burlington F-27	100	WCAX	1200	ALBERTA			
Rutland G-27 St. Albans F-27	100	WSYB WODM	1500	Calgary B-7	500	CFAC	690
Waterbury F-27	500	WODM WDEV	1370 550		$10000 \\ 500$	CFCN CJCJ	985 690
					000		090

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

	Watts	Kcys.		Watts	1	Keys.
Edmonton A-8	250 CHMA	580	Quebec D-27	100	CHRC	645
	500 CJCA 500 CKUA	745 580		100 100	CKCI CKCV	645 880
Lethbridge C-8	100 CJOC	1120	SASKATCHEW	ΔN		
Red Deer A-8	1000 CKLC	840	Canora A-13	15	10-BU	1200
BRITISH COLU	MBIA		Fleming C-13	1000	CJRW	665 665
Chilliwack B-3	100 CHWK 100 CJFC	665 1120	Moose Jaw C-11	500 25	CJRM 10-AB	1200
Kamloops B-5 Kelowna C-5	100 CKOV	1200	Prince Albert A-11	25 500	10-BI CHWC	1200 960
Trail C-6 Vancouver B-3	25 10-AT 100 CHLS	1155 730	Regina C-12	500	CKCK	960
Vancouver D-0	500 CJOR	1210	Saskatoon B-11 Yorkton B-13	500 500	CFQC CJGX	910 630
	100 CKCD 50 CKFC	730 730				
	100 CKMO 100 CKWX	730 730	NEWFOU	JNDL	AND	
	500 CNRV	1030	St. Johns A-35	75	VOAS	810
Victoria C-3	500 CFCT	630		30 500	VONA VOWR	950 750
MANITOBA			Wabana A-35	100	VOGT	893
Brandon D-14	500 CKX 5000 CKY	930 780	CENTRAL	A MA	RICA	
Winnipeg D-15	5000 CKY	/80	-			
NEW BRUNSWI	CK		COSTA RICA	50	TICR	911
Fredericton D-29 Moncton D-30	50 CFNB 700 CNRA	1210 630	San Jose FF-23	30	TICK	
St. John D-30	500 CFBO	890	GUATAMALA	-	TOW	570
NOVA SCOTIA			Guatamala CC-19	50	TGW	570
Glace Bay C-32	2000 VAS	685	SALVADOR			
Halifax E-31	500 CHNS 500 CNRH	815 815	Salvador CC-19	500	RUS	664
Sudaran C 22	100 VCX 100 CJCB	690 880	ME	XICO		
Sydney C-32 Wolfville D-31	50 CKIC	1010				
ONTARIO			AGUASCALIEN Aguascalientes W-10	250	XFC	810
Brantford H-23	15 10-BQ	1200			211 0	010
Chatham H-22 Cobalt E-23	250 CFCO 100 CKMC 50 CKPR	1210 1210	BAJA CALIFO	300	XEFD	845
Ft. William E-19 Hamilton H-24	50 CKPR 50 CHML	890 880	Tiajuana N-3	300	ALC D	0.10
	1000 CKOC	635	CHIHUAHUA		WORL	1000
Kingston G -25 London H-23	50 CFRC 5000 CJGC 100 CFCH	930 595	Chihuahua R-9	100 250	XEFI XFF	1000 875
North Bay E-23 Ottawa F-25	100 CFCH 100 CKCO	930 890	Juarez P-9	$\begin{array}{r}101\\5000\end{array}$	XFF XEJ XEQ	1000 750
	500 CNRO	600		3000	ALQ	700
Prescott F-25 Preston H-23	100 CFLC 100 CKPC	915 880	COAHUILA			1000
St. Catherines H-24	1000 CKTB 15 10-AK	635 1200	Saltillo, Coah. U-12 Torreon U-11	25 125	XEL XETB	1000 1380
Stratford H-23 Toronto G-24	500 CFCA	1120	tl	100 75000	XETG XER-XEF	1000 735
	500 CFCL 10000 CFRB	580 C 690	Villa Acuna R-12	73000	ALK-ALI	,00
	500 CKCL	580 N 840	D. F.			1250
	5000 CKGW 500 CKNC	960	Coyoacan Y-13 Mexico City Y-13	$\begin{array}{r}100\\1000\end{array}$	XEFZ XEB	$1370 \\ 1030$
Waterloo G-23	5000 CPRY 100 CKCR	840 645	Mexico City 1-10	250	XEFA	1250 1070
Windsor H-22	5000 CKOK	C 540		250 101	XEG XEK	990
Wingham G-23	25 10-BP	1199		1000 5000	XEK XEN XEO	711 940
PRINCE EDWA				500	XETA	1140
Charlottestown C-31	500 CFCY 100 CHCK	580 960		$\begin{array}{r}100\\2500\end{array}$	XETQ XETR	1230 610
Summerside C-31	100 CHGS	1120		5000 500	XEW XEX	910 1210
QUEBEC				500	XEZ	780
Montreal E-26	500 CFCF	N 1030		2000 500	XFG XFX	638 867
	5000 CHYC 5000 CKAC	730 C 730	Toluca Y-12	50	XEC	1000
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			Contraction of the local division of the loc			
JALISCO	Watts	s	Kcys.		Watts	Kcys.
Guadalajara, Jal. X-10	500	XEA	1155	Cienfuegos W-25	75 CMHJ	1150
MICHOACAN				Colon W-24 Guantanamo X-28	30 CMGI 20 CMKJ	$1150 \\ 1300$
Morelia, Mich. Y-12	150	XEI	1310	Havana W-23	500 CMAŘ	660
NEUVO LEON					500 CMBC 150 CMBD	965 965
Monterrey, N. L. U-13	100	XEFB	1315		225 CMBG 30 CMBI	1070 1444
	1000 500	XEH XET	1132 690		20 CMBL	1444
OAXACA	500	ALT	090		30 CMBN 50 CMBO	1444 1500
Oaxaca, Oax. AA-14	105	XEE	1000		15 CMBR 150 CMBS	1500
PUEBLA			1000		150 CMBT	790 790
Puebla Z-13	101	XEV	1000		150 CMBW 350 CMBY	1140 1235
QUERETARO	101	ALT	1000		150 CMBZ	1010
QUERETARO Queretaro X-12	40	XEFS	1000		500 CMC 150 CMCA	840 1235
TAMAULIPAS	40	ALLS	1000		150 CMCB	1070
N. Laredo S-13	101	VECC	1000	1	250 CMCD 250 CMCF	925 890
	101 200	XEFE XEP	$1000 \\ 1400$		30 CMCG 100 CMCH	1395 1395
Reynosa, Tams. T-14 Tampico, Tams. W-14	10000 500	XED XEM	965 730		250 CMCJ	630
rampico, rams. n-11	500	XES	1055		15 CMCM 250 CMCN	1395 925
VERA CRUZ					250 CMCO	660
Jalapa Y-14 Vera Cruz, Ver. Z-14	100 500	XETC XETF	1000		1000 CMCQ 150 CMCR	$1140 \\ 1345$
	100	XEU	630 1007		150 CMCU 150 CMCW	1270 1270
YUCATAN					500 CMCY	1355
Merida, Yuc. X-19	10 105	XEFC XEY	1050		40 CMDB 5000 CMK	1395 730
			1000		250 CMQ	630
WEST 1	IND]	IES			1500 CMŴ 3000 CMX	$1185 \\ 890$
BAHAMA				Matanzas W-24	30 CMGB 30 CMGC	1205 820
Nassau, U-26	500	VPN	610		50 CMGF	987
CUBA				Pinar del Rio W-22	150 CMGH 20 CMAB	$1040 \\ 1249$
Caibarien W-25	250	CMHD	950	Santa Clara W-25	200 CMHI	1030
Camaguey W-26	75 20	CMJC CMJE	1382 856	Santiago X-28 Tuinucu	150 CMKC 250 CMHC	1034 790
	225	CMJF	930	DOMINICAN R		,,,,
	50 50	CMJG CMJL	1050 960	Santo Domingo X-31	1000 HIX	630
Cardenas W-24 Ciego de Avila W-26	30 50	CMGE CM IH	1375	HAITI		500
5.050 DE 1111a 11-20	112	CMJH	1150 1335	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

INDEX BY CALL LETTERS AND SUNDAY TIME

KERN

CFAC	690 Calgary, Alta.
CFBO	Silent. 890 St. John, N.B.
CFCA	1120 Toronto, Ont.
	890 St. John, N.B. 1120 Toronto, Ont. 11 a.mnoon; 5:30-10:30 p.m., EST. 1030 Montreal Que
CFCF	 b31 b36 Montreal, Que. 7-11:15 p.m., EST. 930 North Bay, Ont. 11 a.m12:30 p.m., 5-6 p.m.; 8:15-9:15 p.m., EST. 580 Toronto, Ont. 985 Calgary, Alta. 11 a.m10:30 p.m., MST. 1210 Cheatham Ont.
05011	7-11:15 p.m., EST.
CFCH	11 a.m12:30 p.m.; 5-6 p.m.;
	8:15-9:15 p.m., EST.
CFCL CFCN	580 Toronto, Ont.
CFCN	11 a.m10:30 p.m., MST.
CFCO	
CFCT	9:15 a.m9:30 p.m., EST. 630 Victoria, B. C. 11 a.m12:15 p.m.; 7-9 p.m.,
CrCI	11 a.m12:15 p.m.; 7-9 p.m., PST.
	PST
CFCY	580 Charlottetown, P. E. I. 11 a.m12:30 p.m.; 4-5:30 p.m.; 7-8:30 p.m., AST.
	7-8:30 p.m., AST.
CFJC	1120 Kamloops, B. C. 12:30-2 p.m., PST.
CFLC	12:30-2 p.m., PS1. 915 Prescott, Ont.
CFLC	Silent_
CFNB CFQC	1210 Fredericton, N. B.
CFQC CFRB	910 Saskatoon, Sask. 690 Toronto, Ont.
UFKB	10:30 a.mmid., EST.
CFRC	430 Kingston Unt.
снск	960 Charlottetown, P. E. I.
	960 Charlottetown, P. E. I. 10:45 a.m12:30 p.m.; 2-3:30 p.m., AST.
CHGS	1120 Summerside P E
	11 a.mnoon; 5:30-8:15 p.m.,
CHLS	11 a.mnoon; 5:30-8:15 p.m., AST. 730 Vancouver, B. C.
CHMA CHML	580 Edmonton, Alta. 880 Hamilton, Ont.
CHIML	11 a.m12:30 p.m.; 7-8:30 p.m.,
0.000	880 Hamilton, Ont. 11 a.m12:30 p.m.; 7-8:30 p.m., EST. 915 Halifax, N. S.
CHNS	915 Halifax, N. S. 7 p.mmid., AST.
CHRC	645 Quebec, Que. Noon-mid., EST.
снус	Noon-mid., EST.
CHWC	960 Regina, Sask. 4-9 p.m., MST.
снжк	665 Chilhwack, B. C.
снус	Silent. 730 Montreal, Que.
CJCA	745 Edmonton Alta
	11 a.m12:30 p.m., MST.
CJCB	11 a.m12:30 p.m., MST. 880 Sydney, N. S. Noon-3 p.m.; 7-11 p.m., AST. 690 Calgary, Alta.
CJCJ	690 Calgary, Alta.
	9:30-10:45 a.m.; 6-7:15 p.m., MST.
CJGC	595 London Ont
*	11 a.m12:30 p.m.: 0:30-8:30
0108	p.m., EST. 630 Yorkton, Sask. 6:45-8:30 p.m., CST. 1120 Lethbridge Alta
CICX	630 Yorkton, Sask. 6:45-8:30 n.m. CST
ClOC	1120 Lethbridge, Alta. 1210 Vancouver, B. C.
CJOC CJOR	1210 Vancouver, B. C.
CIRM	 1210 Vancouver, B. C. 10:30 a.mnoon; 3-9 p.m., PST. 665 Moose Jaw, Sask. 665 Fleming, Sask. 730 Montreal Oue
C JR M C JR W	665 Fleming, Sask.
СКАС	
скср	1-11 p.m., EST. 730 Vancouver, B. C.
CKCI	645 Quebee Que
	Silent.
скск	960 Regina, Sask.
	10 a.m4 p.m.; 9 p.mmid., MST
CKCL	
	5:15-8 p.m., EST.

сксо	890 Ottawa, Ont.
CKCR	645 Waterloo, Ont.
	10 a.m1 p.m.; 5-10:30 p.m., EST.
	EST.
CKCV	880 Quebec, Que.
	Slient.
CKFC	730 Vancouver. B. C.
CKGW	730 Vancouver, B. C. 840 Toronto, Ont. 10:45 a.m11:15 p.m., EST. 1010 Wolfville, N. S. 840 Red Deer, Alta. 5:30-7:15 p.m., MST.
CVIC	1019 Wolfwille N S
CKIC CKLC	840 Rod Door Alta
UNLU	5.30.7.15 n m MST
скис	1210 Cobalt Ont
СКМО	5:30-7:15 p.m., MST. 1210 Cobalt, Ont. 730 Vaneouver, B. C.
CKMC CKMO CKNC	960 IOTONIO, UNL.
•••••	960 Toronto, Ont. 11 a.m3 p.m.; 5-11:15 p.m., EST.
	EST.
скос	635 Hamilton, Ont.
ov o V	8 a.m10:30 p.m., EST.
скок	540 Windsor, Unt.
скоу	1200 Kelowna B C
CNUY	11 sm - 1.30 nm + 7.30-9 vm
	PST
СКРС	880 Preston Ont.
	8:30-10 p.m., EST.
CKPR	890 Ft. William, Ont.
	5-9 p.m., EST.
СКТВ	EST. 635 Hamilton, Ont. 8 a.m10:30 p.m., EST. 540 Windsor, Ont. 8 a.mmid., EST. 1200 Kelowna, B. C. 11 a.m1:30 p.m.; 7:30-9 p.m., PST. 880 Preston, Ont. 8:30-10 p.m., EST. 890 Ft. William, Ont. 5-9 p.m.; FeST. 635 St. Catherines, Ont. Noon-1 p.m.; 6-633 0 p.m., EST.
01111	Noon-1 p.m.; 6-6:30 p.m., ES1.
CKUA	Noon-1 p.m.; 6-6:30 p.m., EST. 580 Edmonton, Alta. 3:30-4:30 p.m., MST. 730 Vancouver, B. C.
скwх	730 Vancouver B C
	 3'30 4'30 p.m., MS1. 730 Vancouver, B. C. Noon-1:30 p.m., 5'30-6'30 p.m.; 9-11:30 p.m., PST. 930 Brandon, Man. 6:45-8:30 p.m., CST. 720 Winninger Map.
	9-11:30 p.m., PST.
CKX	930 Brandon, Man.
	6:45-8:30 p.m., CST.
СКҮ	930 Brindon, Man. 6:45-8:30 p.m., CST. 780 Winnipeg, Man. 7-8:30 p.m., CST. 1219 Pinar del Rio, Cuba. 660 Havana, Cuba. 965 Havana, Cuba. 910 Havana, Cuba. 965 Havana, Cuba.
CMAD	7-8:30 p.m., CS1.
CMAB CMAF	660 Harana Cuba
СМВС	965 Havana, Cuba.
	2-11 p.m., EST.
CMBD CMBG	965 Havana, Cuba.
CMBG	1070 Havana, Cuba.
CMBI	1444 Havana, Cuba.
CMBL	2-11 p.m., EST, 965 Havana, Cuba, 1070 Havana, Cuba, 1444 Havana, Cuba, 7-9 p.m., EST, 1444 Havana, Cuba, 1500 Havana, Cuba, 1500 Havana, Cuba, 790 Havana, Cuba, 790 Havana, Cuba, 1140 Havana, Cuba, 1140 Havana, Cuba,
CMDN	7-9 p.m., ESI.
CMBN CMBQ CMBR	1500 Hayana Cuba
CMRR	1500 Hayana Cuba.
CMBS	790 Hayana, Cuba.
ĊMBT	790 Havana, Cuba.
CMBW	1140 Havana, Cuba.
CMBR CMBS CMBT CMBW CMBY	1235 Havana, Cuba.
CMBZ	1010 Havana, Cuba.
смс	1235 Havana, Cuba. 9-10:30 a.m.; 6-7 p.m., EST. 840 Havana, Cuba. 1235 Havana, Cuba. 1070 Havana, Cuba.
CMCA	1325 Havana, Cuba.
	1235 Havana, Cuba.
СМСВ	11 a.m1 p.m.; 9 p.mmid.,
смср	EST. 925 Havana, Cuba. Noon-3 p.u., 8 p.mmid., EST. 890 Havana, Cuba. 10 a.m1 p.m., EST. 1395 Havana, Cuba.
	Noon-3 p.m.; 8 p.mmid., EST.
CMCF	890 Havana, Cuba.
	10 a.m1 p.m., EST.
CMCG	1395 Havana, Cuba.
смсн	1395 Havana, Cuba.
CMCI	630 Hayana Cuba
CMCJ CMCM CMCN CMCO	1395 Havana Cuba
CMCN	925 Hayana, Cuba.
смсо	660 Havana, Cuba.
CMCQ CMCR	1140 Havana, Cuba.
CMCR	1345 Havana, Cuba.
CMCU CMCW CMCY	 1395 Havana, Cuba. 3-7 p.m., EST. 630 Havana, Cuba. 1395 Havana, Cuba. 925 Havana, Cuba. 660 Havana, Cuba. 140 Havana, Cuba. 1345 Havana, Cuba. 1270 Havana, Cuba. 1270 Havana, Cuba. 1355 Havana, Cuba. 1355 Havana, Cuba. 8:30-10:30 p.m., EST.
CMCW	1270 Havana, Cuba.
CMCY	1355 Havana, Cuba. 8:30-10:30 p.m., EST.
	0.00-10.00 p.m., EØ1.

