THE SEPTEMBER 1932

## RADEX INDEX

THE ALL-WAVE RADIO MAGAZINE



(25°)

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

1 — THURSDAY			16 - FRIDAY - Conti		
11:00 PST 12:00- 2:30 EST	$_{\rm WMIL}^{\rm CHWK}$	Chilliwack, B. C. Brooklyn, N. Y.	12:00- 2:00 PST 1:00- 3:00 EST	CFJC CKCL	Kamloops, B. C. Toronto, Ont.
2 — FRIDAY 11:30- 1:00 MST 11:30-12:30 CST 12:00- 2:00 PST 1:00- 3:00 EST	KGEK WCAJ CFJC CKCL	Yuma, Colo. Lincoln, Neb. Kamloops, B. C. Toronto, Ont.	17 — SATURDAY 11:00-12:00 CST 11:30 PST 11:30 EST 11:30- 2:00 CST	WKY CKWX KDKA WBBZ	Oklahoma City Vancouver, B. C. Pittsburgh, Pa. Ponca City, Okla.
3 — SATURDAY 11:00-12:00 CST 11:30 PST 11:30 EST 11:30- 2:00 CST 12:00- 2:00 EST	WKY CKWX KDKA WBBZ WCAH	Oklahoma City Vancouver, B. C. Pittsburgh, Pa. Ponca City, Okla. Columbus, Ohio	12:00- 2:00 EST 12:00- 2:00 EST 12:00 EST 12:30- 2:30 CST 1:00 EST 1:00- 5:00 CST	WCAH WGBI WWRL WOW KQV WJAK	Columbus, Ohio Scranton, Pa. Woodside, N. Y. Omaha, Nebr. Pittsburgh, Pa. Elkhart, Ind.
12:00- 2:00 EST 12:00 EST 12:30- 2:30 CST	WGBI WWRL WOW	Scranton, Pa. Woodside, N. Y. Omaha, Neb.	18 — SUNDAY 12:00- 1:00 EST	WSAZ	Huntington, W. Va.
1:00- 5:00 CST 4 — SUNDAY 12:00- 1:00 EST	WSAZ	Elkhart. Ind.  Huntington, W. Va.	19 — MONDAY 10:30-10:45 CST 12:00- 2:00 MST 12:00- 2:30 EST	WMAQ KOY WMIL	Chicago, Ill. Phoenix, Ariz. Brooklyn, N. Y.
5 — MONDAY 10:30-10:45 CST 12:00- 2:00 MST 12:00- 2:30 EST	WMAQ KOY WMIL	Chicago, Ill. Phoenix, Ariz. Brooklyn, N. Y.	20 — TUESDAY 11:00-12:00 CST 12:00- 2:00 PST	XEH CFJC	Monterrey, Mex. Kamloops, B. C.
6 — TUESDAY 11:00-12:00 CST 12:00- 2:00 PST	XEH CFJC	Monterrey, Mex. Kamloops, B. C. Bristol, Tenn.	21 — WEDNESDAY 11:00-12:00 CST 11:30 PST	WHBL CKWX	Sheboygan, Wis. Vancouver, B. C.
3:00 EST	WOPI	Bristol, Tenn.	22 — THURSDAY 12:00-12:30 EST	WMIL	Brooklyn, N. Y.
7 — WEDNESDAY 11:00-12:00 CST 11:30 PST	WHBL CKWX	Sheboygan, Wis. Vancouver, B. C.	23 — FRIDAY 11:30- 1:00 MST 11:30-12:30 CST	KGEK WCAJ	Yuma, Colo. Lincoln, Neb.
8 — THURSDAY 12:00- 2:30 EST	WMIL	Brooklyn, N. Y.	12:00- 2:00 PST 1:00- 3:00 EST	CFJC CKCL	Kamloops, B. C. Toronto, Ont.
9 — FRIDAY 11:30- 1:00 MST 11:30-12:30 CST 12:00- 2:00 PST 1:00- 3:00 EST	KGEK WCAJ CFJC CKCL	Yuma, Colo. Lincoln, Neb. Kamloops, B. C. Toronto, Ont.	24 — SATURDAY 11:00-12:00 CST 11:30 PST 11:30 EST 11:30- 2:00 CST	WKY CKWX KDKA WBBZ	Oklahoma City Vancouver, B. C. Pittsburgh, Pa. Ponca City, Okla. Vermillion, S. D.
10 — SATURDAY 11:00-12:00 CST 11:30 PST 11:30 EST 11:30 EST 11:30- 2:00 CST 12:00 CST 12:00- 2:00 EST	WKY CKWX KDKA WBBZ KUSD WCAH	Oklahoma City Vancouver, B. C. Pittsburgh, Pa. Ponca City, Okla. Vermillion, S. D. Columbus, Ohio	12:00 CST 12:00- 2:00 EST 12:00- 2:00 EST 12:00 EST 12:30- 2:30 CST 1:00 EST 1:00- 5:00 CST 2:00- 4:00 CST	KUSD WCAH WGBI WWRL WOW KQV WJAK KDLR	Vermillion, S. D. Columbus, Ohio Scranton, Pa. Woodside, N. Y. Omaha, Nebr. Pittsburgh, Pa. Elkhart, Ind. Devils Lake, N. D.
12:00- 2:00 EST 12:00 EST 12:30- 2:30 CST 1:00 EST	WGBI WWRL WOW KQV	Scranton, Pa. Woodside, N. Y. Omaha, Nebr. Pittsburgh, Pa.	25 — SUNDAY 12:00- 1:00 EST	WSAZ	Huntington, W. Va.
1:00- 5:00 CST 11 — SUNDAY 12:00- 1:00 EST 12 — MONDAY	WSAZ	Elkhart, Ind.  Huntington, W. Va.	26 — MONDAY 10:30-10:45 CST 12:00- 2:00 MST 12:00- 2:30 EST 2:00- 3:00 MST	WMAQ KOY WMIL KPOF	Chicago, Ill. Phoenix, Ariz. Brooklyn, N. Y. Denver, Colo.
10:30-10:45 CST 12:00- 2:00 MST 12:00- 2:30 EST 13 — TUESDAY	WMAQ KOY WMIL	Chicago, Ill. Phoenix, Ariz. Brooklyn, N. Y.	27 — TUESDAY 11:00-12:00 CST 12:00- 2:00 PST 1:30- 2:30 CST	XEH CFJC WCLO	Monterrey, Mex. Kamloops, B. C. Janesville, Wis.
11:00-12:00 CST 12:00- 2:00 PST. 14 — WEDNESDAY 11:00-12:00 CST	XEH CFJC WHBL	Monterrey, Mex. Kamloops, B. C. Sheboygan, Wis.	28 — WEDNESDAY 11:00-12:00 CST 11:30 PST	WHBL	Sheboygan, Wis. Vancouver. B. C.
11:30 PST 3:00- 5:00 CST	CKWX KFBI	Vancouver, B. C. Abilene, Kans.	29 — THURSDAY 12:00-12:30 EST	WMIL	Brooklyn, N. Y.
15 — THURSDAY 12:00- 2:30 EST	WMIL	Brooklyn, N. Y.	30 FRIDAY 11:30- 1:00 MST	KGEK	Yuma Colo
16 — FRIDAY 11:30- 1:00 MST 11:30-12:30 CST	KGEK WCAJ	Yuma, Colo. Lincoln, Nebr.	11:30-12:30 CST 12:00- 2:00 PST 1:00- 3:00 EST	WCAJ CFJC CKCL	Lincoln, Neb. 7 1 Kamloops, B. C. Toronto, Ont.



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#### SEPTEMBER 1, 1932



# RADIO EX



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#### FRED CLAYTON BUTLER

Editor and Publisher

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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 qucikly 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 all-wave 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, meters, 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



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 be heard.

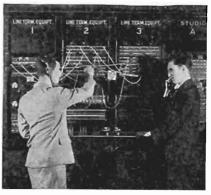
#### The Hammarlund Comet



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 TO SUCCEED TO SUCCEED



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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 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 saying: "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 well-known 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 each 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, Newfoundland.

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 Philo 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  $22\frac{1}{2}$  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 entirely 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 -71A 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 Philo radio set uses 60 cycle 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 furnish the makers can necessary 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.

(Continued on page 33)

## "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 you 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

N 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 TL.IMRWAS

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, CKCR, KWEA WWAE. WKRC. KCRC, WKAV, WWJ, CJCA, CMW.

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

> CKWO JOKK CKWX O WORK AOK HRB LOW WKBV WA BW WGBB CKY KF OS HIX YWNC IS AV WWSW AHW KVL SBH AWIS O WBAA KPCB WJBK

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

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solution of a single cross-call is too simple

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.

#### Kev

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

#### Radio investment.

- A blue with one k.w.
- Holt-Rowe Broadcasting. NBC with 500.
- Westinghouse.
  1st, 3rd and 4th in B. C.
  Ditto in Pennsylvania.
- CBS.

Down towards zero.

- 750 watts. Last two of agricultural school.
- 2nd and 4th in B. C. In I-26. Columbia on 1430.

24 A newspaper with 250 watts.
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.

1st, 3rd and 4th of Illinois station.
First three of London station.

54 In G-7.
 56 First two of radio news.
 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

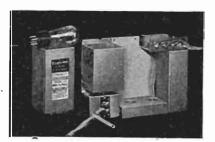
A SYSTEM whereby as many as 3,000 radio receiving sets can operate independently on the same antenna without interfering with each other has been perfected, according to an announcement by the Western Electric Company. By adding further apparatus, the number of sets can be increased indefinitely without 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  $3\frac{1}{4}$  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 Balkeit



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 amplifier-detector, 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)

## AFTER the EDITOR'S VACATION

"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.

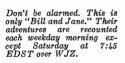
In order to present fully the information gathered, we are adopting new symbols for the Index by Frequencies. These permit us to convey a vast amount of data in very little space. The actual policy of stations regarding stamps ought to save our DXers considerable money in dimes. The new information on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





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

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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 year's subscription.

So much for business; now let's see

## INSURE YOUR RADIO ENJOYMENT SEND THIS BLANK TODAY

The Radex Press, 5005 Euclid Avenue. Cleveland, Ohio. Enclosed find \$\_\_\_\_\_\_for which send me postpaid my choice of your offers as checked below: ☐ One radio map of North America 15c ☐ One Radio World Map and Time Converter\_\_\_\_\_ 25c ☐ One copy of the next RADEX .... 25c ☐ Trial subscription, next five issues of RADEX\_\_\_\_ \$1.00 ☐ One year's subscription to RADEX, 10 issues and Time Converter, free..... 1.75 ☐ Two subscriptions to RADEX with one leatherette cover and Time Converter, both free One two-year subscription with leatherette cover and Time Converter, both free\_\_\_\_\_ 3.50 □ Leatherette Cover\_\_\_\_\_ Write Name Plainly Street and Number

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 length. 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 kcs.; 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 annovance. Television signals too are picked up frequently with their high-pitched stac-

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 yellow 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

In 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 editor, 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 keys. 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, Nfld. "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. Nfld. 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 7½ 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 verifica-

tion. 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 7½ 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 sockets, 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

O 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 VK2ME, VK3MECanada, 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.

COLUMBIA (C) WABC

NATIONAL, Red (R)\_\_\_WEAF

NATIONAL, Blue (B)\_\_\_\_WJZ

Call	Dial	Call	Dial

Call	Dial	Call	Dial

Call	Dial	Call	Dial

— 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

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

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

CFRB CKOK KFH KFJF KMBC KTRH WAAB WABC WBCM WBIG WBRC WBT WCAH WDAE WDBJ 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

KOIL KPRC RDKA KFYR KOA KOIL KPRC KSL KSTP KVOO 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

C—Columbia Revue
CFRB CKOK KDYL KFAB KFBK
KFB KFJF KFRC KHJ KLRA KLZ
KOL KRLD KSCJ KTRH KVOR
WABC WBBM WBIG WBT WCAH
WCAO WDBJ WDBO WDOD WDRC
WDSU WEAN WFAN WFBL WFEA
WGR WGST WHAS WHEC WIBW
WIP WISN WJAS WKBH WKBN
WLBW WMAL WNAC WONAX WNOX
WODN WORC WOWO WPG 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 KWK KVW WAPI WBAI WPZ KWK KYW WAPI WBAL WBZ WBZA WCKY WDAF WDAY WEBC WFAA WFLA WGAR WHAM WHO WIBA WIOD WIS WJAX WJDX WJR WJZ WKY WLW WMC WOAI 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
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 WEAN W

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-Free Beasley
CFRB CKOK KDYL KFAB KFH
KFJF KLRA KMBC KSCJ KTRH
KVOR WAAB WABC WBBM WBIG
WBBC WBT WDAE WDBJ WDBJ WBRC WBT WDAE WDBJ WDBO WDOD WDRC WDSU WFAN WFBL WFEA WGST WHAS WIBW WIP WISN WJAS WKBH WKBW WI.BW 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 Reis and Dunn 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 WHP WIBW
WIP WISN WIAS WKFBL WKEN 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 WDAE 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 WAAB WABC WBBM WBIG WBCWBT WCAH WCAO WCAU WDAE WDBJ WCAU WCAU WHAE
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 WRC WRVA

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 - Isham Jones and Orchestra CHOK KFH KMBC KMOX KSCJ KTRH WABC WBCM WBIG WBRC WBT WCAO WCAU WCCO WDAE

WBI WCAO WCAU WCCO WDAE
WDBJ WDBO WDDD WDRC WEAN
WFBL WGR WGST WHEC WHP
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 WFBR WFLA WGY WIOD WIS WJAR WJAX WLIT WPTF WRC WRVA WSAI WTAG WTIC WWNC

B – Stebbins Boys
KDKA KFI KGO KGW KHQ KOA
KOMO KSL KWK WBAL 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 KFH KLZ CFRB CKOK KFAB KFH KLZ KMBC KRLD KSCJ KTRH WABC WBBM WBCM WBIG WBRC WBT WCAH WCAO WCAU WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WISN WJAS WKBN WMAL WNAC WNAX WNOX WODX WOKO WORC WOAM WREC WSFA WSPD WTAQ WTAR WTOC

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 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 CFRB CKOK KDYL KFAB KFJF KFPY KFRC KGB KHJ KMBC KOH KOL KRLD KSCJ KTRH KYI WABC WACO WBCM WBIG WBRC
WBT WCAO WCCO WDAE WDBJ
WDBO WDOD WDRC WDSU WEAN
WFAN WFBL WFBM WGL WGR
WGST WHEC WHK WHP WIP WISN WKBH WKBN WMAL WNAC WNAX WNOX WODX WOKO WQAM WSFA WTAQ WTAR WTOC WWVA

WHAR WICE WWYAR ROOM WYAR ROOM WYAR ROOM WYAR WEAF WEEL WGY WJAR WTAG WTIC

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

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

C—Singh Sam CKOK KMBC KMOX WABC WADC WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGN WGR WHK WJAS WKRC WMAL WNAC WOKO

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C—Kate Smith, La Palina CKOK KFAB KFH KFJF KMBC KMOX WABC WADC WBCM WCAH WCAO WCAU WCCO WFBL WFBM WGN WGR WHAS WHEC WHK WISN WJAS WKBN WKRC WMAL WOKO WSPD WOKO WSPD

R — Voice of Fireston

K—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 WPTF 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 WLIT

WEEL WGY WHO WJAR WMAQ WOC WOW WRC WTAG WTAM WTIC WWJ 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 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 CHOK KMBC KMOX WABC WADC WCAO WCAU WDRC WEAN WFBL WGN WHAS WHEC WHK WJAS WKBW WKRC WMAL WNAC WOKO

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 WAS WKBH WKAW WNOX WOOX 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
WENR WFAA 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 KOH KOIN KOL KRLD KTRH KTSA
KVI KWG WABC WBRC
WBT WCAO WCAU WCCO WDBJ
WDRC WDSU WEAN WFBL WFBM
WGN WGST WHAS WHEC WHK
WISN WJAS WKBW WKRC WLAC
WLBZ WMAL WMBG WMT WNAC WOKO WOWO WPG WREC WRUF

R — National Radio Forum R — National Radio Forum
KFSD KFYR KGHL KGIR KGO
KGW KOA KOMO KPRC KSD KSL
KSTP KTSS KVOO WBEN WCSH
WDAY WEAF WEBC WEEL WENR
WFLA WGY WHO WIBA WIOD
WJAR WJDX WKY WLIT WMC
WOAI WOC WOW WPTF WRC
WRVA WSAI WSB WSM WTAG
WTAM WWJ WWNC
R. PKIBEL Led COUNTY DEATER

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 KOIL 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 CFRB CKOK KDYL KFBK KFH KFJF KFRC KHJ KLRA KLZ KMBC KMOX KOL KRLD KSCJ KTRH
KVOR WAAB WABC WBCM WBIG
WBRC WBT WCAH WCAO WCAU
WCCO WDAE WDBJ WDBO WDOD
WDRC WDSU WEAN WFBM WFEA
WGST WHEC WHK WHP WIBW WJAS WKBH WKBW WLBW WMAL WMBD WNAX WNOX WODZ WOKO WORC WOWO WQAM WREC WSPD WTOC

- "Tish" 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

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 WSM WSMB WTMJ

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 R — Maxwell House Program R — Maxwell House Program
KFI KFSD KGO KGW KHQ KOA
KOMO KPRC KSD KSL KSTP
KTAR KTBS KTHS WAPI WBAP
WDAF WENR WHO WJDX WKY
WMC WOAI WOC WSB WSM WSMB
WELLY WDMAY WWIT WTAM WTMJ WWJ

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

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 Carlie, Tenor
CKOK KFBK KFJF KFRC KLRA
KMBC KMOX KSCJ KTRH KVOR
WAAB WABC WBGM WBIG WBRC
WBT WCCO WDAE WDBJ WDBO
WDOD WDRC WDSU WEAN WFBM
WGST WHAS WHEC WHP WJAS
WKBN WKBW WLBW WMAL
WMBD WNAX WNOX WOKO WORC
WOWO WQAM WREC WSFA WSPD
WTAR WTOC
E—Vaice of Firestone

R - Voice of Firestone KFI KFSD KFYR KGHL KGIR KGO KGU KGW KHQ 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 CFRB CKOK 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 WIP 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 C — Eddie Duchin and Orchestra C—Equie Month and Ornelstra CKOK KDYL KFAB KFBK KFH KFJF KLRA KMBC KMOX KOL KRLD KSCJ KTRH KVOR WABC WBCM WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOU WDSU WEAN WFBL WFBM WGL WGST WHAS WHEC WHP WIBW WISN WYENN WEAPW WI BW WMAI WISN WKBN WKBW WLBW WMAL WMBD WNAC WNAX WNOX WOKO WPG WQAM WREC WSFA WSPD WTAR WTOC WWVA

### Monday—Continued

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

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

B — Sheer Romance, Drama

KDKA KFI KFYR KGO KOA KOIL
KSTP KTBS KWCR WBAL WHAM
WIBA WIOD WJDX WJZ WKY
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

KFI KFSD KGHL KGIR KGO KSD KTAR WAPI WEAF WFBR
WFI WIOD WIS WJAR WJDX
WMAQ WOW WPTF 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

- 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 — 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 WDRC WDSU WEAN WFBL WGR WGST WHAS WHEC WHP

WGR WGST WHAS WHEE 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

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

R—Blackstone, Sanderson-Crumit
KSD KSTP KYW WBEN WCAE
WCSH WDAF WEAF WEBC WEEI
WFI WGY WHO WJAR WOC 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

R - Walter Smith and Orchestra KSD WCSH WDAF WEAF WEEI
WFBR WFI WGY WHO WJAR WOC WSAI WTAG WTAM WTIC WRC

ED-8:45 p.m., E-7:45, C-6:45, M-5:45 B—Rosa Low, Song Recital
CKGW KDKA KEX KFYR KJR
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 KHJ KLRA, KLZ
KMBC KMOX KOL RILD KTRH
KVOR WABC WACO WBCM WBIG
WBRC WBT WCAH WCAO WCAO
WCAO WADSU WFBL WFBM WFEA
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
R—NSTINDAL ATTICK? Series.

R - National Artists' Series 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

WGN WHK WJAS WKBW WKRC WMAL WNAC WSPD R - Ed Wynn-Don Voorhees

KFI KFSD KFYR CFCF KFI KFSD KFYR KGHL KGIR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTBS KVOO WBAP WBEN WCAE WCSH WDAF WDAY WEAF WBEC WEEI WFBR WFI WGY WHO WIBA WIOD WIS WJAR WJAX WJDX 

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 WKRC WNAC WOKO C — Music That Satisfies, See Monday

C—Music mar Satisfies, See Monday
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 WDAF WDAY
WEAF WEBC WEEI WENR WFBR WEAF WEBC WEEI WENR WFBM WFI WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMC WOAI WOC WOW WRC WRVA 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

- Musical Fast Freight C—Musical rast freignt
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

C—Isham Jones and Urchestra CFRB CKOK KDYJ. KFBK KFH KFJF KFRC KGB KHJ KLRA KLZ KMBC KOH KSCJ KTRH KTSA KVI KVOR WAAB WABC WBCM WBIG WBRC WBT WCAH WCAD WCAU WCCO WDAE WDBJ WDBO WDODD WDRC WDSU WEAN WFBL WDFM WDFA WGST WHAS WHEC WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WJAS WKBH WKBN WKBW WIRW WAAY WKBW WNAX WLBW WNOX WMBD 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 B—Cesare Sodero Concert Orchestra
CFCF CKGW KDKA KEX KFYR
KGA KJR KOA KPO KSTP KTBS
KWCR WBAL WCKY WENR WFLA
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 CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPY KFRC KGB KHJ KFH KFJF KFPY KFRC KGB KHJ
KIRA KLZ KMBC KMOX KOH
KOL KRLD KSCJ KTRH KTSA
KVI KVOR WAAB WABC WACO
WBCM WBIG WBRC WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDOD WDSU WFBL WFBM
WGST WHAS WHEC WHK WHP
WINDW WISN WEBM WKBW WHO WIBW WISN WKBN WKBW WLBW WMAL WMBD WNAX WNOX WORC WOWO WQAM WREC WSFA WSPD WTAR WTOC

R — Jack Denny and Orchestra KSD WCAE WDAF WEAF WEEI WFBR WFI WJAR WMAQ WTAM

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 KOH KSCJ KTRH

### Tuesday—Continued

KVOR WABC WACO WBCM WBRC WBT WCAH WCAU WDAE WDBJ WDBU WDAD WDBU WEAN WFBM WGST WHAS WHEC WHP WIBW WISN WKBN WKBW WLBW WMBD WNAC WNAX WNOX WOKO WOWO WQAM 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 KJR KPO KTBS WBEN KJR KPO KTBS WBEN WCAE
WDAF WEAF WFAA WFBR WFLA
WGY WKY WMAQ WMC WOW WRC
WSB WSM WSM 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-9:30 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-6:30 p.m., E-5:30, C-4:30, M-3:30 C — William Vincent Hall

WILLIA 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

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 C - Funnyboners, See Monday

- Donald Novis, See Monday 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 KOH KSCJ KTRH KVOR WACO WBCM WBIG WBRC WACO WBCM WBIG WBRC WBI WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WGR WGST WHAS WHEC WHP WISN WJAS WKBH WKBN WMAL WNAC WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAQ WTOC

WSTD WING 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

C—Conne Boswell
CFRB CKOK KFAB KFH KFPY
KHI KLZ KMBC KOH KRLD KSCJ
KTRH KVOR WABC WACO WBCK
WBIG WBRC WBT WCAH WCAO
WCAU WDBJ WDBO WDRC WDSU WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WISN WJAS WHEC WHA WHY
WISN WJAS WKBN WNAC WNAX
WNOX WODX WOKO WORC WOWO
WQAM WREC WSFA WSPD WTAQ
WTAR WTOC WWVA

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

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 WCSH WDAF WEAF WEEI WFBR WGY WHO WJAR WLIT WLS WOC WOW WRC WSAI WTAG WTAM WTIC ŴŴJ

B—American Taxpayers' League
KDKA KFSD KFYR KGIR KGO
KOA KOIL KOMO KTAR KTBS
KWCR KWK KYW WBAL WDAY
WFAA WFLA WIBA WIOD WJAX
WJDX WJZ WKY WMC WOAI
WPTF WREN WSM WWNC

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

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 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 WIS WJAR WJAX WLIT WMC WOA WIOD WJDX

WKY WLIT WMC WOAI WOC WOW WPTF WRC WRVA WSAI WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC B - Island Boat Club Dance KDKA KWK WBAL WBZ WBZA WGAR WHAM WJR WJZ WLW

WMAQ WREN ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C — Eno Crime Club, See Tuesday R — Mobiloil Concert

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

B — Jack Benny, Geo. Olsen, See Mon.

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 Monday
B — Stebbins Boys, See Monday
ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C — Connie Boswell
CFRB CKOK KFAB KFH KFPY
KHJ KLZ KMBC KOH KRLD KSCJ
R — Philling Led See Monday
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—Archer Disson, Organist
KECA KEX KFYR KGA KGHL
KGIR KJR KOA KPO KSL KTBS
WCAE WCSH WEAF WEBC WGY
WIBA WIOD 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 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 — Nellie Revell

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

B—Amos 'n' Andy, See Monday
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
KMBC KMOX KOH KRLD KSCJ
KTRH KTSA KVI KVOR WAAB
WABC WACO WBCM WBIG WBRC
WBT WCAH WCAO WCAU WCCO
WDAE WBJ WDBO WDOD WDRC
WDSU WEAN WFBM WGST WHAS
WHEC WHK WHP WIBW WISN
WKBW WLBW WMAL WHE WHE WHE WISN WISN WISN WLBW WLBW WMAL WMBD WNAX WNOX WOKO WORC WOWO WQAM WREC WSFA WSPD WTAR

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

 Duke Ellington and Orchestra CKOK KDYL KFAB KFH KFJF KLRA KLZ KMBC KOH KTRH KVOR WABC WACO WBCM WBRC WBT WCAH WCAO WCAU WCCO WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDBO WDOD WDSU
WEAN WFBL WFBM WGST WHAS
WHEC WHP WIBW WISN WKBW
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 - 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 - 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 Doerr, Saxophone Octet KGO KOA WAPI WBEN WEAF KGO KOA WAPI WFI WJAR WMAQ

WTAM 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

B — Stebbins Boys, See Monday ED-7:45 p.m., E-6:45, C-5:45, M-4:45 C — Georgie Price, See Tuesday R — The Goldbergs, See Monday

- 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 KSL KSTP KTAR KVOO WAPI WBAP WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFBR WDAY WEAF WEBC WEEL WIBK WFI WFLA WGY WHO WIOD WJAR WJAX WJDX WKY WMAQ WMC WOAI WOC WOW WPTF WRC WRVA WSAI WSB WSM WTAG WTAM WTMJ WWJ

B — Regimentalists, Male Chorus KOIL KWCR KWK WBZ WENR WGAR WHAM WJZ

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 WJAS

WKRC WMAL WOWO WSPD B — Rin Tin Tin Thriller KDKA KOIL KWK WBZ WBZA WHAM WJZ WLS WLW WGAR

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 - School Room Frolics KFYR KGHL KGIR KOA KSD KSL KSTP KTBS KTHS KVOO WAPI WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI

WGY WIAX WFBR WFI WFLA WGY WIBA WIOD WIS WJAR WIBA WIOD WIS WMC WMC WOO WOW WPTF WRC WOAI WOC WOW WPTF WRC WSAI WSB WSM WSMB WRVA 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 WKRC WMAL WNAC WSPD

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 KSTP WTAR KWCR KWK KYW WAPI WBAL WBAP WBZ WBZA WEBC WFLA 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 C - Music That Satisfies, See Monday

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 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. 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 B -- 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

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

### 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 - Walderf-Asteria 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

C— yaugin Beleatin, See montaly
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
WHEC WHP WISN WJAS WKBH
WKBW WLBW WNAX WNOX
WOKO WORC WOWO WOAM WREC WOKO WORC WOWO WOAM 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 B — Ames'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C — Isham Jones, See Monday - Ward Wilson, See Wednesday

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 C — Connie Boswell, See Wednesday - The Goldbergs, See Monday

Billy Jones & Ernie Hare, See Mon.

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

CKGW KOA KPRC KSD KSL KSTP KTBS KTHS KVOO KYW WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFAA WFBR WGY WHO WJAR WKY WLIT WOAI WOC WOW WRC WSAI WTAG WTAM
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 KFJK KFPY KGB KHJ KLRA KMBC KMOX KOH KSCJ KTRH KVI KVOR WABC WBIG WBRC WBT WAAH WAAA WAAA WAAA WAAA

WCAH WCAO WCAU WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBM WFEA WGL WGR WHAS

### Friday—Continued

WHEC WHP WISN WJAS WKBH WMAL WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSPD WTAQ WTAR WTOC WWVA B—Candle Lightin' Time KDKA KOIL KTBS WBAL WBZ WBZA WCKY WFAA WFLA WGAR WHAM WIOD WJAX WJR WJZ WKY WMAQ WMC WOAI WREN WSR WSR 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 WNAC WOKO WSPD

- 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 - 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 WAS TOO TO TO THE WORLD WE WENT WENT WENT WENT WO WOY WHO WSAI WTAG WAM WWJ

- Armour Program B — Armour Program
KDKA KFI KGO KGW KHQ KOA
KOIL KOMO KPRC KSL KSTP
KWK WAPI WBAL WBZ WBZA
WEBC WFAA WGAR WHAM WIOD
WIAX WIR WIZ WKY WMAQ
WMC WOAI WREN WRVA WSB 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 KFJF KFRC KIJ KIRA KIJA KIJA KMOX KOH KOL KRLD KSCJ KTRH KVI KVOR WABC WBCM WBIG WBRC WBT WCAH WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WEBLA WCGI WCST WHAS 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 Orchestra KFI KFYR KGO KGW KHQ KOA комо

KOMO KSD KSL KSTP WBEN
WCAE WCSH WDAF WDAY WEAF
WEBC WEEI WFBR WGY WHO
WJAR WLIT WOC WOW WRC WRVA WSAI WTAG WTAM WTIC WWJ WTMJ

B — Phillips Lord, See Monday

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 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 WKBH WKBW WLBW WMAL 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 KSTP KTAR KTBS WAPI WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WENR WFAA WFBR WFLA WHO WIBA WIOD WJAX WJDX WKY WGY WIS WLIT WJAR WOC WOW WRC WSB WSM WSMB WRC WRVA WMC WSAI 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 B — Jane Froman and Orch., See Mon.