CMDB CMGB CMGC CMGE CMGF	
CMGB	1395 Havana, Cuba.
CMCC	1205 Matanzas, Cuba.
	820 Matanzas, Cuba.
CMCE	1375 Cardenas, Cuba.
CMCF	987 Matanzas, Cuba.
CMGH	 1395 Havana, Cuba. 1205 Matanzas, Cuba. 820 Matanzas, Cuba. 1375 Cardenas, Cuba. 987 Matanzas, Cuba. 1040 Matanzas, Cuba.
CMCI	1040 Matanzas, Cuba. 1150 Colon, Cuba.
СМНС	790 Tuinucu, Cuba.
CMHD	950 Caibarien, Cuba.
CMHI	1030 Santa Clara, Cuba.
C	11 a m -1 n m · 8-10 n m EST
CMHJ	1150 Cienfuegos Cuba
	11 a.m2 p.m.: 7-10 p.m. EST.
CMJC	1382 Camaguey, Cuba.
CMJE	856 Camaguey, Cuba.
CMJC CMJE CMJF	930 Camaguey, Cuba.
CMJG	1050 Camaguey, Cuba.
СМЈН	 1030 Santa Clara, Cuba. 11 a.m1 p.m.; 8-10 p.m., EST. 1150 Cienfuegos, Cuba. 11 a.m2 p.m.; 7-10 p.m., EST. 1382 Camaguey, Cuba. 836 Camaguey, Cuba. 930 Camaguey, Cuba. 1050 Camaguey, Cuba. 1150 Ciego de Avila, Cuba. 1150 Ciego de Avila, Cuba.
CMJI	1335 Ciego de Avila, Cuba.
	10 a.m1:30 p.m.; 6-10 p.m., EST.
	EST.
CMJL	 730 Camaguey, Cuba. 730 Havana, Cuba. 10-noon: 6 p.mmid., EST. 1034 Santiago, Cuba.
СМК	730 Havana, Cuba.
	10-noon; 6 p.mmid., EST.
СМКС	1034 Santiago, Cuba.
СМКЈ	
CMQ	630 Havana, Cuba.
CMW	1185 Havana, Cuba.
	10 a.m3 p.m., EST.
CMX	 630 Hawana, Cuba. 630 Hawana, Cuba. 1185 Hawana, Cuba. 110 a.m., 3 p.m., EST. 890 Havana, Cuba. 11 a.m., 2 p.m.; 8-10 p.m., EST. 630 Moreton, N. B. 9:30-11 p.m., AST. 815 Halfar N. S.
	11 a.m2 p.m.; 8-10 p.m., EST.
CNRA	630 Moneton, N. B.
c) mu	9:30-11 p.m., AST.
CNRH	
CNRO	600 Ottawa, Ont. 8:30-11 p.m., EST. 1030 Vancouver, B. C.
CMDV	8:30-11 p.m., E.S.I.
CNRV	1030 Vancouver, B. C.
CPRY	2-3:30; 3:30-3:30 p.m. 1:51.
CFKI	1030 Vancouver, B. C. 2-3:30; 5:30-8:30 p.m. PST. 840 Toronto, Ont. 4-4:30 p.m., EST. 920 Port au Prince, Haiti. 630 Santo Domingo. 2:10-3:40 p.m., EST. 1420 San Antonio, Tex
ннк	928 Port au Prince Haiti
HIX	630 Santo Domingo
THA .	2:10-3:40 n m EST
KABC	1470 San Antonio Tex
	8:30 a.m -2 p.m.: 7-11:30 p.m.
	920 Port au Prince, Haiti. 630 Santo Domingo. 2:10-3:40 p.m., EST. 1420 San Antonio, Tex. 8:30 a.m2 p.m.; 7-11:30 p.m., CST. 800 Little Pock Ark
KARK	890 Little Rock, Ark. 8-10 a.m.; 5-9 p.m., CST. 1210 Elk City, Okla. 7 a.m9 p.m., CST. 1420 Portland, Ore.
	8-10 a.m.; 5-9 p.m., CST.
KASA	1210 Elk City, Okla.
	7 a.m9 p.m., CST.
KBPS	1420 Portland Ore
KDI 3	onent.
KBTM	onent.
	1200 Paragould, Ark.
KBTM	1200 Paragould, Ark.
	Shent, Paragould, Ark. 1200 Paragould, Ark. 7:30 a.mnoon; 4-6:15 p.m., CST. CST. 1420 Texarkana, Ark.
KBTM	Shent, Paragould, Ark. 1200 Paragould, Ark. 7:30 a.mnoon; 4-6:15 p.m., CST. CST. 1420 Texarkana, Ark.
KBTM	 Binen, Paragould, Ark. 7:30 a.mnoon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 pm CST.
KBTM	 Binen, Paragould, Ark. 7:30 a.mnoon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 pm CST.
КВТМ КСМС	 Snent, 1200 Paragould, Ark. 7:30 a.mnoon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Euid, Okla, 11 a.m., 3 p.m., CST.
КВТМ КСМС	 Snent. 1200 Paragould, Ark. 7:30 a.mnoon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Euid, Okla, 11 a.m.,-3 p.m., CST. 1310 Jerome, Ariz.
KBTM KCMC KCRC	 Shent, 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Enid, Okla, 11 a.m.,-3 p.m., CST. 1310 Jerome, Ariz. Silent.
KBTM KCMC KCRC	 Shent, 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Enid, Okla, 11 a.m.,-3 p.m., CST. 1310 Jerome, Ariz. Silent.
KBTM KCMC KCRC KCRJ	 Shent, Shent, Shent, S. /li>
KBTM KCMC KCRC KCRJ	 Shent, Shent, Shent, S. /li>
KBTM KCMC KCRC KCRJ KDB	 Snent. Snent. 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Euid, Okla, 11 a.m.,-3 p.m., CST. 1310 Jerome, Ariz. Silent. 1500 Santa Barbara, Calif. 8 a.m.,mid., PST. 1440 Casper, Wyo. 10-11 ar MST.
KBTM KCMC KCRC KCRJ KDB	 Snent. Snent. 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Euid, Okla, 11 a.m.,-3 p.m., CST. 1310 Jerome, Ariz. Silent. 1500 Santa Barbara, Calif. 8 a.m.,mid., PST. 1440 Casper, Wyo. 10-11 ar MST.
KBTM KCMC KCRC KCRJ KDB KDFN	 Snent. Snent. 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1370 Euid, Okla, 11 a.m.,-3 p.m., CST. 1310 Jerome, Ariz. Silent. 1500 Santa Barbara, Calif. 8 a.m.,mid., PST. 1440 Casper, Wyo. 10-11 ar MST.
KBTM KCMC KCRC KCRJ KDB KDFN	 Snent. Snent. 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1310 Jerome, Ariz. 1310 Jerome, Ariz. Silent. 1500 Santa Barbara, Calif. 8 a.m.mid., PST. 1440 Casper, Wyo. 10-11a.m., MST. 980 Pittsburgh, Pa. 10:55 a.m.mid., EST. 1210 Devils Lake, N. D.
KBTM KCMC KCRC KCRJ KDB KDFN KDKA	 Silent. <
KBTM KCMC KCRC KCRJ KDB KDFN KDKA	 Snant, 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1310 Jerome, Ariz. Silent. 1300 Santa Barbara, Calif. 8 a.m.,mid., PST. 1440 Casper, Wyo. 10-11 a.m., MST. 980 Pittsburgh, Pa. 10:55 a.m.,mid., EST. 1210 Devils Lake, N. D. Silent. 1200 Fark City. Urab.
KBTM KCMC KCRJ KDB KDFN KDKA KDLR	 Shent, Shent
KBTM KCMC KCRJ KDB KDFN KDKA KDLR	 Shent, Shent
KBTM KCMC KCRJ KDB KDFN KDKA KDLR KDYL	 Shent, Shent
KBTM KCMC KCRJ KDB KDFN KDFN KDKA KDLR KECA	 Shent, Shent
KBTM KCMC KCRJ KDB KDFN KDKA KDLR KDYL	 Snant, 1200 Paragould, Ark. 7:30 a.m.,-noon; 4-6:15 p.m., CST. 1420 Texarkana, Ark. 8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST. 1310 Jerome, Ariz. Silent. 1300 Santa Barbara, Calif. 8 a.m.,mid., PST. 1440 Casper, Wyo. 10-11 a.m., MST. 980 Pittsburgh, Pa. 10:55 a.m.,mid., EST. 1210 Devils Lake, N. D. Silent. 1200 Fark City. Urab.

KEX

INDEX BY CALL LETTERS AND SUNDAY TIME KLRA

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KFAB	8 a.mnoon; 1 p.mmid., PST. 770 Lincoln, Neb.
KFAC	9 a.m10:30 p.m., CST. 1300 Los Angeles, Calif.
KFBB	1280 Great Falls, Mont.
KFBI	p.m., MST. 1050 Milford, Kans. 8-9 a.m., CST. 1310 Sacramento, Calif.
K LDI	8-9 a.m., CST.
KFBK	1310 Sacramento, Calif.
KFBL	1370 Everett, Wash.
KFDM	 54 a.m., Ch1,, Calif. 1310 Szeramento, Calif. 1370 Everett, Wash. 6 a.m1 p.m.; 7-9:30 p.m., PST. 560 Beaumont, Texas.
KFDY	550 Brookings, S. D.
KFEL	Silent. 920 Denver, Colo.
	10 a.m7:30 p.m., MST.
KFEQ	920 Denver, Colo. 10 a.m7:30 p.m., MST. 680 St. Joseph, Mo. 11:30 a.m7:45 p.m., CST.
KFGQ	1310 Boone, Iowa.
KFH	1300 Wichita Kans
	1300 Wichita, Kans. 8-11 a.m.; 1-7 p.m.; 9-11 p.m., CST.
KFI	640 Los Angeles, Calif.
	6.20 o m mid DST
KFIO	1120 Spokane, Wash. 8 a.msunset, PST. 1420 Fond du Lac, Wis.
KFIZ	1420 Fond du Lac, Wis.
	Silont
KF JB KF JF	1200 Marshalltown, Iowa.
Kr J r	7 a.m1 a.m. next day, CST.
KFJI	1210 Klamath Falls, Ore.
VE IM	 Brent, J. Strand, S. Strand, S. Strand, S. Strand, S. Strand, J. Str
KFJM	1370 Grand Forks, N. D. 9 a.m9 p.m., CST.
KFJR	1300 Portland, Ore.
KFJZ	Silent
	1370 Fort Worth, Texas. 7:30 a.m11 p.m., CST. 880 Greeley, Colo.
KFKA	880 Greeley, Colo.
KFKU	Silent. 1220 Lawrence, Kans.
VEVV	1220 Lawrence, Kans. 4-5 p.m., CST. 1020 Chicago, Ill.
KFKX KFLV	1020 Chicago, Ill. 1410 Rockford, Ill.
	10 a.m2:30 p.m.: 6-9:30 p.m.
VDIV	CST.
KFLX KFMX	1370 Galveston, Texas. 1250 Northfield, Minn.
	7-8 p.m., CST.
KFNF	890 Shenandoah Iowa
	8-9:30 a.m.; 10:45 a.mnoon; 2-8 p.m., CST.
KFOR	IZIU LINCOIN NED
	1210 Lincoln, Neb. 8-10:15 a.u.; 1:30-3:30 p.m.;
KFOX	4:30-8 p.m., CST. 1250 Long Beach Calif
	6 a.mmidnight, PST.
KFPL	8-10:15 a.u.; 1:30-3:30 p.m.; 4:30-8 p.m., CST. 1250 Long Beach. Calif. 6 a.mmidnight, PST. 1310 Dublin, Texas.
KFPM	Silent. Silent. Silent.
	Silent.
KFPW	1210 Fort Smith, Ark. 10 a.m2 p.m.; 5-10:30 p.m., CST.
	10 a.m2 p.m.; 5-10:30 p.m., CST.
KFPY	1340 Spokane, Wash. 9 a.mmid., PST.
KFOD	9 a.mmid., PST.
	5-7 p.m. (Zone 6)
KFRC	610 San Francisco, Calif.
KFRU	5 a.mmid., PST. 630 Columbia Mo
AI AU	 Janna, Hud., 191. Alaska. 5-7 p.n. (Zone 6) 610 San Francisco, Calif. 8 a.mmid., PST. 630 Columbia, Mo. 7:30 a.mnoon; 4:45-5:30 p.m., CST.
VECD	CST.
KFSD	600 San Diego, Calif. 8 a.m11 p.m., PST.
	• a.m11 p.m., F01.

	An and the second se
KFSG	1120 Los Angeles, Calif. 10:30 a.m12:45 p.m.; 2:30-4:30
KFUL	10:30 a.m12:45 p.m.; 2:30-4:30 p.m.; 6:30 p.mmid., PST. 1290 Galveston, Texas. 9:15-10:45 a.m.; 1-6:30 p.m.; 9:30-mid., CST. 550 St J Covin Ma
KFUO	9:30-mid., CST, 550 St. Louis, Mo. 8:30 a.m12:30 p.m.; 3-4:30 p.m.; 9:15-10:30 p.m., CST.
KFVD KFVS	9:30-mid. CST. 550 St. Louis, Mo. 8:30 a.m12:30 p.m.; 3-4:30 p.m.; 9:15-10:30 p.m., CST. 1000 Los Angeles, Calif. 1210 Cape Girardeau, Mo. 9 a.m4 p.m.; 9:30 p.mmid., CST.
KFWB	CST. 950 Los Angeles, Calif. 8 a.m11 p.m., PST. 1200 St. Louis, Mo. 020 St. Louis, Mo.
KFWF KFWl	1200 St. Louis, Mo. 930 San Francisco, Calif.
KFXD	930 San Francisco, Calif. 2:30-6 p.m.; 7:45-9 p.m., PST. 1200 Nampa, Idaho.
KFXF KFXJ	920 Denver, Colo.
KFXM	 12 a.m6:30 p.m., MST. 920 Denver, Colo. 1310 Grand Junction. Colo. 8 a.m2 p.m.; 6-9 p.m., MST. 1210 San Bernardino, Calif.
KFXR	3-6 p.m., PST. 1310 Oklahoma City, Okla.
KFYO KFYR	1310 Lubbock, Texas. 550 Bismarck, N. D.
KGA	 3-6 p.m., PST. 1310 Oklahoma City, Okla. 1310 Lubbock, Texas. 550 Bismarck, N. D. 9 a.m11 p.m., CST. 1470 Spokane, Wash. 8 a.mmid., PST. 1370 Tueson, Ariz. 11 a.m11 p.m., MST.
KGAR	1370 Tucson, Ariz.
KGB	1330 San Diego, Calif. 8 a.mmid., PST.
KGRU KGBX	1470 Spokane, Wash. 8 a.mmid., PST. 1370 Tucson, Ariz. 11 a.m11 p.m., MST. 1330 San Diego, Calif. 8 a.mmid., PST. 900 Ketchikan, Alaska. 1310 St. Joseph, Mo. 7:30 a.m1 p.m.; 3:30-10 p.m., CST. 930 York, Neb. 9:15-11:15 a.m.; 1:30-3 p.m.; 4:30-6 p.m.; 7:8:30 p.m., CST. 1270 Decorah, Iowa;
KGBZ	CST. 930 York, Neb. 9:15-11:15 a.m.; 1:30-3 p.m.;
KGCA	
KGCR	April). 1210 Watertown, S. D.
KGCU	5 a.m2 p.m., 0.01.
KGCX	1240 Mandan, N. D. 10:45 a.m12:30 p.m.; 1:30-4 p.m.; 7-9 p.m., CST. 1310 Wolf Point, Mont. 1-2 p.m., MST.
KGDA	1370 Mitchell, S. D.
KGDE	1200 Fergus Falls, Minn. 9 a.m9 p.m. CST.
KGDM	1100 Stockton, Calif. 6 a.msunset, PST.
KGDY KGEK	Silent. Page Fargus Falls, Minn. 9 a.m9 p.m. CST. 100 Stockton, Calif. 6 a.msumset, PST. 1200 Huron, S. D. 1200 Yuma, Colo. 2-4 p.m. MST. (Oct. 1st.)
KGER	1360 Long Beach, Calif.
KGEW	1200 Ft. Morgan, Colo. 11 a.mnoon, MST. 1310 Kalispell, Mont. 8 a.m9 p.m., MST. 1420 Shawnee, Okla.
KGEZ	1310 Kalispell, Mont. 8 a.m9 p.m., MST.
KGFF	1420 Shawnee, Okla. 10:15 a.m9 p.m., CST.
KGFG KGFI	10:15 a.m9 p.m., CST. 1370 Oklahoma City, Okla. 1500 Corpus Christi, Texas. 8:30-9:30 a.m.: 11 a.mnoon;
KGFJ	8-9 p.m., CST. 1200 Los Angeles, Calif.
KGFK	
KGFL	1500 Moorhead, Minn. 9 a.m9 p.m., CST. 1370 Santa Fe, N. M. Noon-2 p.m., MST.