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

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

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — 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
CKOK KDYL KFAB KFH KFJF
KFPY KFRC KLRA KLZ KMBC
KMOX KOH KOL KSCJ KTRH
KTSA WABC WACO WBCM WBRC
WBT WCAH WCAU WDAE WDBJ WDBO WDOD WDSU WEAN WFBM WBG WBGY WHAS WHEC WHP
WIBW WISN WKEW WLBW WMBD
WNAC WNAX WNOX WOOX 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

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-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 B — 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 C — Ozzie Nelson and Orchestra C-Ozzie Nelson and utchestfa CFRB CKOK KDYL KFAB KFBK KFH KFJF KFPY KFRC KGB KHJ KLRA KLZ KMOX KOH KOL KSCJ KTRH KTSA KVI KVOR WABC KTRH KTSA KVI KVOR KTRH KTSA KVI KVOR WABC
WACO WBBM WBCG WBRC
WBT WCAH WCAO WCCO WDAE
WDBJ WDBO WDOD WDRC WDSJ
WEAN WFAN WFBL WFEA WBU
WHAN WHEC WHP WIBW WIP WIAS WILE WIF WIBW WIP WISN WJAS WKBH WKBW WLBW 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 KFBK 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
WKBH WNAC WNAX WNOX WKOK
WORC WOWO WOAM WREC WSFA WORC WOWO WQAM WREC WSFA
WSPD WTAQ WTAR WTOC WWVA
B — Frankie Masters and Orchestra
KOIL KWCR WBAL WCKY WIOD WJZ

W5L

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

V — Keenan and Phillips
CFRB CKOK KFAB KFBK KFH
KFJF KFFY KFRC KGB KHJ KLZ
KMBC KOL KRLD KSCJ KTRH
KTSA KVI KVOR WABC WACO
WBBM WBCM WBIG WBRC WBT
WCAO WCAU WDAE WDBJ WDBO
WDOD WDSU WEAN WFBL WFEA
WGI. WGR WGST WHAS WHP WDOD WDSU WEAN WFBL WFEA
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 WJZ WREN 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 KFPY KFRC
KGB KHJ KLZ KMBC KOH KOL

KGB KHJ KLZ KMBC KOH KÖL KRLD KSCJ KTRH KVI KVOR WABC 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 WSFA WSPD WTAQ WTAR WTOC WWVA R—The Goldberg. Sea 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

C—Edwin C. Hil, 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

KDKA KOIL KWCR WCKY WGAR WHAM WJR WJZ WLS WREN

WHAM WJR WJZ WISS WAEN
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 WGAU WCCO
WBIG WBRC WCAO WCAU WCCO
WDBJ WDBO WDDOD WDSU WEAN
WFBL WFEA WGR WGST WHP
WISS WREPH WMAI WNAC WNAY WFBL WFEA WGR WGST WHP WJAS WKBH WMAL WNAC WNAX WNOX WOKO WORC WOWO WQAM WSFA WSPD WTAQ WTAR WTOC

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

CFRB CKOK KDYL KFBK KFH
KFJF KFPY KFRC KGB KHJ KLRA
KLZ KMBC KMÓX KOH KOL
KRLD KSCJ KTRH KVI KVOR
WABC WACO WBCM WBIG WBRC
WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WFEA WGL WGR WGST WHAS WHEC WHK WGR WGST WHAS WHEC WHK WHP WISN WJAS WKBH WLBW WMAL WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSFA WTAQ WTAR WTOC WWVA

R — K-7, Drama KFI KFYR KGO KGW KOA KOMO KSD KSL KSTP KTBS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFI WFLA WGY WHO WIBA WIOD WJAR WJAX WKY WOC WOW WRC WSAI WSM WTAG WTAM WWJ WWNC

VJ WWNC

- Dance with Countess d'Orsay

KDKA KWK WBAL CFCF CKGW KDKA KWK WBAL WBZ WBZA WGAR WHAM WJR WJZ WMAQ WREN

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
KVI KVOR WABC WACO WBCH
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
WKBH WKBW WIAW WMAL WKBH WKBW WLBW WMAL WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WTAQ WTAR WTOC WWVA

R — National Light Opera CFCF CKGW WBEN WCAE WCSH CFCF CKGW WDAF WEAR CKGW WBEN WGAE WGOLL WEAF WEEI WFBR WFI WGY WHO WIOD WJAR WMAQ WMC WCC WRC WSB WSM WTAG WTAM WFLA WKY WSAI WSB WWJ WWNC

B - Gus Van, Pickens Sisters KDKA KOIL KPRC KWCR KWK WAPI WBAL WBAP WBZ WBZA WGAR WHAM WJDX WJR WJZ WLS WMC WREN WSB WSM WSMB 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 **KMBC** KMOX KOH KOI 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 WHR WHP WIBW WISN WJAS
WKBW WLBW WMAL WNAC WAAX
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 - Lucky Strike, See Tuesday

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

- Public Affairs Institute KDYL KFBK KFH KFJF KFPY KFRC KGB KHJ KLRA KLZ KMBC KFRC 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 WFBM WFEA
WGST WHAS WHEC WHP WIBW WJAS WKBH WKBW WLBW WMAL WNAX WNOX WOKO WORC WOWO WPG WQAM WREC WSFA WSPD 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 KFBK

CFRB CKOK KDYL KFAB KFBK
KFH KFJF KFPY 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 WODY WORG WAS WNOX WODX WOKO WORC WOAM WREC WSPD WTAR WTOC WWVA

R - Paul Whiteman and Orchestra KSD WCAE WCKY WEAF WEEL 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

CHOK 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
WCAO WCAU WCCO WDAE WDBJ
WDBO WDOD WDSU WEAN WFBL WFBM WGL WGST WHAS WHEC WHK WHP WIBW WISN WKBW WLBW WMAL WMBD WNAC WNAX WNOX WODX WOKO WQAM WREC WSPD WTAR WTOC WWVA

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

KDKA KFI KFSD KGO KHQ KOA

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

GFRB KDYL KFAB KFBK KFJF

KFRC KLRA KMBC KMOX KOL

KSCJ KTRH KVOR WAAB WABC

WBRC WCAH WCCO WDAE WDBJ

WDBO WDOD WDRC WDSU WFBL

WFFA WGR WGST WHAS WHP

WIBW WJAS WKBH WKBN WMAL

WMBD WNAX WNOX WODX

WOKO WORC WOWO WPG WQAM

WREC WTAQ WTAR WTOC WWVA

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

C - 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 WKBN WMAL WMBD WKBH WKBN WMAL WMBD WNAX WNOX WODX WOKO WORC WPG WQAM WREC WSFA WTAQ WTAR WWVA

R — Silver Flute WBEN WCKY WDAF WEAF WFI 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

ED-12:45 p.m., E-11:45, C-10:45, M-9:45
C—Emery Deutsch and Orchestra
CFRB CKOK KDYL KFAB KFBK
KFJF KFRC KHJ KLRA KMBC
KOL KRLD KSCJ KTRH KVOR
WAAB WABC WBBM WBCM WBRC
WCAH WCAU WCOO WDAE WDBJ
WDBO WDOD WDSU WFBL WGR
WGST WHAS WHEC WIBW WISN
WJAS WKBH WKBN WLBW WMAL
WMBD WODX WOKO WORC WOW
WFG 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 K—Garcia's Marimba Band
KEX KFYR KGA KJR KOA KPO
KSL KTAR KTBS WBEN WCAE
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—FOUR CHOMEN
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
WCD WCST WHAS WHEC WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WKBN WLBW WMAL WMBD 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 KOMO KSTP KTBS KTBS WBEN WCAE WDAF WDAY WEAF WEEI WFAA WFBR WFI WFLA WGF WJAR WLIT WMAQ WOAI WRC WSAI WSM WSMB WTAG WTAM

WWJ WWNC

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### 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 KFAB KFBK KFJF KMBC KMOX KOL KSCJ KFJF KMBC KMOX KOL KSCJ
KTRH KVOR WABC WBBM WBCM
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDOD WDRC
WDSU WEAN WFBL WFBM WFEA
WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WKBN WLBW WMAL WNAC WNOX
WODX WOKO 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 WEAN WFEL WFEA WGL WGR WFBL WFEA WGL WGR WHAS WHEC WHK WHP WIBW WISN WJAS WKBH WLBW WMAL WNAC WNOX WODX WOKO WORC WOAM WSPD WTAQ WTAR WTOC WWVA

R—Moonshine and Honeysuckle
KSD WCAE WCKY WCSH WDAF
WEAF WEEI WFBR WGY WHO
WJAR WLIT WMAQ WOC
WTAG WTAG WTAM WWJ

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

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

ED-3:00 p.m., E-2:00, U-1:00, M-12:00
C—Symphonic Hour
CFRB CKOK KDYL, KFAB KFH
KFJF KFRC KHJ KLRA KMBC
KMOX KOL KSCJ KTRH KVOR
WABC WBCM WBIG WBRC WBT
WCAH WCAO WCAU WCCO WDAE
WDBJ WDBO. WDOD WDRC WDSU
WBAN WFBL WFBM WFEA WGL
WCCD WCST WHAS WHEC WHK WEAN WEBL WFBM WFEA WGL
WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WKBN WMAL WMBD WNAC WNOX
WODX WOKO WORC WQAM WREC
WTAQ WTAR WTOC WWVA

R - Gus Arnheim and Orchestra K—Gus Arnheim and Orchestra KFI KFPR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTBS KTHS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WGY WHO WIBA WJAR WKY WJIT 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 R — National Sunday Forum
KFYR KFHL KGIR KGO KGW
KHQ KOA KPRC KSL KSTP KTAR
KTBS KVOO KYW WBEN WCAE
WCSH WDAF WEAF WEBC WEEI
WFAA WFBR WFLA WGY WIBA
WIOD WIS WJAR WJAX WJDX
WKY WOAI WOW WPTF WRC

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 C-Cathedral Hour
CFRB CKOK KDYL KFAB KFBK
KFH KFJF KFRC KHJ KLRA
KMBC KMOX KOL KSCJ KTRH
KVOR WABC WBCM WBIG WBRC RVOR 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 WKBN WMAL WMBD WNAC WNOX WODX WOKO WORC WOWO WOAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

R — Iodent Program
KFI KFSD KFYR KGHL KGIR
KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTBS KTHS KVOO KYW WAPI WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WEEL WFAA WFDR 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

B - Temple of Song KDKA KOIL KWCR WBAL WBZ WBZA WCKY WFLA WGAR WHAM WJR WJZ WMAQ WREN

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

BD-4:30 p.m., E-3:30, C-2:00, 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 WEBC WENR WFAA WFLA WGAR WIBA WIOD WIS WJDX WJR WKY WMC WOAI WPTF 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
CFRB 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 WFBM WFEA
WGR WGST WHAS WHEC WHK
WHP WIBW WISN WJAS WKBH
WKBN WLBW WMBD WNOX WNOX WHP WIBW WISN WIAS 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 WIBA WIOD WIS WJAX WJDX WJZ WMC WOAI WPTF WREN WRVA WSB WSMB WWNC

WRVA WSAI WSB WSM WSMB WTAG WTAM WWJ WWNC
B—48th Highlanders Military Band CKGW KDKA KOIL KWCR WBAL WSAF WFBR WFBR WFI WGY WJAR WTAG WRC

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

CFRB CKOK KDYL KFBK KFH

KFJF KFRC KHJ KLRA KMBC

KMOX KOL KRLD KSCJ KVOR

WABC WBCM WBIG WBRC WBT

WOAO WCAU WCCO WDAE WDBJ

WDBO WDOD WDRC WEAN WFBL

WFEM WFEA WGR WGST WHAS

WHEC WHP WIBW WISN WJAS

WKBH WKBN WLBW WNAC WNOX

WODX WOKO WORC WQAM WREC

WSFA WSPD WTAO WTAR WSFA WSPD WTAQ WTAR WTOC WWVA

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

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 KFJF KFRC KHJ I KOL KRLD KSCJ KFJF KFRC KHJ KLRA KMBC
KOL KRLD KSCJ KVOR WABC
WBCM WBIG WBRC WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDOD WDRC WEAN WFBL WJBU WJOD 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-Ballad Hour

CFRB CKOK KDYL KFAB KFBK

KFJF KFRC KHJ KLRA KMOX

KOL KRLD KSCJ KVOR WABC

WBCM WBIG WBRC WBT WCAH

WCAO WCAU WCCO WDAE WDBJ

WDOD WDRC WDSU WEAN WFBL

WEEL WEEL WOOD WFBM WFEA WGL WGR WGST WHAS WHEC WHK WHP WIBW WHAS WJAS WKBH WKBN WLBW WMAL WNAC WNOX WODX WOKO WORC WPG WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

R - Catholic Hour R—Cathole Hour
KEX KFSD KFYR KGA KGHL
KGIR KJR KOA KPO KPRC KSTP
KVOO WAPI WBAP WBEN WCASH
WCSH WDAF WEAF WEBC WEEI
WENR WFBR WFLA WGY WHO
WIBA WIOD WJAR WJAX WJDX
WKY WLIT WMC WOAI WOC
WOW WRC WRVA WSAI WSM 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

CKOK KMBC KMOX KRLD WAAB WABC WADC WBBM WCAO WDSU WFBM WGR WGST WHK WJAS WKRC WMAL

R — Sweetheart Days KEX KFSD KGA KJR KPO KTAR

### Sunday—Continued

WBEN WCAE WEAF WEEI WFBR WFLA WGY WIOD WIS WJAR WFLA WGY WIOD WIS WJAR WJAX WLIT WRVA WTAG WTAM

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

C—Four Eton Boys
CKOK KDYL KFAB KFBK KFH
KFJF 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 WGR
WGST WHAS WHEC WHP WIBW
WID WISN WIAS WKBH WKBN 

WIOU WWYS.

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

B. Beleva Sisters B — Pickens Sisters

CKGW KOIL WBAL WCKY WHAM WJZ WMAQ WREN

WIZ WMAQ WREN

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

C- Chicage Knights

CKOK KDYL KFAB KFH KFJF

KFRC KHJ KMBC KMOX KOL

KRLD KSCJ KTRH KVOR WABC

WBCM WBIG WBRC WBT WCAH

WCAU WCCO WDAE WDBJ WDBO

WDOD WDRC WDBU WEAN WFBL

WFBM WFEA WGL WGR WGST

WHAS WHEC WHP WIBW WISN

WJAS WKBH WKBN WLBW WMAS

WOAK WOAX WOOX WODX

WORC WQAM WREC WSFA WSPD

WTAQ WTAR WTOC WWVA

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

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 R — Orchestral Gems KSD WBEN WCAE WDAF WEAF WFBR WGY WJAR WLS WOW WSAI WTAG WTIC WWJ

B—Commodores, Male Quartet
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 WREN
WRVA WSB WSM WWNC

ED-7:45 p.m., E-6:45, C-5:45, M-4:45 C-- Theo Karle, Tenor CKOK KDYL KFAB KFH KFJF KHJ KMBC KMOX KRLD KSCJ KTRH KVOR WABC WBCM WBIG WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WFBL WFBM WFEA WGL WGR WGST WHK WHP WIBW WHAS WISN WHEC WHEC WHK WHP WIBW WISN WJAS WKBH WLBW WMAL WNAC WNAX WNOX WODX WOKO WORC WPG WQAM WREC WSFA WSPD WTAQ WTAR WTOC WWVA

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — William Vincent Hall KFH KFJF KMOX KO WARC CKOK KDYL KFAB KFH CKOK KDYL KFAD AFT KFOK 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 WCD WCAST WHAS WGL WGR WGST WHAS WHEC WHP WIBW WISN WJAS WKBH

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

– Chase and Sanborn Hour

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

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 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 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 WIBA WIOD WJAR WJDX WMC WOAI WOC WOW WSAI WSB WSM WSMB WHO WKY WSMB WRC 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 K — Sheather Luctume Review CKGW KSD WBEN WCAE WCSH WDAF WEAF WEEI WENR WFBR WFI WGY WHO WJAR WOC WOW WRC WSAI WTAG WTAM WTIC

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 WGST 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

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

KGIR KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP KTAR KTBS KYW WAPI WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI 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

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

CFRB CKOK KDYL KFAB KFBK 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 WHAS WHK WHP WIBW WIP WISN WIAS WKBN WLBW WMAL WMBD WNOX WOKO WPG WQAM WREC WSFA WSPD WTAR WTOC

B — Malik Mystery Drama 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 WSAL WSM WSMB WTAM WWJ WWNC

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 - Ozzie Nelson and Orchestra C — Ozzie Nelson and Orchestra
CFRB CKOK KLRA WABC WBCM
WBRC WBT WCAU WCCO WDAE
WDBJ WDBO WDOD WDRC WDSU
WEAN WFBL WGL WGR WHEC
WHP WISN WKBN WLBW WMAL
WNAC WNOX WOKO WQAM WSFA
WSPD WTAR WTOC

WSPD WTAR WTOC C — Pennzoil Parade KDYL KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KVI KWG

- 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 WWJ

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

CKOK KFAB KFBK KFH KFJF KLRA KSCJ KTRH WABC WBCM WBRC WBT WCAH WCAU WCCO WDAE WDBJ WDBO WDOD WDSU WFBM WGL WGR WHAS WHK WHP WIBW WISN WEAN WHEC 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 WDAY WENR WFLA WGAR WHAM WIOD WJR WJZ WKY WLW WMC WREN WSB WWNC

# CLASSIFIED INDEX to CHAIN PROGRAMS

Time in Eastern Daylight Standard

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 Balial Holm, 200 p.m., Islanday, C.
Howard Barlow Symphony, 11:00 p.m., daily, ex. Saturda and Sunday, C.
Cities Service, 8:00 p.m., Friday, R.
Gauchos, 11:00 p.m., Sunday, C.
Great Composers, 1:30 p.m., Sunday, R.
Andre Kostelaneta, 8:30 p.m., Friday, C.
Kremlin Art Quintet, 5:15 p.m., Sunday, R.
L'Heure Exquise, 10:15 p.m., Sunday, R.
Walter Logan, 5:30 p.m., Sunday, R.
Mobiloil, 9:30 p.m., Sunday, R.
Mobiloil, 9:30 p.m., Wednesday, R.
Modol Oriental, 11:30 p.m., Sunday, R.
New York Orchestra, 8:15 p.m., Sunday, R.
Orchestral Gems, 7:30 p.m., Sunday, R.
Pastels, String Quartet, 4:45 p.m., Sunday, R.
Cesare Sodero, 11:15 p.m., daily, ex. Sun, and Mon., B.
Sweetheart Days, 6:30 p.m., Sunday, R.
Sweetheart Days, 6:30 p.m., Sunday, R.
Symphonic Hour, 3:00 p.m., Sunday, R.
G. Washington, 9:30 p.m., Thursday, R.

DANCE RANIES

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. Island Boat Club, 9:00 p.m., Wednesday, B. Island Bones, 7:15 p.m., Mon. and Fri.; 10:30 p.m., Tues., Wed., Thurs.; 9:30 p.m., Sat., C. Baron Lee, 11:45 p.m., Monday, R; 12 mid., Wednesday and Friday, B. Baron Lee, 11:45 p.m., Monday, R; 12 mid., Wednesday 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 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., Sat., 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.
Andy Sanella, 5:30 p.m., Monday and Saturday, R.
Noble Sissle, 12:00 mid., Mon., Wed. and Sat., C.
Walter Smith, 8:30 p.m., Tuesday, R.
Harold Stern, 12:00 mid., Thursday, C.
Walter Smith, 8:30 p.m., Tuesday, R.
Harold Stern, 12:00 mid., Tues.; 11:30 p.m., Sat., C.
William Stoses, 12:00 mid., Tues, Thurs, 12:05 a.m., Tues.;
10:00 p.m., Fri.; 11:30 p.m., Sat., R; 6:00 p.m., Sun., B. and Friday, B.

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

#### DIALOG-Continued

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.
Opry House, 6:30 p.m., Saturday, R.
Ray Perkins, 7:30 p.m., Tuesday and Thursday, R.
Ray Perkins, 7:30 p.m., Sun.; 6:15 p.m., Mon., C.
Stebbins Boys, 7:30 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 Jesters, 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

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. W. Sat.and Sun., B. Love Story Hour, 9:30 p.m., Thursday, C. Malik Mystery, 11:00 p.m., slunday, 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. Rin Tin Tin, 8:30 p.m., Thursday, B. RKO Mystery, 10:30 p.m., Friday, R. Roses and Drums, 6:30 p.m., Friday, R. Roses and Drums, 6:30 p.m., Tesday, B. Soconyland Sketches, 8:00 p.m., Monday, R. Thompkins Corner, 9:30 p.m., Thursday, B.

#### PIANO AND ORGAN

Fray and Braggiotti, 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. Keenan 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.
Major Bowes, 11:30 a.m., Sunday, R.
Carnation Contented, 8:00 p.m., Monday, B.
Chase and Sanborn, 8:00 p.m., Sunday, R.
Clicquot Club, 9:00 p.m., Friday, R.
Clicquot Club, 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., Saturday, B.
Enna Jettick Melodies, 9:00 p.m. Sunday, R.
Jay C. Flippen, 9:00 p.m., Tuess, 9:45 p.m., Fri., C.
Jack Frost Melody, 8:30 p.m., Monday, R.
Gerardine Program, 8:30 p.m., Thursday, C.
Goodyear Program, 9:00 p.m., Wednesday, R.
Harlem Fantasy, 8:00 p.m., Sturday, R.
Household Program, 9:00 p.m., Tuesday, B.
Kodak Week-End, 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
Fri R. A & P Gypsies, 9:00 p.m., Monday, R 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., Friday, R.
Road to Romany, 5:30 p.m., Sunday, B.
School Room Frolics, 9:00 p.m., Thursday, R.
Sheaffer Review 9:45 p.m., Sunday, R.
Silver Flute, 12:30 p.m., Sunday, R.
Silver Flute, 12:30 p.m., Sunday, R.
Ed Wynn, 9:30 p.m., Tuesday, R.
Yeast Foamers, 2:30 p.m., Sunday, B.

#### **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. 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. Mills Bros., 9:15 p.m., Monday and Thursday, C. Regimentalists, 8:00 p.m., Thursday, B. Song Fellows, 10:15 p.m., Friday, B.

#### RELIGIOUS

Cathedral Hour, 4:00 p.m., Sunday, C. Catholic Hour, 6:00 p.m., Sunday, R. Chicago Knights, 7:15 p.m., Sunday, C. 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 Song of Cluved, 6:20 p.m. (Threaden, R. Old Song of Cluved, 6:20 p.m.) 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., Wednesday 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 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., Sun, R; 10:45 p.m., daily. ex. Sat and Sun., B. 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. 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.
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.; 9:00 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., Sunday, B.
Three Keys, 10:45 p.m., Sun.; 10:30 p.m., Thurs., Fri. and Sat., 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

#### 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. 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.

b Verifies only occasionally.

Does not verify.

Verification 25c; reply card 10c. Sends Ekko stamp for 10c. Sends Ekko stamp for 5c. d

Sends Ekko stamp for postage Sends own station stamp for 10c.

Sends own station stamp for 5c.

Sends own station stamp for postage.

Has no stamps.

Failed to reply.

#### Fourth Column Symbols

These stations are synchronized. National "Blue" Network.

Columbia network.

D Daytime only.
Dn Daytime with occasional evening hours.
E Trans-Canada network

Canadian National Railways network. All Canadian networks. Yankee network.

Orange and gold networks.

M

Mexican networks, Canadian Paoific Ry, network (Dominion) Canadian Radio Corp. network, National "Red" and "Blue" networks.

Has construction permit only.

Great Lakes network. National "Red" network.

Sunday only. Don Lee System.

Dixie network. Maritime Broadcasting network. Curtis-Indiana network.

Has permit to increase power. Has permit to change location.

Z Has permit to change frequency. a-b-c. Small letters show stations using same

transmitter. 1-2-3. Figures denote stations sharing time.

No information.

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### FOR KEY TO SYMBOLS SEE DACE 45

	FOR	KEY TO SYMBOLS SE	EE PAGE 45
540 kilocycl	les 555	6.6 meters	
CKOK ae 5000	CG	Windsor, Ont.	Essex Broadcasters, Ltd.
550 kilocycl	es 545	.1 meters	`
KFDY ae 500 KFUO ae 500 KFYR ah 1000 KOAC ak 1000 KSD ak 500 WDEV ae 500 WGR ae 1000 WKRC ak 1000	) 2(1) 1N(2.5) 2R 0 D 0 C	Brookings, S. D. St. Louis, Mo. Bismarck, No. Dakota Corvallis, Ore. St. Louis, Mo. Waterbury, Vt. Buffalo, N. Y. Cincinnati, Ohio	South Dakota State College Evangelical Lutheran Church Meyer Broadcasting Co. Oregon State Agricultural College Pulitzer Publishing Co. Harry G. Whitehill Buffalo Broadcasting Corp. WKRC, Inc., Hotel Alms
560 kilocyc	les 535	5.4 meters	
KFDM ak 500 KLZ ae 1000 KTAB ae 1000 WFI ae 500 WLIT z 500 WPCC ak 500 WQAM ae 1000	) C´ ) IR ) (1.5)a ) IR ) C(2) ) Sa	Beaumont, Texas Denver, Colo. San Francisco, Calif. Philadelphia, Pa. Chicago, III. Philadelphia, Pa. Knoxville, Tenn. Chicago, III. Miami, Fla.	Sabine Broadcasting Co., Inc. Reynolds Radio Co., Inc. Associated Broadcasters, Inc. WFI Broadcasting Co. Nelson Bros. Bond & Mtg. Co. Lit Bros. Store So. Carolina Broadcasting Co., Inc. North Shore Congregational Church Miami Broadcasting Co.
570 kilocyc	les 526	5.0 meters	
KGKO z 25 KMTR z 50 KVI ae 50 TGW z 5 WEAO ac 75 WKBN ak 50 WMCA ak 50 WNAX ac 100 WNYC ak 50 WSYR ak 25 WWNC ac 100	0 C C C C C C C C C C C C C C C C C C C	Wichita Falls, Texas Hollywood, Calif. Tacoma, Wash. Guatamala Columbus, Ohio Youngstown, Ohio New York, N. Y. Yankton, S. D. New York, N. Y. Syracuse, N. Y. Asheville, N. C.	Wichita Falls Broadcasting Co. KMTR Radio Corp. Puget Sound Broadcasting Co. Ohio State University WKBN Broadcasting Corp. Knickerbocker Broadcasting Co., Inc. House of Gurney, Inc. Dept. of Plant & Structures Clive B. Meredith Estate (WMAC) Citizens Broadcasting Co., Inc.
580 kilocyc	les 516	5.9 meters	
CFCL agj 50 CFCY ae 50 CHMA z 25 CKCL agj 50 CKUA ak 50 KMJ ak 50 KMJ ak 50 WDBO ae 25 WIBW ae 100 WOBU ak 25 WSAZ ak 25 WTAG ae 25	0 E 0 4S 0 a 0 AF 0 CT 0 2(1) 0 CU 0 C2 0 1(.5)	Toronto, Ont. Charlottetown, P. E. I Edmonton, Alta. Toronto, Ont. Edmonton, Alta. Fresno, Calif. Manhattan, Kans. Orlando, Fla. Topeka, Kans. Charleston, W. Va. Huntington, W. Va. Worcester, Mass.	The Dominion Battery Co. I. Island Radio Broadcasting Co., Ltd. Christian & Missionary Alliance The Dominion Battery Co. University of Alberta McClatchy Radio Stations (Fresno Bee) State Agricultural College Orlando Broadcasting Co., Inc. Capper Publications WOBU, Inc., Ruffner Hotel WSAZ, Inc. Worcester Telegram Pub. Co., Inc.
590 kilocyc	les 50	8.2 meters	
CJGC ae 500 KHQ ak 100 WCAJ ae 50 WEEI ak 100 WKZO ae 100 WOW aeh 100	0 N(2) 0 1 0 R 0 D	London, Ont. Spokane, Wash. Lincoln, Neb. Boston, Mass. Kalamazoo, Mich. Omaha, Neb.	Free Press Printing Co., Ltd. Louis Wasmer, Inc. Nebraska Wesleyan University Edison Electric Illuminating Co. WKZO, Inc., Burdick Hotel Woodmen of the World

		HADE	л Бі і	REQUERCIES AN	DIAL NUMBERS	
600 1	kiloc	ycle	s 499	.7 meters		KCYS
CNRO KFSD WCAC WCAO WICC WJED WMT WREC	ak ah ak ae ae ak z	500 500 250 250 250 250 250 500 500	F N(1) 2 C 2H(.5) PD C C(1)	Ottawa, Ont. San Diego, Calif. Storrs, Conn. Baltimore, Md. Bridgeport, Conn. Indianapolis, Ind. Waterloo, Iowa Memphis, Tenn.	Canadian National Railways Airfan Radio Corp. Connecticut Agricultural College Monumental Radio Co. Bridgeport Bdctg. Station, Inc. 31st Street Baptist Church Waterloo Broadcasting Co. WREC, Inc.	670  MTRS 447.  DIAL
610 1				.5 meters		] [
KFRC VPN	ae z	1000 500	С	San Francisco, Calif. Nassau, Bahama	Don Lee, Inc. Development Board	
WDAF WIP WJAY XETR	ae ak z z	1000 500 500 2500	R C D	Kansas City, Mo. Philadelphia, Pa. Cleveland, Ohio Mexico City, Mexico	Development Board - Kansas City Star Co. WIP-WFAN Broadcasting Co. Cleveland Radio Broadcasting Corp. Cia. Difusora Mexicana S. A.	
620 1	kiloc	ycle	s 483	3.6 meters		
KGW KTAR WFLA WLBZ WSUN WTMJ	ae ae z ae ae	1000 500 1000 500 1000 1000	N NJ(1) Na(2.5) C Na(2.5) N(2.5)	Portland, Ore. Phoenix, Ariz. Clearwater, Fla. Bangor, Maine St. Petersburg, Fla. Milwaukee, Wis.	Oregonian Publishing Co. KTAR Broadcasting Co. Florida West Coast Bdct. Co., Inc. Maine Broadcasting Co., Inc. Florida West Coast Bdctg. Co., Inc. Journal Company	
630 1	kiloo	eycle	es 475	5.9 meters		]
CFCT CJGX CKOC CKTB CMCJ CMQ CNRA HIX KFRU KGFX WGBF WMAL WOS XETF	ae ae aej z z ae ah z ae ae ae	500 500 1000 1000 250 250 700 1000 500 200 500 250 500	G FL 635aG 635aL  F 1 D W C(.5)	Victoria, B. C. Yorkton, Sask. Hamilton, Ont. St. Catharines, Ont. Havana, Cuba Havana, Cuba Moncton, N. B. Santo Domingo, D. R. Columbia, Mo. Pierre, S. D. Evansville, Ind. Washington, D. C. Jefferson City, Mo. Veracruz., Ver., Mexico	Victoria Broadcasting Assn. Winnipeg Grain Exchange Wentworth Radio Bdctg. Co., Ltd. Wentworth Radio Bdctg. Co., Ltd. Rafael Rodriquez Jose Fernandez Canadian National Railways The Dominican Government Stephens College Dana McNeil Evansville On the Air, Inc. M. A. Leese Radio Corp., Inc. Missouri State Marketing Bureau o Manuel Angel Fernandez	CUT OUT ON DOTTED LINES
640 1	kiloc	ycle	s 468	3.5 meters		7 🖁
CHRC CKCI CKCR KFI WAIU WOI	ak ck ak	100 100 100 50000 500 500	645aG 645a 645G N1 1 D	Quebec, Que. Quebec, Que. Waterloo, Ont. Los Angeles, Calif. Columbus, Ohio Ames, Iowa	CHRC, Ltd., Victoria Hotel Le Soleil, Ltd. Mitchell & Liddle Earle C. Anthony, Inc. American Insurance Union State College of Agriculture	LINES
650 1	kiloc	ycle	s 461	.3 meters		
KPCB WSM	ae aej	100 <b>5</b> 0000	Ñ	Seattle, Wash. Nashville, Tenn.	Queen City Broadcasting Co. National Life & Accident Ins. Co.	
660 1	kiloc	ycle	s' <b>45</b> 4	1.3 meters		7
CHWK CJRM CJRW CMAF CMCO RUS WAAW WEAF	ak z z z z z z ak	100 500 1000 500 250 500 500 5000	665 665 665  664 D R	Chilliwack, B. C. Moose Jaw, Sask. Fleming, Sask. Havana, Cuba Havana, Cuba Salvador Omaha, Neb. New York City	Chilliwack Broadcasting Co., Ltd. Jas. Richardson & Sons, Ltd. Jas. Richardson & Sons, Ltd. Jas. Richardson & Sons, Ltd. International Broadcasting Co. J. L. Stowers Republic of El Salvador Omaha Grain Exchange National Broadcasting Co., Inc.	•
670 1	kiloc	ycle	s 447	7.5 meters		] [
WMAQ	ae	5000	N	Chicago, Ill.	WMAQ, Inc. (NBC Lessees)	
				[ 47 ]		