KGFW 1310 Kearney, Neb. 8 a.m.-noon; 2:30-5 p.m., CST. 630 Pierre, S. D. KGFX 1420 San Francisco, Calif. KGGC KGGF 1010 Coffeyville, Kans. 1-5 p.m., CST. KGGM 1230 Albuquerque, N. M. 10 a.m.-2 p.m., MST. KGHF 1320 Pueblo, Colo. 10:30 a.m.-3:30 p.m., MST. KGHI 1200 Little Rock, Ark. 950 Billings, Mont. KGHL 10 a.m.-4 p.m.; 5:30-11 p.m., MST 1360 Butte, Mont. 9 a.m.-mid., MST. 1420 Trinidad, Colo. KGIR KGIW 1420 Las Vegas, Nev. KGIX Silent. 1500 Grant City, Mo. KGIZ KGKB 1500 Tyler, Texas. 9:45 a.m.-2 p.m.; 7-9:30 p.m., CST. 1370 San Angelo, Texas. KGKL 8:45 a.m.-2 p.m.; 7-9:30 p.m., CST 570 Wichita Falls, Texas. 1420 Lewiston, Idaho. 1500 Scottsbluff, Neb. 10 a.m.-1:30 p.m., MST. 1320 Honolulu, Hawaji. KGKO KGKX KGKY KGMB 11 a.m.-noon; 5;45-9:30 p.m. (Zone 5) KGNF 1430 North Platte, Neb. 10:30 a.m.-noon; 2-4 p.m. MST. KGNO 1210 Dodge City, Kans. 2-3 p.m., MST. KGO 790 San Francisco, Calif. 8 a.m.-mid., PST. KGRS 1410 Amarillo, Texas. 6-10 a.m.; 11 a.m.-3 p.m.; 5-7:30 p.m.; 10 p.m.-mid., CST. 750 Honolulu, Hawaii. KGU 9 a.m.'- noon; 3:15 p.m. - 10. (Zone 5) 1200 Missoula, Mont. 10 a.m.-6 p.m., MST. 620 Portland, Ore KGVO KGW 8 a.m.-mid., PST KGY 1210 Olympia, Wash, Silent. KHJ 900 Los Angeles, Calif. 8 a.m.-mid., PST. KHO 590 Spokane, Wash. 9 a.m.-mid., PST. KICA 1370 Clovis, N. M. KICK 1420 Red Oak, Iowa. KID 1320 Idaho Falls, Idaho. 7 a.m.-10 p.m., MST. KIDO 1350 Boise, Idaho. 9 a.m.-4 p.m., MST 1420 Lamar, Colo. KIDW KIT 1310 Yakima, Wash. 9 a.m.-2 p.m.; 6:45-10:30 p.m., PST. K JBS 1070 San Francisco, Calif. Mid. to local sunset, PST. 970 Seattle, Wash. 8 a.m.-mid., PST. 1290 Blytheville, Ark. K JR KLCN KLO 1400 Ogden, Utali. 9 a.m.-10:30 p.m., MST. KLPM 1240 Minot, N. D. 9-11:45 a.m.; 1:30-2:30 p.m.; 5-8 p.m., CST. 1390 Little Rock, Ark.
8-11 a.m.; 1-5 p.m.; 6:30-11 p.m., CST. KLRA

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WAGM

KLS	 1440 Oakland, Calif. 10 a.m5 p.m., PST. 880 Oakland, Calif. Noon-11 p.m., PST. 560 Denv? Colo. 8 a.m11:30 p.m., MST. 940 Shenandash Lova.
KLX	880 Oakland, Calif.
KLZ	560 Denv ^A Colo. 8 a.m11:30 p.m., MST.
KMA	930 Shenandoah. Iowa. 8-9:15 a.m.; 11:15 a.m1:30
кмас	p.m.; 3-4:30 p.m.; 6-7 p.m.; 8:30-10 p.m., CST. 1370 San Antonio, Texas. 7-9 a.m.; 11 a.m12:30 p.m.;
кмвс	24 p.m.; 6-8 p.m.; 10 p.m.; mid., CST. 950 Kansas City, Mo. 6:15 a.mmid., CST. 1310 Medford, Cre. 8 a.m9:30 p.m., PST. 520 Exercise Codific
KMED	6:15 a.mmid., CST. 1310 Medford, Ore.
KMJ	
KMLB KMMJ	8:30 a.m11 p.m., PST. 1200 Monroe, La. 740 Clay Center, Neb. 7:30-9:45 a.m.; 11 a.mnoon; 1-4:30 p.m., CST. 1330 Tacoma, Wash. 5 a.m. PST
кмо	1-4:30 p.m., CS1. 1330 Tacoma, Wash.
кмох	1090 St. Louis, Mo. 6:45 c m -1 c m next day CST
KMPC KMTR KNOW	1-4:30 p.m., CST. 1330 Tacoma, Wash. 7 a.m. 6 p.m., PST. 1090 St. Louis, Mo. 6:45 a.m1 a.m. next day, CST. 710 Beverly Hills, Calif. 570 Hollywood, Calif. 1500 Austin, Texas. 7:30-10:30 a.m.; noon-3 p.m.; 5-8 p.m., CST. 1050 Hollywood, Calif. 1020 Hollywood, Calif.
KNX	5-8 p.m., CST. 1050 Hollywood, Calif. 6:30 a.m10:30 p.m., PST.
KOA	6:30 a.m10:30 p.m., PST. 830 Denver, Colo. 8:30 a.mmid., MST.
коас	550 Corvallis, Ore. Silent.
ков	1180 Albuquerque, N. M. 7 a.m 9 p.m., MST.
KOCW Koh	1400 Chickasha, Okla. 1380 Reno, Nev. 8 a.m9 p.m., PST. 1260 Council Bluffs, Iowa.
KOIL	1260 Council Bluffs, Iowa. 8:15 a.m1 a.m. next day, CST.
KOIN	940 Portland, Ore. 8 a.mmid., PST. 1270 Seattle, Wash.
KOL	1270 Seattle, Wash. 8 a.mmid., PST.
комо	920 Seattle, Wash.
KONO	 1370 San Antonio, Texas. 9-11 a.m.; 12:30-2 p.m.; 4-6 p.m.; 8-10 p.m., CST. 1270 Marcheld Ora
KOOS	p.m.; 8-10 p.m., CS1. 1370 Marshfield, Ore. Silent.
KORE	1420 Eugene, Ore. 10 a.m1:30 p.m.; 6-9 p.m. PST.
коч	1390 Phoenix, Ariz,
KPCB	9:30 a.m9 p.m., MST. 650 Seattle, Wash. 6:30 a.m8 p.m.; 10 p.m., 4 a.m.
КРЈМ КРО	6:30 a.m8 p.m.; 10 p.m., 4 a.m. PST. 1500 Preseott, Ariz. 680 San Francisco, Calif.
KPOF	8 a.mmid., PST. 880 Denver, Colo. 7:30-9 a.m.; 2:30-4:30 p.m.
КРРС	7:30-9 p.m., MST. 1210 Pasadena, Calif. 9:30 a.m12:30 p.m.; 7:30-1
KPQ	1500 Wenstehee Wash.
KPRC	9 a.m1:15 p.m., PST. 920 Houston, Texas. 8 a.mmid., CST.

KLS

KQV	1380 Pittsburgh, Pa. 11 a.m8:30 p.m., EST.
KQW	1010 San Jose, Calif. 10:15 a m -12:30 h m : 7:30-9:30
KRE	1370 Berkeley, Ualit,
KREG	1500 Santa Ana, Calif.
KRGV	9:30 a.m., 12:30 p.m., 7:30-9:30 p.m., PST. 1260 Harlingen, Texas. 8-9:20 a.m.; 10-11 a.m.; 12:30-2 p.m.; 7-9 p.m., CST. 1120 Los Angeles, Calif. 6-10:30 a.m.; 12:15-2:30 p.m.; 4:30-6:30 p.m., PST.
KRKD	1120 Los Angeles, Calif. 6-10:30 a.m.; 12:15-2:30 p.m.; 4:30-6:30 p.m., PST.
KRLD	1040 Dallas, Texas. 8:30-11 a.m.; 3-6 p.m.; 7:45- 9:15 p.m.; 10:30 p.mmid., CST
KRMD	1310 Shreveport, La. 7 a.m1 p.m.; 4-7 p.m., CST. 930 Oakland, Calif.
KROW	930 Oakland, Calif. 8 a.m2:30 p.m.; 6-11 p.m., PST. 1120 Seattle. Wash.
KRSC	1120 Seattle. Wash. Sunrise to local sunset, PST.
KSAC	Con Monhattan Kang
KSCJ	1330 Sioux City, Iowa.
KSD	500 Malmutan, Mus. 1330 Sioux City, Iowa. 7:30 a.m11 p.m., CST. 550 St. Louis, Mo. 12:30-3 p.m.; 4:30-9:15 p.m., CST.
KSEI	800 Deentallo Idubo
KSL	1130 Salt Lake City, Utah. 8 a.mmid., MST.
KSO KSOO	 a.m11 p.m., MST. 1130 Salt Lake City, Utah. 8 a.mmid., MST. 1130 Clarinda, Iowa. 1110 Sioux Falle, S. D. 9 a.m7:30 p.m.; 9:30 p.mmid., CST.
KSTP	mid., CST. 1460 St. Paul, Minn. 8 a.mmid., CST. 560 San Francisco, Calif.
KTAB	560 San Francisco, Calif. 8:30 a.mmid., PST.
KTAR	
KTAT KTBR	8 a.m11 p.m., MST. 1240 Ft. Worth, Texas. 1300 Portland, Ore.
KTBS	1450 Shreveport, La.
KTFI	1450 Shreveport, La. 6 a.mmid., CST. 1240 Twin Falls, Idaho. 10 a.m11 p.m., MST.
KTHS	 1040 Hot Springs, Ark. 11 a.m3 p.m.; 6:15-7:45 p.m.; 9:15-10:30 p.m., CST. 1310 Houston, Texas.
KTLC	1310 Houston, Texas. 8 a.m1 p.m.; 6-11 p.m., CST.
KTM	780 Los Angeles, Calif. 7-10 a.m.; 1-5 p.m.; 8 p.m4
KTRH	1120 Houston, Texas. 8-11 a.m.; noon-3:30 p.m.; 5- 11:30 p.m., CST.
KTSA	1290 San Antonio, Texas. 7:30-9 a.m.; 10:45 a.m1 p.m.; 6:30-9:30 p.m., CST. 1310 El Paso, Texas. 1220 Seattle, Wash. 1370 Walla Walla, Wash.
KTSM	1310 El Paso, Texas.
KTW KUJ	1370 Walla Walla, Wash.
KUMA	7:45 a.mlocal sunset, 1 51.
KUOA	 o-9 p.m., MS1. 1390 Fayetteville, Ark. 7-8 a.m.; 11 a.m1 p.m.; 5-6:30 p.m., CST.
	p.m., CST.

KUSD	890 Vermillion, S. D.
KV1	Silent. 570 Tacoma, Wash. 8 a.mmid., PST. 1370 Seattle, Wash. 1260 Tucson, Ariz. 1140 Tulsa, Okla. 9 a.m8:15 p.m., CST.
KVI	8 a.mmid., PST. 1370 Seattle Wash
KVL KVOA	1260 Tueson, Ariz.
KVOO	9 a.m $8:15$ p.m., CST.
KVOR	 1140 Tulsa, Okla. 9 a.m8:15 p.m., CST. 1270 Colorado Springs, Colo. 8 a.m10 p.m., MST. 1200 Bellingham, Wash. 1420 Cedar Rapids, Iowa. 6:30 a.mmid., CST. 1210 Shreveport, La. 1210 Stockton, Calif. 8:30 a.m11 p.m., PST.
KVOS	1200 Bellingham, Wash.
KWCR	1420 Cedar Rapids, Iowa. 6:30 a.mmid., CST.
KWEA KWG	1210 Shreveport, La.
	1200 Stockton, Calif. 8:30 a.m11 p.m., PST. 1060 Portland, Ore. 1350 St. Louis, Mo. 6:55 a.m11 p.m., CST. 1370 Kansas City, Mo. 850 Shreveport, La. 7:45 p.mmid., CST. 1270 Decrah, Lowa.
KWJJ KWK	1060 Portland, Ore. 1350 St. Louis, Mo.
	6:55 a.m11 p.m., CST.
KWKC KWKH	1370 Kansas City, Mo. 850 Shreveport, La.
	7:45 p.mmid., CST.
KWLC	1270 Decorah, Iowa. 9:30-10:30 a.m., CST. 1220 Pullman, Wash.
KWSC	1220 Pullman, Wash. Silent
KWWG	Silent. 1260 Brownsville, Texas. 760 Seattle, Wash. 7 a.msundown; 9 p.mmid.,
KXA	760 Seattle, Wash. 7 a.msundown; 9 p.mmid.,
KXL	PST
	1420 Portland, Ore. 8 a.mmid., PST. 1500 El Centro, Calif. 1310 Aberdeen, Wash.
KXO KXRO	1500 El Centro, Cahl. 1310 Aberdeen, Wash.
	1310 Aberdeen, Wash. 10 a.m7 p.m., PST.
KXYZ	10 a.m7 p.m., 1751. 1420 Houston, Texas. 8:30-10:30 a.m.; 11 a.m1:15 p.m.; 6-10:30 p.m., CST. 1230 San Francisco. Calif. 8:45 a.m11 p.m., PST. 1020 Chicago, Ill. 8:a.m.14 m. next day. CST
KYA	p.m.; 6-10:30 p.m., CST. 1230 San Francisco, Calif.
	8:45 a.m11 p.m., PST.
KYW	
NAA RUS	690 Arlington, Va. 664 Selvador
TGW	570 Guatamala. 911 San Jose, C. R.
TGW TICR VAS VCX	570 Guatamala. 911 San Jose, C. R. 685 Glace Bay, N. S. 690 Halifax, N. S.
VCX	690 Halifax, N. S.
VOAS	810 St. Johns, N. F. Silent.
VOGT	 Silent. 893 Wabana, N. F. 9 p.m10 (Zone 19) 950 St. Johns, N. F. 750 St. Johns, N. F. 11 a.m12:30 p.m.; 6:30-7:50 p.m., Nfld. time. 610 Nassau, B. I. 1410 Boston, Mass. 10 a.m11:30 p.m., EST. 920 Chicaro, Ill.
VONA	950 St. Johns, N. F.
VOWR	750 St. Johns, N. F. 11 a.m12:30 p.m.; 6:30-7:50
VPN	p.m., Nfld. time.
WAAB	1410 Boston, Mass.
WAAF	10 a.m11:30 p.m., EST. 920 Chicago, Ill.
	6 a.mlocal sunset, CST.
WAAM	I 1250 Newark, N. J. 11 a.m12:30 a.m., EST.
WAAT	11 a.m12:30 a.m., EST. 940 Jersey City, N. J. 6 a.m6 p.m., EST.
WAAW	660 Omana, Neo.
WABC	860 New York City
WAB1	8 a.m1 a.m., EST. 1200 Bangor, Maine. 6 a.m3 p.m.; 6-9 p.m., EST.
WABZ	
WACO	
	1200 New Orleans, La. 1240 Waco, Texas. 9:30-11 a.m.; 1-3 p.m.; 5-7:30 p.m., CST.
WADC	
WAGN	11 a.mmid., EST. 1 1420 Presque Isle, Me.
	Silent.

WAIU

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WFI

WAIU	640 Columbus, Ohio.
WALR	8 a.mlocal sunset, EST. 1210 Zanesville, Ohio. 10 a.m10 p.m., EST.
WAPI	10 a.m10 p.m., EST. 1140 Birmingham, Ala,
WALL	
WASH	 9 a.m7:45 p.m.; 8:15 p.m mid., CST. 1 1270 Grand Rapids, Mich. 9 a.m11 p.m., CST. 1 1350 Zarephath, N. J. 6-9 a.m.; 11 a.m12:30 p.m.; 3:4:30 p.m.; 7:30-9 p.m., EST. 1400 Lafayette, Ind. Silent. 1430 Harrisburg, Pa.
WAW	9 a.m11 p.m., CST.
WAW /	6-9 a.m.; 11 a.m12:30 p.m.;
WBAA	3-4:30 p.m.; 7:30-9 p.m., EST. 1400 Lafavette Ind
WBAK	Silent. 1430 Harrisburg, Pa.
	Silent.
WBAL	1060 Baltunore, Md. 7 a.mmid., EST.
WBAP	10 a m noon: 3.6 n m 10.20
WDAY	mid., CST.
WBAX	1210 Wilkes Barre, Pa. 1-11 p.m., EST.
WBBC WBBL	1400 Brooklyn, N. Y. 1210 Richmond, Va. 1 770 Chicago, Ill.
WBBM	1210 Richmond, Va. 1 770 Chicago, Ill.
	8:45 a.m10 p.m.; 11:30 p.m
WBBR	1300 Brooklyn, N. Y. 8-11 am 3-8 nm EST
WBBZ	2 a.m., CST, 1300 Brooklyn, N. Y. 8-11 a.m.; 3-8 p.m., EST, 1200 Ponea City, Okia. 7 a.m7 p.m., CST, 1410 Bay City, Mich, 900 Buffalo, N. Y. 9 a.mmid., EST, 1310 Marouette Mich
WBCM	I 1410 Bay City, Mich.
WBEN	900 Buffalo, N. Y. 9 a m -mid EST
WBEO WBHS	1310 Marquette, Mich.
WBIG	9 a.mmid., EST. 1310 Marquette, Mich. 1200 Huntsville, Ala. 1440 Greensboro, N. C.
WBMS	9:45 a.m10 p.m. EST.
	Noon-2 p.m.; 5:45-7:30 p.m., EST.
WBNX	1350 New York City
WBOQ WBOW	12:30-3 p.m.; 4:30-6 p.m., EST.
WBOW	1310 Terre Haute, Ind.
WBRC	 900 New York City. 1310 Terre Haute, Ind. 9 a.m11 p.m., CST, 930 Birmingham, Ala. 10 a.m. 11:20 m. CST
WBRE	 930 Birmingham, Ala. 10 a.m11:30 p.m., CST. 1310 Wilkes Barre, Pa. 920 Babson Park, Mass.
WBSO	920 Babson Park, Mass. Silent.
WBT	1080 Charlotte, N. C.
WBTM	1370 Danville, Va.
WBZ	990 Boston, Mass. 10 a.mmid., EST.
WBZA	1080 Charlotte, N. C. 8 a.mmid., EST. 1370 Danville, Va. 990 Boston, Mass. 10 a.mmid., EST. 930 Springfield, Mass. 10 a.mmid., EST. 600 Storrs, Conn. Silent.
WCAC	600 Storrs, Conn.
WCAD	1220 Canton N V
WCAE	1220 Canton, N. Y. Silent. 1220 Pittsburgh, Pa. 10:30 a.mmid., EST.
	10:30 a.mmid., EST.
WCAH	1430 Columbus, Ohio. 8 a.mmid., EST.
WCAJ	590 Lincoln, Neb. 8:30-9 a m : 11 a m 12:20
	Silent. 1220 Pittsburgh, Pa. 10:30 a.mmid., EST. 1430 Columbus, Ohio. 8 a.mmid., EST. 590 Lincoln, Neb. 8:30-9 a.m.; 11 a.m12:30 p.m.; 6-7 p.m., CST. 1250 Northfield, Minn.
WCAL	1250 Northfield, Minn. 8:15-9:30 a.m.: 3-4 p.m., CST
WCAM	8:15-9:30 a.m.; 3-4 p.m., CST. 1280 Camden, N. J.
	EST.
WCAO	600 Baltimore, Md. 9 a.mmid., EST. 1280 Asbury Park, N. J. 9-10:15 a.m.; 8-9 p.m., EST.
WCAP	1280 Asbury Park, N. J.
	- ю. ю а.ш., о-э р.m., ЕБТ.