680 kilocycle	es 440	).9 meters $\Box$	
KFEQ ae 2500 KPO ak 5000 WPTF ae 1000 XFG z 2000	D N N Dn 683.3	St. Joseph, Mo. San Francisco, Calif. Raleigh, N. C. Mexico, Mexico	Scroggin & Co. Bank National Broadcasting Co., Inc. Durham Life Insurance Co. Sria. de Guerra y Marina
690 kilocycle	s 434	.5 meters	
CFAC ak 500 CFRB ae 10000 CJCJ ak 500 NAA z 1000 VAS z 2000 VET ck 500 VCX z 100	1G CM 1LE 685	Calgary, Alta. Toronto, Ont. Calgary, Alta. Arlington, Va. Glace Bay, N. S. Monterrey, Mexico Halifax, N. S.	Calgary Herald, Ltd. Rogers-Majestic Corp., Ltd. Albertan Publishing Co., Ltd. U. S. Navy Canadian Marconi Co. Cadena Radio Difusora Mexicana S. A. Sambro Lightship
700 kilocycle	s 428	3.3 meters	
WLW ae 50000	В	Cincinnati, Ohio	The Crosley Radio Corporation
710 kilocycle	es 422	2.3 meters	
KMPC         z         500           WOR         ak         5000           XEN         agj         1000	Dn X 711K	Beverly Hills, Calif. Newark, N. J. Mexico City	R. S. MacMillan Bamberger's Broadcasting Service, Inc. Cerveceria Modelo S. A.
720 kilocycle	s 416	.4 meters	
WGN ak 25000	С	Chicago, Ill.	WGN, Inc., Drake Hotel
730 kilocycle	s 410	.7 meters	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
CHLS ak 100 CHYC z 5000 CKAC ak 5000 CKCD z 100 CKCC ak 50 CKMO z 100 CKWX ak 100 CMK ach 5000 XEF-XER z 75000	1b Sa CaM 1b 1 1 1 1L,	Vancouver, B. C. Montreal, Que. Montreal, Que. Vancouver, B. C. Vancouver, B. C. Vancouver, B. C. Vancouver, B. C. Havana, Cuba Villa Acuna, Mexico	W. G. Hassell (Province Bldg.) Northern Electric Co., Ltd. La Presse Publishing Co., Ltd. Vancouver Daily Province United Church of Canada Sprott-Shaw Radio Co. Western Broadcasting Co., Ltd. National Broadcasting Co. of Cuba Villa Acuna Broadcasting Co., Inc.
740 kilocycle	s 405	.2 meters	
CJCA ae 500 KMMJ bk 1000 WSB aeh 5000 WHEB z 250	745EL Dn N D	Edmonton, Alberta Clay Center, Neb. Atlanta, Ga. Portsmouth, N. H.	Edmonton Journal, Ltd. M. M. Johnson Co. (R/C Lincoln) Atlanta Journal, Biltmore Hotel Granite State Broadcasting Co.
750 kilocycle	s 399	.8 meters	
KGU aj 2500 VOWR ak 500 WJR ak 10000 XEQ aeh 5000	NX B	Honolulu, Hawaii St. John's, N. F. Detroit, Mich. Juarez, Chih., Mexico	Advertiser Publishing Co. Wesley United Church WJR, The Goodwill Station, Inc. Radio Difusora National S. A.
760 kilocycle	es 394	.5 meters	
KXA ae 250 WEW ae 1000 WJZ ck 30000	(.5) D B	Seattle, Wash. St. Louis, Mo. New York City	American Radio Tel. Co. St. Louis University National Broadcasting Co., Inc.
770 kilocycle	s 389	.4 meters	
KFAB ae 5000 WBBM ae 25000	1C 1C	Lincoln, Neb. Chicago, Ill.	KFAB Broadcasting Co. WBBM Bdctg. Corp. (Wrigley Bldg.)
780 kilocycle	es 384	.4 meters	
CKY z 5000 KELW aeh 500 KTM ae 500 WEAN ak 250 WMC ak 500 WPOR aeh 500 WTAR aeh 500 XEZ z 500	2(1) CH(.5) N (1) b bC	Winnipeg, Man. Burbank, Calif. Los Angeles, Calif. Providence, R. I. Memphis, Tenn. Portsmouth, Va. Norfolk, Va. Mexico, Mexico	Manitoba Telephone System Magnolia Park, Ltd. Pickwick Broadcasting Corp., Ltd. Shepard Broadcasting Service, Inc. Memphis Commercial Appeal, Inc. WTAR Radio Corp. (Norfolk) WTAR Radio Corp. Joaquin Capilla

700	1-:1-	10.00	27	9.5 meters		
CMBS CMBT CMHC KGO WGY	z z z ak ak	150 150 250 7500 50000	N R	Havana, Cuba Havana, Cuba Tuinucu, Cuba San Francisco, Cali Schenectady, N. Y.	Enrique Artalejo Emilio Perera Frank H. Jones f. General Electric Co. (Opr. NBC) General Electric Co.	,
800	kilo	cycle	es 374	4.8 meters		
WBAP WFAA	ak ak	10000 50000	1N 1N	Fort Worth, Texas Dallas, Texas	Carter Publications, Inc. Dallas News-Dallas Journal	KCYS.
810	kilo	cycle	es 370	0.2 meters		880
CHNS CNRH VOAS WCCO WPCH XFC	ae z ak ae ak z	500 500 75 5000 500 250	815aZG 815aZ D C D	Halifax, N. S. Halifax, N. S. St. John's, N. F. Minneapolis, Minn. New York City Aguascalientes, Mex	Eastern Broadcasters, Inc.	MTRS. 340.7 DIAL
820 1	kilo	cycle	es 365	5.6 meters		
CMGC WHAS	z aj	30	C	Matanzas, Cuba Louisville, Ky.	Oscar S. Mechoso The Louisville Times Co., Inc.	
830 1	kilo	cycle	es 361	1.2 meters [		
KOA WEEU WHDH WRUF	ak ak z ae	12500 1000 1000 5000	NJ D DY DnC	Denver, Colo. Reading, Pa. Boston, Mass. Gainesville, Fla.	General Electric Co. (NBC Opr.) Berks Broadcasting Co. Matheson Radio Co., Inc. State of Florida (Univ. of Fla.)	
840 1	kilo	cycle	es 356	5.9 meters		
CKGW CKLC CMC CPRY XEFD	ae ak z ae z	5000 1000 500 5000 300	NEa G L 845	Toronto, Ont. Red Deer, Alta. Havana, Cuba Toronto, Ont. Tiajuana, Mexico	Gooderham & Worts, Ltd. Alberta Pacific Grain Co., Ltd. Cuban Telephone Co. Canadian Pacific Co.,Royal York Hotel Carlos de la Sierra	
850 1	kilo	cycle	es 352	2.7 meters		UT
CMJE KWKH WWL	z ae ak	20 10000 5000	856 1 1DnX	Camaguey, Cuba Shreveport, La. New Orleans, La.	Manuel Fernandez Hello World Broadcasting Corp. WWL Development Co. (Loyola Univ.)	OUT O
860 1	<b>xilo</b>	cycle	s 348	3.6 meters [		N D
WABC WBOQ WHB XFX	ae ae ae z	50000 50000 500 500	aC a D 867	New York City New York City Kansas City, Mo. Mexico City, Mexico	Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. (tests) WHB Broadcasting Co. Secretaria de Educacion Publica	CUT OUT ON DOTTED LINES
870 1	tilo	cycle	s 344	.6 meters		NE
WBCN WENR WLS XFF	ak ak ae z	50000 50000 50000 500	Na Na Na 875	Chicago, III. Chicago, III. Chicago, III. Chihuahua, Mexico	Great Lakes Bdctg. Co., NBC Opr. Great Lakes Bdctg. Co. NBC Opr. Agricultural Broadcasting Co. Gobierno del Estado de Chihuahua	6
880 1	cilo	cycle	s 340	.7 meters		
CHML CJCB CKCV CKPC KFKA KLX KPOF WCOC WGBI WQAN WSUI	ae ak ak ak ae ae ae ah ak	50 100 100 100 500 500 500 500 250 250	4G G 4L 2(1) 2 (1) Q1 1	Hamilton, Ont. Sydney, N. S. Quebec, Que. Preston, Ont. Greeley, Colo. Oakland, Calif. Denver, Colo. Meridian, Miss. Scranton, Pa. Scranton, Pa. Iowa City, Iowa	Maple Leaf Radio Co., Ltd. Nathansan's Radio Headquarters Vandry, Inc. Cyrus Dolph Mid-Western Radio Corp. Tribune Publishing Co. Pillar of Fire Mississippi Broadcasting Co., Inc. Scranton Broadcasters, Inc. Scranton Times State University of Iowa	

890 kilo	cvcles 336	5.9 meters	
CFBO z CKCO z CKPR ak CMCF ak CMX ae KARK ak KFNF ak KSEI ae VOGT z WGST ak WILL ak WJAR ae WMMN aeh	500 100 3 50 3G 250 1 3000 1 250 2(1) 250 (.5) 250 C(.5) 250 C(.5) 250 (.5)R 250 (.5)	St. John, N. B. Ottawa, Ont. Fort William, Ont. Havana, Cuba Havana, Cuba Little Rock, Ark. Shenandoah, Iowa Pocatello, Idaho Vermillion, S. Dak. Wabana, N. F. Atlanta, Ga. Urbana, III. Providence, R. I. Fairmont, W. Va.	C. A. Munro, Ltd. Dr. G. M. Geldert Dougall Motor Car Co., Ltd. Raoul Karman, Casa DelaPorte Casa "Lavin" Francisco A.Lavin, Adm. Arkansas Radio & Equipment Co. Henry Field Company Radio Service Corporation University of South Dakota The Gaiety Theatre Southern Broadcasting Co. University of Illinois The Outlet Co. Holt-Rowe Broadcasting Co.
900 kilo	cycles 333	3.1 meters 🗌	
KGBU z KHJ ae WBEN ae WJAX aeh WKY ae WLBL ae	500 1000 C T 1000 R 1000 N 1000 N 2000 D	Ketchikan, Alaska Los Angeles, Calif, Buffalo, N. Y. Jacksonville, Fla. Oklahoma City, Okla. Stevens Point, Wis.	Alaska Radio & Service Co. Don Lee, Inc. WBEN, Inc., Buffalo Evening News City of Jacksonville Oklahoma Publishing Co. Wis. Dept. Agriculture & Markets
910 kilo	cycles 32	9.6 meters	
CFLC ae CFQC z TICR z XEW z	100 915 500 911 5000	Prescott, Ont. Saskatoon, Sask. San Jose, Costa Rica Mexico City, Mexico	Radio Association of Prescott The Electric Shop, Ltd. Mexico Music Co.
920 kilo	cycles 32	5.9 meters	
CMCD aeh CMCN z HHK z KFEL ak KFXF z KOMO aj KPRC ae WARA WBSO ae WWJ ak	250 925 250 925 1000 500 1 500 1 1000 N 1000 N(2.5) 500 D 1000 • R	Havana, Cuba Havana, Cuba Port au Prince, Haiti Denver, Colo. Denver, Colo. Seattle, Wash. Houston, Texas Chicago, Ill. Babson Park, Mass. Detroit, Mich.	Angel Bertematy y Garcia Antonio Ginard Republic of Haiti Gene O'Fallon (Albany Hotel) Colorado Radio Corp. Fisher's Blend Station, Inc. Houston Printing Co. (Houston Post) Drovers Journal Publishing Co. Broadcasting Service Org., Inc. The Detroit News
930 kilo	cycles 32	2.4 meters	
CFCH aj CFRC z CKX4 ak CMJF z KFWI aj KGBZ ak KMA ae KROW ak WBRC ak WDBJ ae WIBG aeh	100 3LM 50 3(.25) 500 E 225 500 1 500 2(1) 500 2(1) 500 C(1) 250 C(.5) 25 D	North Bay, Ont. Kingston, Ont. Brandon, Manitoba Camaguey, Cuba San Francisco, Calif. York, Neb. Shenandoah, Iowa Oakland, Calif. Birmingham, Ala. Roanoke, Va. Glenside, Penna.	Northern Supplies, Ltd. Queen's University Manitoba Telephone System John L. Stowers Radio Entertainments, Ltd. Dr. Geo. R. Miller Earl E. May Seed & Nursery Co. Educational Broadcasting Corp. Birmingham Bdctg. Co., Inc. Times-World Corp. WIBG, Inc. (Keswick Bldg.)
940 kilo	cycles 31	9.0 meters	
KOIN zk WAAT ae WCSH ae WDAY ae WFIW ae WHA ak XEO z	1000 CT 300 D 1000 R(2.5) 1000 N 1000 C 1000 D 5000	Portland, Ore. Jersey City, N. J. Portland, Maine Fargo, No. Dakota Hopkinsville, Ky. Madison, Wis. Mexico City, Mexico	KOIN, Inc. (New Heathman Hotel) Bremer Broadcasting Corp. Congress Square Hotel Co. WDAY, Inc. (Black Bldg.) WFIW, Inc. University of Wisconsin National Revolucionario Party
950 kilo	cycles 31	5.6 meters	
CMHD z KFWB ak KGHL ak KMBC ak VONA z WRC z	250 1000 1000 NJ(2.5) 1000 C 30 R	Caibarien, Cuba Los Angeles, Calif. Billings, Mont. Kansas City, Mo. St. John's, N. F. Washington, D. C.	Manual Alvarez Warner Bros. Broadcasting Corp. Northwestern Auto Supply Co. Midland Bdctg. Co. (Pickwick Hotel) Lane, Gillard & Avery National Broadcasting Co., Inc.

	INDEX B	SI FREQUENCIES A	IND DIAL NUMBERS	
960 kilo	ocycles	312.3 meters		
CHCK ak CHWC ak CKCK ak CKNC ak CMBC aeh CMBD z CMJL z XED z	100 V 500 3FL 500 3FL 500 M 500 9652 150 9655 50 10000 965	navana, Cuba	3. I. 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 kilo	ocycles	309.1 meters	· · · · · · · · · · · · · · · · · · ·	
KJR ae WCFL ak	5000 N 1500 RX	Seattle, Wash. Chicago, Ill.	Northwest Broadcasting System, Inc. Chicago Federation of Labor	
980 kilo	ocycles	305.9 meters		
CFCN ak KDKA ak	10000 985I 50000 B	FL Calgary, Alberta Pittsburgh, Pa.	The Voice of the Prairies, Ltd. Westinghouse Elec. & Mfg. Co.	
990 kilo	ocycles	302.8 meters		KCYS.
CMGF z WBZ ak WBZA ak XEK z	50 987 25000 BA 1000 BA 101 500 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 MTRS. :
1000 kil	ocycles	299.8 meters		288.3
KFVD who z work aj work aj xec z xee z xefe z xefe z xeff z xefs z xef ak xec z xev z	50 150 500 2 500 T 250 I 500 N(1) 500 2 250 I 250 I	X Davenport, Iowa York, Pa. York, Pa. Toluca, Mexico Oaxaca, Oax., Mexico N. Laredo, Tams., M. Chihuahua, Mexico Queretaro, Mexico Jalapa, Ver., Mexico Jalapa, Ver., Mexico Torreon, Coah., Mex Veracruz, Mexico Puebla, Pue., Mex. Merida, Yuc.  296.8 meters  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	lex. 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.  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	CUT OUT ON DOTTED LINES
WRNY z 1020 kile	ocycles	New York City 293.9 meters	Aviation Radio Station, Inc.	OTTE
KYW ae WRAX ae	10000 N 250 D	Chicago, III. Philadelphia, Pa.	Westinghouse Elec.& Mfg. Co.(KFKX) WRAX Broadcasting Co.	ם ניו
1030 kile	ocycles	291.1 meters		NES
CFCF ae CMHI ck CMKC z CNRV ak XEB ak	500 NG 200 a 150 1034 500	Vancouver, B. C. Mexico City, Mexico	Canadian Marconi Co. Laviz & Paz M. P. Martinez Canadian National Railways El Buen Tono, S. A.	
1040 kilo		288.3 meters [		
CMGH z KRLD ae KTHS ae WKAR ae	150 10000 IC 10000 IN 1000 D	Matanzas, Cuba Dallas, Texas Hot Springs, Ark, East Lansing, Mich.	Alberto Alvarez KRLD Radio Corp. (Adolphus Hotel) Chamber of Commerce Michigan State College	
		51		1

1050 ki	locycles	285.5 meters	
CMJG z KFBI a KNX a XEFC z	50 e 5000 Dn	Camaguey, Cuba Abilene, Kans. Hollywood, Calif. Merida, Yuc.	Jose Antonio Lefran Farmers & Bankers Life Ins. Co. Western Broadcast Co. Hugo Molina Font Wendell Cox
1060 ki	locycles	282.8 meters	
KWJJ z WBAL a WJAG a WTIC a	k 1000 Dn	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 ki	locycles	280.2 meters	
CMBG z CMCB a KJBS a WCAZ z WDZ a WTAM a XEG z	225 f 150 e 100 D 50 D k 100 D	Havana, Cuba Havana, Cuba San Francisco, Calif. Carthage, III. Tuscola, III. Cleveland, Ohio Mexico City, Mexico	Francisco Garrigo Metropolitan-Radio de Cuba Julius Brunton & Sons Co. Superior Bdctg. Service, Inc. James L. Bush National Broadcasting Co., Inc. Miguel Yarza
1080 ki	locycles	277.6 meters	
WBT a WCBD a WMBI c	e 25000 CU e 5000 1Dr		Station WBT, Inc. Wilbur Glenn Voliva Moody Bible Institute
1090 ki	locycles	275.1 meters	
KMOX a		St. Louis, Mo.	Voice of St. Louis, Inc.
1100 ki	locycles	272.6 meters	
KGDM a WLWL z WPG a	5000 1	Stockton, Calif. New York City Atlantic City, N. J.	E. F. Peffer Missionary Society of St. Paul Municipality of Atlantic City
1110 ki	ilocycles	270.1 meters	
KSOO a WRVA a	e 1000 Dn	(2.5) Sioux Falls, So. Dak. Richmond, Va.	Sioux Falls Broadcast Assn., Inc. Larus & Bros. Co., Inc.
1120 ki	locycles	267.7 meters	
CFCA all CFJC CFJC CFJC CFJC CFJCC C	k 100 EL t 100 V k 100 D e 100 D k 500 3 k 100 D k 500 2C j 250 (.5) e 250 1C	Toronto, Ont. Kamloops, B. C. Summerside, P. E. I. Lethbridge, Alta. Spokane, Wash. Los Angeles, Calif. Los Angeles, Calif. Seattle, Wash. Houston, Texas Wilmington, Del. Milwaukee, Wis. 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. s Agricultural & Mech. College
1130 ki	locycles	265.3 meters	
KSL ac WJJD zc WOV z XEH al	20000 Dn 1000 D k 1000 113	Salt Lake City, Utah Chicago, III. New York City Monterrey, Mexico	Radio Service Corp. of Utah WJJD, Inc. (Palmer House) International Broadcasting Corp. Tarnava & Cia.
	locycles	263.0 meters	
CMBW z CMCQ z KVOO a WAPI a XETA z		Havana, Cuba Havana, Cuba Tulsa, Okla. Birmingham, Ala. Mexico City, Mexico	Alvarez-Moris Andres Martinez Southwestern Sales Corp. WAPI Broadcasting Corp. Manuel Espinosa Tagle

1150	kilo	ocyc]	les 2	60.7 meters		
CMGI	7.	30		Colon, Cuba	Armando Lizama	
CMHJ CMJH WHAM	ae ak	75 50		Cienfuegos, Cuba Ciego de Avila, Cuba Rochester, N. Y.	Victorino Lopez (Hotel Bristol)	
WHAM	ae	5000	B	Rochester, N. Y.	Luis Marauri Mendoza Stromberg-Carlson Tel. Mfg. Co.	
XEA	ak	500	K1155	Guadalajara, Mexico	Radiofonografica de Guadalajara, S.A.	
10-AT	z	25	1155	Trail, B. C.	Trail Amateur Radio Assn.	
1160	kilo	cvc1	les 2	58.5 meters		•
wowo		10000		Fort Wayne, Ind.	Main Auto Supply Co.	
WWVA	ae	5000	1C 1C	Wheeling, W. Va.	West Virginia Broadcasting Corp.	
1170	12:10	03701	00 2	56.3 meters		
		_		_		
WCAU	ae	10000	С	Philadelphia, Pa.	Universal Broadcasting Corp.	
1180	kilo	cvcl	es 2	54.1 meters		
	ae	1500	1185	Havana, Cuba	Troncoso y Gil	
CMW KEX	ak	5000	2N	Portland, Ore.	Troncoso y Gil National Broadcasting Co. N. M. Coll. of Agr. & Mechanical Arts George W. Young American Radio News Corp.	
KOB WDGY	ae ak	10000 1000	2 Dn	Albuquerque, N. M. Minneapolis, Minn.	N. M. Coll. of Agr. & Mechanical Arts	
WINS	ae	500	DII	New York City	American Radio News Corp.	
WMAZ	ak	500		Macon, Ga.	Southeastern Broadcasting Co.	
1190	12:10	CVC1	00 7	52.0 meters		
WOAI		50000	N N	_	South and Poulines C	
				San Antonio, Texas	Southern Equipment Co.	
1200	kilo	cyc1	es 2	49.9 meters		
CKOV CMGB	ak	100		Kelowna, B. C.	Okanagan Broadcasters, Ltd.	
CMGB	z	30	1205	Matanzas, Cuba Paragould, Ark. Bakersfield, Calif.	Jose Anorga	
KBTM KERN	ak z	100 100	D C	Bakersfield, Calif.	Beard's Temple of Music Bee Bakersfield Broadcasting Co.	KCYS
KFIB	z	100	(.25) 5	Marshalltown, Iowa	Marshall Electric Co., Inc.	1200
KFWF	z	100	5	St. Louis, Mo.	St. Louis Truth Center, Inc.	
KFXD	ae ae	100 100	(.25)	Nampa, Ídaho Fergus Falls, Minn.	Frank E. Hurt (R/C Boise)	MTRS
KGDE KGDY	z	100	(.20)	The Carlo, Millian.	Jaich Diag Co.	
TZOTIZ		100		nuron, S. D.	Voice of South Dakota	74Q
KGEK	ak	100	9	Huron, S. D. Yuma, Colo.	Jaren Drug Co. Voice of South Dakota Beehler Electrical Equipment Co.	249.
KGEW	ak	100 100	9	Yuma, Colo. Ft. Morgan, Colo. Los Angeles Colif	City of Fort Morgan	
KGEW KGFJ KGHI		100 100 100 100		ruron, S. D. Yuma, Colo. Ft. Morgan, Colo. Los Angeles, Calif. Little Rock, Ark.	City of Fort Morgan Ben. S. McGlashan O. A. Cook	
KGEW KGFJ KGHI KGVO	ak ae z ak	100 100 100 100 100	9 	Ft. Morgan, Colo. Los Angeles, Calif. Little Rock, Ark. Missoula, Mont.	City of Fort Morgan Ben. S. McGlashan O. A. Cook	
KGEW KGFJ KGHI KGVO KMLB	ak ae z ak z	100 100 100 100 100 100		Ft. Morgan, Colo. Los Angeles, Calif. Little Rock, Ark. Missoula, Mont. Monroe, La.	City of Fort Morgan Ben. S. McGlashan O. A. Cook Mosby's, Inc. Liner's Broadcasting Station. Inc.	DIAL
KGEW KGFJ KGHI KGVO KMLB	ak ae z ak z z	100 100 100 100 100 100 100	9  D	Ft. Morgan, Colo. Los Angeles, Calif. Little Rock, Ark. Missoula, Mont. Monroe, La. Bellingham, Wash.	Beener Electrical Equipment Co. City of Fort Morgan Ben. S. McGlashan O. A. Cook Mosby's, Inc. Liner's Broadcasting Station, Inc. KVOS, Inc.	
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1210	kilo	eyele	es 24	47.8 meters	
CFCO CFNB	ak	250	8G	Chatham, Ont.	John Beardall (Wm. Pitt Hotel)
CFNB	z.	50		Fredericton, N. B.	John Beardall (Wm. Pitt Hotel) James S. Neill & Sons, Ltd. George C. Chandler
CJOR CKMC	ak	$\begin{array}{c} 500 \\ 100 \end{array}$	E 8	Vancouver, B. C.	George C. Chandler
KASA	z ak	100		Cobalt, Ont.	R. L. McAdam E. M. Woody (Casa Grande Hotel) KDLR, Inc.
KDLR	ak	100		Elk City, Okla. Devils Lake, N. Dak. Klamath Falls, Ore.	KDLR. Inc.
KFJI	ak	100		Klamath Falls, Ore.	KFJI Broadcasters, Inc.
KFOR	ak	100	(.25)	Lincoln, Neb.	Howard A. Shuman
KFPW	ak	100		Fort Smith, Ark.	Southwestern Hotel Co.
KFVS KFXM	ae ak	100 100	6 9	Cape Girardeau, Mo.	Oscar C. Hirsch
KGCR	ah	100		San Bernardino, Calif. Watertown, S. Dak	Greater Kampeska Radio Corp
KGNO	ak	100		Dodge City, Kans.	Dodge City Broadcasting Co.
KGY	ak	100	9	Olympia, Wash.	KUT, Inc. (Canifol Park Bldg.)
KPPC	ak	50		Watertown, S. Dak. Dodge City, Kans. Olympia, Wash. Pasadena, Calif.	Pasadena Presbyterian Church
KWEA WALR	z ae	$\begin{array}{c} 100 \\ 100 \end{array}$		Shreveport, La. Zanesville, Ohio	Hello World Broadcasting Corp. WALR Broadcasting Corp.
WBAX	ae	100	1	Wilkes-Barre, Pa.	John H. Stenger, Ir. (Morris Bldg.)
WBBL	z	100	7S	Richmond, Va.	John H. Stenger, Jr. (Morris Bldg.) Grace Covenant Pres. Church.
WCBS	ak	100	2	Springfield, Ill.	Chas. H. Messter & Harold L. Dewing
WCRW	ae	100	4	Chicago, Ill.	Clinton R. White
WEBQ WEDC	ae z	$\begin{array}{c} 100 \\ 100 \end{array}$	6	Chicago III	First Trust & Savings Bank Emil Denemark, Inc.
WFAS	ak	100	4 3 3	Harrisburg, III. Chicago, III. White Plains, N. Y. Freeport, N. Y. Gulfport, Miss	Westchester Broadcasting Corp.
WGBB	z	100	3	Freeport, N. Y.	Harry H. Carman
WGCM	ae	100	5		Great Southern Land Co.
WHBF	ae	100		Rock Island, III.	Beardsley Specialty Co. (Harms Hotel)
WHBU WHET	aj ak	$\begin{array}{c} 100 \\ 100 \end{array}$		Anderson, Ind.	Anderson Broadcasting Corp. Troy Broadcasting Co.
WIBU	z	100		Troy, Ala. Poynette, Wis.	Wm. C. Forrest
WIRI	ak	100	3	Red Bank, N. J.	Monmouth Broadcasting Co., Inc.
WJBU	ae	100	1	Lewisburg, Pa.	Bucknell University
WIET	z z	$\frac{100}{100}$	PD	Gadsen, Ala. Hagerstown, Md.	Gadsen Broadcasting Co., Inc. A. V. Tidmore
WIW	ae	100		Mansfield, Ohio	John F. Weimer
WJBU WJBY WJEJ WJW WKFI	z	100	5(.25)	Greenville, Miss. Richmond, Va. Jamaica, N. Y.	I Pat Scully
WINBG	aj .	100	7C	Richmond, Va.	Havens & Martin, Inc.
WMRJ WOCL	ak ak	100 50	3	Jamaica, N. Y.	Havens & Martin, Inc. Peter J. Prinz A. E. Newton
WOOLT	ae	100		Jamestown, N. Y. Manitowoc, Wis.	Francis Mangin Kadow
$\mathbf{WPAW}$	z	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co.
WPRO	z	100	a	Providence, R. I. Providence, R. I.	Cherry & Webb Broadcasting Co. Cherry & Webb Broadcasting Co.
WQDX WSBC	z z	$\begin{array}{c} 100 \\ 100 \end{array}$	4	Thomasville, Ga. Chicago, Ill.	Stevens Luke
WSEN	ak	100		Columbus, Ohio	World Battery Co., Inc. Columbus Bdctg. Corp. (Seneca Hotel)
WSIX	z	100		Springfield, Tenn.	030 Tire & vulcanizing Co.
				Gastonia, N. C.	WSOC, Inc.
WSOC	ae	100	2	C	
WTAX	z	100	2	Columbus, Ohio Springfield, Tenn. Gastonia, N. C. Springfield, III. Mexico City, Mexico	WSOC, Inc. WTAX, Inc. Eventsion Cin Editorial S. A.
WTAX XEX	z z	100 500	2	Mexico City, Mexico	WTAX, Inc. Excelsior, Cia Editorial S. A.
WTAX XEX 1220	z kilo	100 500 cycle	es 2	45.8 meters	Excelsior, Cia Editorial S. A.
WTAX XEX 1220 KFKU	z kilo	100 500 cycle	es 2	45.8 meters	Excelsior, Cia Editorial S. A.  University of Kansas
WTAX XEX 1220 KFKU KTW	kilo	100 500 cycle	es 2	45.8 meters Lawrence, Kans.	Excelsior, Cia Editorial S. A.  University of Kansas First Presbyterian Church
WTAX XEX 1220 KFKU KTW KWSC	z kilo	100 500 cycle	es 2	Lawrence, Kans. Seattle, Wash. Pullman, Wash. Canton, N. Y.	University of Kansas First Presbyterian Church State College of Washington St. Lawrence University
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	INDEX BY	FREQUENCIES ANI	D DIAL NUMBERS	
KTAT z KTFI ak WACO ak WKAQ z WXYZ z	1000 1 500 1C 1000 1C 1000	Fort Worth, Texas Twin Falls, Idaho Waco, Texas San Juan, P. R. Detroit, Mich.	Texas Air Transport Radio Broadcasting Corp. of Idaho Southwest Broadcasting Co. Radio Corp. of Porto Rico Kunsky-Trendle Broadcasting Corp.	
1250 kilo		39.9 meters		
KFMX aj KFOX ae WCAL ae WDSU ak WGCP ak WLB ak WODA z WRHM ae XEFA z	1000 2 1000 CT 1000 1(2.5) 1000 2 1000 C 250 1 1000 2 1000 2 1000 2 250	Northfield, Minn. Long Beach, Calif. Newark, N. J. Northfield, Minn. New Orleans, La. Newark, N. J. Minneapolis, Minn. Paterson, N. J. Minneapolis, Minn. Mexico City, Mexico	Carleton College Nichols & Warinner, Inc. WAAM, Inc. St. Olaf College Jos. H. Uhalt May Radio Broadcasting Co. University of Minnesota Richard E. O'Dea Minnesota Broadcasting Corp. Manuel F. Murguia	
1260 kilo	cycles 23	88.0 meters		
KOIL ak KRGV ae KVOA z KWWG z WHBC ak WLBW ae WTOC ae	500 B 500 1 500 D 500 D 500 1 10 ———— 500 C(1)Y 500 CU	Council Bluffs, Iowa Harlingen, Texas Tucson, Arizona Brownsville, Texas Canton, Ohio Oil City, Pa. Savannah, Ga.	Mona Motor Oil Co. KRGV, Inc. (Rio Grande Na. Life Bldg.) Robert M. Riculfi Frank P. Jackson Edward P. Graham Radio-Wire Program Corp. of Amer. Savannah Broadcasting Co., Inc.	
1270 kilo	cycles 23	86.1 meters		
CMCU z CMCW z KGCA ak KOL ae KVOR ae KWLC ak WASH ak WEAI ae WFBR ae WFDX ak WOOD ak	150	Havana, Cuba Havana, Cuba Decorah, Iowa Seattle, Wash. Colorado Springs, Col. Decorah, Iowa Grand Rapids, Mich. Ithaca, N. Y. Baltimore, Md. Jackson, Miss. Grand Rapids, Mich.	Jorge Garcia Serra Jose Lorenzo Chas. W. Greenley Seattle Broadcasting Co. Reynolds Radio Co., Inc. Luther College Kunsky-Trendle Broadcasting Corp. Cornell University Baltimore Radio Show, Inc. Lamar Life Insurance Co. Kunsky-Trendle Broadcasting Corp.	
1280 kilo	cycles 23	4.2 meters		
KFBB aeh WCAM aeh WCAP ae WDOD ae WIBA ae WOAX aeh WRR aeh	1000 (2.5) 500 1 500 1C 1000 C(2.5) 500 N(1) 500 C	Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wiss. Trenton, N. J. Dallas, Texas	Buttrey Broadcast, Inc. City of Camden (City Hall Tower) Radio Industries Broadcast Co. WDOD Bdctg. Corp. (Hotel Patten) Badger Broadcasting Co., Inc. Trenton Broadcasting Co. City of Dallas (Hilton Hotel)	1300 MTRS. 230.6
1290 kilo	cycles 23	2.4 meters		DIAL
KDYL ak KFUL ak KLCN z KTSA ae WEBC ae WJAS ak WNBZ z	1000 C 500 1 50 D 1000 1C(2.5) 1000 N(2.5) 1000 C(2.5) 50 D	Salt Lake City, Utah Galveston, Texas Blytheville, Ark. San Antonio, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y.	Intermountain Broadcasting Corp. News Publishing Co. (Buccaneer Hotel) C. L. Lintzenich Lone Star Broadcast Co. (Plaza Hotel) Head of the Lakes Broadcasting Co. Pittsburgh Radio Supply House Smith & Mace	CUT
1300 kilo	cycles 23	0.6 meters		TUC
CMKJ z KFAC z KFH ae KFJR ag KTBR z WBBR aej WEVD ae WFAB z WHAZ ae WIOD z WOQ ae XEM z	20	Guantanamo, Cuba Los Angeles, Calif. Wichita, Kans. Portland, Ore. Portland, Ore. Brooklyn, N. Y. New York City New York City Troy, N. Y. Miami, Fla. Kansas City, Mo. Tampico, Tams, Mex.	Luis Morlote Los Angeles Broadcasting Co. Wichita Eagle—Hotel Lassen Ashley C. Dixon—KFJR, Inc. M. E. Brown Peoples Pulpit Assn. Debs Memorial Radio Fund, Inc. Defenders of Truth Society, Inc. Rensselaer Polytechnic Institute Isle of Dreams Broadcasting Corp. Unity School of Christianity Maria T. de Gutirrez	CUT OUT ON DOTTED LINES