WCAT WCAU	1200 Rapid City, S. D. 1170 Philadelphia, Pa. 9 a.m1 a.m., EST. 1200 Burlington, Vt.
WCAX WCAZ	Toro Cartnage, III.
WCBA	Silent. 1440 Allentown, Pa. 10 a.mnoon; 5:30-11:30 p.m., EST.
WCBD	6-11 a.m.: 3:30-local subset
WCBN	CST. 1 1370 Baltimore, Md.
WCBS	9:30 a.m11 p.m., EST. 1210 Springfield, Ill. 10:45 a.m2 p.m.; 7-7:30 p.m., CST.
wcco	810 Minneapolis, Minn. 9 a.m11 p.m., CST. 1350 New York City.
WCDA WCFL	970 Chicago, 111.
WCGU	
WCKY	1400 Brooklyn, N. Y. 1400 Brooklyn, N. Y. 1030 a.mnoon; 7-9 p.m., EST. 1490 Covington, Ky. 11 a.mmid., CST. 1200 Janesville, Wis.
WCLO	1200 Janesville, Wis.
WCLS	10 a.mnoon, CST. 1310 Joliet, Ill. 9 a.m2 n.u.: 6-8 n.m. CST
WCMA	6.20 0.20 a m 10.20 a m m d
WCOA	CST. 1340 Pensacola, Fla. 10:30 a.m3 p.m., CST.
wcoc	10:30 a.m3 p.m., CST. 880 Meridian, Miss. 9:30 a.m3:30 p.m.; 5-11 p.m., CST.
WCOD	1200 Harrisburg, Pa. 2nd and 4th Sundays 11 am -
WCRW	7:15 p.m., EST. 1210 Chicago, III
WCSC WCSH	11:30 a.m1:30 p.m.; 6-7 p.m.; 9-10 p.m., CST. 1360 Charleston, S. C. 940 Portland, Maine.
	10.20 a m noon, 1 11 0°
WDAE	EST. EST. 1220 Tarapa, Fla. 8 a.mnid., EST. 610 Kansas City, Mo. 8 a.m11 p.m., CST. 1410 Amarillo Texas.
WDAF	610 Kansas City, Mo. 8 a m -11 n m CST
WDAG	10-11 a.m.: 3-5 p.m.; 7:30-10
WDAH	p.m., CST. 1310 El Paso, Texas.
WDAS	1370 Philadelphia, Pa. 9 a.m10:30 p.m., EST.
WDAY	940 Fargo, N. D. 8 a.m11 p.m., CST.
WDBJ	930 Roanoke, Va.
WDBO	580 Orlando, Fla. 7 a m mid. EST
WDEL	5 a.mmid., EST. 580 Orlando, Fla. 7 a.mmid., EST. 1120 Wilmington, Del. 10:30 a.m1:30 p.m.; 6-10 p.m., EST.
WDEV	EST. 550 Waterbury, Vt. 10:30 a.mnoon, EST. 180 Winnerselie Min
WDGY	6:30 a m -8:15 p m CST
WDOD	1280 Chattanooga, Tenn. 7 a.m11 p.m., CST. 1330 Hartford, Conn. 10 a.mmid EST.
WDRC	1330 Hartford, Conn. 10 a.mmid., EST.
WDSU	1250 New Orleans, La. 7 a.m11:45 p.m., CST.

W

WDZ	1070 Tuscola, III.
WEAF	660 New York City
WEAI	1270 Ithaca, N. Y.
WEAN	Variable. 780 Providence, R. I.
WEAO	730 Providence, R. I. 8 a.m1 a.m., EST. 570 Columbus, Ohio. Silent.
WEBC	1290 Superior Wis
W EBQ	1210 Harrishura III
WEBR	6-9 a.m.; 4-9:30 p.m., CST 1310 Buffalo, N. Y. 10 a.m1 a.m., EST. 1210 Chicago IU
WEDC WEEI	10 a.m1 a.m., EST. 1210 Chicago, Ill. 590 Boston, Mass. 10 a.m11/30 p.m. UST.
WEEU	10 a.m11:30 p.m., EST. 830 Reading, Pa
WEHC	10 a.m7:30 p.m., EST. 1350 Emory, Va.
WEHS	 10 a.m1130 p.m., EST. 830 Reading, Pa. 10 a.m7.30 p.m., EST. 1350 Emory, Va. 8:30-9 a.m.; 11 a.mnoon; 2:30- 3:30 p.m., EST. 1420 Cierco III. 4-8 p.m., CST. 1420 Entro Corela Mich.
WELL	4-8 p.m., CST.
WENC	1420 Americus Go
Winkle	EST
WENR	870 Chicago, Ill
WERE	8 a.m12:30 p.m.; 3:30-6 p.m.; 8 p.mI a.m., CST. 1420 Eric Pa
	1420 Erie, Pa. 11 a.m2:30 p.m.; 5:30-10:30 p.m., EST.
WESG	1370 Glens Falls N V
WEVD	1300 New York City
	11 a.m3 p.m.; 8-9 p.m.; 10-11 p.m., EST.
WEW	p.m., EST, 760 St. Louis, Mo, 9:30 a.m5:30 p.m., CST, 1310 Rowel Och. Mick
WEXI.	9:30 a.m5:30 p.m., CST. 1310 Royal Oak, Mich.
WFAA	1310 Royal Oak, Mich. 9 a.m9 p.m., EST. 800 Dallas, Texas. 7:30-10 a.m.: poor-3 p.m.: 6
	800 Dailas, Texas. 7:30-10 a.m.; noon-3 p.m.; 6- 9:30 p.m., CST. 1300 New York City. 1200 South Bend Ind
WFAB	1300 New York City
WFAM	1200 South Bend. Ind.
WFAN	610 Philadelphia Po
WELE	9 a.mmid., EST.
WFAS	9 a.mmid., EST. 1210 White Plains, N. Y. 6-9 p.m., EST.
WFBE	8 a m - 11 n m FST
WFBG	10-20 Altoona, Pa.
	p.m.: 6:15-11 n m EST
WFBL	1360 Syracuse, N. Y.
WFBM	10:30 a.m 12:30 p.m.; 2:30-4:30 p.m.; 6:15-11 p.m., EST. 1360 Syracuse, N, Y. 8 a.mmid., EST. 1230 Indianapolis, Ind. 7:30-10:30 a.m.; 1 p.mmid., CST.
	CST. (30-10:30 a.m.; 1 p.mmid.,
WFBR	1270 Baltimore, Md. 9 a.mmid., EST. 1210 Flint Mint
WFDF	9 a.mmid., EST. 1310 Flint, Mich. 6-11 p.m., CST. 1500 Rome, Ga. 9 a. th 3.5 m.; 6.6 p.m. CST.
WFDV	1500 Rome, Ga. 9 a.m3 p.m.: 6-9 p.m. CST
WFDW	1420 Anniston, Ala.
	10 a.m12:30 p.m.; 5-10 p.m. CST.
WFEA	1430 Manchester, N. H. 9 a.m11 p.m., EST.
WFI	560 Philadelphia Po
	1-2 p.m.; 4:30-6 p.m.; 9-mid., EST

WFIW

INDEX BY CALL LETTERS AND SUNDAY TIME

WLTH

WFIW	940 Hopkinsville, Ky. 7 a.mnoon; 12:30-4 p.m.; 5- mid., CST.
WFLA	mid., CST. 620 Clearwater, Fla. 8 a.mmid., EST. 1400 Brooklyn, N. Y. 1310 Lancaster, Pa.
WFOX	1400 Brooklyn, N. Y.
WGAL	 ando Brooklyn, N. Y. 1310 Lancaster, Pa. 8-9:30 a.m., EST. 1450 Cleveland, Obio. 7 a.m1 a.m., EST. 1210 Freeport, N. Y.
WGAR	1450 Cleveland, Ohio.
WGBB	 1210 Freeport, N. Y. 630 Evansville, Ind.
WGBF	630 Evansville, Ind.
	9:30 a.m4 p.m.; 6-11 p.m., CST.
WGBI	9:30 a.m4 p.m.; 6-11 p.m., CST. 880 Scranton, Pa. 12:01-2 a.m., EST.
WGCM	
	11 a.m12:30 p.m.; 3-6 p.m., CST.
WGCP	1250 Newark N.J.
	9-mid., EST.
WGES	1360 Chicago, Iil. 8-10:30 a m : 11:45 a.m1 p.m.:
WGH	CST. 1310 Newport News. Va.
	CST. 1310 Newport News. Va. 10 a.m5 p.m.; 6-10 p.m., EST. 1370 Fort Wayne, Ind. 1:30 p.mmid., CST. 720 Chicago, Ill. 9 a.m1:30 a.m., CST. 550 Buffalo, N.Y. 9 a.m1 a.m., EST. 890 Atlanta, Ga.
WGL	1:30 p.mmid., CST.
WGN	720 Chicago, Ill. 9 a m -1:30 a.m., CST.
WGR	550 Buffalo, N. Y.
WGST	9 a.m1 a.m., ES1. 890 Atlanta, Ga. 7 a.mmid., EST.
WGY	7 a.mmid., EST. 790 Schenectady, N. Y. 8 a.m1 a.m., EST.
WHA	940 Madison. Wis. Silent.
WHAD	
WHAM	 1120 Initialized, vis. 9:30-10:15 a.m.; 4-5 p.m., CST. 1150 Rochester, N. Y. 11 a.mmid., EST. 820 Louisville, Ky. 7 a.mmid., CST. 1210 Divided big En.
WHAS	11 a mmid., EST. 820 Louisville, Ky.
WHAT	7 a.mmid., CST. 1310 Philadelphia, Pa.
WHAZ	1300 Troy, N. X.
WHB	Silent. 860 Kansas City, Mo. 6 a.m6:30 p.m., CST.
	6 a.m6:30 p.m., CST.
WHBC	6 a.m6:30 p.m., CST. 1260 Canton, Ohio. 2:15-3 p.m., EST. 1370 Mt. Orab, Ohio. 7-11 a.m.; noon-5 p.m.; 6-9
WHBD	1370 Mt. Orab, Ohio. 7-11 a.m.; noon-5 p.m.; 6-9
-	7-11 a.m.; noon-5 p.m.; 6-9 p.m., EST. 1210 Rock Island, Ill.
WHBF	Silent.
WHBL	Silent. 1410 Sheboygan, Wis. 9-10 a.m., CST. 1370 Memphis Tenn
WHBQ	1370 Memphis, Tenn.
WHBU	 1310 Mempilis, 1441. 10:30 a.m9 p.m., CST. 1310 Anderson, Ind. 8:15 a.m9 p.m., CST. 1200 Green Bay, Wis. 10 a.m9 p.m., CST. 1370 Calumet, Mich. 10:30 a.m. 3 p.m. 5.8:15 p.m.
WHBY	8:15 a.m9 p.m., CST.
	10 a.m9 p.m., CST.
WHDF	1370 Calumet. Mich. 10:30 a.m3 p.m.; 5-8:15 p.m.,
	CST.
WHDH WHDL	1420 Tupper Lake, N. Y.
	11:15 a.m2:15 p.m., EST.
WHEB	10 a.mnoon; 2-5 p.m., EST.
WHEC	CST. S30 Boston, Mass. 1420 Tupper Lake, N. Y. 11:15 a.m2:15 p.m., EST. 740 Portsmouth, N. H. 10 a.mnoon; 2-5 p.m., EST. 1430 Rochester, N. Y. 8 a.mmid., EST. 1500 Keepingko Miss
WHEF	
WHET	1500 Kosciusko, Miss. 1210 Troy, Ala. 9 a.mnoon; 2-4 p.m., CST.
	·

WHFC	1420 Cicero, Ill. 8 a.m4 p.m.; 8 p.m1 a.m. CST.
WHIS	CST. 1410 Bluefield, W. Va. 9-9:40 a.m.; noon-3 p.m., EST. 1390 Cleveland, Ohio. 8 a.mmid., EST. 1010 New York City.
ŴНК	 1390 Cleveland, Ohio. 8 a.mmid., EST. 1010 New York City. 1000 Des Moines, Iowa. 1450 Jersey City, N. J. 1030 a mprovi. 25:45 p. n.
WHN	1010 New York City.
WHO WHOM	1450 Jersey City, N. J.
	9:30-mid., EST.
WHP	9 a.m1 a.m., EST.
WIAS	1310 Ottumwa, Iowa. 10 a.m2:30 p.m.; 5-7 p.m., CST.
WIBA	1280 Madison, Wis.
WIBG	9 a.m11:30 p.m., CST. 930 Glenside, Pa. Daybreak to sunset, EST.
WIBM	1370 Jackson, Mich. 9 a.m2:30 p.m., CST.
WIBO	9 a.m2:30 p.m., CST. 560 Chicago. Ill. 7:30-10 a.m.; 12:30-7 p.m., CST. 1210 Poynette, Wis.
WIBU WIBW	580 Topeka, Kans.
WIBX	1200 Utica, N. Y.
WICC	600 Bridgeport. Conn. 9:30 a.m11:30 p.m., EST.
WIL	600 Bridgeport. Conn. 9:30 a.m11:30 p.m., EST. 1200 St. Louis, Mo. 11 a.m6 p.m.; 8 p.mmid., CST.
WILL	CST. 890 Urbana, Ill. 9:30-10:30 a.m., CST. 1420 Wilmington, Del.
WILM	1420 Wilmington, Del.
WINS	9 a.mnoon; 6-10 p.m., EST. 1180 New York City.
WIOD WIP	 1300 Hiami, Fla. 610 Philadelphia, Pa.
WIS	 1300 Miami, Fa. 610 Philadelphia, Pa. 9 a.mmid., EST. 1010 Columbia. S. C. 10 a.mnoon; 5:30-11 p.m., press
WISN	EST. 1120 Milwaukee, Wis. 8:30 a.m4 p.m.; 5 p.mmid., CST.
WJAC	CST. 1310 Johnstown, Pa. 4:20 6:15 p.m. EST
WJAG	1310 Johnstown, Pa. 4:30-6:15 p.m., EST. 1060 Norfolk, Neb. 10:15 a.m3:30 p.m., CST. 1310 Elkhart, Ind. 4:30 p.m. mid. CST.
WJAK	1310 Elkhart, Ind. 4:30 p.m., mid., CST.
WJAR	890 Providence, R. I. 11 a.mmid., EST.
WJAS	1290 Pittsburgh, Pa. 9 a.m11:30 p.m., EST.
WJAX	900 Jacksonville, Fla. 9:15-10:15 a.m., EST.
WJAY Wjbc	1200 LaSalle Ill.
W JBI	9:45-10:45 a.m., CST. 1210 Red Bank, N. J.
WJBK	Silent. 1370 Detroit, Mich. 7 a.m11 p.m., EST.
WJBL	7 a.m11 p.m., EST. 1200 Decatur, Ill. 8:45-9:45 a.m.; 10:45 a.mnoon; 6-9:30 p.m., CST.
WJBO	6-9:30 p.m., CS1, 1420 New Orleans, La.
WJBU	1210 Lewisburg, Pa.
WJBW	8 a.m1 p.m., EST. 1200 New Orleans, La. 8-10 a.m.; 1-5 p.m.; 9 p.mmid., CST.
WJBY	CST. 1210 Gadsden, Ala.

WJDX	1270 Jackson, Miss. 12:30-10 p.m., CST.
WJED	600 Indianapolis, Ind.
W JED W JEJ W JED	1210 Hagerstown Md.
MIJD	1130 Unicago, III.
WINC	6 a.m8:30 p.m., CST.
WJKS	b a.m5:50 p.m., CS1. 1360 Gary, ind. 10:30-11:45 a.m.; 1-6:15 p.m.; 8-11 p.m., CST.
	8-11 nm CST
WJMS	1420 Ironwood, Mich.
	9 a.m7:45 p.m., CST.
WJR	750 Detroit. Mich.
WJSV	8 a.m1 a.m., ESI.
** 3.5 *	8-11 p.m., CST. 1420 Irouwood, Mich. 9 a.m7;45 p.m., CST. 750 Detroit, Mich. 8 a.m1 a.m., EST. 1460 Washington, D. C. 7;30 a.m1 a.m., EST. 1370 Atlanta, Ga.
WJTL	7:30 a.m1 a.m., EST. 1370 Atlanta, Ga.
WJW	1210 Mansfield, Ohio.
	10:15 a.mnoon; 6:30-9 p.m.,
WJZ	EST. 760 Now York City
11 92	760 New York City. 8 a.u1 a.m., EST. 1240 San Juan, P. R. 1040 East Lansing, Mich.
WKAQ	1240 San Juan, P. R.
WKAR	1040 East Lansing, Mich.
DVV IV	Silent.
WKAV	1310 Lacona, N. II.
WKBB	Silent. 1310 Laconia, N. H. 9 a.m1 p.m.; 3-8 p.m., EST. 1310 Joliet, Ill. 2-6 p.m., CST.
	1310 Joliet, Ill. 2-6 p.m., CST. 1310 Birmingham, Ala. 1400 Indianapolis, Ind. 9:30 a.m10:30 p.m., CST.
WKBC WKBF	1310 Birmingham, Ala.
WKBF	1400 Indianapolis, Ind.
wквн	1380 LaCrosse Wis
WEDI	9 a.m10 p.m., CST.
WKBI	9:30 a.m10:30 p.m., CST. 1380 LaCrosse, Wis. 9 a.m10 p.m., CST. 1420 Cicero, Ill.
WEDN	Shent.
WKBN	570 Youngstown, Ohio. 9 a.mmid., EST. 1310 Galesburg, Ill.
WKBS	1310 Galesburg, Ill. 1500 Connersville, Ind.
WKBV	1500 Connersville, Ind.
WEDN	Silent.
WKBW	1480 Buffalo, N. Y. 9:30 a.m11 p.m., EST. 1500 Ludington, Mich.
WKBZ	1500 Ludington, Mich.
	Silent.
WKFI	1210 Greenville, Miss.
WKJC	1210 Greenville, Miss. 1200 Lancaster, Pa. Occasional church services.
WKRC	550 Cincinnati, Ohio. 6:45 a.mmid., EST.
	6:45 a.mmid., EST.
WKY	 543 a.m1ni(a., ES1. 900 Oklahoma City, Okla. 8 a.m11 p.m., CST. 590 Kalamazoo, Mich. 9 a.m8:15 p.m., CST. 1470 Nashville, Tenn. 7 a.m. 14 p.m. CST.
WKZ0	590 Kalamazoo, Mich.
	9 a.m8:15 p.m., CST.
WLAC	1470 Nashville, Tenn.
WLAP	7 a.m11 p.m., CST. 1200 Louisville, Ky.
WLAI	8 a.m11 p.m., CST.
WLB	7 a.m11 p.m., CST. 1200 Louisville, Ky. 8 a.m11 p.m., CST. 1250 Minneapolis, Minn.
WLBC	900 Stevens Point, Wis.
WLBF	1420 Kansas City, Kans.
	9 a.m10 p.m., CST. 900 Stevens Point, Wis.
WLBL	900 Stevens Point, Wis.
WLBW	Silent. 1260 Oil City, Pa.
II LD II	10 a.m1 a.m., EST.
WLBZ	620 Bangor, Maine.
WLEY	
	1370 Lexington, Mass.
11/117	12:30-1:30 p.m., EST.
WLIT	12:30-1:30 p.m., EST. 560 Philadelphia, Pa.
WLIT	12:30-1:30 p.m., EST. 560 Philadelphia, Pa. 2-4:30 p.m.; 6-9 p.m.; mid1 a.m., EST.
WLOE	12:30-1:30 p.m., EST. 560 Philadelphia, Pa. 24:30 p.m.; 6-9 p.m.; mid1 a.m., EST. 1500 Boston, Mass.
	12:30-1:30 p.m., EST. 560 Philadelphia, Pa. 2-4:30 p.m.; 6-9 p.m.; mid1 a.m., EST. 1500 Boston, Mass. 870 Observe, Ul
WLOE WLS	12:30-1:30 p.m., EST. 560 Philadelphia, Pa. 2-4:30 p.m.; 6-9 p.m.; mid1 a.m., EST. 1500 Boston, Mass. 870 Observe, Ul
WLOE	12:30-1:30 p.m., EST. 560 Philadelphia, Pa. 24:30 p.m.; 6-9 p.m.; mid1 a.m., EST. 1500 Boston, Mass.

WLVA

INDEX BY CALL LETTERS AND SUNDAY TIME

WTAW

WLVA	1370 Lynchburg, Va.
WLW	1370 Lynchburg, Va. 11 a.m3 p.m., EST. 700 Cincinnati, Ohio. 8 a.m12:30 a.m., EST. 1100 New York City.
	8 a.m12:30 a.m., EST,
WLWL	. 1100 New York City.
WMAG	570 Syracuse, N. Y.
WMAL	 570 Syracuse, N. Y. 630 Washington, D. C. 9 a.mmid., EST. 2 670 Chicago, III. 9 a.m. 1, p.m. mid. 1, a.m.
WMAG	670 Chicago, Ill.
	9 a.m11 p.m.; mid1 a.m., CST.
WMAS	
WMAZ	1100 14 . 0
	10 a.m3:30 p.m., EST.
WMBC	10 a.m3:30 p.m., EST. 10 a.m3:30 p.m., EST. 1420 Detroit. Mich. 10:30 a.mmid., EST.
WMBD	1440 Peoria III.
	8 a.mnoon; 1:30-3:30 p.m.;
W MBC	8 a.mnoon; 1:30-3:30 p.m.; 8:30-mid., CST. 1210 Richmond, Va.
W MIDC	1210 Richmond, Va. Silent.
WMBH	
WMBI	 1420 Jopin, Mo. 1080 Chicago, Ill. 4-5 p.m., CST. 1310 Auburn, N. Y. 10:45-11:30 a.m.; 2-9 p.m., EST. 1500 Brooklyn, N. Y. 1500 Brooklyn, N. Y.
W MBO	4-5 p.m., UST. 1310 Auburn N V
	10:45-11:30 a.m.; 2-9 p.m., EST.
WMBQ	1500 Brooklyn, N. Y. 1370 Tampa, Fla.
WMBR	
WMC	1370 Tampa, Fla. 6:45 a.m1 p.m., EST, 780 Memphis, Tenn
	8 a.m11 p.m., CST.
WMCA	570 New York City.
WMIL	9 a.m2 a.m., EST. 1500 Brooklyp N V
	9 a.m2:30 a.m., EST.
WMM	890 Fairmont, W. Va.
WMPC	10 a.m9 p.m., EST.
winit c	10 a.m2 p.m.: 3:30-6 p.m.:
WMRJ	10 a.m2 p.m.; 3:30-6 p.m.; 7:30-11 p.m., EST. 1210 Jamaica N V
WINKJ	
WMSG	9 p.mmid., EST. 1350 New York City.
WMT	Silent. 600 Waterloo Jown
	7 a.m11 p.m., CST.
WNAC	1230 Boston, Mass.
WNAD	1010 Norman, Okla.
WNAX	1350 New York City. Silent. 600 Waterloo, Iowa. 7 a.m11 p.m., CST. 1230 Boston, Mass. 8 a.m1 a.m., EST. 1010 Norman, Okla. Silent. 570 Yankton, S. D. 8 a.mmid., CST. 1500 Binzhamton, N.Y.
WINAA	570 Yankton, S. D. 8 a.mmid., CST. 1500 Binghamton, N. Y. 11 a.mnoon; 6-9 p.m., EST.
WNBF	1500 Binghamton, N. Y.
WNBH	 Binghamton, N. Y. II a.mnoon; 6-9 p.m., EST. I310 New Bedford, Mass. 10 a.m10:15 p.m., EST. 1200 Silverhaven, Pa. 9 a.mnoon; 3-6 p.m.; 9 p.m mid EST
	10 a.m10:15 p.m., EST.
WNBO	1200 Silverhaven, Pa.
	9 a.mnoon; 3-6 p.m.; 9 p.m mid., EST.
WNBR	mid., EST. 1430 Memphis, Tenn. 9:30 a.m1 p.m.; 5-9 p.m., CST. 1200 Cerbondela Pa
	9:30 a.m1 p.m.; 5-9 p.m., CST.
WNBW WNBX	The Carbondate, 1 a.
WINDA	1200 Springfield, Vt. Silent.
WNBZ	1290 Saranac Lake, N. Y.
WNJ	1450 Newark, N. J.
	1450 Newark, N. J. 7:45-10:30 a.m.; 7:30-9:30 p.m.,
WNOX	E01.
	560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City.
WNYC	570 New York City.
WOLL	Silent.
WOAI	1190 San Antonio, Texas. 11 a.m4:30 p.m.; 6:15-9:15
	11 a.m4:30 p.m.; 6:15-9:15 p.m., CST.
WOAX	1280 Trenton, N. J.
	12:30-3 p.m.; 5-8 p.m.; 9 p.m
	12.30-3 p.m.; 5-13-9-13 p.m., CST. 1280 Trenton, N. J. 12:30-3 p.m.; 5-8 p.m.; 9 p.m mid., EST.

WOBU	580 Charleston, W. Va.
woc	3-7:30 p.m., EST. 1000 Davenport, Iowa.
WOCL	3-7:30 p.m., EST. 1000 Davenport, Iowa. 9 a.m11 p.m., CST. 1210 Jamestown, N. Y. 11 a.m11 p.m., EST. 1250 Paterson, N. J.
WODA	11 a.m11 p.m., EST. 1250 Paterson, N. J.
WODX	10 a.m9 p.m., CST.
WOI	640 Ames, Iowa. Silont
WOKO	 J 430 Albany, N. Y. 9 a.m1 a.m., EST. 1310 Washington, D. C. 10 a.m3 p.m., EST. 1210 Manitowoc, Wis.
WOL	1310 Washington, D. C. 10 a.m3 p.m., EST.
WOM	f 1210 Manitowoc, Wis. Silent.
WOOD	9 a.m11 p.m., CST.
WOPI	1500 Bristol, Tenn. 10 a.m2 p.m.; 5-9 p.m., EST.
WOQ	1300 Kansas City, Mo. 7-8 a.m.; 10 a.m1 p.m.; 7-9
WOR	 [1210 Manitowoc, Wis. Silent. 1270 Grand Rapids, Mich. 9 am11 p.m., CST. 1500 Bristol, Tenn. 10 a.m2 p.m.; 5-9 p.m., EST. 1300 Kansas City, Mo. 7-8 a.m.; 10 a.m1 p.m.; 7-9 p.m.; 11 p.m., mid., CST. 710 Newark, N. J. 6:45 a.mmid., EST. 1200 Worcester, Mass. 9 a.m11 p.m., EST.
WORC	1200 Worcester, Mass.
WORK	1000 York, Pa.
wos	10:25 a.mlocal sunset, EST. 630 Jefferson City, Mo.
WOV	1130 New York City
wow	590 Omaha, Neb. 7:30-8:30 a.m.; 9-11 a.m.; 12:30-
wowo	6 p.m.; 7-11:30 p.m., CST.
HOHC	7.30 o m - 7.45 m m + 0.15 m
WPAD	1420 Paducah Ky
	7-9 a.m.; 10 a.m2 p.m.; 3- 10:30 p.m., CST.
WPAP	1010 New York City.
WPAW WPCC	1210 I TOVIDENCE, R. I.
Wrtt	10 a.m12:30 p.m.; 7 p.mmid.,
WPCH	810 New York City.
WPEN	8 a.m7:30 p.m., EST. 1500 Philadelphia, Pa.
WPFB	1370 Hattigshurg Migs
WPG	1100 Atlantic City, N. J. 9 a.m3:15 p.m.; 6-8 p.m.; 9:15
	 1100 Atlantic City, N. J. 9 a.m3:15 p.m.; 6-8 p.m.; 9:15 p.m1 a.m., EST. 1200 Petersburg, Va. 1205 p.m1 20
WPHR	1200 Petersburg, Va. 10:45 a.m1:30 p.m.: 5-9 p.m.
	EST.
WPOR WPRO	780 Norfolk, Va.
WPSC	1210 Providence, R. I. 1230 State College Pa
	10:55 a.m12:10 p.m., EST.
WPTF	 1230 State College, Pa. 10:55 a.m12:10 p.m., EST. 680 Raleigh, N. C. 10:30 a.m9:15 p.m., EST. 560 Miami, Fla. 560 Miami, Fla.
WQAM	560 Miami, Fla. 8 a.mmid., EST.
WQAN	880 Scranton, Pa. Silent.
WQAO	
WQBC	1010 New York City. 1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 1370 St. Albans, Vt.
WQDM	
WQDX Wrak	
WAAA	
WRAM	7.15-10.30 p.m. FST
	1370 Wilmington, N. C. 10 a.mnoon; 7-9 p.m., EST. 1310 Reading, Pa.
WRAW	1310 Reading, Pa.

WRAX	1020 Philadelphia, Pa. 8 a.mlocal sunset, EST. 1200 Columbus, Ga.
WRBL	8 a.mlocal sunset, EST. 1200 Columbus Ga
WRBX	
WRC	
WRDO	 1370 Augusta, Maine. 6-10 p.m., EST. V 1500 Augusta, Ga. 600 Memphis Tenn
WRDV	V 1500 Augusta Co
WREC	600 Memphis. Tenn.
WREN	1220 Lawrence, Kans,
	V 1500 Augusta, Ga. 600 Memphis, Tenn. 1220 Lawrence, Kans. 7 a.mmid., CST. 4 1250 Minnearolis Minn.
WRHM	a moo minicapone, minin.
	9:30 a.m3 p.m.; 4-7 p.m.; 8
WRJN	1370 Basine Wis
	9 a.m10:30 p.m., CST.
WRNY	1010 New York City.
WROL	1310 Knoxville, Tenn.
WRR	4-9 p.m., CST.
WAA	 1310 Knowille, Tenn. 4-9 p.m., CST. 1280 Dallas, Texas. 7 a.m11 p.m., CST. 830 Gainesville, Fla. 9 a.m8:15 p.m., EST. 1100 Richmond Va.
WRUF	830 Gainesville, Fla.
	9 a.m8:15 p.m., EST.
WRVA	
WSAI	10 a.m11:15 p.m., EST.
	12:30-11 pm EST
WSAJ	1310 Grove City, Pa.
	4:30-5 p.m., EST
WSAN	1440 Allentown, Pa.
WSAR	10 a.m11:15 p.m., EST. 1330 Cincinnati, Ohio. 12:30-11 p.m., EST. 1310 Grove City, Pa. 4:30-5 p.m., EST. 1440 Allentown, Pa. 1450 Fall River, Mass. Silent.
WSAZ	580 Huntington W Vo
	7:30 p.m1 a.m., EST.
WSB	580 Huntington, W. Va. 730 p.ml a.m., EST. 740 Atlanta, Ga. 6:55 a.m11:30 p.m., EST. 1210 Chicago, Ill.
WSBC	6:55 a.m11:30 p.m., EST.
WSBT	1210 Chicago, III. 1230 South Bend. Ind.
WSEN	ieso bouth pend, ind,
WOLN	1210 Columbus, Ohio. 10 a.m11 p.m., EST.
WSFA	1410 Montgomery Ala
	7:30 a.mlocal sunset; 9-11:30
WSIX	 1:30 a.mlocal sunset; 9-11:30 p.m., CST. 1210 Springfield, Tenn, 1310 Winston-Salem, N. C. 8 a.mmid., EST. 650 Nashville, Tenn, 9:30 a.m11 p.m., CST. 1320 New Orleans, La. 7 a.mmid., CST. 1380 Dayton, Ohio. 8 a.mmid., EST. 1210 Gastonia, N. C.
WSJS	1310 Winston-Salem, N. C.
WSM	8 a.mmid., EST.
W SIVI	9:30 am 11 pm CST
WSMB	1320 New Orleans La
	7 a.mmid., CST.
WSMK	1380 Dayton, Ohio.
wsoc	1210 Gastonia, N. C.
	9:30 a.m9:30 p.m., EST. 1420 Spartanburg, S. C. 7:30 a.m10 p.m., EST.
WSPA	1420 Spartanburg, S. C.
WSPD	7:30 a.m10 p.m., EST.
ward	8 a.mmid EST
WSUI	1420 Spartanburg, S. C. 7:30 a.m10 p.m., EST. 1340 Toledo, Ohio. 8 a.mmid., EST. 880 Iowa City, Iowa. 6-7 p.m.; 9:15-9:45 p.m., CST. 620 St. Petersburg, Fla. 8 a.mmid., EST. 1370 Buffalo, N. Y. 1370 Buffalo, N. Y.
	6-7 p.m.; 9:15-9:45 p.m., CST.
WSUN	620 St. Petersburg, Fla.
WSVS	1370 Buffalo N V
WSYB	1500 Rutland, Vt.
Ware	10-11 a.m., EST.
WSYR	570 Syracuse, N. Y.
WTAD	11 a.m10 p.m., EST. 1440 Quincy, Ill.
WTIC	CST.
WTAG	10:45 a m 11:15 Dom
WTAM	1070 Cleveland Obio
	6:59 a.m1 a.m., EST.
WTAQ	1330 Eau Claire, Wis.
WTAR	8 a.m0 p.m., CST. 780 Norfolk Va
	CST. CST. 580 Worcester, Mass. 10:45 a.m11:15 p.m., EST. 1070 Cleveland, Ohio. 6:59 a.m1 a.m., EST. 1330 Eau Claire, Wis. 8 a.m6 p.m., CST. 780 Norfolk, Va. 8 a.mmid., EST. 1120 College Station, Texas.
WTAW	1120 College Station, Texas.

WTAX

INDEX BY CALL LETTERS AND SUNDAY TIME

10-BU

	1210 Springfield, Ill.	XEC	1000 Toluca, Mex.	XET	690 Monterrey, Mex.
WTBO	1420 Cumberland, Md.	XED	965 Reynosa, Mex.	VETA	9 a.m2 p.m.; 6-10 p.m., CST.
	10:30 a.m12:30 p.m., EST.	XEE	1000 Oaxaco, Mex.	XETA Xetb	1140 Mexico City, Mex. 1380 Torreon, Mex.
WTEL	1310 Philadelphia, Pa.	XEF	735 Villa Acuna, Mex.	XETC	1000 Jalapa, Mex.
	12:30-3 p.m.; 5-8 p.m., EST.	VEEA	24 hours daily.	XETF	630 Veracruz, Mex.
WTFI	1450 Athens, Ga.	XEFA XEFB	1250 Mexico City, Mex.	ALIF	7-8 a.m.; noon-3 p.m.; 8-11 p.m.,
	8 a.m5 p.m.; 7:45-9:30 p.m.,	ACLE	1315 Monterrey, Mex. 8 a.m3 p.m., CST.		CST.
NUTLO	EST.	XEFC	1050 Merida, Mex.	XETG	1000 Torreon, Mex.
WTIC	1060 Hartford, Conn.	XEFD	845 Tijuana, Mex.	XETO	1230 Mexico City, Mex.
WTJS	7:30 p.mmid., EST, 1310 Jackson, Tenn.	XEFE	1000 Laredo, Mex.	XETR	610 Mexico City, Mex.
W132	8:45 a.mnoon; 1-3:15 p.m.,	XEFI	1000 Chihuahua, Mex.		
	CST.	XEFS	1000 Queretaro, Mex.	XEU	1007 Veracruz, Mex.
WTMJ	620 Milwaukee, Wis.	ALIS	Silent.		7-8 a.m.; noon-4 p.m.; 8 p.m mid., CST.
W 1 141 J	8 a.m12:30 a.m., CST.	XEFZ	1370 Coyoacan, Mex.	XEV	1000 Puebla, Mex.
WTOC	1260 Savannah, Ga.	75 DI 2	8-10 p.m. CST.	XEW	910 Mexico City, Mex.
wroc	8 a.mmid., EST.	XEG	1070 Mexico City, Mex.		
WTSL		XEH	1132 Monterrey, Mex.	XEX	1210 Mexico City, Mex.
	1200 Hammond, Ind.		10 a.m12:30 p.m., CST.	XEY	1000 Merida, Mex.
wwJ	920 Detroit. Mich.	XEI	1310 Morelia, Mex.	XEZ	780 Mexico City, Mex.
	8 a.mmid., EST,		8:30-10 p.m., CST.	XFC	810 Aguascalientes, Mex.
WWL	850 New Orleans, La.	XEJ	1000 Juarez, Mex.	XFF	875 Chihuahua, Mex.
	10 a.m7:45 p.m., CST.		9 a.m4 p.m.; 6-11 p.m., CST.	XFG	683.3 Mexico City, Mex.
WWNC	570 Asheville, N. C.	XEK	990 Mexico City, Mex.	XFX	867 Mexico City, Mex.
	7 a.mmid., CST.	XEL	1000 Saltillo, Mex.	10-AB	1200 Moose Jaw, Sask.
WWRI	1500 Woodside, N. Y.		10 a.m1:30 p.m., CST.	10-AK	1200 Stratford, Ont.
WWILL	1-6 p.m., EST,	XEM	1300 Tampico, Mex.		Silent.
wwsu	1500 Pittsburgh, Pa.	XEN	711 Mexico City, Mex.	10-AT	1155 Trail, B. C.
	9:30 a.m10:45 p.m., EST.		9-10 a.m.; 1-3 p.m.; 7 p.mmid	10-B1	1200 Prince Albert, Sask.
WWVA	1160 Wheeling, W. Va.	VEO	CST.		3-4 p.m.; 7-8:30 p.m., MST.
	7:45 a.m9 p.m., EST.	XEO XEP	940 Mexico City, Mex. 1400 Laredo, Mex.	10-BP	1199 Wingham, Ont.
WXYZ	1240 Detroit. Mich.	XEO	750 Juarez, Mex.		10:30 a.mnoon; 4:15-5:15 p.m.;
XEA	1155 Guadalajara, Mex.	ALQ	9 a.m2 p.m.; 5-11 p.m., MST.		6:45-8:20 p.m. EST.
ALA	11 a.mnoon; 2-3 p.m.; 5-11	XER	735 Villa Acuna, Mex.	10-BQ	1200 Brantford, Ont.
	p.m., CST.	ALK	24 hours daily.		11 a.m12:30 p.m.; 1:30-2 p.m.;
XEB	1030 Mexico City, Mex.	XES	1055 Tampico, Mex,		7-8:30 p.m., EST.
	8 a.mmid., CST.		Noon-2 p.m., CST.	10-BU	1200 Canora, Sask.