1310	kilo	ocyclo	es 2	28.9 meters	
KCRJ KFBK	ak	100	D	Jerome, Arizona	Chas. C. Robinson
KFBK	z	100	C 7	Jerome, Arizona Sacramento, Calif.	Chas. C. Robinson Jas. McClatchy Co.
KFGQ	z.	100		Boone, Iowa	Boone Biblical College
KFPL KFPM	ck ae	100 15		Dublin, Texas Greenville, Texas	C. C. Baxter
KFXJ	ak	100		Grand Junction Col	New Furniture Co. o. Western Slope Broadcasting Co.
KFXR	z	100	(.25)	Grand Junction, Col Oklahoma City, Okla	a. Exchange Ave. Baptist Church
KFYO	z	100	(.25)Z Y	Lubbock, Texas	
KGBX	ae	100	Y	St. Joseph, Mo.	KGBX, Inc. (To Springfield, Mo.) First State Bank of Vida Donald C. Treloar Central Nebraska Bdctg. Corp. Vallar, Broadpacters. Inc.
KGCX KGEZ	ak	100	(.25)	Wolf Point, Mont.	First State Bank of Vida
KGFW	aj ah	100 100		Kairpell, Mont.	Control Nabraska Rdota Com
KIT	ak	100		Yakima Wash	Valley Broadcasters Inc
KMED	ak	100		Wolf Point, Mont. Kalispell, Mont. Kearney, Neb. Yakima, Wash. Medford, Ore.	Valley Broadcasters, Inc. Mrs. W. J. Virgin KRMD, Inc. (Jefferson Hotel)
KRMD	ak	100			KRMD, Inc. (Jefferson Hotel)
KTLC	ae	100		Houston, Texas El Paso, Texas	Houston Broadcasting Co. W. S. Bledsoe & W. T. Blackwell
KTSM KXRO	z ak	$\frac{100}{100}$	a	Aberdeen, Wash.	W. S. Bledsoe & W. T. Blackwell KXRO, Inc. (Hotel Morck)
WBEO	z	100		Marquette, Mich.	Lake Superior Broadcasting Co
$\mathbf{w}\mathbf{b}\mathbf{o}\mathbf{w}$	ak	100		Terre Haute, Ind.	Lake Superior Broadcasting Co. Banks of Wabash, Inc.
WBRE	z	100		Wilkes-Barre, Pa. Joliet, Ill.	Louis G. Baltimore WCLS, Inc.
WCLS	ae	100	b	Joliet, Ill.	WCLS, Inc.
WDAH WEBR	z	100	a O(25)	El Paso, Texas Buffalo, N. Y. Royal Oak, Mich.	Beldsoe & Blackwell
WEXL	ae ak	100 50	Q(.25)	Royal Oak Mich	Howell Broadcasting Station
WFBG	ae	100	3	Altoona, Pa.	Royal Oak Broadcasting Co. The William F. Gable Co. Frank D. Fallain (Union Ind. Bldg.)
WFDF	ae	100		Flint, Mich.	Frank D. Fallain (Union Ind. Bldg.)
WGAL	ae	100	5	Lancaster, Pa.	WGAL, Inc. (Lancaster Newsp. Bldg.)
WGH	ae	100		Newport News, Va.	Hampton Roads Broadcasting Corp.
WHAT WIAS	$_{ m ak}^{z}$	100 100	4 7	Philadelphia, Pa.	Independence Broadcasting Co. Iowa Bdctg. Co. (Hotel Ottumwa)
WIAC	ae	100	3	Ottumwa, Iowa Johnstown, Pa.	WJAC, Inc.
WJAK	ak	50	6	Elkhart, Ind.	Elkhart Daily Truth
WJAC WJAK WKAV WKBB	ae	100	z	Elkhart, Ind. Laconia, N. H.	Laconia Radio Club
WKBB	ae	100	b	JOHEC, 111.	Elkhart Daily Truth Laconia Radio Club Richard W. Hoffman R. B. Broyles Furniture Co.
WKBS	z z	$\begin{array}{c} 100 \\ 100 \end{array}$		Birmingham, Ala.	Permil N. Nelson
WLBC	ak	50	6	Galesburg, Ill. Muncie, Ind	D. A. Burton—A. I. Marriott
WMBO.	ak	100		Muncie, Ind. Auburn, N. Y.	WMBO, Inc. (Masonic Temple)
WNBH	ae	100	H(.25)	New Bedford, Mass. Washington, D. C.	D. A. Burton—A. J. Marriott WMBO, Inc. (Masonic Temple) New Bedford Bdctg. Co. (N. B. Hotel) American Broadcasting Co.
WOL	ae	100	555	Washington, D. C.	American Broadcasting Co.
WRAW WROL	z , ak	$\begin{array}{c} 100 \\ 100 \end{array}$	5X	Reading, Pa. Knoxville, Tenn.	Reading Broadcasting Co. Stuart Bdctg. Co. (Farragut Hotel) Grove City College Winston-Salem Journal Co. Foulkrod Radio Eng. Co., Inc.
WSAI	ae ae	100		Grove City, Pa	Grove City College
WSAJ WSJS	ae	100	Ç	Grove City, Pa. Winston-Salem, N. C	. Winston-Salem Journal Co.
WTEL	ae	100	4	Philadelphia, Pa.	Foulkrod Radio Eng. Co., Inc.
WTJS WTSL	ak	100	(.25)	Jackson, Tenn. Laurel, Miss.	Guil Lublishing Co. (Guil Blug.)
XEFB	z ak	100 100	1315	Montagray N. I. May	G. A. Houseman
XEI	ak	150	1010	Morelia Mexico	K. Quintanillaly Stevenson Carlos Gutierrez M.
				_	Carlos Callered III
1320	kilo	eyele	es 22	27.1 meters	
KGHF	ak	250	(.5) C	Pueblo, Colo.	C. P. Ritchie & J. E. Finch
KGMB KID	ak	250	C	Honolulu, Hawaii	Honolulu Broadcasting Co.
WADC	ae ae	250 1000	(.5) C N	Idaho Falls, Idaho	KID Broadcasting Co., Inc.
WSMB	ae	500	Ň	Akron, Ohio New Orleans, La.	Allan T. Simmons WSMB, Inc.
	• • •				, ship, me
1330	kilo	cycle	es 27	25.4 meters	<u>`</u>
CMJI	ak	112	1335	Ciego de Avila, Cuba	Gilberto Gessa Lopez
KGB	ae	500	CT	San Diego, Calif.	Don Lee, Inc. (Pickwick Hotel)
KMO KSCJ	ak	250	1002 5	racoma, Wash.	KMO, Inc. (Hotel Winthrop)
WDRC	ah ae	1000 500	1C(2.5) CH	San Diego, Calif. Tacoma, Wash. Sioux City, Iowa Hartford, Conn.	Perkins Bros. Co. WDRC, Inc.
WSAI	ae		Ř(1)	Cincinnati, Ohio	The Crosley Radio Corp.
WTAQ	ae	1000	R(1) 1C	Cincinnati, Ohio Eau Claire, Wis.	The Gillette Rubber Co.
		_			
1340	kilo	cycle	es 27	23.7 meters	
CMCR	z	150	1345	Havana, Cuba	Aurelio Hernandez
KFPY	ae	1000	CT	Spokane, Wash. Pensacola, Fla.	Symons Bdctg. Co. (Symons Bldg.) Pensacola Bdctg. Co. (San Carlos Hot.)
WCOA WSPD	agj ae	500 10 <b>00</b>	Č	Pensacola, Fla. Toledo, Ohio	Pensacola Bdctg. Co. (San Carlos Hot.) Toledo Bdctg. Co.(Com. Perry Hotel)
., 01 D	40	1000	J	101640, 01110	Total Ducig. Co.(Cont. 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. J.
WBNX	ae	250	1a	New York City
WCDA	z	250	1	New York City
WEHC	ae	500	D	Emory, Va.
WMSG	ae	250	ľa	New York City

M. D. Autran C. G. Phillips & Frank Hill Thomas Patrick, Inc. (Hotel Chase) Pillar of Fire New York Met. Broadcasting Corp. Italian Educ. Bdcrg. Co., Inc. Emory & Henry College New York Met. Broadcasting Corp.

#### 1360 kilocycles 220.4 meters

KGER	ah	1000		Long Beach, Calif.
KGIR	ak	500	NJ	Butte, Mont.
WCSC	z	500		Charleston, S. C.
WFBL	ak	1000	C(2.2)	Syracuse, N. Y.
WGES	ae	500	1(1) 1Z	Chicago, Ill.
WJKS	agj	1000	1Ž	Gary, Ind.
WQBC	agj ak	500		Vicksburg, Miss.

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)

# 1370 kilocycles 218.7 meters

		- 5		
CMGE	z	30	1375	Cardenas, Cuba
KCRC	ak	100	2(.25)	Enid, Okla.
KFBL	aj	50	3	Everett, Wash.
KFJM	zk	100		Grand Forks, N. Da
KFJZ		100		Fort Worth, Texas
KFLX	ae	100		Colvector Torres
KCAD	z		(25)	Galveston, Texas
KGAR	ae	100	(.25)	Tucson, Arizona
KGDA	ak	100	2	Mitchell, S. Dak.
KGFG	z.	100	2	Oklahoma City
KGFL	zk	100	4	Santa Fe, N. Mex.
KFKL	ak	100		Santa Fe, N. Mex. San Angelo, Texas
KICA	z	100	4CP	Clovis, New Mexico
KMAC	ak	100	5 5	San Antonio, Texas
KONO	ak	100	5	San Antonio, Texas
KOOS	ae	100		Marshfield, Ore.
KRE	ak	100		Berkeley, Calif.
KUJ	ak	100	D	Walla Walla, Wash.
KVĹ	z	100	3	Seattle, Wash.
KWKC	z	100		Kansas City, Mo.
WBTM	z	100	7	Danville, Va.
WCBM	ae	100	Z(.25)	Baltimore, Md.
WDAS	aeh	100	$(.25)^{'}$	Philadelphia, Pa.
WESG	z	50	, ,	Glens Falls, N. Y.
WGL	aeh	100	C	Fort Wayne, Ind.
WHBD	bk	100	_	Mount Orab, Ohio
WHBO	ak	100		Memphis, Tenn.
WHDF	ak	100	(.25)	Calumet Mich
WIBM	aeh	100	1.20/	Calumet, Mich. Jackson, Mich.
WIRK	ae	50	io	Detroit, Mich.
WJBK WJTL	z	100	- 2	Atlanta, Ga.
WLEY	aeh	100	(.25)	
WLVA	ck	100	2.20)	Lexington, Mass.
WMBR		100	,	Lynchburg, Va.
	ak			Tampa, Fla.
WPFB	$\boldsymbol{z}$	100		Hattiesburg, Miss.
WQDM	z.	100		St. Albans, Vt.
WRAK	ak	100	6	Williamsport, Pa.
WRAM	ae	100		Wilmington, N. C.
WRDO	ae	100		Augusta, Maine
WRJN	ae	100		Racine, Wis.
WSVS	z	50		Buffalo, N. Y.
XEFZ	ae	100		Coyoacan, Mexico
	z	100	6	Williamsport, Pa.
				- P

Genaro Sebater Enid Radiophone Co. (Oxford Hotel) Leese Bros. University of North Dakota Fort Worth Broadcasters, Inc. George Roy Clough Tucson Motor Service Co. Mitchell Broadcasting Corp. Oklahoma Broadcasting Co., Inc. Oklahoma Broadcasting Co., Inc. KGFL, Inc. KGKL, Inc. (St. Angelus Hotel) W. E. Whitmore Walmac Co., Inc. (Blue Bonnet Stud.) Mission Broadcasting Co. H. H. Hanseth, Inc. (Hall Bldg.) First Cong. Church of Berkeley KUJ, Inc. (Marcus Whitman Hotel) KVL, Inc. Wilson Duncan Broadcasting Co. Piedmont Broadcasting Corn. Piedmont Broadcasting Corp. Piedmont Broadcasting Corp.
Baltimore Broadcasting Corp.
WDAS Bdctg. Sta., Inc. (Elks Hotel)
W. N. Parker and H. H. Metcalfe
F. C. Zieg
F. P. Moler
Station WHBQ, Inc. (Hotel Claridge)
Upper Michigan Broadcasting Co.
WIBM, Inc. (Otsega Hotel)
James F. Hopkins, Inc. (Curtiss Bldg.)
Oglethorpe University
Lexington Air Station
Lynchburg Broadcasting Corp.
F. J. Reynolds . J. Reynolds F. J. Reynolds
Hattiesburg Broadcsting Co.
A. J. St. Antoine & E. J. Regan
C. R. Cummins (Penn Central Bldg.)
Wilmington Radio Assn., Inc.
WRDO, Inc. (Augusta House)
Racine Bdctg. Corp. (Hotel Racine)
Seneca Vocational School
Manuel Zetina
Sun-Gasetta Broadcacting Co.

1380 kilocycles 217.3 meters

		-		
CMJC KOH KQV KSO WKBH WSMK XETB	z ak ak z aj ak z	75 500 500 500 1000 200 125	1382 C 2 1C 2	Camaguey, Cuba Reno, Nevada Pittsburgh, Pa. Clarinda, Iowa LaCrosse, Wis. Dayton, Ohio Torreon, Coah., Mex.

Feliciano Isaac McClatchy Newspapers
KQV Bdctg. Co. (Investment Bidg.)
Iowa Broadcasting Co.
WKBH, Inc. (Radio Bidg.)
Stanley M. Krohn, Jr. Jose A. Berumen

Sun-Gazette Broadcasting Co.

CUT OUT ON DOTTED LINES

KCYS., 1380

MTRS. 217.3 DIAL

#### 1390 kilocycles 215.7 meters **CMCG** 1395 1395 Havana, Cuba 30 Jose Justo Moran CMCH CMCM CMDB Havana, Cuba Havana, Cuba Havana, Cuba Wifredo & Hum. Fontanals Sanchez Martinez-Madicu ak 100 15 1395 40 1395 Julio Powers Arkansas Broadcasting Co. KLRA 1000 1C Little Rock, Ark. ae Rielson Radio & Sporting Goods Co. Southwestern Hotel Co. (Ft. Smith) Radio Air Service Corp. (Higbee Store) Phoenix, Arizona Fayetteville, Ark. Cleveland, Ohio KOY 500 ae KUOA bk 1000 Ĉ WHK 1000 1400 kilocycles 214.2 meters KLO 500 Interstate Bcg. Corp. (Hotel Bigelow) College for Women ae Ogden, Utah Chickasha, Okla. Lafayette, Ind. Brooklyn, N. Y. Brooklyn, N. Y. KOCW 250 (.5)WBAA ak 500 Purdue University WBBC 500 2 Brooklyn Broadcasting Corp $\tilde{z}$ WCGU ak 500 United States Broadcasting Corp. WCMA WFOX 500 Culver, Ind. Brooklyn, N. Y. ak General Broadcasting, Inc. 500 Paramount Broadcasting Co. z 1W Indianapolis, Ind. Brooklyn, N. Y. Laredo, Mexico WKBF ak 500 Indianapolis Broadcasting, Inc. Voice of Brooklyn, Inc. aeh WLTH **5**00 XEP 200 La Voz Latino 1410 kilocycles 212.6 meters KFLV ak 500 Rockford, Ill. Rockford Broadcasters, Inc. KGRS WAAB 1000 Amarillo, Texas Boston, Mass. ae E. B. Gish CH 500 Bay State Broadcasting Corp. ae **WBCM** Bay City, Mich. Amarillo, Texas James E. Davidson National Radio & Bdctg. Corp. 500 WDAG ae 1000 Sheboygan, Wis. Bluefield, W. Va. Mobile, Ala. The Press Publishing Co. Daily Telegraph Mobile Broadcasting Corp. WHBL 500 ae WHIS 250 ak 3CU WODX 500 ea WRBX 250 Roanoke, Va. Richmond Development Corp. WSFA ak 3C 500 Montgomery, Ala. Montgomery Broadcasting Co., Inc. 1420 kilocycles 211.1 meters 100 Alamo Botg. Co., Inc. (Texas Theatre) Student Body Benson Polytech. School Texarkana Gazette & Daily News KABC ak San Antonio, Texas KBPS aj ak 100 Portland, Ore. KCMC 100 Texarkana, Ark Reporter Printing Co. KGFF Bdetg. Co. (Aldridge Hotel) Golden Gate Broadcasting Co. Leonard E. Wilson KFIZ 100 Fond du Lac. ak ----KGFF ak 100 Shawnee, Okla. KGGC 100 5 San Francisco, Calif. z Trinidad, Colo. 100 1 z Las Vegas, Nevada Lewiston, Idaho Red Oak, Iowa Lamar, Colo. J. M. Heaton Sand Point Broadcasting Co. KGIX ak 100 KGKX 100 z ÿ ----KICK 100 Red Oak Radio Corp. z KIDW ĺΡ Southwest Broadcasting Co. z 100 Eugene, Ore. Yuma, Arizona Cedar Rapids, Iowa Frank L. Hill & Curtis G. Phillips Dr. Albert H. Schermann Cedar Rapids Broadcast Co. KORE aeh 100 -----KUMA 100 ak **KWCR** 100 B ae KXL KXYZ Portland, Ore. Houston, Texas Presque Isle, Maine 100 $\overline{4}$ ae KXL Broadcasters(Hotel Multnomah) 100 ak Harris County Broadcast Co. WAGM 100 ae Aroostook Broadcasting Corp. WEHS Cicero, Ill. Battle Creek, Mich. ak 100 a WEHS, Inc. WELL 50 Enquirer-News Co. Americus, Ga. Erie, Pa. WENC ak 100 D Americus Broadcast Co. WERE Erie Bdctg. Corp. (Lawrence Hotel) Raymond C. Hammett (Alabama Hot.) 100 ae WFDW 100 ae Anniston, Ala WHDL Ď Tupper Lake, N. Y. aeh 100 Tupper Lake Broadcasting Co., Inc. WHFC, Inc. WHFCae 100 Cicero, III. WILM 100 Wilmington, Del. New Orleans, La. ae Delaware Broadcasting Co. WJBO WJMS WKBI 100 D Valdemar Jensen New Orleans, La. Ironwood, Mich. Cicero, Ill. Kansas City, Kans. Springfield, Mass. Detroit, Mich. Joplin, Mo. Paducah, Ky. Spartanburg, S. C. Cumberland, Md. WJMS, Inc. (St. James Hotel) WKBI, Inc. WLBF Bdctg. Co. (Aladdin Hotel) ak 100 $\mathbf{D}$ 100 ak а WLBF 100 ae WMAS CP z 100 Albert S. Moffet (.25) (.25) WMBC ae 100 Michigan Broadcasting Co. Edwin Dudley Aber WMBH 100 z WPAD ak 100 Paducah Bdctg. Co. (Ritz Hotel) The Voice of South Carolina WSPA aeh 100 (.25)(.25)WTBO 100 ae Associated Broadcasting Corp. 1430 kilocycles 209.7 meters Los Angeles, Calif. North Platte, Neb. Harrisburg, Pa. 1000 KECA ah Earle C. Anthony, Inc. Great Plains Broadcasting Co.

Pennsylvania State Police

KGNF

WBAK

500 D

500

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яk

WCAH WFEA WHEC WHP WNBR WOKO	ae ae ak ae ae	500 500 500 500 500 500	CA CH CA 1CA(1)	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	cyc1	es 20	8.2 meters	
CMBI CMBL CMBN KDFN KLS WBIG WCBA WMBD WSAN WTAD	z ak z ak ae ae ah ae z	30 20 30 500 250 500 250 500 250 500	1444 1444 1444 D C(1) 3C(1) a	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	cyc1	es 20	6.8 meters	
KTBS WBMS WGAR WHOM WNJ WSAR WTFI	ae ak ak ae ak aeh ak	1000 250 500 250 250 250 250 500	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	cyc1	es 20	5.4 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	cyc1	es 20	4.0 meters	
KGA WLAC	ak ae	5000 5000	B C	Spokane, Wash. Nashville, Tenn.	Northwest Broadcasting System Life & Casualty Insurance Co.
1480	kilo	cyc1	es 20	2.6 meters	
KFJF WKBW	ae ae	5000 5000	C	Oklahoma City, Okla Buffalo, N. Y.	a. Pan American Bdctg. System, Inc. Buffalo Broadcasting Corp.
1490	kilo	cyc1	es 20	1.2 meters	
WCKY	ae	5000	Ν	Covington, Ky.	L. B. Wilson, Inc. (Mabley & Carew)
1500		-	es 19	9.9 meters	
CMBQ CMBR KGFIK KGFIK KGGIZ KGKY KNOW KPQ KREO WHIEF WKBV WKBV WMDF WMPC WMBF WMPC WMBF WPEN WPEN WPEN WSYB WWSYB	z z akjak z bckkaz ajk z akz akee ae z eh ae ae ae aak	50 100 100 100 100 100 100 100 100 100 1	(.25) (.25) (.25) (.25) (.25)	Havana, Cuba Havana, Cuba Santa Barbara, Calif. Corpus Christi, Tex Moorhead, Minn. Grant City, Mo. Tyler, Texas Scottsbluff, Neb. Austin, Texas Prescott, Arizona Wenatchee, Wash. Santa Ana, Calif. El Centro, Calif. Rome, Ga. Kosciusko, Miss. Connersville, Ind. Ludington, Mich. Boston, Mass. Brooklyn, N. Y. Lapeer, Mich. Binghamton, N. Y. Lapeer, Mich. Binghamton, N. Y. Bristol, Tenn. Philadelphia, Pa. Augusta, Ga. Rutland, Vt. Woodside, N. Y.	s Eagle Broadcasting Co., Inc. Red River Broadcasting Co., Inc. Grant City Park Corp. East Texas Broadcasting Co. Hilliard Co., Inc. KUT Bdetg. Co. (Driskill Hotel) A. P. Miller Wescoast Broadcasting Co. J. S. Edwards E. R. Irey and F. M. Bowles Rome Broadcasting Corp. Attala Milling & Produce Co. William O. Knox K. L. Ashbacker Boston Broadcasting Co. Paul J. Gollhofer Arthur Faske First Methodist Protestant Church Howitt-Wood Radio Co., Inc. Radiophone Bdetg. Station WOPI Wm. Penn Broadcasting Co. Musicove, Inc. Philip Weiss Music Co. Long Island Broadcasting Corp. Walker & Downing Radio Corp. Walker & Downing Radio Corp.
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					II .				
ALABAMA	Watts			Kcys.	Santa Barbara M-2	Watts 100	KDB	C	Kcys. 1500
Anniston O-22 Birmingham O-21	100 5000		N	1420 1140	Stockton J-2	250 100	KGDM KWG	С	1100 1200
	500 100	WBRC WKBC	С	930 1310	COLOBADO	100	RWG	C	1200
Gadsen O-21 Huntsville N-21	100 100	WJBY WBHS		1210 1200	COLORADO Colorado Springs K-1	1 1000	KVOR	С	1270-
Mobile Q-20 Montgomery P-21	500 500	WODX WSFA	ç	$\frac{1410}{1410}$	Denver K-11	500 500	KFEL KFXF	Ü	920° 920
Montgomery P-21 Troy P-21	100	WHET	_	1210		1000	KLZ	Ç	<b>5</b> 60
ALASKA					Fort Mouse I 11	12500 500	KOA KPOF	N	830- 880
Anchorage Ketchikan	250 500	KFQD KGBU		1230 900	Fort Morgan J-11 Grand Junction K-9	100 100	KGEW KFXJ		1200 1310
	300	RODO	- 1	900	Greeley J-11 Lamar L-12	500 100	KFKA KIDW		880 1420
ARIZONA Jerome M-6	100	KCRI		1310	Pueblo L-11 Trinidad L-11	250 100	KGHF KGIW		$\frac{1320}{1420}$
Phoenix N-6	500 500	KCRJ KOY KTAR	C N	1390 620	Yuma J-12	100	KGEK		1200
Prescott M-6	100	KPJM KGAR	14	1500	CONNECTICUT		1		
Tucson O-7	100 500	KVOA		1370 1260	Bridgeport H-27 Hartford H-27	250 500	WICC WDRC	С	600° 1330
Yuma O-5	100	KUMA		1420	Storrs H-28	50000 250	WTIC WCAC	Ř	1060
ARKANSAS	`	***				200			000
Blytheville M-19 Fayetteville M-16	$\begin{array}{c} 50 \\ 1000 \end{array}$	KLCN KUOA		1290 1390 <b>∽</b>	DELAWARE Wilmington J-26	250	WDEL		1120
Fort Smith N-16 Hot Spring N-17	$\begin{array}{c} 100 \\ 10000 \end{array}$	KFPW KTHS	N	1210 1040~	l limingson y 20	100	WILM		1420
Little Rock N-17.	250 100	KARK KGHI		890 1200	DISTRICT OF	COLU	MBIA		
Paragould M-18	1000 100		С	1390- 1200	Washington J-26	10000 250	WJSV WMAL	c	1460 630
Texarkana O-17	100	KCMC		1420		500 100	WRC WOL	Ř	950 1310
<b>CALIFORNIA</b>					Et ODID 4	100	WOL		1310
Bakersfield L-3 Berkeley L-2	$\frac{100}{100}$	KERN KRE	С	1200 1370	FLORIDA Clearwater R-24	1000	WFLA	N	620
Berkeley J-2 Beverly Hills M-3 Burbank M-3	500 500	KMPC KELW		710 780	Gainesville Q-24	5000 1000	WRUF WJAX	CN	830 900
El Centro N-4	100	KXO	_	1500	Jacksonville Q-24 Miami T-25	1000	WĬOD	N	1300 560
Fresno K-2 Hollywood M-3	500 500	KMJ KMTR	С	580 570	Orlando R-24	1000 250	WQAM WDBO	č	580
Long Beach M-3	$\frac{5000}{1000}$		С	1050 1250™	Pensacola Q-21 St. Petersburg S-24	500 1000	WCOA WSUN	N	1340 620
Los Angeles M-3	1000 1000	KGER KECA	N	1360 1430	Tampa R-24	$\begin{array}{c} 1000 \\ 100 \end{array}$	WDAE WMBR	С	1220 1370
•	1000 50000	KFAC KFI	N	1300~ 640~	GEORGIA				
	500 250	KFSG KFVD	•	1120 1000	Americus P-22	100	WENC		1420
	1000	KFWB		950	Athens O-23 Atlanta O-22	500 250	WTFI WGST	С	1450 890
	$\frac{100}{1000}$	KGFJ KHJ	С	1200 900		100 5000	WJTL WSB	N	1370 740
	500 500	KRKD KTM		1120 780	Augusta O-23	100	WRDW	11	1500
Oakland J-1	250 500	KLS KLX		1440 880	Columbus O-22 Macon O-23	50 500	WRBL WMAZ		$\frac{1200}{1180}$
Pasadena M-3	500 50	KROW KPPC		930 1210	Rome N-22 Savannah O-24	100 . <b>5</b> 00	WFDV WTOC	С	$\frac{1500}{1260}$
Sacramento J-2	100	KFBK		1310	Thomasville Q-22	100	WQDX		1210
San Bernardino M-3 San Diego N-3	100 500	KFXM KFSD	N	1210 600	HAWAII				
	500	KGB KFRC	c	1330 610	Honolulu	250 1000	KGMB KGU	C	1320 750
San Francisco J-1	1000			930		2000		- 1	
San Francisco J-1	500 100	KFWI KGGC			IDAHO				
San Francisco J-1	500 100 7500	KFWI KGGC KGO	N	1420 790	IDAHO Boise G-5	1000	KIDO		1350
San Francisco J-1	500 100 7500 100 5000	KFWI KGGC KGO KJBS KPO	N N	790 1070 680	Boise G-5 Idaho Falls G-7	1000 250	KIDO KID		1350 1320 1200
San Francisco J-1 San Jose J-1	500 100 7500 100	KFWI KGGC KGO KJBS KPO KTAB	N	1420 790 1070	Boise G-5		KIDO KID KFXD KSEI KGKX		

ILLINOIS	Watts		Kcys.	KANSAS	Watts		Kcys.
Carthage J-18	50	WCAZ	1070	Abilene K-14	5000	KFBI	1050-
Chicago I-20	10000	KFKX	1020	Coffeyville M-15	500	KGGF	1010∽
	10000 500	KYW N WAAF	1020- 920	Dodge City L-13	100 100	KGNO WLBF	1210 1420-
	25000	WBBM C	770 <del>-</del>	Kansas City K-16 Lawrence K-16	500	KFKU	1220
	1500	WCFL R			1000	WREN E	1220-
	100 100	WCRW WEDC	1210 1210	Manhattan K-15 Topeka K-16	500 1000	KSAC WIBW C	580 <b>-</b> 580-
	50000	WENR N	[ 870 <b>™</b>	Wichita L-15	1000	KFH C	1300 -
	500 25000	WGES WGN C	1360 720 <del>-</del>	***************************************			
	1000	WIBO	560	KENTUCKY			
	20000	WJJD WLS N	1130=	Covington K-22	5000	WCKY N	
	50000 5000	WMAQ N	[ 870⊶ [ 670⊶	Hopkinsville M-20 Louisville L-21	1000 25000	WFIW C	940 820
	5000	$\mathbf{WMBI}$	1080		100	WLAP	1200
	500 100	WPCC	560 1210	Paducah M-19	100	WPAD	1420
Cicero I-20	100	WEHS	1420	LOUISIANA			
	100	WHFC	1420		100	EMI D	1200
Decatur K-19	100 100	WKBI W IBL	1420 1200	Monroe P-18 New Orleans R-19	100 100	KMLB WABZ	1200 1200
Galesburg J-18	100	WJBL WKBS	1310	}	1000	WDSU C	1250
Harrisburg L-19 Joliet I-19	100 100	WEBQ WCLS	1210 1310		100 100	WJBO WJBW	1420 1200
Jonet 1-19	100	WKBB	1310		500	WSMB N	1 1320
La Salle J-19	100	WJBC WMBD C	1200	C1 D 17	5000	WWL	850
Peoria J-19 Ouincy K-18	500 500	WTAD	1440 1440	Shreveport P-17	100 1000	KRMD KTBS N	1310 1 1450~
Rockford I-19	500	KFLV	1410		100	KWEA	1210
Rock Island I-18 Springfield K-19	100 100	WHBF . WCBS	1210 \ 1210		10000	KWKH	850™
Springheid IC-19	100	WTAX	1210	MAINE			
Tuscola K-20	100	WDZ	1070	Augusta F-28	100	WRDO	1370
Urbana J-20 Zion I-20	250 5000	WILL WCBD	890 1080	Bangor F-29	100	WABI	1200
	0000			Portland F-28	500 1000	WLBZ C	
INDIANA				Presque Isle D-29	100	WAGM	1420
Anderson J-21 Connersville K-21	100 100	WHBU WKBV	1210 1500				
Culver 1-20	500	WCMA	1400	MARYLAND			
Elkhart I-21	50	WJAK WGBF	1310	Baltimore J-26	10000	WBAL E	
Evansville L-20 Fort Wayne J-21	500 100	WGL C	630	1	250 100	WCAO C WCBM	1370
	10000	wowo c	1160		500	WFBR F	1270 1420
Gary I-20 Hammond I-20	1000 100	WJKS WWAE	1360 1200	Cumberland J-25 Hagerstown J-25	100 100	WTBO WJEJ	1420
Indianapolis J-21	1000	WFBM C	1230∞				
	500 250	WKBF	1400∞ 600	MASSACHUSE	ETTS		
Lafayette J-20	500	WJED WBAA	1400	Babson Park G-28	500	WBSO	920
Lafayette J-20 Muncie J-21	50	WLBC	1310	Boston G-23	500 25000	WAAB C	1410 990
South Bend I-20	100 500	WFAM WSBT C	1200 1230		1000	WEE1 F	
Terre Haute K-20	100	WBOW	1310		1000 100	WHDH WLOE	830 1 <b>5</b> 00
IOWA		•			1000	WNAC C	1230
Ames I-17	5000	WOI	640~	Fall River H-28	250	WSAR	1450
Boone I-17	100	KFGQ KWCR B	1310	Lexington G-28 New Bedford H-28	100 100	WLEY WNBH	1370 1310
Cedar Rapids I-18	100	KWCR B	1420	Springfield H-27	1000	WBZA E	990
Clarinda J-16 Council Bluffs J-16	500 1000	KOIL B	1380 1260-	Worcester G-28	100 100	WMAS WORC C	1420 1200
Davenport I-18	5000	WOC R		Worcester G-28	250	WTAG R	
Decorah H-18	100 100	KGCA KWLC	1270 1270				
Des Moines I-17	5000	WHO R	1000≃	MICHIGAN			
Iowa City I-18	500	WSUI	880	Battle Creek I-21	50 500	WELL WBCM C	1420
Marshalltown I-17 Ottumwa J-17	100 100	KFJB WIAS	1200 <b>™</b> 1310	Bay City H-22 Calumet E-19	500 100	WBCM C	1370
Red Oak J-16	100	KICK	1420	Detroit H-22	50	WIBK	1370
Shenandoah J-16	500	KFNF	890-		10000 100	WJR B WMBC	750 <b>-</b> 1420
	500	KMA	930∽		1000	WWJ R	920
Sioux City I-15 Waterloo I-17	1000 500	KSCJ C	1330 <del>~</del> 600	East Lansing H-21	1000 1000	WXYZ WKAR	1240 1040
waterioo I-I/	900	WIVII C	000	Last Lansing 11-21	1000	" IXAIN	1040