The Foreign Short Wave Stations

With Frequencies in Megacycles, Wave Lengths in Meters and Power in Watts. Letters in parentheses are the calls assigned to the country by international agreement. Data in parentheses followed by a question-mark is conflicting information from other authorities. The help of our readers is urgently requested in checking these discrepancies, not from other lists but from letters from the stations in question. The zone given is for use with the RADEX Time Converter. It also indicates the location on the RADEX World Map. (Note: A megacycle is a thousand kilocycles; thus 3.750 megs. equal 3750 kilocycles.) Citu-Call Mens. Meters

City-Call	Megs.	Meters	1	City-Call	Megs.	Meter
			is) (F) Zone 26			
Constantin				LSX	20.680	14.50
FM8KR		79.95		LSY	20.710	14,47
	4.130	72.77	Mon. and Fri.	irreg.	. Heard a	bout 4
F8KR	6.660	45.02	Mon. and Fri., 5 p.m.,	m.?)		
	C. (FM8KR	?) (7009	kcs.?) 200 w.	LSN	21.020	14.27
ARGENTIN	A. South Ar	nerica (]	LOA-LVZ) Zone 18	p.m.,	EST.	
Buenos Ai			,	LSM	21.129	14.19
	0.100	31.69	Radio Club of B. A.	(1885	50 kc.?)	
LQA	9.600	31.23		AUSTRALIA,	Oceania (VHA-V
LSOR	9.810	30.56		Melbourne		
LSRD	9.810	30.56		VK3UZ	8.820	33.99
LSA	9.890	30.32		a.m.,	11-11:30	p.m., T
LSN	9.895	30.30	6 p.m6 a.m., EST., with	VK3ME		32.98
WL				VK3LO		
LSL	9.993	30.00		VK3VZ	9.375	
LSN	10.300	29.00		VK3ME		31.40
LSX	10.300	29.00		Ltd.,	47 York	St., We
LSX	10.345	28.98	Tests with USA 8-11 p.m.,		. (31.55 m	.?) (31.)
	T. (10382 k			Perth		
LSY	10.410	28.80		VK6AG	7 195	41.67
LSN	14.480	20.70	Phones WLO p.m., EST.	VK6AG	15.000	19.99
LSA	14.530	20.65		Sydney		
LSJ	15.000		(Monte Grande?)	VK2ME		37.76
LSR	18.958	15.82	Phones HJY-CEC 11 a.m.,		C (7980 kc	
4 p	.m., EST.			VK2BL	9.230	32.4
LSG	19.895	15.07	Phones FTM 10:30 a.m.,	VK2ME	9.590	31.20
3:3	0 p.m., ph	ones Pa	ris and Berlin 7 a.m. and	Ltd.	47 Yorl 11:30 a.m	≤ St., 1
1 p	.m., all ES.	Γ. (1995)	0?)			1., EST
LSN	20.680	14.50	Phones Europe after 10:30	VK2ME		30.7
р.п	n.			EST		
-				0.1		

Cuy-Cun	meys.	141 6(6) 9
LSY	20.710	14.50 Phones USA. 14.47 Phones 10 a.m., 2 p.m., out 4 p.m. Sundays, EST. (15.77
m.?)		-
LSN	21.020	14.27 Phones WLO 8 a.m., 4
	21.129	14.19 Phones Europe a.m.
(1885	0 kc.?)	100
USTRALIA,	Oceania (¹	VHA-VMZ) Zones 42-45-46
Melbourne		
VK3UZ	8 820	33.99 Mon. and Wed. 8-8:30
a m	11-11:30 r	o.m., Thurs, 8-8:30 a.m., EST.
VK3ME	0.090	32.98 4-7 a.m., EST.
VK3LO	0.360	32.00
VK2V7	0.375	31.08
VIZIME	0.549	31.98 31.40 Amalgamated Wireless,
VROME	47 30-1-6	St., Wed. 5-6:30 a.m., Sat. 5-7 a.m.,
Lta.,	47 IOFK C	2) (21 02 m 2) 5000 m
	(31.55 m.	?) (31.28 m.?) 5000 w.
Perth	B 40 F	11 0F F 11 90
VK6AG	7 195	41.67 5-11:30 p.m., EST.
VK6AG	15.000	19.99
Sydney		
VK2ME	7.940	37.76 Tests 3-7 a.m., EST. with
GBX	(7980 kc.	?)
VK2BL	9.230	32.48
VK2ME	9.590	31.26 Amalgamated Wireless.
Ltd	47 York	St., Sundays 1-3 a.m., 5-9 a.m.
0.30-	11:30 a.m	
VK2ME	9 750	30.75 Phones Java 4-8 a.m.,
EST		
1.01		

City-Call Megs. Meters VK2ME 9.940 30.16 Sat. 1-3 a.m., Sun. 9:30-11:30 a.m., EST. VK2FC 10.520 28.50VK2ME 10.520 28.50 1-7 a.m., EST. with GBX (10527?) VLK 10.540 28.44 1-7 a.m., EST. VLK 16.320 18.37 VK2ME 16.320 18.37 3-6 a.m., EST. (16330 kc.?) VK2ME 19.400 15 45 AUSTRIA, Europe (UOA-UOZ) Zone 28 Vienna (Wien) 4.280 70.05 (OHK2?) Sun. 1st 1/4 hr. 1-7 p.m., EST. UOR2 6.072 49.41 Oesterr Radioverkebrs A. G., Tue.-Thurs. 8:30 a.m., nocn, 3-5 p.m., EST. 250 w. 8.100 37.01 Mon., Thurs. 5:30-7 p.m., EST. 11.100 27.01 Mon., Tues. 5:30-7 p.m., EST. UOR2 {2 11.800 25.41 Osterr Radioverkehrs A. G., Wed., Thurs. 6-9 a.m. EST., 250 w. BELGIUM, Europe (ONA-OTZ) Zone 26 Brussels ŌRG 15.62 Tests 11-11:30 a.m., EST. 9.59828.99 Phones OPM 2-4, 9-11 10.340 ORK a.m., 3-6 p.m., EST. BERMUDA, North America (VPA-VSZ, ZBA-ZJZ) Zone 18 Hamilton VRT-ZFA 5.045 59.42 Phones WNB - GMBJ nights. 9.500 31.56 VRT-ZFB 10.060 29.80 Phones WNB daytime. BRAZIL, South America (PPA-PYZ) Zones 18-20 Porto Alegre PRAG 8.450 35.48 8:30-9 a.m., EST. Rio de Janeiro PTH 6.12048.99 5-7 p.m., daily, EST 43.99 5-7 p.m., daily, EST
 36.65 Heard phone WOK.
 31.73 4:30-6:30 p.m., EST.
 29.35 Tests W2XBJ evenings PSK 8.180 9.450 PSH 10.212 PPQ 11.644 25.75 Tests about 6 p.m., EST., irreg. PSS 14.684 20.42 Tests LSN about 6 p.m., EST. PSA 16.162 18.55 PPU 19.270 15.57 Phones FTM 10:30 a.m.-3 p.m., EST. (19250?) BRITISH GUIANA, South America (VPA-VSZ, ZBA-ZJZ) Zone 18 Georgetown VŔY 6.840 43.83 Wed., 7:15-9:15 p.m., EST., Sun. 5:45 p.m. (6726?) BRITISH MALAYA, Asia (VPA-VSZ, ZBA-ZJZ) Zone 40 Johore Baru VS2AR 7.055 42.50CANARY ISLANDS, Africa (EAA-EHZ) Zone 24 Teneriffe EAR58 7.207 41.60 Sat.-Sun. 4:30-6 p.m., EST., 50 w. CHILE, South America (CAA-CEZ) Zone 16 Santiago CEČ 10.664 28.12 Tests HJY evenings, irreg. 15.24 Phones LSR-HJY 11 a.m., CEC 19.678 4 p.m., EST CHINA, Asia (XGA-XUZ) Zone 42 Hongkong 9.373 31.97 10.250 29.25Kiangsu TE 5.000 59.96 (NGTE?) Chinese Triode Electric Co., Mon. and Fri. XČTE COLOMBIA, South America (HJA-HKZ) Zone 16 Barranquilla HKD D 5.996 50.00 Elias J. Pellet, Apartado 715, daily 7:45-10:30 p.m., Mon.-Wed. 8-10:30 p.m., Sun. 7:45:8:30 p.m., EST. (5835? 5837? 5990? 6050? 6240?) 15 w. 48.90 Jesus Amortequi P., Apar-HKA 6.131 tado 765, daily 8-10 p.m., ex. Mon., Wed., Fri. (6138? 6160? 6246? 6250?) 50 w.

City-Call Megs. Meters D 6.993 42.87 Mon., Wed., Fri. 7:45-10 p.m., Sat. 2-4 a.m., Sun. 7:45-8:30 p.m., EST. Η̈́KD Bogota HKC 6 205 48.35 Universal Radio Corp., Columbia Radio Corp. (6270? 6275?) 200 w. M 6.625 45.25 R. Jaramillo, Apartado HKM 188, 8:30-10:30 p.m., ex. Sun., EST. (6660?) 250 w. НKŶ 7.140 41.99 HKF 7.143 41.95 HKI 40.50 7.402 HKF 39.40 Laboratorio Radio Elec-7.610 trico-Westinghouse, Apartado 317 (7550? 7616?) 7-11 p.m., EST. HKF 8.690 34.50 5-7 p.m., 11 p.m., -1 a.m., EST. (8692?) HJY 18.444 16.25 All American Cables Tests CEC Santiago daily 6 p.m. Phones CEC-LST 11 a.m., 4 p.m. HJY 19.856 30.20 Phone OCI evenings irreg. All-American Cables. Cali HKS 6.378 47.00 Sres. Riva Hnos Abt. 10 р.m. НКК 7.122 42.10 Sres. Riva Hnos (7295?) Manizales HKT 7.139 42.00 Roberto Baena, P. O. 76, Thurs. 7-8 p.m., Sat. 11-Mid., EST. Tests 11-noon, 4-6 p.m., EST. 25 w. Medellin 5.925 50.60 Columbian Radio Corp.
 Hotel Europa, Mon., Wed., Fri. 8-10 p.m., Tues.
 Thurs., Sat. 6-8 p.m., EST. (5900?) 200 w.
 Y.105 42.20 Santiago Gaviria, Parque HKO HKN Berrios, No. 188, 8-10 p.m., 30 w HKN 11.712 25.59 Tunja HKB 5.87951.00 Abt. 10 p.m., EST. irreg. COSTA RICA, North America (TIA-TIZ) Zone 14 Electra Cartago TIRA 6.080 49.31 Compania Radiografica Internacional de Costa Rica. TIRA 9.590 31.26 Heredia TI4NRH 31.00 Amando Cespedes Marin. 9.670 Daily, ex. Sat. Sun., 10-11 p.m. (9734?) TI4NRH 10.238 29.3 Amando Cespedes Marin., Amando Cespedes Marin., Mon., Wed. 7:30-8:30 p.m., Thurs., Sat. 9-10 p.m., EST. (10240? 10600?) 7.5 w.
 TI4NRH 15.066 19.90 Sat. 11-noon 4-5 p.m. 10-11 p.m., Sun., Mon. 11-noon, 4-5 p.m. San Jose TITR 11.790 25.43 Margarita M. de Girton CUBA, North America (CLA-CMZ) Zone 16 Cienfuegos CM6DW 7.300 41.07 Havana CMCI 6.058 49.50 9-11 p.m., EST. CM2MK 7 184 41.75 CM2MK 9.350 32.07 5-9 p.m., EST. (9360?) CM2LA 10.013 29.94 Matanzas CM5RY 7.312 41.00 Sat. 10:45-11:30 p.m., EST. Tuinucu CM6XJ 15.000 19.99 CZECHO-SLOVAKIA, Europe (OKA-OKZ) Zone 28 Podebrady OKI 21.000 14.28Prague OK1MPI 5.16958.00 OK1MPT 5.172 58.00 Tue.-Fri. 1-3:30 p.m., 8:30-10:30 p.m., EST. DENMARK, Europe (OUA-OZZ) Zone 28 Copenhagen ÒZ7R 3.560 84.22 Tues., Fri. after 6 p.m. **EST** OXO-OXZ 6.057 49.50 (6090 kcs.?) OZ7MK 9.375 31.98 OXO-OXZ 9.488 31.60 OZ7RL 9.500 31.56

[74]

OXO-OXZ 15.300

19.53

City-Call Meters Megs. Lyngby OXY 15.300 19.53 Skamlebak OXY 9.520 31.49 Direction Generale des Postes et des Telegraph, Copenhagen. Relays Copenhagen 2-6:30 p.m., EST. 500 w. DOMINICAN REPUBLIC North America (HIA-HIZ) ZONE 16 Santo Domingo HIX 4.610 65.04 DUTCH EAST INDIES, Oceania (UIA-UKZ-PKA-POZ) Zones 40-44 Makassar PK-6K 11.720 25.58 6:40-9:40 EST. PK6KZ 11.993 25.07 Malabar PLF 17.640 16.99 **Tandjong Priok** 6.055 49.60 9.579 31.29 15.336 19.55 ECUADOR, South America (HCA-HCZ) Zone 16 Guayaquail HC2JM 8.570 34.98 Ouito HCJB 5.711 52.50 Daily, ex. Mon., 7:30-10 p.m., EST. HC1DR 6.3 6.380 46.99 Daily, 8-11 p.m., EST. Riobamba 6.618 45.31 Thurs., 9-11 p.m., EST. (PRADO?) 7.530 39.82 Thurs., 9-11 p.m., EST. (7538?)EGYPT, Africa (STA-SUZ) Zone 30 Cairo SUS 9.110 32.91 Egypt High Power Trans. Radio to England. FIJI ISLANDS, Oceania (VPA-VSZ-ZBA-ZJZ) Zone 50 Suva VPD 7.890 38.00 VPD 14.420 20.80 FRANCE, Europe (F) Zone 26 Agen 9.75030.75 Tues., Fri., 3-4:15 p.m., EST. Lyons YR 7.460 40.19 Daily ex. Sun., 10:30 p.m., 1:30 a.m., EST. Nancy 19.350 15.50 4-5 p.m., EST. Paris 4.76062.99 Radio LL. 4.920 60.94 Radio LL. 55.01 Ruggles. 49.97 Eiffel Tower Tests 6:30-F8BP 5.450 6.000 6.000 49.07 Enter 10wer Asta 50.00 6.45 a.m., 1:15-1:30, 5:15-3:45 p.m., EST. 6.120 48.99 Einel Tower, 5:30-5:45 a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST. 6.800 43.71 Radio Vitus, 4-11 a.m., FL3 p.m., EST. 7.500 39.98 Radio Touraine 39.14 St. Assisc. FTL 7.660 38.59 St.Assise. 38.57 Phones to ships **FTF** 7.770F8BZ 7.775a..... 9.090 32.98 Radio LL, Daily, 6:30-7 a.m., noon-12:30 Sun., Mon. Wed., Fri., 2-4 p.m. Sat. 1-2:30 p.m., Sun. 4-6:30 a.m.. 8:30-10 a.m., EST. 500 w 9.230 32.48 Eiffel Tower Time Sigs., FL 4:56 a.m. and p.m. (FIJ?) 30.47 St. Assise. FTI 9.840 FYA 11.308 26.51 Pontoise. FYA 11.680 25.67 Pontoise, 4-7 p.m., 1-3 a.m., EST. 11.705 25.63 Radio Colonial, 3-6 p.m., EST. EST. 11.720 25.58 Pontoise, Administration des P.T.T. 3-6 p.m., EST. (11705?) A 11.898 25.20 Administration des PTT 25.20 Administration des PTT FYA Pontoise 10:30 a.m.-1:30 p.m., daily, EST. (11916?) 2E-FQO 12,150 24.68 St. Assise. FQE-FQO 12.150

City-Call Meas. Meters 24.48 St. Assise, Tests U.S.A. FTN 12.250 days, irreg. Works Buenos Aires, Indo-China. Java, 9 a.m.-1 p.m. F8BZ 22.00 Telephone to ships. 13.628 FW4 12.700 23.61 Daily noon-2 p.m., EST. FYA 15.23419.68 Administration des PTT. Pontoise Service de la Radiodiffusion 103 Rue de Grenelle, Paris, 7 a.m.-10 a.m., daily, EST. Z 15 456 19 40 Phones to shins
 Grenelle, Paris, 7 a.m., 10 a.m., 0ally, E.

 3Z
 15.456
 19.40 Phones to ships.

 K
 15.860
 18.90 Telephony, St

 Phones FZS 9-10 a.m., EST.
 20.000
 F8BŽ FTK St Assise FRO-FRE 18.240 16.44 St. Assise. 16.44 St. Assise, Phones FZR FTE 18.240 5-9 a.m., EST. FTM 19 282 15.55 St. Assise, 10 a.m.-noon, EST. (19344?) FRO-FRE 19.400 15.45 St. Assise. FTD 19.830 15.12 St. Assise. Strasbourg 6.28047.74 Toulouse 6.120 48.99 Sundays 2:30-4 p.m., EST. FRENCH INDO-CHINA, Asia (F) Zone 40 Saigon (Chi-Hoa) F3ICD 6.1 6.131 48.90 106 Boulevard Charner, Chi-Hoa 6:30-10:30 a.m., daily, EST. (6120?) CD 11.776 25.46 Sats. 10:30 a.m.-12:30 F3ICD 11.776 p.m., EST. 12 kw FZG 12.000 24,99 Time sigs. 2-2:05 p.m., EST. (12010?) FZG 23.0413.010 F3ICD 19.03 15.750 FZR 16.200 18.51 FZS 18.310 16.38 Suns. 1-3 p.m., EST. Γ̈́ZA 18.365 16.32FSR 20.680 14.50 Phones. GERMANY, Europe (D) Zone 28 Berlin (Konigswusterhausen) DJC 6.020 49.80 Deutsche Reichspost 9.500 31.56 8 a.m.-7:30 p.m., EST. 31.36 Deutsche Reichspost 9.560 DJA a.m.-7:30 p.m. DHÌ 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. 15.200 19.72 Deutsche Reichspost, DJB Mon. 10-11 p.m. 15.300 19.60 7 a.m., EST. 16.88 Deutsche Reichspost. 7.05 Telefunken Co. T DJE 17.760 42.530 Tues., Thurs. 11:30 a.m.-1:30 p.m., EST. Colthen D4AFF 6.875 43.60 Sun. 4-6 a.m., Tues. and Fri. noon-2 p.m. Doeberitz DOA 3.62082.82 4.430 67.68 Mon., Wed., Fri. 6-7 p.m., DÓA 2-3 p.m., EST. A 7.230 DOA 41.47 7.930 37.81 Reichpostzentralamt, Ber-DOA lin, 1-3 p.m. Eberswalde EST. 7.410 40.46 Mon., Thurs. 1-2 p.m., Nauen 58.33 (9642?) (10285?) 44.91 Tests WEJ 9 p.m., EST. DIQ 5.144 DGK 6.675 29.58 Press code daily: Spanish, DÍZ 10.150 6 p.m.; English, 7 p.m.; German, 7:50 p.m.; English, 2:30 p.m.; German, 5 p.m.; Sundays, Spanish, 6 p.m.; German, 7:50 p.m.; Spanish, 9:30 DHC p.m., EST 10.160 29.51 Phones ships daily (11.435?)19.240 DFA 15.58 Phones XDA 10 a.m.-2 p.m., irreg. 19.950 וות 15.03 News in code: English, 6:15 a.m.; French, 8:30 a.m., and 11 a.m.; Suns., French, 8:30 a.m., EST. DHO 14.97 Phone LSG 7-11 a.m., 20 028 irreg. DWG 20.140 14.88 Tests 10 a.m.-3 p.m., EST

City-Call Megs. Meters Nordeich(?) DAN 11.340 26.44 Deutsche Seewarte, Hamburg Time sigs. 7 a.m. and 7 p.m., EST. Norden 8.328 DAN 36.00 Phones ships 2-4 a.m., 3-9 a.m. 12.490 DAN 24.00 Phones ships noon-3 p.m., 4-9 a.m. DAN 8.300 18.06 Tests with ships 9 a.m.noon. Zeesen DJB 15.196 19.73 Mon., Fri., Sat., irreg. Sun. 8 a.m.-4 p.m. 9.552 DJA 31.38 Relays various stations 8-9 a.m., 10:30-1:30 p.m., 2-6:30 p.m. 8000 w. GREAT BRITAIN, Europe (G-M) Zone 26 Bodmin GBK 9.25032.41 6 a.m.; 6 p.m. GBK 11,490 26.10GBK 18.100 16.56 6 a.m., 2 p.m. GBJ 16.10 Telephones Montreal. 18.620 Chelmsford W 11.750 25.51 British Broadcasting Corp., Savoy Hill, London, W. C. 2. Daily, ex. Sun. 6:30-7:30 a.m., 12:45-6 p.m., EST. 12 kw. G5SW G5SW 25.960 11.55 Experimental. London G2AA 8.570 33.70 Phones to ships. Rugby GBC 4.975 60.26 Phones ships irreg 42.90 6 a.m., 6 p.m. (6995?) GBS 6.989GBS 9.022 33.25 6 a.m., 6 p.m. (9010?) GBS 9.200 32.59Transatlantic phone. 32.20 Sun. 2:30-5 p.m., EST. GBC 9.310 GBW 9.790 30.63 30.60 Phones America evenings. GCW 9.798 GBU 9.942 30.15 5:11 p.m., EST. GBX 10.390 28.8527.76 GBX 10.800 5 12.190 24.60 Transatlantic phone to Deal, N. J., 2 p.m., 7 p.m. (12150?) (12250?) X 12.190 24.60 To VK2ME-VLK 4 a.m.-GBS GBX 9 a.m. GBU 24.39 To WMI 2 p.m.-7 p.m. .12.290GBČ 12,780 23.46 GBB-GBC 13.591 22.06 Phones CGA and ships gb.m. GBW p.m. W 14.450 20.75 Phones WNC 6 a.m., 6 p. m. Radio Section, G. P. O. London (14480?) X 16.150 18.56 VK2ME 4-11 p.m., EST. GBX (16164?) GBC 17.080 17.55 16.54 WNC 6 a.m.-2 p.m. 16.38 G. P. O., London, Tele-GBW 18.124 18.310 GBS phones N. Y. 6 a.m.-2 p.m. GBU 18.620 16.10 WMI 6 a.m.-2 p.m., EST. GBA 14.70 Phones LSN and ships ir-20 400 reg. Sonning-on-Thames G2NM 3.583 83.68 Sun. 5 a.m., EST. 20.95 Sun. 1:30 p.m., EST. G2NM 14.310 GUATAMALA, Central America (TGA-TGZ) Zone 14 Guatamala City 6.480 TGW 46.27 9-11 p.m., EST. (6663?) (6678?) 100 w. TGX 8.950 33.50 Sr. Miguel Angel Mejicano Norvales, 45 11th Ave., N. Sats. 10 p.m.-mid. TGGA $32.00 \\ 31.52$ 9.370 TGX 9.516 27.76 (10708?) 22.98 10 p.m.-mid., EST. TGW 10.800 TGCA 13.043 HOLLAND, Europe (PAA-PIZ) Zone 26 Amsterdam PHI 17.760 16.88 (Huizen.) Mon. 3-6 a.m., Wed., Thurs., Fri. 2-6 p.m., EST. Eindhoven PCJ 9.59031.26 (Hilversum.) Wed. 2-3p.m., Thurs. 9 a.m.-5 p.m., Fri., 2-9 p.m., EST. Hague PCM 6.430 46.63 Sun. 3-6 p.m., Mon., Sat. 4-7 p.m. PBF5 6.438 46.58

City-Call Megs. Meters Hilversum PCJ 31.26 N. V. Phillips Radio, Exper. Station (Eindhoven?) PCJ 15 290 10 71 9.590 19.71 N. V. Phillips Radio, Ex-15.220 per. Sta. Huizen PHI 17.77516.87 N. V. Phillips Radio, Under constn. Transmission for E. Indies. PHO 17.775 16.87 Daily ex. Tues. 7-9 a.m., EST. Kootwijk 7.758 38.65 Code usually (7628?) PCK PDV 7.770 38.59 9 a.m.-7 p.m., EST. 7.830 38.29 After 9 a.m. PDK 10.410 28.80PCP 10.800 27.76 PČĽ 18.39 16.300 Works with Bandoeng from 7 a.m. EST PCV 17.830 16.82 With Java 6-9 a.m. Sats. 9:40 a.m. (17836?) K 18.400 1 PCK 16.29 PDM 18.600 16.12HONDURAS, Central America (HRA-HRZ) Zone 14 Tegucigalpa HRB 6.005 49.96 Daily ex. Sun. 7-11p.m.(?) Mon., Wed., Fri., Sat. 5-6 p.m., 9-mid. (6170?) (6000?) 2500 w. HUNGARY, Europe (HAA-HAZ) Zone 28 Budapest a.m., EST. Szekesfehervar 9.125 32.86 HAT INDIA, Asia (VTA-VWZ) Zone 37-38 Bombay VVD 6.110 49.07 Mon., Wed., Fri. 12:30-1:15 p.m., EST. Calcutta 25.27 Indian State Broadest. VUC 11.870 Service, 9:45-10:45 p.m., 8-9 a.m., EST. ITALY, Europe (I) Zone 28 Coltana 12.760 IAC 23.50 Testing irreg. Rome 13RO 3.75079.95 Daily 3-5 p.m., EST. I2RO 6.220 48.20 9000 w. 6.667 45.00 T1AX IMA 6.900 43.45 Daily noon-2 p.m., EST. 25.40 11 a.m.-12:30 p.m., 3-5:30 11.800 12RO p.m., EST. (11811?) (11810?) (11:30 a.m. to 5:30 p.m.?) Turin 3.75079.95 JAPAN, Asia (J) Zone 44 Kemikawa-Cho 7.876 38.07 Tests KEL irreg. (9862?) 22.93 Exp. tests irreg. J1AA J1AA 13.074J1AA 15.760 19.02 Exp. early a.m. (15120?) Tokyo 38.00 Testing JIAA 7.890 J1AA 8.100 37.01 Tests 5-8 a.m., EST. (Kemikawa?) 12.090 24.80 5-8 a.m., EST. J1AA 15.760 19.02 Beam transm. to 10 a.m. J1AA 17.380 17.25 JAVA, Oceania (PKK-POZ, UIA-UKZ) Zone 40 Bandoeng PLE 18.820 15.93 Phone to Holland PCK Tues., Fri. 5:40-10:40 a.m., EST. (18860?) PMY 58.30 Phones Australia 11 a.m., 5.143 Tues., 8:40-10:40 a.m., EST. (5799?) 2000 w. PLW 8.120 36.92PLV 9.410 31.86 Phones Australia and Sumatra 4-8 a.m., Tues. 8:40-10:40 a.m. 80 kw. 9.410 31.86 PLE PLW 9.480 31.63 Phones Australia 3-8 a.m., irreg. PLR 10.630 28.20 Works Holland and France weekdays after 7 a.m.; sometimes after

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9.30.

City-Call Megs. 12.290 Meters PLM 24.40 Phones VK2ME abt. 6:30 a.m. (12250?) PLG 15.950 18.80 Afternoons 16.80 Radio Malabar. PLF 17.850 16.50 Phones PCV PMC 3:10-9:20 18.170a.m. (18370?) PMB 20.600 14.55 3:10-4:40 a.m., 8-9:20 a.m. (20620?) Batavia PK1AA 3.998 75.00Djociocarta PK2AF 49.97 6:40-9:40 a.m 26.50 Radio Gold 6 0 0 0 11.310 Goldberg Sun.. Tues., Thurs. 5-7 a.m., EST. Samarang PK2AG 3.15695.00 PK2AG 7.89038.00 Surabaya 2.143140.00 PMB 5.170 57.99 PK3AN 6.040 49.64 6-9 a.m., EST. PK3CH 6.66245.00 KENYA, Africa (VPA-VSZ, ZBA-ZJZ) Zone 31 Nairobi VQ7LO VQ7LO 9.616 31.18 6 060 49.48 Imperial and International Communications, Ltd., Mon., Wed., Fri. 11 a.m.-2:30 p.m., Tues. 3-4 a.m., 11:30 p.m., Thurs. 8-9 2.30 p.m., 11:30 a.m.-2:30 p.m., Sat. 11:30 a.m.-3:30 p.m., Sun. 11 a.m.-1:30 p.m., EST. (6000 kcs.?) (6100 kcs.?) (6134 kcs.?) KONGO, Africa (ONA-OTZ) Zone 28 Leopoldsville 29.70 Phones ORK 2-4, 9-11 OPM 10.090 a.m., 3-6 p.m., EST 20.028 14. OPL 14.97 Phones ORG a.m. MADAGASCAR, Africa (F) Zone 32 Tananarive FIUI II 5.689 52.70 Sat., Sun. 1-3 p.m. Other days 9:15-11:15 a.m., EST. (5552 kcs.?) 6.000 49.97 Town of Antananarivo, Administration locale, Sat., Sun. 1-3 p.m. Other days 9:30-11 a.m., EST. Tamatore FZU 19.460 15.40MADEIRA ISLANDS (CSA-CUZ) Zone 24 Funchel AG 6.380 46.99 5-7 p.m., Sat., EST. AQ 9.370 32.00 Rue de Comercio 160, Tues., Thurs. 4-6:30 p.m., Sun. 10:30-noon. AQ 12.490 24.00 Rue de Comercio 160, CT2AG CT3AQ CT3AQ Tues., Thurs. 4-6:30 p.m., Sun. 10:30 a.m.-noon. MEXICO, North America (XAA-XFZ) Zone 14 Chapultepec XDA 5.357 55.96 Daily 10-11 a.m., EST. 20 kw. XDA 11.763 25.50 Daily 3-4 p.m., EST. (11765 kcs.?) XDÀ 14.630 20.50 Daily 2:30-3 p.m., EST. Merida XAM 5.76652.00 Tests XDA 10 a.m.-8 p.m., irreg. 11.530 26.00 Phones XDA 10 a.m.-10 XAM p.m., irreg. Mexico City XDA 5.860 51.16 Chapultepec? Tests XAM 10 a.m.-8 p.m., irreg. (5879 kcs.?) (5857 kcs.?) XIF EST. XEŴ 6.020 49.80 8-11 p.m., Sun. to 2 a.m., 6.380 46.99 7-8 p.m., 11 p.m.-1 a.m., EST. XFD 6.667 44 98 XDA 6.818 44.00 XFD 9.091 32.97 XDA XFD 9.375 31.98 Chapultepec? 26.08 11.111 25.71 Chapultepec? Daily 3-4 11.760

- XDA 11.760 25.71 Chapultepec? Daily 3-4 p.m., EST. XDA 14.620 20.51 Chapultepec? Trans-News
- Agency, 2:30-3 p.m., EST.

City-Call Meas. Meters Nuevo Laredo A 7.370 40.68 9-10 s.m., 11-noon, 1-2, 4-5, 7-8 p.m., EST. Tests after midnight. DX program 11 p.m., Wed. A 7.612 39.39 Thurs. 11-noon EST. X26A X26Å (7661 kes.?) MOROCCA, Africa (CNA-CNZ) Zone 26 Casablanca CN8MC 5.875 50.94 CN8MC 6.25047.97 Relays Rabat Mon. 3-4 p.m., Tues. 7-8 a.m., 3-4 p.m. (6336 kcs.?) F8MC 6.875 43.61 (CN8MC?) (10710 kcs. ?) Rabat 43.60 6 877 32.27 Radio Maroc. 9.2906 k.w. Sun. 3-5 p.m., weekdays, irreg. 12.820 23.38 Phones CNR 23.38 Phones St. Assise 5 a.m. 8 a.m., Suns. 7:30-9 a.m., Daily 5-7 a.m. (12600 kcs.?) 2500 w. NEW ZEALAND, Oceania (ZKA-ZMZ) Zone 49 Christchurch ZL3ZC 6.000 49.97 Tues., Thurs., Fri., 10 p.m.-mid. EST. Wellington ZL2XX ZL2ZX 62.86 (4776?) 49.51 Mon., Wed., Thurs., Sat. 4.770 6.057 12:30-4 a.m., EST. ZLT 33.70 Phones VLK 1 a.m., 9 a.m. 8.898 ZL2XX 9.560 31.36 10.980 (10990 kcs.?) ZLW 10.980 27.30 Tests 3-8 a.m. EST. 12.286 24.40 Phones VK2ME 3-8 a.m., EST. 18.340 16.35 Phones VK2ME irreg. NORWAY, Europe (LAA-LNZ) Zone 28 Bergen LGN 9.600 31.23 PERU, South America (OAA-OCZ) Zone 16 La Ýunta OBE 13,043 23.00 Lima OCI 10.96227.35 Phones HJY evenings. 16.06 Tests HJY abt. 2 p.m. ÓCI 18.670 EST. POLAND, Europe (SPA-SRZ) Zone 28 Posen EATH? 8.900 33.69 Sun., Wed. 11:30 a.m.-5 p.m., EST. EATH? 10.8 10.800 27.76 11:30 a.m., 5:30 p.m., EST. Poznan SRI 9.570 31.33 Tues. 12:45 p.m., 3:45 p.m., Thurs. 12:30-7 p.m., EST. 1000 w. 9.836 30.49 PORTUGAL, Europe (CSA-CUZ) Zone 26 Lisbon CT1AA 6.990 42.89 Fri. 4-6 p.m. EST. (6995 kcs.?) 2000 w. 31.26 Tues., Thurs., Fri. 4-7 CT1AA 9.592 p.m. CT1BO 28.00 10.710 ROUMANIA, Europe (CVA-CVZ) Zone 28 **Bucharest** 49.97 300 w. 21.50 Institute Electrotechnique 6.000 13.950 YO1? Universitaire, Wed., Sat. 2-5 p.m., EST. SIAM, Asia (HSA-HSZ) Zone 40 Bangkok HS2PJ
 Z
 7.300
 49.31
 6-6:30 a.m., EST.

 2
 7.300
 41.07
 Administration des Postes

 et Telegraph Tests Mon. 8 a.m.-11 a.m., EST.
 HSP2 2500 w. HSP2 9.500 31.56 Administration des Postes et Telegraph 9-11 a.m., daily (9640 kcs.?) HS4PJ 8.100 37.01 HS2PJ 10.167 29.48HS1PJ 17.750 16.89 7-10:30 a.m., 1-3 p.m., EST. SPAIN, Europe (EAA-EHZ) Zone 26

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Barcelona EAJ25

6.000

Sat. 9-10 p.m., EST.