			II				
Flint H-22	Watts 100 WFDF	Kcys. 1310	NEVADA	Watts		1	Kcys.
Grand Rapids H-21	500 WASH 500 WOOD	1270 1270	Las Vegas L-5 Reno I-3	$\begin{array}{c} 100 \\ 500 \end{array}$	KGIX KOH	С	1420 1380
Ironwood F-18 Jackson I-21	100 WJMS 100 WIBM	1420 1370	NEW HAMPSH	IRE			
Kalamazoo I-21 Lapeer H-22	1000 WKZO 100 WMPC	590	Laconia G-28	100 500	WKAV WFEA	С	1310 1430
Ludington H-20	100 WKBZ	1500	Manchester G-28 Portsmouth G-28	250	WHEB	C	740
Marquette F-19 Royal Oak H-22	100 WBEO 50 WEXL	1310 1310	NEW JERSEY				
MINNESOTA			Asbury Park I-27	500	WCAP	C	1280
Fergus Falls F-15	100 KGDE	1200	Atlantic City J-27 Camden I-26	5000 500	WPG WCAM	С	1100 <b>~</b> 1280
Minneapolis G-17	5000 WCCO 1000 WDGY		Hackensack I-27 Jersey City I-27	250 300	WBMS WAAT		1450 940
	1000 WLB 1000 WRHM	1250~ 1 1250	Newark I-27	250 1000	WHOM WAAM		1450 1250
Moorhead F-15 Northfield G-17	50 KGFK 1000 KFMX	1500	Tiewark 1-27	250 250	WGCP		1250
	1000 WCAL	1250		5000	WNJ WOR		1450 710
St. Paul G-17	10000 KSTP	N 1460*	Paterson I-27 Red Bank I-27	1000 100	WODA WJBI		1250 1210
MISSISSIPPI			Trenton I-26 Zarephath I-27	500 250	WOAX WAWZ		1280 1350
Greenville O-18 Gulfport Q-19	100 WKFI 100 WGCM	1210 I 1210	l	200			2000
Hattlesburg Q-19 Jackson P-19	100 WPFB 1000 WJDX	1370 N 1270	NEW MEXICO Albuquerque N-7	250	KGGM		1230
Kosciusko O-19 Laurel P-20	1000 WJDX 100 WHEF 100 WTSL	1500 1310	Clovis N-11	10000	KOB KICA		1180 1370
Meridian P-20	500 WCOC	880	Santa Fe M-10	100	KGFL		1370
Tupelo N-20 Vicksburg P-18	500 WQBC	- 990 1360	NEW YORK				
MISSOURI			Albany H-27	500	woko	С	1430
Cp. Girardeau L-19	100 KFVS	1210	Auburn H-25 Binghamton H-26	100 100	WMBO WNBF		1310 1500
Columbia K-17 Grant City J-16	500 KFRU 100 KGIZ	630 <b></b> 1500	Brooklyn I-27	500 1000	WBBC WBBR		1400 1300
Jefferson City L-17 Joplin M-16	500 WOS 100 WMBH	630 I 1420~		500	WCGU		1400
Kansas City K-16	1000 KMBC 100 KWKC	C 950- 1370-		500 500	WFOX WLTH		1400 1400
	1000 WDAF	R 610-		100 100	WMBQ WMIL		1500 1500
	500 WHB 1000 WOQ	860- 1300-	Buffalo H-24	1000 100	WBEN WEBR	R	900 1310
St. Joseph K-16	2500 KFEQ 100 KGBX	680 <b>~</b> 1310		1000	WGR WKBW	C	550 1480
St. Louis L-18	500 KFUO 100 KFWF	550 1200		5000 50	WSVS	C	1370
	50000 KMOX	C 1090⊷	Canton F-26 Freeport I-27	500 100	WCAD WGBB		1220 1210
	500 KSD 1000 KWK	R 550 B 1350-	Glens Falls G-27 Ithaca H-25	50 1000	WESG WEAI		1370 1270
	1000 WEW 100 WIL	760 1200	Jamaica H-27	100 50	WMRJ WOCL		1210 1210
MONTANA			Jamestown H-24 New York City I-27	50000	WABC	С	860
Billings F-9 Butte F-7	1000 KGHL 500 KGIR	N 950 N 1360		250 50000	WBNX WBOQ		1350 860
Great Falls E-8 Kalispell D-7	1000 KFBB	1280		250 50000	WCDA WEAF	R	1350 660
Missoula E-7	100 KGVO	1310 1200		500	WEVD WFAB	•	1300
Wolf Point E-11	100 KGCX	1310		1000 500	WINS		1300 1180
NEBRASKA				$\begin{array}{c} 250 \\ 30000 \end{array}$	WHN WJZ	В	1010 760
Clay Center J-14 Kearney J-14	1000 KMMJ 100 KGFW	740 1310		5000 500	WĽWL WMCA		1100 570
Lincoln J-15	5000 KFAB 100 KFOR	C 770~ 1210		250 500	WMSG WNYC		1350 570
Norfolk I-15	500 WCAJ	590∞		1000	WOV		1130
North Platte J-13	500 KĞNF	1060 1430~		250 500	WPAP WPCH		1010 810
Omaha J-15	500 WAAW 1000 WOW	660≈ R 590∽		250 250	WQAO WRNY		1010 1010
Scottsbluff I-11 York J-15	100 KGKY 500 KGBZ	1500 930°	Rochester G-25	5000 500	WHAM WHEC		1150
	000 RGD2	750	<u>L</u>	300	WILEC	C	1430

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	Watts		Kcys.		Watts		I	Kcys.
Saranac Lake F-26	50	WNBZ	1290	Portland E-3	5000	KEX	Ν	L180™
Schenectady G-27	50000	WGY	R 790	ii .	100	KBPS		1420
Syracuse G-25	1000	WFBL	C 1360		500	KFJR KGW		1300
	250	WMAC	570		1000	KGW	Ň	620
T C 27	250		R 570	].	1000	KOIN	C	940
Troy G-27	500 100	WHAZ WHDL	1300 1420		500	KTBR		1300 1060
Tupper Lake F-26 Utica G-26	100		1200		500	KWJJ KXL		
Woodside I-27	100	WIBX WWRL	1500		100	KAL		1420
White Plains I-27	100	WFAS	1210					
Willie Fidnis 1-27	100	WIAG	1210	PENNSYLVANI	Α.			
				Allentown I-26	250	<b>WCBA</b>		1440
NORTH CAROL	<b>LINA</b>				250	WSAN		1440
Asheville M-23	1000	WWNC	N 570	Altoona I-25	100	WFBG		1310
Charlotte M-24	25000	WBT	C 1080	Carbondale H-26	10	WNBW		1200
Gastonia M-24	100	WSOC	1210	Erie H-24	100	WERE		1420
Greensboro M-24	500	WBIG	C 1440	Glenside I-26	25	WIBG		930
Raleigh M-25	1000	WPTF	N 680	Grove City I-24	100	WSAJ		1310
Wilmington N-26	100	WRAM	1370	Harrisburg I-25	500	WBAK		1430
Winston-Salem M-24	100	WSJS	C 1310		100	WCOD WHP	_	1200 1430
				Laboration I 24	500 100	WIAC	С	1310
NODTH DAIZO	ТА			Johnstown J-24	100	WGAL		
NORTH DAKO				Lancaster I-26	100	WKJC		1310 1200
Bismarck F-13	1000	KFYR	N 550	Lewisburg 1-26	100	WIRI		1210
Devils Lake E-14	100	KDLR	1210	Oil City 1-24	500	WJBU WLBW	C	1260
Fargo F-15	1000	WDA Y	N 940~	Philadelphia I-26	10000	WCAU	č	1170 →
Grand Forks E-15	100	KF JM KGCU	1370	- time-orpania i	100	WDAS	-	1370
Mandan F-13	250	KGCU	1240	li	500	WFAN	C	610
Minot E-13	250	KLPM	1240	l	500	WFI	R	560
				<b>\</b>	100	WHAT		1310
OHIO					500	WIP	С	610
				ļ	500	WLIT	R	560
Akron I-23	1000	WADC	C 1320	H	100	WPEN		1500
Canton I-23	10	WHBC	1260		250	WRAX		1020
Cincinnati K-22	100	WFBE	1200	Bu to 1 1 24	100	WTEL	ъ	1310
	1000 50000	WKRC	C 550 B 700×	Pittsburgh J-24	50000	KDKA	В	980~
	500	WLW WSAJ	R 1330		500 1000	KQV WCAE	R	1380 1220
Cleveland 1-23	500	WGAR	B 1450		1000	WLAE	ĉ	1290
Cicvetaria 1-20	1000	WHK	C 1390		100	WJAS WWSW	C	1500
	500	WIAY	610	Reading I-26	1000	WEEU		830
	50000	WTAM	R 1070~	1	100	WRAW		1310
Columbus J-22	500	WAIU	640	Scranton H-26	250	WGBI		880
	500	WCAH	C 1430		250	WOAN		880
	750	WEAO	570	Silverhaven J-24	100	WNBO		1200
	100	WSEN	1210	State College 1-25	500	WPSC		1230
Dayton J-22	200	WSMK	1380	Wilkes-Barre I-26	100	WBAX		1210
Mansfield J-22 Mount Orab K-22	100 100	$_{ m WJW}$	1210 1370	XX/:11: 1 25	100	WBRE		1310
Toledo I-22	1000	WSPD	C 1340	Williamsport 1-25	100 100	WRAK		1370 1370
Youngstown I-23	500	WKBN	C 570	York J-26	1000	WORK		1000
Zanesville J-23	100	WALR	1210	101K J-20	1000	WORK		1000
_ 3.100 · 120 J - 20	100		-220					
				PHILIPPINES				
OKLAHOMA				Cebu	500	KZRC		937.5
Chickasha N-14	250	KOCW	1400	Manila	1000	KZKA		1110
Elk City N-13	100	KASA	1210		50000	KZRM		618.5
Enid M-14	100	KCRC	1370-	11	00000			-10.0
Norman N-15	500	WNAD	1010					
Oklahoma N-15	5000	KEIE	C 1480	PORTO RICO				
Oktanoma 14-15	100	KFJF KFXR	1310	San Juan W-34	1000	WKAO		1240
	100	KGFG	1370	Juli Julii 11-0-1	1000	., itaq		1240
	1000	WKY	N 900~					
Ponca City M-15	100	WBBZ	1200~	RHODE ISLAN	D			
Shawnee N-15	100	KGFF	1420-	Providence H-28	250	WEAN	С	780
Tulsa M-15	5000	KVOO	N 1140-	l rovidence ri-20	250 250	WEAN	Ř	780 890
				11	100	WPAW	1	1210
				ll .	100	WPRO		1210
OREGON				11	100			
Corvallis E-2	1000	KOAC	550	COLUMN CAROL	TNIA			
Eugene F-2	100	KORE	1420	SOUTH CARO	LINA			
Klamath Falls G-3	100	KFJI	1210	Charleston O-25	500	WCSC		1360
Marshfield F-1	100	KOOS	1370	Columbia N-24	500	WIS	Ν	1010
Medford G-2	100	KMED	1310	Spartanburg N-23	100	WSPA		1420
				II				

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SOUTH DAKO	ΓA Wat	ts	Kcys.	VIRGINIA	Watts		Kcys.
Brookings H-15	500	KFDY	550		1000	NAA	690
Huron H-14	100	KGDY	1200	Arlington J-25 Danville L-25	100	WBTM	1370
Mitchell H-14	100	KGDA	1370	Emory L-23	500	WEHC	1350
Pierre G-13 Rapid City H-12	200	KGFX	630	Lynchburg L-25 Newport News L-26	100	WLVA	1370
Rapid City H-12	100	WCAT KSOO	1200	Newport News L-26	100 500	WGH WTAR C	1310 780
Sioux Falls H-15	1000 500	KUSD	1110 890	Norfolk L-26 Petersburg L-26	100	WPHR	1200
Vermillion I-15 Watertown G-15	100	KGCR	1210	Portsmouth L-26	500	WPOR	780
Yankton I-15	1000	WNAX C	570	Richmond K-26	100	WBBL	1210
					100	WMBG C	1210
TENNIEGGEE				l	5000	WRVA N	1110
TENNESSEE				Roanoke L-24	250 250	WDBJ C WRBX	930 1410
Bristol L-23	100	WOPI	1500		250	WKDA	1410
Chattanooga N-21	1000 100	WDOD C WTJS	1280 1310	WASHINGTON			
Jackson N-20 Knoxville M-22	1000	WNOX C	560		100	LVDO	1310
Kiloxville ivi-22	100	WROL	1310	Aberdeen D-2 Bellingham C-3	100 100	KXRO KVOS	1200
Memphis N-19	100	WHBQ	1370	Everett C-3	50	KFBL	1370
	500	WMC N		Olympia D-3	100	KGY	1210
	500 500	WNBR WREC C	1430 <b>∽</b> 600	Pullman E-5	1000	KWSC	1220
Nashville M-21	5000	WLAC C	1470~	Seattle C-3	5000 1000	KJR N KOL C	970 1270
Nasiivine W-21	50000	WSM N			1000	KOMO N	
Springfield M-20	100	WSIX	1210	ł	100	KPCB	650
					100	KRSC	1120
TEXAS					1000	KTW	1220
		TTOTAL		l	100	KVL	1370
Amarillo N-12	1000 1000	KGRS WDAG	1410 1410	Supleme D 5	250 100	KXA KFIO	760 1120
Austin Q-14	100	KNOW	1500	Spokane D-5	1000	KFPY C	1340
Beaumont R-17	500	KFDM	560	ì	5000	KGA B	1470
Brownsville U-15	500	KWWG	1260	ł	1000	KHQ N	590
College Sta. Q-15 Corpus Christi S-14	500	WTAW	1120	Tacoma D-3	250	KMO	1330
Corpus Christi S-14	100	KGFI	1500	W-11- W-11- F 5	500	KVI C	570 1370
Dallas P-15	10000 50000	KRLD C WFAA N	1040 800	Walla Walla E-5 Wenatchee D-4	100 50	KUJ KPQ	1500
	500	WRR C	1280	Yakima D-4	100	ŔĬŤ	1310
Dublin P-14	100	KFPL	1310	1 4444			
El Paso P-9	100	KTSM	1310	WEST VIRGIN	[ <b>A</b>		
Boot Woods D 15	100 100	WDAH KFJZ	1310 1370	Bluefield L-24	250	WHIS	1410
Fort Worth P-15	1000	KTAT	1240~	Charleston K-23	250	WOBU	580
	10000	WBAP N		Fairmont J-24	250	WMMN	890
Galveston R-16	100	KFLX	1370	Huntington K-23	250	WSAZ WWVA C	580 1160
	500	KFUL	1290	Wheeling J-24	5000	WWVAC	1100
Greenville O-15	15 500	KFPM KRGV	1310 1260	WISCONSIN			
Harlingen T-14 Houston R-16	1000	KPRC N			1000	WTAO C	1220
11003101114-10	100	KTLC	1310	Eau Claire G-18 Fond du Lac H-19	1000 100	WTAQ C	$\frac{1330}{1420}$
	500	KTRH C	1120	Green Bay G-19	100	WHBY	1200
	100	KXYZ	1420	Janesville I-19	100	WCLO	1200
Lubbock O-12	100	KFYD	1310	La Crosse H-18	1000	WKBH C	1380
San Angelo Q-13 San Antonio R-14	100 100	KGKL KABC	1370 1420	Madison H-19	1000	WHA	940
San Antonio R-14	100	KMAC	1370	M	500	WIBA N WOMT	1280 1210
	100	KONO	1370	Manitowoc H-20 Milwaukee H-19	100 250	WHAD C	1120
	1000	KTSA C	1290	Willwaukee 11-19	250	WHAD C WISN C	1120
	50000		.1190-	1	1000	WTMJ N	620
Tyler P-16	100	KGKB	1500	Poynette H-19	100	WIBU	1210
Waco Q-15 Wichita Falls O-14	1000 250	WACO C KGKO	1240 570	Racine I-20	100	WRJN	1370
Wichita Falls O-14	230	KGKO	3/0	Sheboygan H-20	500	WHBL WLBL	1410 900
				Stevens Point G-19	2000 1000	WEBC N	
UTAH				Superior F-17	1000	WEDC 14	1230
	500	KLO	1400	WYOMING			
Ogden I-7 Salt Lake City I-7	2500	KDYL C	1290		F00	IZDENI	1440
Sait Dake City 1=/	5000	KSL C	1130	Casper H-10	500	KDFN	1440
	2000						
				l CAN	NADA		
VERMONT							
Burlington F-27	100	WCAX	1200	ALBERTA			
	100						
Rutland G-27	100	WSYB	1500	Calgary B-7	500	CFAC	690
Rutland G-27 St. Albans F-27 Waterbury F-27		WSYB WQDM WDEV		Calgary B-7	500 10000 500	CFAC CFCN CJCJ	690 985 690

Edmonton A-8	Watts	CHMA	Kcys. 580 745	Quebec D-27	Watts 100 100	CHRC	Kcys. 645 645
Lethbridge C-8	500 500 100	CJCA CKUA CJOC CKLC	580 1120 840	SASKATCHEW.	100	CKCV	880
Red Deer A-8	1000		040	Canora A-13	15	10-BU	1200
BRITISH COLU Chilliwack B-3	JMB1 <i>F</i>	CHWK	665	Fleming C-13 Moose Jaw C-11	1000 500	CJRW CJRM 10-AB	665 665
Kamloops B-5	100	CJFC	1120	Prince Albert A-11	25 25	10-AB 10-BI	1200 1200
Kelowna C-5 Trail C-6	100 25	<b>C</b> KOV 10-AT	1200 1155	Regina C-12	500	CHWC	960
Vancouver B-3	100	CHLS	730 1210	Saskatoon B-11	500 500	CKCK CFQC	960 910
	500 100	CKCD	<i>7</i> 30	Yorkton B-13	500	CJGX	630
	50 100	CKFC CKMO	730 730	NEWFO	UNDL	AND	
	100 500	CKWX CNRV	730 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 Winnipeg D-15	500 5000	CKX CKY	930 780	CENTRAL	AM	ERICA	
NEW BRUNSW	ICK			COSTA RICA			
Fredericton D-29	50	CFNB	1210	San Jose FF-23	50	TICR	ı <b>911</b>
Moncton D-30 St. John D-30	700 500	CNRA CFBO	630 890	GUATAMALA			
NOVA SCOTIA	•		,	Guatamala CC-19	50	TGW	<b>570</b>
Glace Bay C-32	2000	VAS	685	SALVADOR			
Halifax E-31	500 500	CHNS CNRH	815 815	Salvador CC-19	500	RUS	664
Sydney C-32 Wolfville D-31	100 100 50	VCX CJCB CKIC	690 880 1010	ME:	XICO	)	
ONTARIO	30	CKIC	1010	AGUASCALIEN	TES		
Brantford H-23	15	10-BO	1200	Aguascalientes W-10	250	XFC	810
Chatham H-22	250 100	CFCO	1210 1210	BAJA CALIFOR	RNIA		
Cobalt E-23 Ft. William E-19	50	CKMC CKPR CHML	890 l	Tiajuana N-3	300	XEFD	845
Hamilton H-24	50 1000	CKOC	880 635	CHIHUAHUA			
Kingston G-25 London H-23	50 5000	CFRC	930 595	Chihuahua R-9	100 250	XEFI XFF	1000 875
North Bay E-23 Ottawa F-25	100 100	CECH	930 890	Juarez P-9	101	XEJ	1000
	500	CKCO CNRO	600		5000	XEQ	<i>7</i> 50
Prescott F-25 Preston H-23	100 100	CFLC CKPC	915 880	COAHUILA			
St. Catherines H-24 Stratford H-23	1000 15	CKTB 10-AK	635 1200	Saltillo, Coah. U-12 Torreon U-11	25 125	XEL XETB	1000 1380
Toronto G-24	500	CFCA	1120	Villa Acuna R-12	75000	XETG XER-XEF	1000 735™
	500 10000	CFCL CFRB	C 690		73000	ALK-ALI	755
•	500 5000	CKCL CKGW	580 N 840	D. F.	400	TIDES	1250
	500	CKNC	960	Coyoacan Y-13 Mexico City Y-13	$\begin{array}{c} 100 \\ 1000 \end{array}$	XEFZ XEB	1370 1030
Waterloo G-23	5000 100	CPR Y CKCR	840 645	Mentes Grey 1 10	250 250	XEFA XEG	1250 1070
Windsor H-22 Wingham G-23	5000 25	CKOK 10-BP	C 540 1199		101	XEK	990
PRINCE EDWA					1000 5000	XEN XEO	711 940
Charlottestown C-31	500	CFCY	580		500 100	XETA XETQ	$\frac{1140}{1230}$
Summerside C-31	100 100	CHCK	960 1120		2500 5000	XETR XEW	610 910
QUEBEC			,		500	XEX XEZ	1210 780
Montreal E-26	500	CFCF	N 1030		500 2000	XFG XFX	638
	5000 5000	CHYC	730 C 730	Toluca Y-1	500 50	XFX XEC	867 1000
`		31113		l			

artini.						<del></del>
JALISCO	Watts		Kcys.	**	Watts	Kcys.
Guadalajara, Jal. X-10	500	XEA	1155	Cienfuegos W-25 Colon W-24	75 CMHJ 30 CMGI	1150 1150
MICHOACAN				Guantanamo X-28	20 CMKJ	1300
Morelia, Mich. Y-12	150	XEI	1310	Havana W-23	500 CMAF 500 CMBC	660 965
NEUVO LEON				`	150 CMBD	965
Monterrey, N. L. U-13	100	XEFB	1315		225 CMBG 30 CMBI	1070 1444
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1000	XEH	1132		20 CMBL	1444
OAXACA	500	XET	690	Í	30 CMBN 50 CMBQ	1444 1500
	105	3ZPP	1000		15 CMBR	1500
Oaxaca, Oax. AA-14	105	XEE	1000		150 CMBS 150 CMBT	790 790
PUEBLA					150 CMBW	1140
Puebla Z-13	101	XEV	1000		350 CMBY 150 CMBZ	1235 1010
QUERETARO					500 CMC	840
Queretaro X-12	40	XEFS	1000		150 CMCA 150 CMCB	1235 1070
<b>TAMAULIPAS</b>	,				250 CMCD	925
N. Laredo S-13	101	XEFE	1000		250 CMCF 30 CMCG	890 1395
Reynosa, Tams. T-14	200 10000	XEP XED	1400 965		100 CMCH	1395
Tampico, Tams. W-14	500	XEM	730		250 CMCJ 15 CMCM	630 1395
	500	XES	1055	1	250 CMCN	925
VERA CRUZ					250 CMCO 1000 CMCO	660 1140
Jalapa Y-14 Vera Cruz, Ver. Z-14	100 500	XETC XETF	1000 630		150 CMCR	1345
,	100	XEU	1007		150 CMCU 150 CMCW	1270 1270
YUCATAN				**:	500 CMCY 40 CMDB	1355 1395
Merida, Yuc. X-19	$\begin{array}{c} 10 \\ 105 \end{array}$	XEFC XEY	1050 1000		5000 CMK	730
			1000	1	250 CMQ 1500 CMW	630 1185
WEST 1	INDI	ES			3000 CMX	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	30	CMGE	1375	HAITI		-50
Ciego de Avila W-26	50 112	CMJH CMJI	1150 1335	Port au Prince X-30	1000 HHK	920
	112	C141J1	1000	Tort au Finice A-30	1000 11111	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					

Cr	AC MADER BY				ICLICIA
CFAC	690 Calgary, Alta.	СКСО	890 Ottawa, Ont.	CMDB	1395 Havana, Cuba.
CIAC	Silent.	CKCR	645 Waterloo, Ont.	CMGB	1205 Matanzas, Cuba.
CFBO	890 St. John, N.B.		10 a.m1 p.m.; 5-10:30 p.m.,	CMGC	820 Matanzas, Cuba.
CFCA	1120 Toronto, Ont.		EST.	CMGE	1375 Cardenas, Cuba.
	11 a.mnoon; 5:30-10:30 p.m.,	CKCV	880 Quebec, Que.	CMGF	987 Matanzas, Cuba. 1040 Matanzas, Cuba.
	EST.	CVEC	Slient.	CMGH CMGI	1040 Matanzas, Cuba. 1150 Colon, Cuba.
CFCF	1030 Montreal, Que.	CKFC CKGW	730 Vancouver, B. C. 840 Toronto, Ont.	CMHC	1150 Colon, Cuba. 790 Tuinucu, Cuba.
CFCH	7-11:15 p.m., EST. 930 North Bay, Ont.	CKGW	10:45 a.m11:15 p.m EST.	CMHD	950 Caibarien, Cuba.
CrCn	11 a m -12:30 p.m.: 5-6 p.m.:	CKIC	10:45 a.m11:15 p.m., EST. 1010 Wolfville, N. S.	<b>CMHI</b>	1030 Santa Clara, Cuba.
	11 a.m12:30 p.m.; 5-6 p.m.; 8:15-9:15 p.m., EST.	CKLC	840 Red Deer Alfa.		11 a.m1 p.m.; 8-10 p.m., EST.
CFCL	580 Toronto, Ont.		5:30-7:15 p.m., MST. 1210 Cobalt, Ont. 730 Vancouver, B. C.	CMHJ	1150 Cienfuegos, Cuba.
CFCN	985 Calgary, Alta.	CKMC CKMO	1210 Cobalt, Ont.	CMIC	11 a.m2 p.m.; 7-10 p.m., EST. 1382 Camaguey, Cuba.
	11 a.m10:30 p.m., MST.	CKMO	730 Vancouver, B. C.	CMJC CMJE	1382 Camaguey, Cuba. 856 Camaguey, Cuba.
CFCO	1210 Chatham, Ont.	CKNC	960 Toronto, Ont. 11 a.m3 p.m.; 5-11:15 p.m.,	CMJF	930 Camaguey, Cuba.
CFCT	9:15 a.m9:30 p.m., EST. 630 Victoria, B. C.		EST.	CMJG	1050 Camaguey, Cuba.
Crci	11 a.m12:15 p.m.; 7-9 p.m.,	СКОС	635 Hamilton, Ont.	CMJH	1150 Ciego de Avila, Cuba.
	PST	CILOC	8 a.m10:30 p.m., EST. 540 Windsor, Ont.		10 a.m2 p.m.; 6-10 p.m., EST.
CFCY	580 Charlottetown, P. E. I.	CKOK	540 Windsor, Ont.	CMJI	10 a.m2 p.m.; 6-10 p.m., EST. 1335 Ciego de Avila, Cuba.
0	11 a.m12:30 p.m.; 4-5:30 p.m.; 7-8:30 p.m., AST.		8 a.mmid., EST. 1200 Kelowna, B. C.		10 a.m1:30 p.m.; 6-10 p.m.,
	7-8:30 p.m., AST.	CKOV	1200 Kelowna, B. C.	CN# II	EST.
CFJC	1120 Kamloops, B. C.		11 a.m1:30 p.m.; 7:30-9 p.m.,	CMJL	960 Camaguey, Cuba.
000	12:30-2 p.m., PST.	CVDC	PST.	CMK	730 Havana, Cuba. 10-noon; 6 p.mmid., EST.
CFLC	915 Prescott, Ont.	CKPC	880 Preston, Ont. 8:30-10 p.m., EST. 890 Ft. William, Ont. 5-9 p.m., EST.	CMKC	1034 Santiago, Cuba.
CENID	Silent. 1210 Fredericton, N. B.	CKPR	890 Ft. William. Ont.	CMKJ	1300 Guantanamo, Cuba.
CFNB CFQC	1210 Fredericton, N. B. 910 Saskatoon, Sask.	CILIA	5-9 p.m., EST.	CMQ	630 Hayana, Cuba,
CFRB	690 Toronto, Ont.	CKTB		$\mathbf{C}\mathbf{M}\mathbf{W}$	1185 Havana, Cuba.
	10:30 a.mmid., EST.		Noon-1 p.m.; 6-6:30 p.m., EST. 580 Edmonton, Alta.	03.615	1185 Havana, Cuba. 10 a.m3 p.m., EST. 890 Havana, Cuba.
CFRC	930 Kingston, Ont.	CKUA	580 Edmonton, Alta.	CMX	11 a m 2 n m + 2 10 n m FST
CHCK	960 Charlottetown, P. E. I.	CKWX	3:30-4:30 p.m., MST. 730 Vancouver, B. C.	CNRA	11 a.m2 p.m.; 8-10 p.m., EST. 630 Moncton, N. B.
	10:45 a.m12:30 p.m.; 2-3:30	CKWA	Noon-1:30 n m : 5:30-6:30 n.m.:	O. Heri	9:30-11 p.m. AST.
CHGS	p.m., AST. 1120 Summerside, P. E. I.		Noon-1:30 p.m.; 5:30-6:30 p.m.; 9-11:30 p.m., PST.	CNRH	9:30-11 p.m., AST. 815 Halifax, N. S. 600 Ottawa, Ont.
CIIGS	11 a.mnoon; 5:30-8:15 p.m.,	CKX	930 Brandon, Man.	CNRO	600 Ottawa, Ont.
	AST.		930 Brandon, Man. 6:45-8:30 p.m., CST.	01 m 11	8:30-11 p.m., EST. 1030 Vancouver, B. C.
CHLS	730 Vancouver, B. C.	CKY	780 Winnipeg, Man. 7-8:30 p.m., CST.	CNRV	1030 Vancouver, B. C.
-	Silent.	CMAB	1249 Pinar del Rio, Cuba.	<b>CPRY</b>	2-3:30; 5:30-8:30 p.m. PST. 840 Toronto, Ont.
CHMA CHML	580 Edmonton, Alta. 880 Hamilton, Ont.	CMAF	660 Havana, Cuba.	01.11	4-4:30 p.m., EST.
CHML	11 a.m12:30 p.m.; 7-8:30 p.m.,	CMBC	965 Havana, Cuba.	HHK	4-4:30 p.m., EST. 920 Port au Prince, Haiti.
	EST.		965 Havana, Cuba. 2-11 p.m., EST.	HIX	
CHNS	EST. 915 Halifax, N. S.	CMBD	965 Havana, Cuba.	KABC	2:10-3:40 p.m., EST. 1420 San Antonio, Tex. 8:30 a.m2 p.m.; 7-11:30 p.m.,
CTIDG	7 p.mmid., AST.	CMBG CMBI	1070. Havana, Cuba. 1444 Havana, Cuba.	KADC	8:30 a m -2 n m · 7-11:30 n m
CHRC	645 Quebec, Que. Noon-mid., EST.	CMBL	1444 Havana, Cuba.		CST.
CHWC	960 Regina, Sask.	011122	7-9 p.m., EST.	KARK	890 Little Rock, Ark.
	960 Regina, Sask. 4-9 p.m., MST. 665 Chilliwack, B. C.	CMBN		77.4.0.4	8-10 a.m.; 5-9 p.m., CST.
CHWK	665 Chilliwack, B. C.	CMBQ	1500 Havana, Cuba.	KASA	1210 Elk City, Okla. 7 a.m9 p.m., CST.
OTTE	Silent.	CMBR CMBS	1500 Havana, Cuba. 790 Havana, Cuba.	<b>KBPS</b>	1420 Portland, Ore.
CHYC CJCA	730 Montreal, Que. 745 Edmonton, Alta.	CMBT	790 Havana, Cuba.	KDIS	Silent.
CJCA	11 a m -12:30 p.m., MST.	CMBW	1140 Havana, Cuba.	<b>KBTM</b>	1200 Paragould, Ark.
CJCB	880 Sydney, N. S. Noon-3 p.m.; 7-11 p.m., AST. 690 Calgary, Alta.	CMBY	1235 Havana, Cuba.		7:30 a.mnoon; 4-6:15 p.m.,
	Noon-3 p.m.; 7-11 p.m., AST.	CMBZ	1010 Havana, Cuba. 9-10:30 a.m.; 6-7 p.m., EST.		CST.
CICI	690 Caigary, Alta.	CMC	9-10:30 a.m.; 6-7 p.m., ES1. 840 Havana, Cuba.	KCMC	1420 Texarkana, Ark.
	9:30-10:45 a.m.; 6-7:15 p.m., MST.	CMCA	1235 Havana, Cuba.		8-9 a.m.; 11 a.m1:15 p.m.; 5-6:30 p.m., CST.
CJGC	595 London, Ont.	CMCB	1070 Havana, Cuba.	KCRC	1370 Enid, Okla.
	11 a m = 12:30 p.m.: 6:30-8:30	Cirion	11 a.m1 p.m.; 9 p.mmid.,	Lonc	11 a.m.,-3 p.m., CST.
	p.m., EST.		EST.	KCRJ	1310 Jerome, Ariz.
CJGX	p.m., EST. 630 Yorkton, Sask.	CMCD	925 Havana, Cuba.		Silent.
0.10.0	0:40-8:30 p.m., Col.		Noon-3 p.m.; 8 p.mmid., EST.	KDB	1500 Santa Barbara, Calif.
CJOC	1120 Lethbridge, Alta. 1210 Vancouver, B. C.	CMCF	890 Havana, Cuba.		8 a.mmid., PST.
CJOR	1210 Vancouver, B. C. 10:30 a.mnoon; 3-9 p.m., PST.	CMCG	10 a.m1 p.m., EST. 1395 Havana, Cuba.	KDFN	1440 Casper, Wyo.
CJRM	665 Moose Jaw, Sask.	CMCH	1395 Havana, Cuba.	WDW.	10-11 a.m., MST.
CJRW	665 Fleming, Sask.	3111011	3-7 p.m., EST.	KDKA	980 Pittsburgh, Pa. 10:55 a.mmid., EST.
CKAC	730 Montreal, Que.	CMCJ	630 Havana, Cuba.	KDLR	1210 Devils Lake, N. D.
	1-11 p.m., EST.	CMCM	1395 Havana, Cuba.	KULK	Silent.
CKCD	730 Vancouver, B. C.	CMCN	925 Havana, Cuba.	KDYL	1290 Salt Lake City, Utah.
CKCI	645 Quebec, Que. Silent.	CMCO CMCQ	660 Havana, Cuba. 1140 Havana, Cuba.		6:30 a.m1 a.m. next day, MST.
CKCK	960 Regina, Sask.	CMCR	1345 Havana, Cuba.	KECA	1430 Los Angeles, Calif.
CKCK	10 a.m4 p.m.; 9 p.mmid.,	CMCU	1270 Havana, Cuba.		9 a.m11 p.m., PST.
	MST.	CMCW	1270 Havana, Cuba.	KELW	780 Burbank, Calif.
CKCL	580 Toronto, Ont.	CMCY	1355 Havana, Cuba.	VEDA	10 a.m1 p.m.; 5-8 p.m., PST.
	5:15-8 p.m., EST.		8:30-10:30 p.m., EST.	KEKN	1200 Bakersfield, Calif.