49.97 Barcelona Radio Club,

Citu-Call Megs. Meters 48.99 2:30-4 p.m., EST. (6124 EAR25 6.120 kes.?) EAJÎ 15.760 19.02 Madrid 6.976 43.00 Tues., Sat. 5:30-7 p.m., EAR110 Fri. 7-8 p.m., EST. R125 7.020 42 EAR125 42.71 6-7 p.m., EST. (7025 kes.?) EAM 9.772 30.68 EAQ 9.862 30.40 Apartado 951. Daily 7:30-9 p.m., Sat. 1-3 p.m. (7995?) (9875 kcs.?) (9890 9 p.... kcs.?) 10.090 EAJ7 29.70 Union Station EAJ7 5:30-6:30 p.m., irreg. EAQ 19.684 15.23 Apartado 951. Phones LSY 7-11 a.m. irreg. (19720 kes.?) STRAITS SETTLEMENT, Asia (VPA-VSZ, ZBA-ZJZ) Zone 40 Singapore VSIAB 7.19541.67 Mon., Wed., Fri. 9:30-11 a.m., EST. (7260 kes.?) SUMATRA, Asia (PKO-POZ, UIA-UKZ) Zone 40 Medan 28.80 Phones Java and VLK 3 PKP 10.410 a.m., 8 a.m. Palembang PK4PA 59 964 5.00SWEDEN, Europe (SAA-SMZ) Zone 28 Kalsborg SAS 11.760 25.50 Motala 3.030 98.95 11:30-noon, 4-10 p.m., EST. SBG 6.06549.43 SAJ 6.065 49.44 6:30-7 a.m. 11 a.m.-4:30 p.m., EST. 11 a.m.-4:30 p.m. Holidays, 5 a.m.-5 p.m., EST. SWITZERLAND, Europe (HBA-HBZ) Zone 28 Berne HB90C 9.130 32.84 6:30 a.m.-5:00 p.m. EST. (9375 kcs.?) Geneva HBP 7.790 38.49 Tests 3-8 p.m. irreg. League of Nations. HBJ 14.550 20.60 Zurich HB9XD 3.488 85 92 41.53 1st-3rd Suns. 7 HB9XD 7.220 a.m., 2 p.m., EST. (7229 kcs.?) HB9XD 9.380 31 96 31.96 TUNIS, Africa (F) Zone 28 Constantine F8KR 3.75079.95 See Algeria. 42.80 Sec Algeria. 7.005 F8KR UNION OF SOUTH AFRICA (ZSA-ZUZ) Zone 30 Durban ZTD 7.400 40.52 Johannesburg 6.072 ZTJ 49.37 African Brdestg. Co. Ltd P. O. Box 4559 (JB?) 5-7 a.m., 9:30-11 a.m., 1-3:30 p.m. (6070 kes.?) (6098 kes.?) ZT.J 7.329 40.90 9:30 a.m.-2:30 p.m., EST, U.S.S.R. (Russia), Europe (RAA-RUZ) Zones 30-50 Khabarovsk 4.27370.20 Comm. du Peuple PTT. RW15 Far East Radio Station, Daily 3-9 a.m., EST. 20 kw. **RW15** 8.570 34.98 5-7:30 a.m., EST, Leningrad RW3KAA 8.333 35.9828.53 (10526 kes.?) 10.510 11.111 26.08 Minsk RW62 6.420 46.70 Comm. du Peuple PTT 150 w. Moscow RW54 4.273 70.18 RW38 5.515 54.38 (5515 kcs.?) REN 5.614 53.40 Daily 4-9 a.m., EST. 6.000 49.97 Sun., Mon., Thurs. 10 a.m.-5 p.m., EST.

Megs. City-Call Motors 49.97 Tues., Thurs., Sat. 8-9 RFN 6 000 a.m., EST. **RW59** 6.000 49.97 Union Centrale des Syndicats Professionnels. Thurs., Sun. 4-5 p.m., EST. 20 kw. REN 6.430 46.63 Relays Moscow 1-6 p.m. EST. RFN 6.560 45.70 2 a.m., 4 p.m., EST. **RW72** 6.610 45.36 10 kw. REN 6.611 45.35 RW50 25.16 Comm. du Peuple PTT. 11.923 20 kw. RW61 51.7245.79 Institut Electrotechnique de Union. 750 w. Odaara RW69 157.80 Institut Sviazi. 3000 w. 1.900 Peredvijka RW65 3,560 84.22 Krestianskaia Gazeta. 20 w Petropavlovsk RW71 5.000 59.96 Narkomsviaz. 500 w. Tomsk RW19 8.111 36.96 VATICAN CITY (Italy), Europe (HVA-HVZ) Zone 28 HVJ 5.068 50.26 Daily 2 p.m., news in several languages and scientific information. Suns. and holidays at 5 a.m. (5965 kcs.?) 10 kw. J 14.850 20.19 Daily 5-5:15 a.m.; Sun., HVJ Tues. 5 a.m., EST. HVJ 19.83 5-5:15 a.m., EST. (15112 15.120 kes.?) 10 kw. VENEZUELA, South America (YVA-YVZ) Zone 19 Caracas YV2BC 6.000 49.97 7:45-11 p.m., daily ex Mon. (6061 kes.?) Maracaibo YV11BMO 6.125 48.95 8-11 p.m., EST. Maracay? YVQ 11 680 25.67 Tests Germany 5-7 p.m., EST. YVQ 18.296 16.39 Tests abt. 10 a.m., irreg. Valencia YV4BV 11.700 25.62 YUGO-SLAVIA, Europe (UNA-UNZ) Zone 28 Belgrade 10.000 29.98 Mon. only 2-3 p.m., EST. The Summer's Changes POWER WDEV Waterbury, Vt., 50 to 500 Tacona, Wash., 1000 to 500 550 570 KVI Fresno, Calif., 100 to 500 Moneton, N. B., 500 to 700 Hamilton, Ont., 500 to 1000 580 КМJ 630 CNRA CKOC 635 CKTE St. Catherines, Ont., 500 to 1000 Nashville, Tenn., 5000 to 50000 Hayana, Cuba, 3150 to 5000 650 WSM 730 CMK KGU Honolulu, Hawaii, 1000 to 2500 750 KXA CKGW Robotha, Hawah, 1000 to 200 Seattle, Wash., 500 to 250 Toronto, Ont., 10000 to 5000 New Orleans, La., 10000 to 5000 Sydney, N. S., 50 to 100 760 840 WWL 850 CJCB 880 Quebec, Que., 50 to 100 Havana, Cuba, 500 to 3000 Madison, Wis., 750 to 1000 CKCV CMX 890 940 WHA Madison, Wis., 750 to 1000 Santa Clara, Cuba, 30 to 200 Charlotte, N. C., 5000 to 25000 Sioux Falls, S. D., 2500 to 1000 Summerside, P. E. 1, 500 to 100 Seattle, Wash., 50 to 100 1030 CMHI 1080 WBT KSOO CHGS 1110 1120 KRSC Cienfuegos, Cuba, 40 to 75 Ciego de Avila, Cuba, 15 to 50 Guadalajara, Mex., 101 to 500 Albuquerque, N. M., 20000 to 10000 1150 CMHJ CMJH

Havana, Cuba, 1400 to 1500

Huntsville, Ala., 50 to 100 Louisville, Ky., 250 to 100

Wingham, Ont., 15 to 25 Fort Smith, Ark., 50 to 100

Gulfport, Miss., 1000 to 100

1155 XEA

1185 CMW

1200

1210

KOB 1180

WBHS

WLAP 10-BP

KFPW

WGCM

1240 1270 1310	WKAQ KGCA KRMD XEI	San Juan, P. R., 500 to 1000 Decorah, Iowa, 50 to 100 Shreveport, La., 50 to 100 Morcia, Mex., 101 to 150
$1315 \\ 1335 \\ 1355$	XEFB CMJI CMCY	Morcha, Mex., 101 to 130 Monterrey, Mex., 30 to 100 Ciego de Avila, Cuba., 5 to 112 Harana, Cuba, 250 to 500 Santa Fe, N. M., 50 to 100 Havana, Cuba, 20 to 100 Jersey City, N. J., 500 to 250 Ludington, Mich., 50 to 100
1370	KGFL	Santa Fe, N. M., 50 to 100
$1395 \\ 1450$	CMCH WHOM	Jersey City, N. J., 500 to 250
1500	WKBZ	DELETED
595	CNRL CHCS	London, Ont.
330 690	CHCS CNRX CNRM	Hamilton, Ont. Toronto, Ont.
730		Wontreal, Que. Winnipeg, Man. Mexico City, Mex. Red Deer, Alta.
780 818	CNRW XFI	Mexico City, Mex.
840 880	CNRD CNRQ	Red Deer, Alta. Quebec, Que.
910	CNRQ CNRS	Saskatoon, Sask.
960	CJBR CNRR CNRT	Regina, Sask. Regina, Sask.
$\frac{1120}{1200}$		Toronto, Unt. Knovville Tenn.
	WNBX	Springfield, Vt.
$1210 \\ 1370$	HRB	Springfield, Vt. Ithaca, N. Y. Tegucigalpa, Hond.
$1490 \\ 1500$	WNBX WLCI HRB WCHI WLBX	Chicago, Ill. Long Island City, N. Y.
1500	WMBA	Normont P I
550	WDEV	Response in the interpret of the interpret int
570 1580	WDEV WNYC KMJ	New York City, from 810
580 580 750	WDBO	Orlando, Fla., from 1120
810	VOWR	St. Johns, N. F., from 675 New York City, from 570
890 1055	WPCH KSEI XES	Pocatello, Idaho, from 900
1150	CMHJ	Cienfuegos, Cuba, from 1125
1155	CMHJ CMJH XEA	Ciego de Avila, Cuba, from 1017 Guadalajara, Mex., from 1000
1185 1200	CMW KGVO	Havana, Cuba, from 588 Missoula, Mont. from 1420
1210	KFPW	Fort Smith, Ark., from 1340
1240	KFPW WGCM WKAQ WHBC	San Juan. P. R., from 890
1260	WHBC	Canton, Ohio, from 1200 Morelia Mex from 1000
1310 1335 1355	XEI CMJI CMCY	Ciego de Avila, Cuba, from 1260
$1355 \\ 1370$	XEFZ	Coyoacan, Mex., from 1345
	nuno	LOCATION
930 1050	WIBG KFBI	Abilene, Kans., from Milford, Kans.
$1210 \\ 1370$	WFAS KGFL	White Plains, N. Y., from Yonkers, N. Y. Santa Fe, N. M., from Raton, N. M.
1420	KGKX KUMA	Lewiston, Idaho, from Sand Point, Idaho
1460	WJSV	Glenside, Pa., from Elkins Park, Pa. Abilene, Kans., from Milford, Kans. White Plains, N.Y., from Yonkers, N.Y. Santa Fe, N. M., from Raton, N. M. Lewiston, Idalio, from Sand Point, Idabo Yuma, Ariz, from Flagstaff, Ariz. Washington, D. C., from Alexandria, Va.
540	скок	CALLS Windsor Ont from CKWO
660	CMAE	CALLS Windsor, Ont., from CKWO Havana, Cuba, from CMDC Petersburg, Va., from WLBG Elk Citv. Okla., from KGMP White Plains, N. Y., from WCOH Greenville. Miss., from WRBQ Coyoacan, Mex., from XETZ Yuma, Ariz., from KFXY NEW
$1200 \\ 1210$	WPHR KASA	Elk City, Okla., from KGMP
	WFAS WKFI XEFZ KUMA	White Plains, N. Y., from WCOH Greenville Miss from WBBQ
1370	XEFZ	Coyoacan, Mex., from XETZ
1420		NEW
600 893	WJED VOGT	Indianapolis, Ind. Wabana, N. F.
1210	WHET	Troy, Ala.
1420	WHET WJEJ KIDW	Hagerstown, Md. Lamar, Colo.
	WMAS	Springfield, Mass.
570	WSYR	CHAINS Syracuse, N. Y., new NBC St. Petersburg, Fla., new NBC Milwaukee, Wis., new CBS
$\frac{620}{1120}$	WSUN WHAD	St. Petersburg, Fla., new NBC Milwaukee, Wis., new CBS

1130 1210 1280 1460	KSL KMJ WCAP WJSV	Salt Lake City, Utah, new CBS. Fresno, Calif., new CBS Asbury Park, N. J., new CBS Washington, D. C., new CBS			
1400					
	F	Permit to Change Frequency			
1310	KFYO	Lubboek, Texas, to 1420			
Permit to Change Power					
97 0	WCFL	Chicago, Ill., 1500 to 5000			
1050	KNX	Hollywood, Calif., 5000 to 25000			
Permit to Change Location					
830	WHDH	Boston, Mass., to Saugus, Mass.			
1260	WLBW	Oil City, Pa., to Erie, Pa.			
1310	KGBX	St. Joseph. Mo., to Springfield, Mo.			

Questions and Answers

N page 12, June issue, you publish an extract from a letter received from Mr. Caddell," comments Ian Murdoch, 17 Main St. W., Grimsby, Ont. "In it he states that he heard VJN calling VJNS. In the latest issue of QST, published by the Amateur Radio Relay League, I happened to notice a list of the series of calls issued to amateurs. For curiosity. I looked up Australia to see what the Hams use. I find that they are assigned the series from VHA to VMZ, and that the amateur prefix used was VK. As J and K are often mistaken for each other, no doubt Mr. Caddell received VKN. Of course, I can't guarantee that. In all my short-wave work I've never run across an Aussie amateur. Trygre Njaa's report on 2YA on a onetube set is possible, but it sure does stretch one's imagination to receive a Zedder on a one-tube set in North Dakota. An' how! However, nothing is impossible these days, especially by the amateur who frequently does the impossible because he doesn't know it's impossible. Tell Mr. R. V. Heinzelmann that undoubtedly he heard KWSC on March 23rd. They broadcast special code-practice lessons for any amateurs or would-be amateurs who happen to be listening. It's a swell program, having heard it twice myself last winter. Maybe Mr. Harold S. Rubens heard CMCJ, as they put on a couple of early morning programs this spring. Edward L. Walters probably received WLAP as they have been testing on 1010 kcys. for some time. The calls are somewhat similar in pronunciation. My log now stands at 1737 stations. Of course, it's a combination of SW and BB. Have in the proximity of 1000 stations on the broadcast band now. Just recently received verifications

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from station VUB, Bombay, India, operating on 840 kcys. with 3000 watts. This was heard on March 29th at approximately 6 a.m. Haven't heard of anyone else verifying this yet."

"I noticed in your last issue that Mr. R. LaRocque, of Worcester, Mass., wanted information about VE9LP," writes H. A. Jamison, 24 Glencairn, Toronto, Ont. "It is owned by CKAC and is used during the winter to broadcast the hockey games. It is used so that CKAC can use its full time for its schedule. It is CKAC's old station and I think uses 750 watts. (You can verify it from your back issues). It hasn't any definite location, but the last broadcast was on 930 keys. I want to thank you for that picture of Jack Denny. It's the first one I've seen that really resembles him. I guess you will have noticed by this time that broadcasting in Canada is likely to become national. I don't know just how it will turn out, but we'll soon see."

"On the evening of August 1st, I received on my 9-tube Stromberg-Carlson Neutrodyne, a station announced as WKW someplace in Tennessee," says Richard Umbach, 2526 East Drive, Fort Wayne, Ind. "This station was on either 1490 or 1500 and was received from 10:15 to 10:30 p.m., EST. A man was giving a political speech from which it seemed that he was seeking the nomination as Governor of Tennessee. I would appreciate it very much if you could inform me if there is such a station or whether I heard the call letters wrong." WKW is a s.w. station in Rocky Point. N. Y. It is hardly likely this could have been your station and we find no station in Tennessee nor on 1490 or 1500 whose call could have been heard as "WKW." Perhaps some of our other readers can help you.

"Miss M. Stannard, 522 Sunset Ave., Rockford, Ill., would like to know the station which broadcasts the program known as the 'Four Horsemen,'" says Carroll H. Weyrich, 6 N. Gorman Ave., Baltimore, Md. "I have a verification from station WMAZ, Macon, Ga., 1180 kcys., in which they state that the 'Four Horsemen of Harmony' are on the air each evening from 7-7:30 p.m., EST." "Can any of your readers tell me what station broadcast a program of old time music at about 1:30 a.m., CST., April 10, 1932?" asks Raymond Sereikas, 3243 So. Emerald Ave., Chicago, Ill. "This old-time fiddlers' orchestra was called the 'Rough Riders.' The call letters sounded something like WO--. I couldn't get it clearly. WFIW was interfering."

"Does KEJ call Coco Head every night?" inquires Harold Wagner, 908 E. 6th St., Erie, Pa. "I have been getting a station with chain programs whose announcer says he is broadcasting for stations K— and — in Honolulu. I don't know what his call letters are, but they sounded like KEJ. This station announces about a minute ahead of the regular time, and comes in best from 10:15-10:45 p.m., EST."

Short wave programs from Central America soon will be broadcast from a new 50,000-watt radio station to be built at Villa Fuente, three miles from Piedras Negras. Permit for the \$75,000 station has been secured. Two 300-foot towers, similar to those at XER, Dr. J. R. Brinkley's station in Villa Acuna, Coahuila, will be erected. Studios will be maintained at Piedras Negras and Eagle Pass.

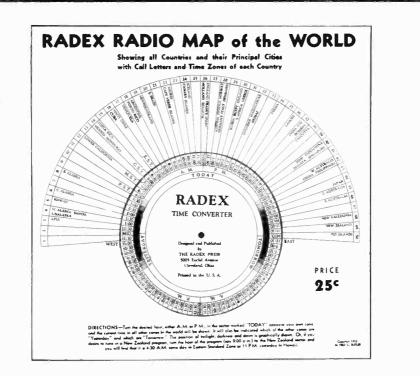
"May I inform you that CKOW is not broadcast from Toronto, Ont.," informs D. McNeil, 60 Chestnut Ave., Hamilton, Ont. "CKGW and CPRY are the 840 kc. Toronto stations. Mr. T. Hill must be mistaken."

"I would like to hear from other DXers, especially those who have received our local 100-watter, KREG," requests Victor Rowland, 520 Virginia St., Santa Ana, Calif.

Fred B. Murray, 3512½ Pine Grove Ave., Chicago, Ill., would like to hear from other owners of the Star Raider, 13-tube receivers.

The October Radex

will have a list of the S-W stations arranged by frequencies. There will be a new list of the Trans-Pacific Broadcast Stations — Japan, Australia and New Zealand — arranged by frequencies. The Call Letter Index will give the time of all stations for Mondays and there will be an October Calendar of Special DX programs. Order a copy now from your newsdealer or use the blank on page 22.



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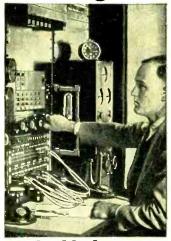
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