					KLIKA
KEX	1180 Portland, Ore.	KFSG	1120 Los Angeles, Calif.	KGFW	1310 Kearney, Neb.
KFAB	8 a.mnoon; 1 p.mmid., PST. 770 Lincoln, Neb.		10:30 a.m12:45 p.m.; 2:30-4:30 p.m.; 6:30 p.mmid., PST.		8 a.mnoon; 2:30-5 p.m., CST.
ILI AD	9 a.m10:30 p.m., CST.	KFUL	1290 Galveston, Texas	KGFX KGGC	630 Pierre, S. D. 1420 San Francisco, Calif.
KFAC	<ul><li>1300 Los Angeles, Calif.</li><li>1280 Great Falls, Mont.</li></ul>		9:15-10:45 a.m.; 1-6:30 p.m.;	KGGF	1010 Coffeyville, Kans.
KFBB	1280 Great Falls, Mont.	******	9:15-10:45 a.m.; 1-6:30 p.m.; 9:30-mid. CST.		1-5 p.m., CST.
	9:30 a.m1:30 p.m.; 6:30-10	KFUO		KGGM	1230 Albuquerque, N. M.
KFBI	p.m., MST. 1050 Milford, Kans.		nm: 0:15-10:30 nm CST	KGHF	10 a.m2 p.m., MST.
	8-9 a.m., CST.	KFVD	8:30 a.m12:30 p.m.; 3-4:30 p.m.; 9:15-10:30 p.m., CST. 1000 Los Angeles, Calif.	KGIII	10 a.m2 p.m., MST. 1320 Pueblo, Colo. 10:30 a.m3:30 p.m., MST.
KFBK	1310 Sacramento, Calif.	KFVS	1210 Cape Girardeau, Mo.	KGHI	1200 Little Rock, Ark.
KFBL	1370 Everett, Wash. 6 a.m1 p.m.; 7-9:30 p.m., PST.		9 a.m4 p.m.; 9:30 p.mmid., CST.	KGHL	950 Billings, Mont.
KFDM	560 Beaumont, Texas.	KFWB	950 Los Angeles, Calif.		10 a.m4 p.m.; 5:30-11 p.m., MST.
******	Silent. 550 Brookings, S. D.		8 a.m11 p.m., PST.	KGIR	1360 Butte. Mont.
KFDY	Silent.	KFWF	1200 St. Louis, Mo.		1360 Butte, Mont. 9 a.mmid., MST.
KFEL	920 Denver, Colo.	KFWI	930 San Francisco, Calif.	KGIW	1420 Trinidad, Colo.
	10 a.m7:30 p.m., MST.	KFXD	2:30-6 p.m.; 7:45-9 p.m., PST. 1200 Nampa, Idaho.	KGIX	1420 Las Vegas, Nev. Silent.
KFEQ	680 St. Joseph, Mo.		10 a.m6:30 p.m., MST.	KGIZ	1500 Grant City, Mo.
KFGQ	11:30 a.m7:45 p.m., CST. 1310 Boone, Iowa.	KFXF	920 Denver, Colo. 1310 Grand Junction, Colo.	KGKB	1500 Grant City, Mo. 1500 Tyler, Texas.
KFH	1300 Wichita, Kans.	KFXJ	8 a.m2 p.m.; 6-9 p.m., MST.		9:45 a.m2 p.m.; 7-9:30 p.m., CST.
	8-11 a.m.: 1-7 p.m.: 9-11 p.m	KFXM	1210 San Bernardino, Calif.	KGKL	1370 San Angelo, Texas.
VEI	CST.	T. T. T.	3-0 p.m., PST.		8:45 a.m2 p.m.: 7-9:30 p.m
KFI	640 Los Angeles, Calif. 6:30 a.mmid., PST.	KFXR KFYO	1310 Oklahoma City, Okla.	VOVO	CST.
KFIO	1120 Spokane, Wash.	KFYR	1310 Lubbock, Texas. 550 Bismarck, N. D. 9 a.m11 p.m., CST. 1470 Spokane, Wash. 8 a.mmid., PST. 1370 Tucson, Ariz.	KGKO KGKX	<ul><li>570 Wichita Falls, Texas.</li><li>1420 Lewiston, Idaho.</li></ul>
*******	8 a.msunset, PST.		9 a.m11 p.m., CST.	KGKY	1500 Scottsbluff Neb
KFIZ	1420 Fond du Lac, Wis. Silent.	KGA	1470 Spokane, Wash.		10 a.m1:30 p.m., MST. 1320 Honolulu, Hawaii.
KFJB	1200 Marshalltown, Iowa.	KGAR	8 a.mmid., PST.	KGMB	1320 Honolulu, Hawaii.
KFJF	1480 Oklahoma City, Okla.		11 a.m11 p.m., MST.		11 a.mnoon; 5;45-9:30 p. m. (Zone 5)
VEH	7 a.m1 a.m. next day, CST.	KGB	11 a.m11 p.m., MST. 1330 San Diego, Calif. 8 a.mmid., PST.	KGNF	1430 North Platte Neb
KFJI	1210 Klamath Falls, Ore. 9 a.m9 p.m., PST.	KGBU	900 Ketchikan, Alaska.	V CNO	10:30 a.mnoon; 2-4 p.m. MST. 1210 Dodge City, Kans. 2-3 p.m., MST. 790 San Francisco, Calif.
KFJM	1370 Grand Forks, N. D. 9 a.m9 p.m., CST.	KGBX	1310 St. Joseph, Mo.	KGNO	2-3 p.m. MST
vr m	9 a.m9 p.m., CST.		1:30 a.m1 p.m.; 3:30-10 p.m.,	KGO	790 San Francisco, Calif.
KFJR	1300 Portland, Ore. Silent.	KGBZ	CST. 930 York, Neb.	ana	o a.mmu., ro1.
KFJZ	1370 Fort Worth, Texas.	KUDZ	9:15-11:15 a.m.: 1:30-3 n.m.:	KGRS	1410 Amarillo, Texas.
TOTAL A	7:30 a.m11 p.m., CST. 880 Greeley, Colo.		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.		6-10 a.m.; 11 a.m3 p.m.; 5-7:30 p.m.; 10 p.mmid., CST. 750 Honolulu, Hawaii.
KFKA	Silent.	KGCA	1270 Decorah, Iowa.	KGU	750 Honolulu, Hawaii.
KFKU	1220 Lawrence, Kans.		10:45 a.mnoon, CST. (NovApril).		9 a.m noon; 3:15 p.m 10.
KEKY	4-5 p.m., CST. 1020 Chicago, Ill.	KGCR	1910 Wetertern CD	KGVO	(Zone 5) 1200 Missoula, Mont.
KFKX KFLV	1020 Chicago, III. 1410 Rockford, Ill.	VCCII	9 a.m2 p.m., CST.		1200 Missoula, Mont. 10 a.m6 p.m., MST.
.121	10 a.m2:30 p.m.: 6-9:30 p.m	KGCU	10:45 a m -12:30 n m · 1:30-4	KGW	620 Portland, Ore.
	CST.		9 a.m2 p.m., CST.  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.	KGY	8 a.mmid., PST. 1210 Olympia, Wash.
KFLX KFMX	1370 Galveston, Texas. 1250 Northfield, Minn.	KGCX	1310 Wolf Point, Mont.		Silent.
KLMY	7-8 p.m., CST.	KGDA	1-2 p.m., MST. 1370 Mitchell, S. D.	KHJ	Silent. 900 Los Angeles, Calif.
KFNF	890 Shenandoah Lowa	RGDA	Silent.	кно	8 a.mmid., PST. 590 Spokane, Wash.
	8-9:30 a.m.; 10:45 a.mnoon;	KGDE	Silent. 1200 Fergus Falls, Minn.	MIL	9 a.mmid., PST.
KFOR	8-9:30 a.m.; 10:45 a.mnoon; 2-8 p.m., CST. 1210 Lincoln, Neb.	KCDM	9 a.m9 p.m. CST.	KICA	1370 Clovis, N. M.
A. OK	8-10:15 a.m.; 1:30-3:30 p.m.:	radia	1100 Stockton, Calif.	KICK	1420 Red Oak, Iowa.
	8-10:15 a.m.; 1:30-3:30 p.m.; 4:30-8 p.m., CST. 1250 Long Beach, Calif.	KGDY	6 a.msunset, PST. 1200 Huron, S. D. 1200 Yuma, Colo. 2-4 p.m., MST. (Oct. 1st). 1360 Long Beach, Calif. 7 a.mmidnight, PST.	KID	1320 Idaho Falls, Idaho.
KFOX	1250 Long Beach, Calif.	KGEK	1200 Yuma, Colo.	KIDO	7 a.m10 p.m., MST.
KFPL	6 a.mmidnight, PST. 1310 Dublin, Texas.	KCEP	2-4 p.m., MST. (Oct. 1st).	KIDO	1350 Boise, Idaho. 9 a.m4 p.m., MST.
1 1	Silent.	KGER	7 a.mmidnight PST	KIDW	1420 Lamar, Colo.
KFPM	1310 Greenville, Texas.	KGEW	1200 Ft. Morgan, Colo.	KIT	1310 Yakima, Wash.
KFPW	Silent.	VOT.	11 a.mnoon, MST.		9 a.m2 p.m.; 6:45-10:30 p.m
WLL M	1210 Fort Smith, Ark. 10 a.m2 p.m.; 5-10:30 p.m.,	KGEZ	1310 Kalispell, Mont.	KJBS	PST.
	CST.	KGFF	8 a.m9 p.m., MST. 1420 Shawnee, Okla.	K 3D3	1070 San Francisco, Calif. Mid. to local sunset, PST.
KFPY	1340 Spokane Wash.		10:15 a.m9 p.m., CST.	KJR	970 Seattle, Wash.
KFQD	9 a.mmid., PST. 1230 Anchorage, Alaska.	KGFG	10:15 a.m9 p.m., CST. 1370 Oklahoma City, Okla.		8 a.mmid., PST.
40	5-7 p.m. (Zone 6)	KGFI		KLCN	1290 Blytheville, Ark.
KFRC	610 San Francisco, Calif.		8-9 p.m., CST.	KLO	1400 Ogden, Utah. 9 a.m10:30 p.m., MST.
VERM	8 a.mmid., PST.	KGFJ	8:30-9:30 a.m.; 11 a.mnoon; 8-9 p.m., CST. 1200 Los Angeles, Calif.	KLPM	1240 Minot, N. D
KFRU	630 Columbia, Mo. 7:30 a.mnoon; 4:45-5:30 p.m.,	KCEV	24 nours dany.		1240 Minot, N. D. 9-11:45 a.m.; 1:30-2:30 p.m.;
	CST.	KGFK	1500 Moorhead, Minn. 9 a.m9 p.m., CST.	VI n i	о-о р.ш., Сот.
KFSD	600 San Diego, Calif.	KGFL	1370 Santa Fe, N. M.	KLRA	1390 Little Rock, Ark.
	8 a.m11 p.m., PST.		Noon-2 p.m., MST.		8-11 a.m.; 1-5 p.m.; 6:30-11 p.m., CST.
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KLS	HIDER BI		EETTERO INTO CETT		WAGM
KLS	1440 Oakland, Calif.	KQV	1380 Pittsburgh, Pa.	KUSD	890 Vermillion, S. D.
KLX	10 a.m5 p.m., PST. 880 Oakland, Calif.	KQW	11 a.m8:30 p.m., EST. 1010 San Jose, Calif.	KVI	Silent. 570 Tacoma, Wash.
	Noon-11 p.m., PST. 560 Deny Colo.	11.611	10.15 a m 10.20 a m . 7.20 0.20		8 a.mmid., PST.
KLZ	560 Deny Colo.	KRE	p.m., PST.	KVL KVOA	1370 Seattle, Wash. 1260 Tucson, Ariz.
KMA	8 a.m11:30 p.m., MST. 930 Shenandoah, Iowa.	11112	p.m., PST. 1370 Berkeley, Calif. 10 a.m2 p.m.; 4-6 p.m.; 6:45- 10:45 p.m., PST. 1500 Santa Ana Calif.	KVOO	1140 Tuisa, Okia.
	8-9:15 a.m.; 11:15 a.m1:30	KREG	10:45 p.m., PST. 1500 Santa Ana, Calif.	KVOR	9 a.m8:15 p.m., CST. 1270 Colorado Springs, Colo.
	p.m.; 3-4:30 p.m.; 6-7 p.m.; 8:30-10 p.m., CST.	MILLO	9:30 a.m12:30 p.m.; 7:30-9:30		8 a.m10 p.m., MST.
KMAC	1370 San Antonio, Texas. 7-9 a.m.; 11 a.m12:30 p.m.;	KRGV	9:30 a.m12:30 p.m.; 7:30-9:30 p.m., PST. 1260 Harlingen, Texas.	KVOS KWCR	1200 Bellingham, Wash. 1420 Cedar Rapids, Iowa.
	2-4 p.m.; 6-8 p.m.; 10 p.m	RRGI	8-9:20 a.m.; 10-11 a.m.; 12:30-2		6:30 a.mmid., CST.
VMDC	mid., CST.	KRKD	p.m.; 7-9 p.m., CST.	KWEA KWG	1210 Shreveport, La. 1200 Stockton, Calif.
KMBC	950 Kansas City, Mo. 6:15 a.mmid., CST.	KKKD	1120 Los Angeles, Calif. 6-10:30 a.m.; 12:15-2:30 p.m.;		8:30 a.m11 p.m., PST.
KMED	1310 Mediora, Ore.	VDI D	4:30-6:30 p.m., PST.	KWJJ KWK	8:30 a.m11 p.m., PST. 1060 Portland, Ore.
KMJ	8 a.m9:30 p.m., PST. 580 Fresno, Calif.	KRLD	1040 Dallas, Texas. 8:30-11 a.m.; 3-6 p.m.; 7:45-		1350 St. Louis, Mo. 6:55 a.m11 p.m., CST.
	8:30 a.m11 p.m., PST.		9:15 p.m.; 10:30 p.mmid.,	KWKC	1370 Kansas City, Mo.
KMLB KMMJ	1200 Monroe, La. 740 Clay Center, Neb.	KRMD	CST. 1310 Shreveport, La.	KWKH	850 Shreveport, La. 7:45 p.mmid., CST. 1270 Decorah, Iowa.
	7:30-9:45 a.m.; 11 a.mnoon; 1-4:30 p.m., CST.		7 a.m1 p.m.; 4-7 p.m., CST.	KWLC	1270 Decorah, Iowa.
KMO	1-4:30 p.m., CST. 1330 Tacoma, Wash.	KROW	930 Oakland, Calif. 8 a.m2:30 p.m.; 6-11 p.m.,	KWSC	9:30-10:30 a.m., CST. 1220 Pullman, Wash.
	7 a.m6 p.m., PST.	VDCC.	PST.		Silent.
KMOX	1090 St. Louis, Mo.	KRSC	1120 Seattle, Wash. Sunrise to local sunset, PST.	KWWG KXA	1260 Brownsville, Texas. 760 Seattle, Wash.
KMPC	6:45 a.m1 a.m. next day, CST. 710 Beverly Hills, Calif.	KSAC	580 Manhattan, Kans.		7 a.msundown; 9 p.mmid.,
KMTR KNOW	570 Hollywood, Calif.	KSCJ	Silent. 1330 Sioux City, Iowa.	KXL	PST. 1420 Portland, Ore.
11.1011	7:30-10:30 a.m.; noon-3 p.m.;		7:30 a.m11 p.m., CST.		8 a.mmid., PST. 1500 El Centro, Calif. 1310 Aberdeen, Wash. 10 a.m7 p.m., PST.
KNX	5-8 p.m., CST. 1050 Hollywood, Calif.	KSD	550 St. Louis, Mo. 12:30-3 p.m.; 4:30-9:15 p.m.,	KXO KXRO	1310 El Centro, Calif. 1310 Aberdeen, Wash.
	6:30 a.m10:30 p.m., PST. 830 Denver, Colo.	war.	CST.		10 a.m7 p.m., PST.
KOA	830 Denver, Colo. 8:30 a.mmid., MST.	KSEI	890 Pocatello, Idaho.	KXYZ	
KOAC	550 Corvallis, Ore.	KSL	10 a.m11 p.m., MST. 1130 Salt Lake City, Utah. 8 a.mmid., MST.	777.1	8:30-10:30 a.m.; 11 a.m1:15 p.m.; 6-10:30 p.m., CST. 1230 San Francisco. Calif.
KOB	Silent. 1180 Albuquerque, N. M.	KSO	8 a.mmid., MST. 1380 Clarinda, Iowa.	KYA	8:45 a.m11 p.m., PST.
	7 a.m9 p.m., MST.	KSOO	1110 Sioux Falls, S. D.	KYW	1020 Chicago, Ill.
KOCW KOH	1400 Chickasha, Okla. 1380 Reno, Nev.		9 a.m7:30 p.m.; 9:30 p.m mid. CST.	NAA	8 a.m1 a.m. next day, CST. 690 Arlington, Va.
	8 a.m. 9 p.m., PST. 1260 Council Bluffs, Iowa.	KSTP	mid., CST. 1460 St. Paul, Minn.	RUS	664 Salvador.
KOIL	8:15 a.m1 a.m. next day, CST.	KTAB	8 a.mmid., CST. 560 San Francisco, Calif.	TGW TICR	570 Guatamala. 911 San Jose, C. R.
KOIN	940 Portland, Ore.		8:30 a.mmid., PST.	VAS	685 Glace Bay, N. S.
KOL	8 a.mmid., PST. 1270 Seattle, Wash.	KTAR	620 Phoenix. Ariz.	VCX VOAS	690 Halifax, N. S. 810 St. Johns, N. F.
KUL	8 a.mmid., PST.	KTAT	8 a.m11 p.m., MST. 1240 Ft. Worth, Texas.		Silent.
комо	920 Seattle, Wash. 8 a.m11 p.m., PST.	KTBR KTBS	1300 Portland, Ore.	VOGT	893 Wabana, N. F. 9 p.m10 (Zone 19)
KONO	1370 San Antonio, Texas.		1450 Shreveport, La. 6 a.mmid., CST.	VONA	950 St. Johns, N. F.
	1370 San Antonio, Texas. 9-11 a.m.; 12:30-2 p.m.; 4-6 p.m.; 8-10 p.m., CST.	KTFI	1240 Twin Falls, Idaho. 10 a.m11 p.m., MST.	vowr	750 St. Johns, N. F. 11 a.m12:30 p.m.: 6:30-7:50
KOOS	1370 Marshfield, Ore.	KTHS	1040 Hot Springs, Ark.	VIDA	11 a.m12:30 p.m.; 6:30-7:50 p.m., Nfld. time. 610 Nassau, B.I.
WORE.	Silent.		11 a.m3 p.m.; 6:15-7:45 p.m.; 9:15-10:30 p.m., CST.	VPN WAAB	1410 Boston, Mass.
KORE	1420 Eugene, Ore. 10_a.m1:30 p.m.; 6-9 p.m.,	KTLC	1310 Houston, Texas.		10 a.m11:30 p.m., EST.
	PST.		8 a.m1 p.m.; 6-11 p.m., CST.	WAAF	920 Chicago, Ill. 6 a.mlocal sunset, CST.
KOY	1390 Phoenix, Ariz. 9:30 a.m9 p.m., MST.	KTM	780 Los Angeles, Calif. 7-10 a.m.: 1-5 p.m.: 8 p.m4	WAAM	1250 Newark, N. J.
KPCB	650 Seattle, Wash.		7-10 a.m.; 1-5 p.m.; 8 p.m4 a.m., PST.		11 a.m12:30 a.m., EST.
	6:30 a.m8 p.m.; 10 p.m., 4 a.m.,	KTRH	1120 Houston, Texas. 8-11 a.m.; noon-3:30 p.m.; 5-	WAAT	940 Jersey City, N. J. 6 a.m6 p.m., EST.
KPJM	PST. 1500 Prescott, Ariz.		11:30 p.m., CST.	WAAW	660 Omaha, Neb.
KPO	680 San Francisco, Calif.	KTSA	1290 San Antonio, Texas.	WABC	860 New York City
KPOF	8 a.mmid., PST. 880 Denver, Colo.		7:30-9 a.m.; 10:45 a.m1 p.m.; 6:30-9:30 p.m., CST.	WABI	8 a.m1 a.m., EST. 1200 Bangor, Maine.
01	7:30-9 a.m.; 2:30-4:30 p.m.,	KTSM	1310 El Paso, Texas.		6 a.m3 p.m.; 6-9 p.m., EST.
KDBC	7:30-9 p.m., Mo1.	KTW KUJ	1220 Seattle, Wash. 1370 Walla Walla, Wash.	WABZ WACO	1200 New Orleans, La. 1240 Waco, Texas.
KPPC	1210 Pasadena, Calif. 9:30 a.m12:30 p.m.; 7:30-9		7:45 a.mlocal sunset, PST.	WACO	9:30-11 a.m.: 1-3 p.m.: 5-7:30
VDC.	p.m., PST.	KUMA		WADC	p.m., CST.
KPQ	1500 Wenatchee, Wash. 9 a.m1:15 p.m., PST.	KUOA	6-9 p.m., MST. 1390 Fayetteville, Ark.	WADC	1320 Akron, Ohio 11 a.mmid., EST.
KPRC	920 Houston, Texas.		7-8 a.m.; 11 a.m1 p.m.; 5-6:30 p.m., CST.	WAGM	1420 Presque Isle, Me.
	8 a.mmid., CST.		p.m., CST.		Silent.

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WAIU	640 Columbus, Ohio.	WCAT	1200 Rapid City, S. D.	WDZ	1070 Tuscola, Ill.
WALR	8 a.mlocal sunset, EST.	WCAU	1170 Philadelphia, Pa. 9 a.m1 a.m., EST.	WEAF	9 a.m5 p.m., CST. 660 New York City.
WALK	1210 Zanesville, Ohio. 10 a.m10 p.m., EST. 1140 Birmingham, Ala. 9 a.m7:45 p.m.; 8:15 p.m mid., CST.	WCAX	1200 Burlington, Vt.		8 a.m1 a.m., EST.
WAPI	1140 Birmingham, Ala.	WCAZ	1070 Carthage, Ill.	WEAI	8 a.m1 a.m., EST. 1270 Ithaca, N. Y.
	9 a.m7:45 p.m.; 8:15 p.m	WCBA	Silent. 1440 Allentown, Pa.	WEAN	Variable. 780 Providence, R. I.
WASH	1270 Grand Rapids, Mich.	II ODA	10 a.mnoon; 5:30-11:30 p.m.,		8 a.m1 a.m., EST.
TT 4 TT 77	9 a.m11 p.m., CST. 1350 Zarephath, N. J.	WCDD	EST.	WEAO	570 Columbus Ohio
WAWZ	6-9 a m · 11 a m -12:30 p.m.:	WCBD	1030 Zion, Ill. 6-11 a.m.; 3:30-local sunset,	WEBC	Silent. 1290 Superior, Wis.
	6-9 a.m.; 11 a.m12:30 p.m.; 3-4:30 p.m.; 7:30-9 p.m., EST.		CST.		9 a.m10:45 p.m., CST.
WBAA	1400 Lafayette, Ind.	WCBM	1370 Baltimore, Md.	WEBQ	1210 Harrisburg, III
WRAK	Silent. 1430 Harrisburg, Pa.	WCBS	9:30 a.m11 p.m., EST. 1210 Springfield, Ill.	WEBR	6-9 a.m.; 4-9:30 p.m., CST 1310 Buffalo, N. Y.
	Silent. 1060 Baltimore, Md.	11 000	10:45 a.m2 p.m.; 7-7:30 p.m.,		10 a m -1 a m FST
WBAL	1060 Baltimore, Md.	ween	CST.	WEDC	1210 Chicago, Ill. 590 Boston, Mass.
WBAP	7 a.mmid., EST. 800 Fort Worth, Texas.	wcco	810 Minneapolis, Minn. 9 a.m11 p.m., CST.	WEEI	10 a.m11:30 p.m., EST.
11 2/11	10 a.mnoon: 3-6 p.m.: 9:30-	WCDA	1350 New York City.	WEEU	830 Reading, Pa.
WD I V	mid., CST. 1210 Wilkes Barre, Pa.	WCFL	970 Chicago, Ill. 8 a.mmid., CST.	WELLO	
WBAX	1-11 p.m., EST.	WCGU	1400 Brooklyn, N. Y.	WEHC	8:30-9 a m : 11 a m noon: 2:30
WBBC	1400 Brooklyn, N. Y.		1400 Brooklyn, N. Y. 10:30 a.mnoon; 7-9 p.m., EST.		3:30 p.m., EST.
WBBL WBBM	1210 Richmond, Va. 770 Chicago, Ill.	WCKY	1490 Covington, Ky. 11 a.mmid., CST.	WEHS	1350 Emory, Va. 8:30-9 a.m.; 11 a.mnoon; 2:30- 3:30 p.m., EST. 1420 Ciero, Ill. 4-8 p.m. CST.
M DDIM	8:45 a.m10 p.m.: 11:30 p.m	WCLO	1200 Janesville, Wis.	WELL	4-8 p.m., CST. 1420 Battle Creek, Mich.
	8:45 a.m10 p.m.; 11:30 p.m 2 a.m., CST. 1300 Brooklyn, N. Y.		10 a.mnoon, CST. 1310 Joliet, Ill.	WENC	14ZU Americus, (†a.
WBBR	1300 Brooklyn, N. Y.	WCLS	1310 Joliet, Ill. 9 a.m2 p.m.; 6-8 p.m., CST.	,	9 a.m1 p.m.; 5-local sunset.
WBBZ	8-11 a.m.; 3-8 p.m., EST. 1200 Ponea City, Okla.	WCMA	1400 Culver, Ind.	WENR	EST. 870 Chicago, Ill.
TVID 43.4	7 a.m7 p.m., CST.		6:30-9:30 a.m.; 10:30 p.mmid.,		8 a.m12:30 p.m.; 3:30-6 p.m.;
WECM	1410 Bay City, Mich.	WCOA	CST. 1340 Pensacola, Fla.	WEDE	8 p.m1 a.m., CST.
WBEIT	7 a.m7 p.m., CST. 1410 Bay City, Mich. 900 Buffalo, N. Y. 9 a.mmid., EST.		10:30 a.m3 p.m., CST.	WERE	I420 Erie, Pa. 11 a.m2:30 p.m.; 5:30-10:30
MREO	1310 Marquette, Mich.	wcoc	880 Meridian, Miss.		p.m., EST.
WBHS WBIG	1200 Huntsville, Ala. 1440 Greensboro, N. C.		9:30 a.m3:30 p.m.; 5-11 p.m., CST.	WESG	1370 Glens Falls, N. Y.
	9:45 a.m10 p.m., EST. 1450 Hackensack, N. J.	WCOD	1200 Harrisburg, Pa.	WEVD	1300 New York City.
WBMS	1450 Hackensack, N. J.		2nd and 4th Sundays, 11 a.m noon; other Sundays 12:15-		11 a.m3 p.m.; 8-9 p.m.; 10-11 p.m., EST.
	Noon-2 p.m.; 5:45-7:30 p.m., EST.		7·15 n m EST.	WEW	760 St. Louis, Mo.
WBNX	1350 New York City.	WCRW	1210 Chicago, Ill. 11:30 a.m1:30 p.m.; 6-7 p.m.; 9-10 p.m., CST.	WEXL	9:30 a.m5:30 p.m., CST. 1310 Royal Oak, Mich.
WROO	12:30-3 p.m.; 4:30-6 p.m., EST. 860 New York City		9-10 n.m.: CST.	** 11761	9 a.m9 p.m., EST.
WBOW	12:30-3 p.m.; 4:30-6 p.m., EST. 860 New York City. 1310 Terre Haute, Ind.	WCSC	1360 Charleston, S. C.	WFAA	800 Dallas Tevas
WBRC	9 a.m11 p.m., CST. 930 Birmingham, Ala.	WCSH	940 Portland, Maine. 10:30 a.mnoon; 1-11:25 p.m.,		7:30-10 a.m.; noon-3 p.m.; 6- 9:30 p.m., CST.
WDAC	10 a.m11:30 p.m., CST.		EST.	WFAB	1300 New York City.
WBRE	10 a.m11:30 p.m., CST. 1310 Wilkes Barre, Pa.	WDAE	1220 Tampa, Fla.	WFAM	1200 South Bend, Ind.
WBSO	920 Babson Park, Mass. Silent.	WDAE	8 a.mmid., EST.	WFAN	610 Philadelphia, Pa.
WBT	1080 Charlotte, N. C.	WDAF	610 Kansas City, Mo. 8 a.m11 p.m., CST.	WFAS	9 a.mmid., EST. 1210 White Plains, N. Y.
	8 a.mmid., EST. 1370 Danville, Va.	WDAG	1410 Amarillo, Texas.	WIAD	6-9 p.m., EST.
WBZ	1370 Danville, Va.		1410 Amarillo, Texas. 10-11 a.m.; 3-5 p.m.; 7:30-10 p.m., CST.	WFBE	1200 Cincinnati, Ohio.
	990 Boston, Mass. 10 a.mmid., EST.	WDAU	p.m., CST. 1310 El Paso, Texas.	WFBG	8 a.m11 p.m., EST.
WBZA	990 Springfield, Mass.		1370 Philadelphia, Pa.	WIBG	1310 Altoona, Pa. 10:30 a.m12:30 p.m.; 2:30-4:30
WCAC	10 a.mmid., EST. 600 Storrs, Conn.		9 a.m10:30 p.m., EST.		p.m.; 6:15-11 p.m., EST.
0.10	Silent.	WDAY	940 Fargo, N. D.	WFBL	1360 Syracuse, N. Y.
WCAD	1220 Canton, N. Y.	WDBJ	8 a.m11 p.m., CST. 930 Roanoke, Va.	WERM	8 a.mmid., EST. 1230 Indianapolis ,Ind.
WCAE	Silent. 1220 Pittsburgh, Pa.	,, 203	8 a.mmid., EST.		7:30-10:30 a.m.; 1 p.mmid.,
	10:30 a.mmid., EST.	WDBO	580 Orlando, Fla.		CST.
WCAH	1430 Columbus, Ohio.	WDEI	7 a.mmid., EST.	WFBR	1270 Baltimore, Md.
WCAJ	8 a.mmid., EST. 590 Lincoln, Neb.	WDEL	1120 Wilmington, Del. 10:30 a.m1:30 p.m.; 6-10 p.m.,	WFDF	9 a.mmid., EST. 1310 Flint, Mich.
n one	8:30-9 a.m.; 11 a.m12:30 p.m.;		EST.		6-11 p.m., CST.
Wor.	6-7 p.m., CST.	WDEV	550 Waterbury, Vt.	WFDV	1500 Rome, Ga.
WCAL	1250 Northfield, Minn. 8-15-9-30 a.m.: 3-4 n.m. CST.	WDGV	10:30 a.mnoon, EST. 1180 Minneapolis, Minn.	WFDW	9 a.m3 p.m.; 6-9 p.m., CST. 1420 Anniston, Ala.
WCAM.	8:15-9:30 a.m.; 3-4 p.m., CST. 1280 Camden, N. J.		6:30 a.m8:15 p.m., CST.	W C W	10 a.m12:30 p.m.; 5-10 p.m.
	10:15 a.m12:30 p.m.; 3-5 p.m.,	WDOD	1280 Chattanooga, Tenn.		CST.
WCAO	EST.	WDDG	7 a.m11 p.m., CST.	WFEA	1430 Manchester, N. H.
WCAU	600 Baltimore, Md. 9 a.mmid., EST.	WDKC	1330 Hartford, Conn. 10 a.mmid., EST.	WFI	9 a.m11 p.m., EST. 560 Philadelphia, Pa.
WCAP	1280 Asbury Park, N. J.	WDSU	1250 New Orleans, La.		1-2 p.m.; 4:30-6 p.m.; 9-mid., EST
	9-10:15 a.m.; 8-9 p.m., EST.		7 a.m11:45 p.m., CST.		EST

WFIW	940 Hopkinsville, Ky.	WHFC	1420 Cicero, Ill.	WJDX	1270 Jackson, Miss.
	7 a.mnoon; 12:30-4 p.m.; 5- mid CST		8 a.m4 p.m.; 8 p.m1 a.m. CST.	WJED	12:30-10 p.m., CST. 600 Indianapolis, Ind.
WFLA	mid., CST. 620 Clearwater, Fla.	WHIS	1410 Bluefield, W. Va.	WJEJ	1210 Hagerstown, Md.
	8 a.mmid., EST.	******	9-9:40 a.m.; noon-3 p.m., EST.	WJJD	1130 Chicago, Ill.
WFOX WGÅL		WHK	1390 Cleveland, Ohio.	WJKS	6 a.m8:30 p.m., CST.
WGAL	1310 Lancaster, Pa. 8-9:30 a.m., EST.	WHN	8 a.mmid., EST. 1010 New York City.	WILD	1360 Gary, Ind. 10:30-11:45 a.m.; 1-6:15 p.m.; 8-11 p.m., CST. 1420 Ironwood, Mich. 9 a.m. 7-45 p.m. CST.
WGAR	1450 Cleveland, Ohio.	WHO	HIDD Des Momes, Iowa,		8-11 p.m., CST.
	1450 Cleveland, Ohio. 7 a.m1 a.m., EST.	WHOM	1450 Jersey City, N. J. 10:30 a.mnoon; 2-5:45 p.m.,	WJMS	1420 Ironwood, Mich.
WGBB WGBF	1210 Freeport, N. Y.		9:30-mid., EST.	WJR	9 a.m7:45 p.m., CST. 750 Detroit, Mich.
WGDF	630 Evansville, Ind. 9:30 a.m4 p.m.; 6-11 p.m.,	WHP	1430 Harrisburg, Pa.	** 310	8 a.m1 a.m., EST.
	CST.		9 a.m1 a.m., EST. 1310 Ottumwa, Iowa.	WJSV	8 a.m1 a.m., EST. 1460 Washington, D. C.
WGBI	880 Scranton, Pa.	WIAS	1310 Ottumwa, Iowa.	*** ****	7:30 a.m1 a.m., EST.
WCCM	12:01-2 a.m., EST. 1210 Gulfport, Miss.		10 a.m2:30 p.m.; 5-7 p.m., CST.	WJTL WJW	1370 Atlanta, Ga. 1210 Mansfield, Ohio.
WGCM	11 a.m12:30 p.m.; 3-6 p.m.,	WIBA	1280 Madison, Wis.		10:15 a.mnoon; 6:30-9 p.m.,
	CST.		9 a.m11:30 p.m., CST.		EST.
WGCP	1250 Newark, N. J.	WIBG	930 Glenside, Pa.	WJZ	760 New York City.
	1250 Newark, N. J. 7:30-10 a.m.; 12:30-6:30 p.m.; 9-mid., EST.	WIBM	Daybreak to sunset, EST. 1370 Jackson, Mich.	WKAQ	8 a.m1 a.m., EST. 1240 San Juan, P. R.
WGES	1360 Chicago, Ill.	# IDIM	9 a.m2:30 p.m., CST.	WKAR	1040 East Lansing, Mich.
.,	8-10:30 a.m.; 11:45 a.ml p.m.;	WIBO	560 Chicago, Ill.		Silent
	6:15-8 p.m.; 11 p.m2 a.m.,	******	7:30-10 a.m.; 12:30-7 p.m., CST.	WKAV	1310 Laconia, N. H.
WGH	CST. 1310 Newport News. Va.	WIBU WIBW	1210 Poynette, Wis. 580 Topeka, Kans.	WKBB	1310 Laconia, N. H. 9 a.m1 p.m.; 3-8 p.m., EST. 1310 Joliet, Ill.
WGII	10 a.m5 p.m.; 6-10 p.m., EST.	**15**	8 a.m11 p.m., CST.	***************************************	2-6 p.m CST.
WGL	1370 Fort Wayne, Ind.	WIBX	8 a.m11 p.m., CST. 1200 Utica, N. Y.	WKBC	1310 Birmingham, Ala.
CN	1:30 p.mmid., CST.	WICC	600 Bridgeport, Conn.	WKBF	1400 Indianapolis, Ind.
WGN	720 Chicago, Ill.	WIL	9:30 a.m11:30 p.m., EST. 1200 St. Louis, Mo.	WKBH	9:30 a.m10:30 p.m., CST. 1380 LaCrosse, Wis. 9 a.m10 p.m., CST. 1420 Cicero, Ill.
WGR	9 a.m1:30 a.m., CST. 550 Buffalo, N. Y.	WIL	11 a.m6 p.m.: 8 p.mmid	WEDII	9 a.m10 p.m., CST.
	9 a.m1 a.m., EST.		CST.	WKBI	1420 Cicero, Ill.
WGST	890 Atlanta, Ga.	WILL	890 Urbana, III.	WEDN	Silent.
WGY	7 a.mmid., EST. 790 Schenectady, N. Y.	WILM	9:30-10:30 a.m., CST. 1420 Wilmington, Del.	WKBN	570 Youngstown, Ohio. 9 a.mmid., EST.
#41	8 a.m1 a.m., EST.	WILIM	9 a.mnoon; 6-10 p.m., EST.	WKBS	1310 Galesburg, Ill. 1500 Connersville, Ind.
WHA	8 a.m1 a.m., EST. 940 Madison. Wis.	WINS	9 a.mnoon; 6-10 p.m., EST. 1180 New York City.	WKBV	1500 Connersville, Ind.
WHAD	Silent. 1120 Milwaukee, Wis.	WIOD	8 a.m10:15 p.m., EST. 1300 Miami, Fla.	WKRW	Silent. 1480 Buffalo, N. Y.
WIIAD	9:30-10:15 a.m.; 4-5 p.m., CST.	WIP	610 Philadelphia, Pa.	**********	9:30 a.m11 p.m., EST.
WHAM	9:30-10:15 a.m.; 4-5 p.m., CST. 1150 Rochester, N. Y.		9 a.mmid., EST.	WKBZ	1500 Ludington, Mich.
WHAS	11 a.mmid., EST. 820 Louisville, Ky.	WIS	1010 Columbia. S. C.	WKFI	Silent. 1210 Greenville, Miss.
WITAS	7 a.mmid., CST.		10 a.mnoon; 5:30-11 p.m., EST.	WKJC	1200 Lancaster, Pa.
WHAT	1310 Philadelphia, Pa.	WISN	1120 Milwaukee, Wis.		Occasional church services.
WHAZ	1300 Troy, N. Y.		8:30 a.m4 p.m.; 5 p.mmid.,	WKRC	550 Cincinnati, Ohio. 6:45 a.mmid., EST.
WHB	Silent. 860 Kansas City, Mo.	WJAC	CST. 1310 Johnstown, Pa.	WKY	900 Oklahoma City, Okla.
	6 a.m6:30 p.m., CST.		4:30-6:15 p.m., EST.		8 a.m11 p.m., CST.
WHBC	1260 Canton, Ohio,	WJAG	1060 Norfolk, Neb.	WKZO	590 Kalamazoo, Mich.
WHBD	2:15-3 p.m., EST. 1370 Mt. Orab, Ohio.	WJAK	10:15 a.m3:30 p.m., CST. 1310 Elkhart, Ind.	WŁAC	9 2.M8:15 p.M., Col.
171100	7-11 a.m.; noon-5 p.m.; 6-9	WJAK	4:30 p.m., mid., CST.	WENC	9 a.m8:15 p.m., CST. 1470 Nashville, Tenn. 7 a.m11 p.m., CST.
****	7-11 a.m.; noon-5 p.m.; 6-9 p.m., EST. 1210 Rock Island, Ill.	WJAR	890 Providence, R. I.	WLAP	1200 Louisville, Ky.
WHBF	1210 Rock Island, Ill. Silent.		11 a.mmid., EST.	WLB	8 a.m11 p.m., CST. 1250 Minneapolis, Minn.
WHBL	1410 Sheboygan. Wis.	WJAS	1290 Pittsburgh, Pa.	ALD	Silent.
	1410 Sheboygan, Wis. 9-10 a.m., CST.	WJAX	9 a.m11:30 p.m., EST. 900 Jacksonville, Fla.	WLBC	1310 Muncie, Ind.
WHBQ	1370 Memphis, Tenn.	HJAA	9:15-10:15 a.m., EST.	WIDE	7 a.m4:30 p.m., CST.
WHRIT	10:30 a.m9 p.m., CST. 1310 Anderson, Ind.	WJAY	610 Cleveland, Ohio.	WLBF	1420 Kansas City, Kans. 9 a.m10 p.m., CST.
WILDO	8:15 a.m9 p.m., CST.	WJBC	1200 LaSalle, Ill.	WLBL	900 Stevens Point, Wis.
WHBY	1200 Green Bay, Wis.	W 15*	9:45-10:45 a.m., CST.		Silent.
WHDP	10 a.m9 p.m., ČST.	WJBI	1210 Red Bank, N. J. Silent.	WLBW	1260 Oil City, Pa. 10 a.m1 a.m., EST.
WHDF	1370 Calumet, Mich. 10:30 a.m3 p.m.; 5-8:15 p.m.,	WJBK	1370 Detroit, Mich.	WLBZ	620 Bangor, Maine.
	CST.	.,	7 a.m11 p.m., EST.	WLEY	1370 Lexington, Mass.
WHDH	830 Boston, Mass.	WJBL	1200 Decatur, Ill.		12:30-1:30 p.m., EST.
WHDL	1420 Tupper Lake, N. Y.		8:45-9:45 a.m.; 10:45 a.mnoon;	WLIT	560 Philadelphia, Pa.
WHEB	11:15 a.m2:15 p.m., EST. 740 Portsmouth, N. H.	WJBO	6-9:30 p.m., CST. 1420 New Orleans, La.		2-4:30 p.m.; 6-9 p.m.; mid1 a.m., EST.
WHEB	10 a.mnoon; 2-5 p.m., EST.		1210 Lewisburg, Pa.	WLOE	1500 Boston, Mass.
WHEC	1430 Rochester, N. Y.	500	8 a.m1 p.m., EST.	WLS	870 Chicago, Ill.
	8 a.mmid., EST.	WJBW	1200 New Orleans, La.		12:30-3:30 p.m.; 6-8 p.m., CST.
WHEF	1500 Kosciusko, Miss.		8-10 a.m.; 1-5 p.m.; 9 p.mmid.,	WLTH	1400 Brooklyn, N. Y.
WHET	1210 Troy, Ala.	WJBY	CST. 1210 Gadsden, Ala.		1:30-4:30 p.m.; 10:30 p.m1:30 a.m., EST.
	9 a.mnoon; 2-4 p.m., CST.	# JD1	izio Gausuen, Ala.		W

WLVA	1270 Lynghburg Vo	WOBU	580 Charleston, W. Va.	WDAY	1020 Philadelphia, Pa.
WLVA	1370 Lynchburg, Va. 11 a.m3 p.m., EST.	WODU	3-7:30 n m EST	WILAA	8 a.mlocal sunset, EST.
WLW	700 Cincinnati, Ohio.	WOC-	3-7:30 p.m., EST. 1000 Davenport, Iowa.	WRBL	1200 Columbus, Ga.
""	8 a.m12:30 a.m., EST.		9 a.m11 p.m., CST.	WRBX	1200 Columbus, Ga. 1410 Roanoke, Va.
WLWL	1100 New York City.	WOCL	1210 Jamestown, N. Y.	WRC	950 Washington, D. C.
WMAC			11 a.m11 p.m., EST.		1370 Augusta, Maine.
WMAL	630 Washington, D. C.	WODA	1250 Paterson, N. J.		1370 Augusta, Maine. 6-10 p.m., EST.
WINAL	9 a.mmid., EST.	WODX	1410 Mobile, Ala.	WRDW	1500 Augusta, Ga.
WMAQ	670 Chicago, Ill.	021	10 a.m9 p.m., CST.	WREC	600 Memphis, Tenn.
WIMAQ	9 a.m11 p.m.; mid1 a.m.,	WOI	640 Ames, Iowa.	WREN	1220 Lawrence, Kans.
	CST	01	Silent.		7 a.mmid., CST.
WMAS	1420 Springfield, Mass.	WOKO	1430 Albany, N. Y.	WRHM	1250 Minneapolis Minn.
WMA7	1180 Macon, Ga.		9 a.m1 a.m., EST.		9:30 a.m3 p.m.; 4-7 p.m.; 8 p.m1 a.m., CST. 1370 Racine, Wis.
***************************************	10 a.m3:30 p.m., EST.	WOL	1310 Washington, D. C.		p.m1 a.m., CST.
WMRC	1420 Detroit, Mich.		10 a.m3 p.m., EST.	WRJN	1370 Racine, Wis.
	10:30 a.mmid., EST.	WOMT	1210 Manitowoc, Wis.		9 a.m10:30 p.m., CST. 1010 New York City.
WMRD	1440 Peoria, Ill.		Silent.	WRNY	1010 New York City.
	8 a.mnoon: 1:30-3:30 p.m.:	WOOD	1270 Grand Rapids, Mich.	WROL	1310 Knovville Tenn
	8 a.mnoon; 1:30-3:30 p.m.; 8:30-mid., CST.		9 a.m11 p.m., CST. 1500 Bristol, Tenn.		4-9 p.m., CST. 1280 Dallas, Texas. 7 a.m11 p.m., CST.
WMBG	1210 Richmond, Va.	WOPI	1500 Bristol, Tenn.	WRR	1280 Dallas, Texas.
	Silent.		10 a.m2 p.m.; 5-9 p.m., EST.		7 a.m11 p.m., CST.
WMBH	1420 Joplin, Mo.	woq	10 a.m2 p.m.; 5-9 p.m., EST. 1300 Kansas City, Mo.	WRUF	830 Gainesville, Fla.
	1080 Chicago, Ill.	-	7-8 a.m.; 10 a.m1 p.m.; 7-9		9 a.m8:15 p.m., EST.
	4-5 p.m., CST.		nm·llnm-mid CST	WRVA	1110 Richmond, Va.
WMBO	1310 Auburn, N. Y.	WOR	710 Newark, N. J.		10 a.m11:15 p.m. EST.
	10:45-11:30 a.m.; 2-9 p.m., EST.		6:45 a.mmid., EST.	WSAI	1330 Cincinnati, Ohio.
WMBO	10:45-11:30 a.m.; 2-9 p.m., EST. 1500 Brooklyn, N. Y.	WORC	710 Newark, N. J. 6:45 a.mmid., EST. 1200 Worcester, Mass.		1330 Cincinnati, Ohio. 12:30-11 p.m., EST. 1310 Grove City, Pa.
WMBR	1370 Tampa, Fla.	)	9 a.m11 p.m., EST. 1000 York, Pa.	WSAJ	1310 Grove City, Pa.
	6:45 a.m1 p.m., EST.	WORK	1000 York, Pa.	WC 1 P	4:30-5 p.m., EST.
WMC	780 Memphis, Tenn		10:25 a.mlocal sunset, EST.	WSAN	1440 Allentown, Pa.
	6:45 a.m1 p.m., EST. 780 Memphis, Tenn 8 a.m11 p.m., CST.	wos	630 Jefferson City, Mo.	WSAR	1450 Fall River, Mass.
WMCA	570 New York City.	wov	1130 New York City.	W0 4 7	Silent.
	9 a.m2 a.m., EST.	wow	590 Omaha, Neb. 7:30-8:30 a.m.; 9-11 a.m.; 12:30- 6 p.m.; 7-11:30 p.m., CST.	WSAZ	580 Huntington, W. Va.
WMIL	1500 Brooklyn, N. Y.		7:30-8:30 a.m.; 9-11 a.m.; 12:30-	WSB	7:30 p.m1 a.m., EST.
	9 a.m2:30 a.m., EST. N 890 Fairmont, W. Va. 10 a.m9 p.m., EST.	WOWO	6 p.m.; 7-11:30 p.m., CST.	WSD	740 Atlanta, Ga. 6:55 a.m11:30 p.m., EST.
W IVI IVI	N 890 Farmont, W. Va.	WOWO	1160 Fort Wayne, Ind. 7:30 a.m7:45 p.m.; 9:15 p.m	WSBC	1210 Chicago, Ill.
WMDC	10 a.m9 p.m., EST.		7:50 a.m.=7:45 p.m.; 9:15 p.m.=	WSBT	1230 South Bend, Ind.
WINIFC	1500 Lapeer, Mich.	WPAD	mid., CST. 1420 Paducah, Ky.	WSEN	1210 Columbus Obio
	10 a.m2 p.m.; 3:30-6 p.m.; 7:30-11 p.m., EST.	WIAD	7-9 a m · 10 a m -2 n m · 3-	WDEI	1210 Columbus, Ohio. 10 a.m11 p.m., EST.
WMRI	1210 Jamaica N V :		7-9 a.m.; 10 a.m2 p.m.; 3- 10:30 p.m., CST.	WSFA	1410 Montgomery, Ala.
***************************************	1210 Jamaica, N. Y. 9 p.mmid., EST.	WPAP	1010 New York City.		7:30 a.mlocal supset: 9-11:30
WMSG	1350 New York City.		1210 Providence, R. I.		p.m., CST. 1210 Springfield, Tenn.
	Silent.	WPCC	560 Chicago, Ill.	WSIX	1210 Springfield, Tenn.
WMT	600 Waterloo, Iowa.		10 a.m12:30 p.m.; 7 p.mmid.,	WSJS	1310 winston-Salem, N. C.
	7 a.m11 p.m., CST.		CST	****	8 a.mmid., EST.
WNAC	1230 Boston, Mass.	WPCH	810 New York City. 8 a.m7:30 p.m., EST.	WSM	650 Nashville, Tenn.
TENNE D	8 a.m1 a.m., EST.		8 a.m7:30 p.m., EST.	WCMD	9:30 a.m11 p.m., CST.
WNAD	1010 Norman, Okla.	WPEN	1500 Philadelphia, Pa.	WOME	9:30 a.m11 p.m., CST.  1320 New Orleans, La.  7 a.mmid., CST.  1380 Dayton, Ohio.
WNAX	Silent. 570 Yankton, S. D.	WPFB	7:30 a.m10:30 p.m., EST.	WSMK	1380 Dayton Obio
WINAA	8 a.mmid., CST.		1370 Hattiesburg, Miss.	W Divite	8 a.mmid., EST.
WNBF	1500 Binghamton, N. Y.	WPG	1100 Atlantic City, N. J. 9 a.m3:15 p.m.; 6-8 p.m.; 9:15 p.m1 a.m., EST.	WSOC	1210 Gastonia, N. C.
***********	11 a.mnoon; 6-9 p.m., EST.		p.m1 o m. FCm		9:30 a.m9:30 p.m., EST.
WNRH	1310 New Bedford, Mass.	WDLID	1200 Petersburg, Va.	WSPA	1420 Spartanburg, S. C.
	10 a.m10:15 p.m., EST.	*****	10:45 a.m1:30 p.m.; 5-9 p.m.,		7:30 a.m10 p.m., EST.
WNBO	1200 Silverhaven, Pa.		EST.	WSPD	7:30 a.m10 p.m., EST. 1340 Toledo, Ohio.
	9 a.m.=noon: 3-6 p.m.: 9 p.m.=	WPOR	780 Norfolk, Va.		8 a.mmid., EST.
	mid., EST.		1210 Providence, R. I.	WSUI	880 Iowa City, Iowa.
WNBR	mid., EST. 1430 Memphis, Tenn.	WPSC	1230 State College, Pa.		6-7 p.m.: 9:15-9:45 p.m. CST
	9:30 a.m1 p.m.; 5-9 p.m., CST.		10:55 a.m12:10 p.m., EST.	WSUN	ozu ot. Petershira Ria
	1200 Carbondale, Pa.	WPTF	680 Raleigh, N. C.	MCHC	8 a.mmid., EST. 1370 Buffalo, N. Y. 1500 Rutland, Vt.
WNBX	1200 Springfield, Vt.		10:30 a.m9:15 p.m., EST.	WSVS	1500 Buffalo, N. Y.
	Silent.	WQAM	560 Miami, Fla.	WSYB	10.11 am FECT
WNBZ	1290 Saranac Lake, N. Y.		8 a.mmid., EST.	WSYR	10-11 a.m., EST.
WNJ	1450 Newark, N. J.	WQAN	880 Scranton, Pa.	HOIN	570 Syracuse, N. Y. 11 a.m10 p.m., EST.
	7:45-10:30 a.m.; 7:30-9:30 p.m.,		Silent.	WTAD	1440 Quincy, Ill.
	Tiom,	WOLO	1010 New York City.	HIAD	N 1-20 0 00 0 00
	EST.		TOTO THEW TOTA CITY.		
wnox	EST.		1360 Vicksburg, Miss.		Noon-1:30 p.m.; 3:30-8:30 p.m., CST.
	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST.	WQBC	1360 Vicksburg, Miss. 10 a.m9 p.m., CST.	WTAG	CST.
WNOX WNYC	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City.	WQBC WQDM	1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 St. Albans, Vt.	WTAG	CST. 580 Worcester, Mass.
WNYC	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent.	WQBC WQDM WQDX	1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga.		CST. 580 Worcester, Mass. 10:45 a.m11:15 p.m., EST. 1070 Cleveland, Objo.
	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent. 1190 San Antonio, Texas.	WQBC WQDM	1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga. 1370 Williamsport. Pa.	WTAM	CST. 580 Worcester, Mass. 10:45 a.m11:15 p.m., EST. 1070 Cleveland, Objo.
WNYC	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent. 1190 San Antonio, Texas. 11 a.m4:30 p.m.; 6:15-9:15	WQBC WQDM WQDX	1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga. 1370 Williamsport. Pa.		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.
WNYC WOAI	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent. 1190 San Antonio, Texas. 11 a.m4:30 p.m.; 6:15-9:15 p.m., CST.	WQBC WQDM WQDX WRAK	1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga. 1370 Williamsport, Pa. 10:30 a.mnoon; 4-5 p.m.; 7:15-10:30 p.m., EST.	WTAM WTAQ	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.
WNYC WOAI	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent. 1190 San Antonio, Texas. 11 a.m4:30 p.m.; 6:15-9:15 p.m., CST. 1280 Trenton N. J.	WQBC WQDM WQDX WRAK	1360 Vicksburg, Miss, 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga. 1370 Williamsport, Pa. 10:30 a.mnoon; 45 p.m.; 7:15-10:30 p.m., EST. 1370 Willinington, N. C.	WTAM	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.
WNYC WOAI	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent. 1190 San Antonio, Texas. 11 a.m4:30 p.m.; 6:15-9:15 p.m., CST. 1280 Trenton N. J.	WQBC WQDM WQDX WRAK WRAM	1360 Vicksburg, Miss. 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga. 1370 Williamsport, Pa. 10:30 a.mnoon; 4-5 p.m.; 7:15-10:30 p.m., EST. 1370 Wilmington, N. C. 10 a.mnoon; 7-9 p.m., EST.	WTAM WTAQ WTAR	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
WNYC WOAI	EST. 560 Knoxville, Tenn. 9 a.m11 p.m., CST. 570 New York City. Silent. 1190 San Antonio, Texas. 11 a.m4:30 p.m.; 6:15-9:15 p.m., CST.	WQBC WQDM WQDX WRAK WRAM	1360 Vicksburg, Miss, 10 a.m9 p.m., CST. 1370 St. Albans, Vt. 1210 Thomasville, Ga. 1370 Williamsport, Pa. 10:30 a.mnoon; 45 p.m.; 7:15-10:30 p.m., EST. 1370 Willinington, N. C.	WTAM WTAQ WTAR	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.

WTAX         1210         Springfield, III.         XEC         1000         Toluca, Mex.         XET         690         Monterey, Mex.         9 a.m2 p.m.; 6-10 p.m., CST.           WTEL         1310         Philadelphia, Pa.         XEF         1000         Coaxaco, Mex.         XET         1140         Maximostality         XET         11						
10:30 a.m12:30 p.m., EST.	WTAX	1210 Springfield, Ill.			XET	
WTEL         1310         Philadelphia, Pa.         XEF         735         Villa Acuna, Mex.         XETB         1380         Torreon, Mex.           WTFI         1450         Athens, Ga.         8 a.m5 p.m.; 7:45-9:30 p.m., EST.         XEFA         1250         Mexico City, Mex.         XETT         1000         Jalapa, Mex.         XETT         Mexico City, Mex.         XETT         XETT         Mexico City, Mex.         XETT         Mexico City, Mex.         XETT         Mexico City, Mex.         XETT	WTBO	1420 Cumberland, Md.				9 a.m2 p.m.; 6-10 p.m., CST.
12:30-3 p.m.; 5-8 p.m., EST.   24 hours daily.   XETC   1000 Jalapa, Mex.   XEFA   1250 Mexico City, Mex.   Sa.m5 p.m.; 7:45-9:30 p.m., EST.   XEFB   1315 Monterrey, Mex.   Sa.m3 p.m., CST.   XEFD   S45 Tijuana, Mex.   XETG   1000 Torreon, Mex.   XETG   1000 Queretaro, Mex.   XETG   1000 Torreon, Mex.   XETG   1000 Torreon, Mex.   XETG   1000 Torreon, Mex.   XETG   1000 Queretaro, Mex.   XETG   1000 Queretaro, Mex.   XETG   1000 Torreon, Mex.   XETG   1000 Correon, Mex.   XETG   1000 Correon, Mex.   XETG   1000 Queretaro, Mex.   XETG   1000		10:30 a.m12:30 p.m., EST.		1000 Oaxaco, Mex.		1140 Mexico City, Mex.
WTFI   1450 Athens, Ga.   Sa.m., Carrow City, Mex.   Sa.m., Carrow City,	WTEL		XEF	735 Villa Acuna, Mex.		
S a.m. 5 p.m.; 7:45-9:30 p.m., EST.   S a.m. 3 p.m.; CST.   S a.m.; CST.   S a.m. 3 p.m.; S a.m.; CST.   S a.m.; CS						
SST.	WTFI				XETF	630 Veracruz, Mex.
WTIC   1060   Hartford, Conn.   XEFC   1050   Merida, Mex.   XETQ   1230   Mexico City, Mex.   XETQ   1310   Jackson, Tenn.   XEFD   1000   Laredo, Mex.   XETQ   1230   Mexico City, Mex.   XETS   1000   Laredo, Mex.   XETS   1000   Chihuahua, Mex.   XETS   1000   Queretaro, Mex.   XETS   1000   Queretaro, Mex.   XETS   1000   Queretaro, Mex.   XETS   1000   Veracruz, Mex.   XETS   1000   Veracruz, Mex.   XETS   1000   Veracruz, Mex.   XETS   New College   Nexico City, Mex.   XETS   Nexico City, Mex.		8 a.m5 p.m.; 7:45-9:30 p.m.,	XEFB			7-8 a.m.; noon-3 p.m.; 8-11 p.m.,
7:30 p.mmid, EST.  WTJS 1310 Jackson, Tenn. 8:45 a.mnoon; 1-3:15 p.m., CST.  WTMJ 620 Milwaukee, Wis. 8 a.m12:30 a.m., CST. WTOC 1260 Savannah, Ga. 8 a.mmid, EST.  WTSL 1310 Laurel, Miss. WWAE 1200 Hammond, Ind. WWJ 920 Detroit, Mich. 8 a.mmid, EST.  WWNL 850 New Orleans, La. 10 a.m7:45 p.m., CST.  WWNC 570 Asheville, N. C. 7 a.mmid, CST.  WWNC 1500 Moviso City, Mex.  XEI 1310 Morelia, Mex. XEI 1310 Movielia, Mex. XEI 13	WTIC		VEEC	8 a.m3 p.m., UST.	VETO	
WTJS   1310   Jackson, Tenn.   SAFE   1000   Laredo, Mex.   CST.   CST.   WTMJ   620   Milwaukee, Wis.   8 a.m 12:30 a.m., CST.   Sam 12:30 a.m., CST.   Sam 12:30 a.m., CST.   Sam 12:30 p.m., CST.   Sam 12:30	WIIC	7.20 m m mid ECT				
8:45 a.mnoon; 1-3:15 p.m., XEFI 1000 Chibuahua, Mex. XEU 1007 Veracruz, Mex. 7-8 a.m.; noon-4 p.m.; 8 p.mmid., CST. XEFS 1000 Queretaro, Mex. 8-10 p.m., CST. XEV 1000 Puebla, Mex. XEV 1132 Monterrey, Mex. XEV 1100 Mexico City, Mex. XEV 110 Mexico City, Mex. XIV 110	WTIC	1310 J.mmid., EST.				
CST. WTMJ 620 Milwaukee, Wis. 8 a.m12:30 a.m., CST. WTOC 1260 Savannah, Ga. 8 a.mmid, EST. WTSL 1310 Laurel, Miss. WWAE 1200 Hammond, Ind. WWJ 920 Detroit, Mich. 8 a.mmid, EST. WWL 850 New Orleans, La. 10 a.m7:45 p.m., CST. WWRL 1500 Woodside, N. Y. 1-6 p.m., EST. WWW 1500 Pittsburgh, Pa. 9:30 a.m., 10:45 p.m., EST. WWY 1160 Wheeling, W. Va. 7:45 a.m9 p.m., EST. WXY 1210 Mexico City, Mex. XEY 1000 Pittsburgh, Pa. 9:30 a.m., 10:45 p.m., EST. WXY 1210 Wexico City, Mex. XEY 1000 Mexico City, Mex. XEY 830-10 p.m., CST. XEY 1000 Juarez, Mex. XEY 830 Mexico City, Mex. XFC 8310 Aguascalientes, Mex. XFX 875 Chibuahua, Mex. 10 a.m1:30 p.m., CST. XEM 1000 Saltillo, Mex. 10 a.m1:30 p.m., CST. XEM 1000 Saltillo, Mex. 10 a.m1:30 p.m., CST. XEM 1100 Saltillo, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 110 Mexico City, Mex. 10 a.m1:30 p.m., CST. XEN 1000 Mexico City, Mex. 10 a.m1:30 p.m., CST. XED 1000 Mexico City, Mex. 10 a.m1:30 p.m., CST. XED 1000 Mexico City, Mex. 10 a.m1:30 p.m., CST. XED 1000 Mexico City, Mex. 11 a.mpoon; 2-3 p.m.; 5-11 p.m., MST. 11 a.mpoon; 2-3 p.m.; 5-11 p.m., CST. XEN 110 Mexico City, Mex. XEY 260 Mexico City, Mex. XEY 270 Mexico City, Mex. XEY 360 Mexico City, Mex. XEY 360 Mexico City, Mex. XEY 360 Mexico City, Mex. 10 a.m1:30 p.m., CST. XED 1000 Mexico City, Mex. 11 a.mpoon; 2-3 p.m.; 5-11 p.m., MST. 10-BU 1000 Mexico City, Mex. 11 a.mpoon; 2-3 p.m.; 5-11 p.m., MST. 11	WIJS					
WTMJ   620   Milwaukee, Wis.   8 a.m 12:30 a.m., CST.   XEF   1370   Coyoacan, Mex.   XEV   1000   Puebla, Mex.   WEV   1010   Puebla, Mex.   Nexico City, Mex.   XEV   1000   Puebla, Mex.   WEV   1010   Puebla, Mex.   Nexico City, Mex.   XEV   1000   Puebla, Puekico City, Mex.   XEV   100		CST 2.11110011; 1-5:10 p.m.,			XEU	
S a.m 12:30 a.m., CST.   SEFZ   1376   Coyoacan, Mex.   Savannah, Ga.   Step   1070   Mexico City, Mex.   Step   1070   Mexico City, Mex.   Step   1132   Monterrey, Mex.   Step   1316   Morelia, Mex.   Step	WTMI		VELO			7-8 a.m.; noon-4 p.m.; 8 p.m
## WTOC 1260 Savannah, Ga.  ## 8 a.mmid, EST.  ## WW ## 1200 Harmond, Ind.  ## WE 1310 Morelia, Mex.  ## 8 a.mmid, EST.  ## WW ## 1500 New Orleans, La.  ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## WW ## 1500 Woodside, N. Y.  ## 1-6 p.m., EST.  ## 1000 Woodside, N. Y.  ## 100 Woodside, N. Y.  ## 100 Woodside, N. Y.  ## 100 Woodside, N. Y.  ##	** 1 1/13		YFF7		*****	mid., CST.
8 a.m.—mid, EST. WTSL 1310 Laurel, Miss. WWAB 1200 Hammond, Ind. WWJ 920 Detroit, Mich. 8 a.m.—mid, EST. WWL 850 New Orleans, La. 10 a.m.—7:45 p.m., CST. WWNC 570 Asheville, N. C. XEL 1000 Saltillo, Mex. 10 a.m.—13.30 p.m., CST. WWRU 1500 Woodside, N. Y. 16 p.m., EST. WWSW 1500 Pittsburgh, Pa. 9:30 a.m.—10:45 p.m., EST. WWVA 1160 Wheeling, W. Va. 7:45 a.m.—9 p.m., EST. WXYZ 1240 Detroit, Mich. XEQ 940 Mexico City, Mex. 11 a.m.—noon; 2-3 p.m.; 5-11 p.m., CST. XEQ 735 Villa Acuna, Mex. XEX 1000 Baratford, Ont. XEQ 750 Juarez, Mex. 11 a.m.—pon., CST. XEQ 1000 Mexico City, Mex. 94 Mexico City, Mex. 950 Mexico City, Mex.  950 Mexico City, Mex.  XFG 810 Mexico City, Mex. XFG 810 Mexico City, Mex. XFG 810 Mexico City, Mex. XFG 851.3 Mexico City, Mex. XFG 810 Mexico City, Mex. XFG 813 Mexico City, Mex. XFG 810 Mexico	WTOC	1260 Sayannah Ga	ALI L	8-10 n m CST		
WTSL         1310         Laurel, Miss.         XEH         1132         Monterrey, Mex.         XEX         1210         Mexico City, Mex.           WWAE         1200         Hammond, Ind.         XEI         132         Monterrey, Mex.         XEY         100         merida, Mex.         XEZ         780         Mexico City, Mex.         XEZ         785         Tolhuahua, Mex.         XEX         367         Mexico City, Mex.         XEX         XEX         367         Mexico City, Mex.         XEX         XEX         367         Mexico City, Mex.         367         Mexico City, Mex.         XEX         367         Mexico City, Mex.         367         Mexico City, Mex.         367	11100	8 a m -mid EST	XEG			
WWAL         1200         Hammond, Ind.         Yell         10 a.m12:30 p.m., CST.         XEY         1000         Merida, Mex.         XEZ         780         Mexico City, Mex.         XEZ         XEZ         1000 Juarez, Mex.         XEZ         Mexico City, Mex.         XFG         683.3         Mexico City, Mex.         XFX         867         Mexico City, Mex.         10-AB         1200         Moscio City, Mex.         10-AB         1200         Moscio City, Mex.         110-AB         1200         Moscio City, Mex.         110-AB         1200         Moscio City, Mex.         110-AB         1200         Prince Albert, Sask.         1200         Prince Albert, Sask.         3-4 p.m.; 7-8:30 p.m., MST.         10-BI	WTSL			1132 Monterrey Mex		
WWJ         920         Detroit, Mich.         XEI         1310         Morelia, Mex.         XEZ         780         Mexico City, Mex.         Mexico City, Mex.           WWL         850         New Orleans, La. 10 a.m7:45 p.m., CST.         XEJ         1000         Juarez, Mex.         XFG         810         Aguascalientes, Mex.         XFG         875         Chihuahua, Mex.         XFG         875         Mexico City, Mex.         XFG         875         Mexico Cit	WWAE	1200 Hammond, Ind.				
8 a.mmid, EST.  WWL 850 New Orleans, La. 10 a.m?:45 p.m., CST.  WWRL 1500 Woodside, N. Y. 1-6 p.m., EST.  WWW I 1500 Woodside, N. Y. 1-6 p.m., EST.  WWW I 1500 Woodside, N. Y. 1-6 p.m., EST.  WWW I 1500 Woodside, N. Y. 1-6 p.m., EST.  WWW I 1500 Pittsburgh, Pa. 9:30 a.m10:45 p.m., EST.  WWV I 160 Wheeling, W. Va. 7:45 a.m9 p.m., EST.  WXY 1 155 Guadalajara, Mex. 11 a.mnoon; 2-3 p.m.; 5-11 p.m., CST.  XED 1000 Laredo, Mex.  11 a.mnoon; 2-3 p.m.; 5-11 p.m., ST.  XED 1000 Laredo, Mex.  11 a.mnoon; 2-3 p.m.; 5-11 p.m., ST.  XED 1030 Mexico City, Mex.  XED 1000 Juarez, Mex.  9 a.mq. hm., CST.  XEK 1000 Juarez, Mex.  9 a.mq. hm., CST.  XEK 1000 Satillo, Mex.  10 a.m1:30 p.m., CST.  XEK 1000 Satillo, Mex.  10 a.m1:30 p.m., CST.  XEN 1000 Satillo, Mex.  10 a.m1:30 p.m., CST.  XFG 683.3 Mexico City, Mex.  XFG 683.3 Mexico City, Mex.  XFG 683.3 Mexico City, Mex.  SIGN Mexico City, Mex.  Silent.  10-AT 1155 Trail, B. C.  10-BI 1200 Prince Albert, Sask.  10-BI 199 Wingham, Ont.  10:30 a.mnoon; 4:15-5:15 p.m.; 6:45-8:20 p.m. EST.  10-BQ 1000 Brantford, Ont.  11 a.m12:30 p.m., i30-2 p.m.; 7-8:30 p.m., i30-2 p.m.; 7-8:30 p.m., EST.			XEI			780 Mexico City, Mex.
WWL         850 New Orleans, La.         XEJ         1000 Juarez, Mex.         XFF         875 Chibuahua, Mex.           WWNC         750 Asheville, N. C.         XEK         990 Mexico City, Mex.         XFZ         867 Mexico City, Mex.           WWRL         1500 Woodside, N. Y.         XEM         1000 Saltillo, Mex.         10-AB         1200 Moose Jaw, Sask.           WWSW 1500 Pittsburgh, Pa.         XEN         XEN         711 Mexico City, Mex.         10-AB         1200 Moose Jaw, Sask.           9:30 a.m., 10:45 p.m., EST.         XEN         711 Mexico City, Mex.         10-AB         1200 Moose Jaw, Sask.           WWYA         1560 Wheeling, W. Va.         XEO         940 Mexico City, Mex.         10-BI         10-BI         10-BI         10-BI           XXYZ         1200 Drince Albert, Sask.         3-4 p.m.; 7-B:30 p.m., MST.         10-BI						810 Aguascalientes, Mex.
10 a.m7:45 p.m., CST.  WWNC 570 Asheville, N. C. 7 a.mmid, CST.  WWRL 1500 Woodside, N. Y. 1-6 p.m., EST.  WWS 1500 Pittsburgh, Pa. 9:30 a.m10:45 p.m., EST.  WWVA 1160 Wheeling, W. Va. 7:45 a.m9 p.m., EST.  WXYZ 1240 Detroit, Mich.  XXEA 1155 Guadalajara, Mex. 11 a.mnoon; 2-3 p.m.; 5-11 p.m., CST.  XEB 1030 Mexico City, Mex.  YEK 990 Mexico City, Mex.  YEK 1000 Saltillo, Mex. 10 a.m1:30 p.m., CST.  XEN 1000 Tampico, Mex.  10 a.m1:30 p.m., CST.  XEN 11000 Saltillo, Mex. 11000 Saltillo, Mex. 11000 Saltillo, Mex. 11000 Saltillo, Mex. 11000 Tampico, Mex.  11000 Tampico, Mex. 11000 Tampico,	wwi.		XEJ		XFF	875 Chihuahua, Mex.
WWNC         570         Asheville, N. C.         XEK 7 a.mmid., CST.         990         Mexico City, Mex.         XFX         867         Mexico City, Mex.           WWRL         1500         Woodside, N. Y. 1-6 p.m., EST.         XEM         100 a.m1:30 p.m., CST.         10-AB 10-AB 10-AB 1200         Mosos Jaw, Sask.           WWSW 1500         Pittsburgh, Pa. 9:30 a.m10:45 p.m., EST.         XEM         XEM 7:11 Mexico City, Mex. 9-10 a.m.; 1-3 p.m.; 7 p.mmid. CST.         CST.         10-AB 1200         Mcsask.         10-AB 1200         Mcsask.           WWVA 1160         Wheeling, W. Va. 7:45 a.m9 p.m., EST.         XEO 940         Mexico City, Mex. 750         10-AB 1200         Mcsask.         11-AB 1200         Mcsask.           XYZ         1200         Prince Albert, Sask. 3-4 p.m.; 7-8:30 p.m., MST.         10-BI 1200         Prince Albert, Sask. 3-4 p.m.; 7-8:30 p.m., MST.           XEA         155         Guadalajara, Mex. 11 a.mnoon; 2-3 p.m.; 5-11 p.m., 25 p.m.; 5-11 p.m., MST.         XER 24 hours daily.         XER 24 hours daily.         XES 1030         Mexico City, Mex. 10-AB 1155         10-BQ 110-AB 1200         Mcsico City, Mex. 3-4 p.m.; 7-8:30 p.m., EST.           XEB         100         Laredo, Mex. 20 p.m.; 5-11 p.m., MST.         10-BQ 110-AB 1200         1199 Wingham, Ont. 110-AB 11200         1199 Wingham, Ont. 110-AB 110-A				9 a.m4 p.m.; 6-11 p.m., CST.	XFG	683.3 Mexico City, Mex.
7 a.mmid, CST.  WWRL 1500 Woodside, N. Y. 1-6 p.m., EST.  WWS 1500 Pittsburgh, Pa. 9:30 a.m10:45 p.m., EST.  WWVA 1160 Wheeling, W. Va. 7:45 a.m9 p.m., EST.  WXYZ 1240 Detroit, Mich. XEA 1155 Guadalajara, Mex. 11 a.mnoon; 2-3 p.m.; 5-11 p.m., CST.  XEB 1000 Saltillo, Mex. 10 a.m1:30 p.m., CST. 11 dexico City, Mex. 9-10 a.m.; 1-3 p.m.; 7 p.mmid. CST. 10-AB 1200 Moose Jaw, Sask. 11 0-AB 1200 Stratford, Ont. 110-AB 1200 Stratford, Ont. 110-AB 1200 Moose Jaw, Sask. 110-AB 1200 Moose Jaw, Sak. 110-AB 1200 Moose Jaw, Sask. 110	WWNC				XFX	
WWRL 1500 Woodside, N. Y.       10 a.m1:30 p.m., CST.       10 a.m1:30 p.m., LST.       10 a.m1:30 p.m., LST.<			XEL	1000 Saltillo, Mex.		
1-6 p.m., EST.  WWSW 1500 Pittsburgh, Pa. 9:30 a.m10:45 p.m., EST.  WWVA 1160 Wheeling, W. Va. 7:45 a.m9 p.m., EST.  XEO XEO XEO 400 Mexico City, Mex.  YEO 400 Mexico City, Mex.  10-AT 1155 Trail, B. C. 10-AT 1150 Prince Albert, Sask. 3-4 p.m.; 7-8:30 p.m., MST. 10-BP 1199 Wingham, Ont. 10-BP 1199 Wingham, Ont. 10:30 a.mnoon; 2-1 p.m.; 5-11 p.m., MST. 11 a.mnoon; 2-3 p.m.; 5-11 1200 Brantford, Ont. 11 a.mnoon; 2-3 p.m.; 5-11 11 a.mnoon; 2-3 p.m.; 1-3	WWRI			10 a.m1:30 p.m., CST.		
WWSW 1500         Pittsburgh, Pa. 930 a.m., 1-0.45 p.m., EST.         XEN 9:30 a.m., 1-0.45 p.m., EST.         XEN 9:30 a.m., 1-0.45 p.m., EST.         400 a.m.; 1 3 p.m.; 7 p.m. mid. CST.         10-AT 1155         Trail, B. C. 1200         Prince Albert, Sask. 3-4 p.m.; 7-8:30 p.m., MST.         10-BI 10-BI 10-BI 10-BI 199         Wingham, Ont. 10-BI 199         Wingham, 10-BI 199         Wingham, 10-B	***************************************			1300 Tampico, Mex.	10-AIL	
9:30 a.m., -10:45 p.m., EST.  WWVA 1160 Wheeling, W. Va. 7:45 a.m9 p.m., EST.  WXYZ 1240 Detroit, Mich.  XEA 1155 Guadalajara, Mex. 11 a.mnoon; 2-3 p.m.; 5-11 p.m., CST.  XEB 1030 Mexico City, Mex.  XES 1055 Tampico, Mex.  10-BI 1200 Prince Albert, Sask.  10-BP 1199 Wingham, Ont. 10-BP 1199 Wingham, Ont. 10:30 a.mnoon; 4:15-5:15 p.m.; 6:45-8:20 p.m. EST. 10-BQ 1200 Brantford, Ont. 11 a.m12:30 p.m.; 1:30-2 p.m.; 7-8:30 p.m., 15T. 10-BP 1199 Wingham, Ont. 11 a.m12:30 p.m.; 1:30-2 p.m.; 11 a.m12:30 p.m.; 1:30-2 p.m.; 1200 Prince Albert, Sask. 124 bprince Albert, Sask. 125 p.m.; 6:45-8:20 p.m. EST. 126 p.m.; 6:45-8:20 p.m. EST. 127 p.m.; 6:45-8:20 p.m. EST. 128 p.m.; 6:45-8:20 p.m. EST. 129 wingham, Ont. 120 Brantford, Ont. 120	wwsw		XEN		10_AT	
WWVA       1160       Wheeling, W. Va.       XEO       940       Mexico City, Mex.       3-4 p.m.; 7-8:30 p.m., MST.         7:45 a.m9 p.m., EST.       XEP       1400       Laredo, Mex.       10-BP       1199       Wingham, Ont.         XEA       1155       Guadalajara, Mex.       9 a.m2 p.m.; 5-11 p.m., MST.       750       Juarez, Mex.       9 a.m2 p.m.; 5-11 p.m., MST.         11       a.mnoon; 2-3 p.m.; 5-11       XER       735       Villa Acuna, Mex.       10-BQ       1200       Brantford, Ont.         NED       1030       Mexico City, Mex.       24 hours daily.       11 a.m12:30 p.m.; 1:30-2 p.m.;         XEB       1030       Mexico City, Mex.       7-8:30 p.m., MST.						
7:45 a.m9 p.m., EST. XEP 1400 Laredo, Mex. 10-BP 1199 Wingham, Ont. XEQ 750 Juarez, Mex. 9 a.m2 p.m.; 5-11 p.m., MST. 11 a.mnoon; 2-3 p.m.; 5-11 p.m., CST. XER 1030 Mexico City, Mex. XES 1055 Tampico, Mex. 10-BP 1199 Wingham, Ont. 10:30 a.mnoon; 4:15-5:15 p.m.; 6:45-8:20 p.m. EST. 10-BQ 1200 Brantford, Ont. 11 a.m12:30 p.m.; 1:30-2 p.m.; 7-8:30 p.m., EST. 11 a.m12:30 p.m.; 1:30-2 p.m.; 1:30-2 p.m.; 1:30 p.m., EST. 11 a.m12:30 p.m.; EST. 12-BP 1199 Wingham, Ont. 10:30 a.mnoon; 4:15-5:15 p.m.; 1:30 a.mnoon; 4:15-5:15 p.m	WWV A	1160 Wheeling W Va	VEO		IU-DI	3-4 n m · 7-8-30 n m MST
WXYZ       1240       Detroit, Mich.       XEQ       750       Juarez, Mex.       10:30 a.mnoon; 4:15-5:15 p.m.;         XEA       1155       Guadalajara, Mex.       9 a.m2 p.m.; 5-11 p.m., MST.       11 p.m., MST.       6:45-8:20 p.m. EST.         NED       P.m., CST.       XER       735       Villa Acuna, Mex.       10-BQ       1200       Brantford, Ont.         VEB       1030       Mexico City, Mex.       XES       1055       Tampico, Mex.       7-8:30 p.m., EST.	, · A	7:45 a m =0 n m EST		940 Mexico City, Mex.	10 PD	
XEA       1155 Guadalajara, Mex.       9 a.m2 p.m.; 5-11 p.m., MST.       6:45-8:20 p.m. EST.         11 a.mnoon; 2-3 p.m.; 5-11 p.m., CST.       XER       735 Villa Acuna, Mex.       10-BQ       1200 Brantford, Ont.         XEB       1030 Mexico City, Mex.       XES       1055 Tampico, Mex.       7-8:30 p.m., EST.	WYV7			1400 Laredo, Mex.	TO-PL	
11 a.mnoon; 2-3 p.m.; 5-11 XER 73S Vilia Acuna, Mex. 10-BQ 1200 Brantford, Ont. 24 hours daily. 11 a.m12:30 p.m.; 130-2 p.m.; XEB 1030 Mexico City, Mex. XES 1055 Tampico, Mex. 7-8:30 p.m., EST.			YF.			
p.m., CST. 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.	ALA	11 a m -noon: 9 2 n m : 5 11	VED		10-RO	
XEB 1030 Mexico City, Mex. XES 1055 Tampico, Mex. 7-8:30 p.m., EST.			ACK	24 hours doily	TO-DQ	
	YFD		VEC			
o a.mmu, cor. 10-bu 1200 Canora, bask.	VPD		VES		10.RH	
		o a.mmu., Oo 1.		нооп-д р.ш., оот.	10-00	Tado Canora, Daok.

### 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.)

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City-Call Megs. Meters
ALGERIA, Africa (See also Tunis) (F) Zone 26
                                                                      City-Call
  Constantine
                                                                                               14.50 Phones USA.
14.47 Phones 10 a.m.
    FM8KR
                 3.750
                                                                        LSY
                                                                                    20.710
                  4.130
                           72.77 Mon. and Fri.
                                                                             irreg. Heard about 4 p.m. Sundays, EST. (15.77
         KR 6.660 45.02 Mon. and Fri., 5 p.m.
EST. (FM8KR?) (7009 kcs.?) 200 w.
    F8KR
                                                                             \mathbf{m}.?)
                                                                        p.m., EST.
LSM
                                                                        LSN
                                                                                               14.27 Phones WLO 8 a.m., 4
                                                                                    21.020
ARGENTINA, South America (LOA-LVZ) Zone 18
                                                                                    21.129
                                                                                               14.19 Phones
  Buenos Aires
                                                                                                                  Europe
                                                                             (18850 kc.?)
                  9.460
                           31.69 Radio Club of B. A.
    LQA
LSOR
                 9.600
                           31.23
                                                                    AUSTRALIA, Oceania (VHA-VMZ) Zones 42-45-46
                           30.56
                  9.810
                                                                      Melbourne
    LSRD
                  9.810
                                                                         VK3UZ
                                                                                      8,820
                                                                                               33.99 Mon. and Wed. 8-8:30
                           30.56
    LSA
                                                                             a.m., 11-11:30 p.m., Thurs. 8-8:30 a.m., EST.
                 9.890
                           30.32
     LSN
                                                                         VK3ME
                                                                                               32.98 4-7 a.m., EST.
                 9.895
                           30.30 6 p.m.-6 a.m., EST., with
                                                                                     9.090
         WLO.
                                                                         VK3LO
                                                                                      9.369
                                                                                               32.00
    LSL
                 9.993
                           30.00
                                                                         VK3VZ
                                                                                      9.375
                                                                                               31.98
    LSN
                                                                             3ME 9.548 31.40 Amalgamated Wireless,
Ltd., 47 York St., Wed. 5-6:30 a.m., Sat. 5-7 a.m.,
EST. (31.55 m.?) (31.28 m.?) 5000 w.
                10,300
                                                                         VK3ME
                           29.00
                10,300
                           29.00
    LSX
                10.345
                                  Tests with USA 8-11 p.m.,
                           28.98
         EST. (10382 kes.?)
                                                                      Perth
    LSY
                                                                         VK6AG
                10.410
                           28.80
                                                                                      7 195
                                                                                               41.67 5-11:30 p.m., EST.
    LSN
                14.480
                           20.70
                                  Phones WLO p.m., EST.
                                                                         VK6AG
                                                                                    15.000
                                                                                               19.99
    LSA
                14.530
                           20.65
                                                                      Sydney
VK2ME
                           19.99 (Monte Grande?)
15.82 Phones HJY-CEC 11 a.m.,
     LSJ
                15.000
                                                                                     7.940
                                                                                               37.76 Tests 3-7 a.m., EST, with
    LSR
                18.958
                                                                             GBX (7980 kc.?)
          4 p.m., EST.
                                                                        VK2BL
                                                                                     9.230
                                                                                               32.48
    LSG
                           15.07 Phones FTM 10:30 a.m.
                                                                         VK2ME
                                                                                                                       Wireless.
                19.895
                                                                                     9.590
                                                                                               31.26 Amalgamated
         3:30 p.m., phones Paris and Berlin 7 a.m. and
1 p.m., all EST. (19950?)
20.680 14.50 Phones Europe after 10:30
                                                                                   47 York St., Sundays 1-3 a.m., 5-9 a.m.
                                                                             Ltd.,
                                                                             9:30-11:30 a.m., EST.
    LSN
                                                                                     9.750
                                                                                               30.75 Phones Java 4-8 a.m.,
                                                                         VK2ME
         p.m.
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City-Call
HKD
  City-Call
VK2ME
                                                                                     Megs.
                                                                                                Meters
                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.
                 9.940
                           30.16 Sat. 1-3 a.m., Sun. 9:30-
         11:30 a.m., EST.
    VK2FC
VK2ME
                10.520
                                                                      Bogota
HKC
                10.520
                                                                                      6.205
                                                                                                48.35 Universal Radio Corp.,
                           28.50 1-7 a.m., EST. with GBX
                                                                             Columbia Radio Corp. (6270? 6275?) 200 w.
M 6.625 45.25 R. Jaramillo, Apartado
     (10527?)
VLK 10
                10.540
                                                                         HKM
                           28.44 1-7 a.m., EST.
                                                                             188, 8:30-10:30 p.m., ex. Sun., EST. (6660?) 250 w.
     VI.K
                 16.320
                           18.37
                                                                                                41.99
                                                                         HKX
                                                                                      7.140 \\ 7.143
     VK2ME
                           18.37 3-6 a.m., EST. (16330
                16.320
                                                                         HKF
                                                                                                41.95
         kc.?)
    VK2ME
                19.400
                           15.45
                                                                         HKI
                                                                                      7.402
                                                                                                40.50
                                                                                                39.40 Laboratorio Radio Elec-
AUSTRIA, Europe (UOA-UOZ) Zone 28
                                                                         HKF
                                                                                      7.610
                                                                             trico-Westinghouse, Apartado 317 (7550? 7616?)
  Vienna (Wien)
                 4.280
                           70.05 (OHK2?) Sun. 1st 1/4 hr.
                                                                              7-11 p.m., EST.
         1-7 p.m., EST.
R2 6.072
                                                                         HKF
                                                                                      8.690
                                                                                                34.50 5-7 p.m., 11 p.m.,-1 a.m.,
    UOR2 6.072 49.41 Uesterr naurove according G., Tue.-Thurs. 8:30 a.m., noon, 3-5 p.m., EST.
                                                                              EST. (8692?)
                           49.41 Oesterr Radioverkehrs A.
                                                                         HJY
                                                                                     18.444
                                                                                                16.25 All American Cables Tests
                                                                             CEC Santiago daily 6 p.m. Phones CEC-LST 11
         250 w.
                 8.100
                                                                         a.m., 4 p.m.
HJY 19.856
                           37.01 Mon., Thurs. 5:30-7 p.m.,
         EST.
                                                                                                30.20 Phone OCI evenings irreg.
                                                                             All-American Cables.
                11.100
                           27.01 Mon., Tues. 5:30-7 p.m.,
         EST.
                                                                      Cali
                                                                         HKS
     UOR2
         R2 11.800 25.41 Osterr Radioverkehrs A. G., Wed., Thurs. 6-9 a.m. EST., 250 w.
                                                                                      6.378
                                                                                                47.00 Sres. Riva Hnos Abt. 10
                                                                         p.m.
HKK
BELGIUM, Europe (ONA-OTZ) Zone 26
                                                                                      7.122
                                                                                                42.10 Sres. Riva Hnos (7295?)
                                                                      Manizales
  Brussels

    7.139 42.00 Roberto Baena, P. O. 76,
    Thurs. 7-8 p.m., Sat. 11-Mid., EST. Tests 11-noon,

                           15.62 Tests 11-11:30 a.m., EST.
28.99 Phones OPM 2-4, 9-11
                                                                         HKT
     ORG
                  9.598
     ORK
                 10.340
                                                                              4-6 p.m., EST. 25 w.
         a.m., 3-6 p.m., EST.
BERMUDA, North America (VPA-VSZ, ZBA-ZJZ) Zone 18
                                                                      Medellin
                                                                             Hamilton
     VRT-ZFA 5.045
                           59.42 Phones WNB - GMBJ
         nights.
                  9.500
                                                                         HKN
                           31.56
     VRT-ZFB 10.060
                           29.80 Phones WNB daytime.
                                                                             Berrios, No. 188, 8-10 p.m., 30 w.
N 11.712 25.59
                                                                         HKN
BRAZIL, South America (PPA-PYZ) Zones 18-20
                                                                      Tunia
  Porto Alegre
     PRAG
                           35.48 8:30-9 a.m., EST.
                                                                        HKB
                                                                                      5.879
                                                                                               51.00 Abt. 10 p.m., EST. irreg.
  Rio de Janeiro
                                                                    COSTA RICA, North America (TIA-TIZ) Zone 14
                           48.99 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
     PTH
                  6.120
                                                                      Electra Cartago
     PSK
                  8.180
                                                                                     6.080
                                                                         TIRA
                                                                                                49.31 Compania
                                                                                                                      Radiografica
                  9.450
                                                                             Internacional de Costa Rica.
     PSH
                 10.212
                                                                         TIRA
                                                                                      9.590
                                                                                                31.26
                           25.75 Tests about 6 p.m., EST.,
    PPQ
                 11.644
                                                                      Heredia
         irreg.
                                                                         TI4NRH
                                                                                      9.670
                                                                                                31.00 Amando Cespedes Marin.

    TIANKH 9.670 51.00 Amando Cespedes Marin.
    Daily, ex. Sat. Sun., 10-11 p.m. (9734?)
    TIANRH 10.238 29.3 Amando Cespedes Marin.,
    Mon., Wed. 7.30-8:30 p.m., Thurs., Sat. 9-10 p.m.,
    EST. (10240? 10600?) 7.5 w.
    TIANRH 15.066 19.90 Sat. 11-noon, 4-5 p.m.,
    Mon. 11-noon, 4-5 p.m.,

     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)
                                                                             10-11 p.m., Sun., Mon. 11-noon, 4-5 p.m.
                                                                      San Jose
  Zone 18
                                                                                     11.790
                                                                                                25.43 Margarita M. de Girton.
  Georgetown
                                                                         TITR
                           43.83 Wed.,
                  6.840
                                           7:15-9:15 p.m.,
                                                                    CUBA, North America (CLA-CMZ) Zone 16
         EST., Sun. 5:45 p.m. (6726?)
                                                                      Cienfuegos
CM6DW
BRITISH MALAYA, Asia (VPA-VSZ, ZBA-ZJZ) Zone 40
                                                                                      7.300
                                                                                                41 07
     Johore Baru
                                                                       Havana
     VS3AB
                 7.055
                           42.50
                                                                                      6.058
                                                                         CMCI
                                                                                                49.50 9-11 p.m., EST.
CANARY ISLANDS, Africa (EAA-EHZ) Zone 24
                                                                         CM2MK
                                                                                       7.184
                                                                                                41.75
                                                                         CM2MK
                                                                                      9.350
                                                                                                32.07 5-9 p.m., EST. (9360?)
                  7.207
                           41.60 Sat.-Sun. 4:30-6 p.m..
                                                                         CM2LA
                                                                                     10.013
                                                                                                29.94
         EST., 50 w.
                                                                       Matanzas
CHILE, South America (CAA-CEZ) Zone 16
                                                                         CM5RY
                                                                                      7.312
                                                                                                41.00 Sat. 10:45-11:30 p.m.,
  Santiago
CEC
                                                                              EST.
                 10.664
                            28.12 Tests FJY evenings, irreg.
                                                                       Tuinucu
     CEC
                19.678
                           15.24 Phones LSR-HJY 11 a.m.,
                                                                         CM6XJ
                                                                                     15.000
                                                                                                19.99
4 p.m., EST.

CHINA, Asia (XGA-XUZ) Zone 42
                                                                    CZECHO-SLOVAKIA, Europe (OKA-OKZ) Zone 28
                                                                       Podebrady
  Hongkong
                                                                         OKI
                                                                                     21.000
                  9.373
                            31.97
     . . . . . . . .
                                                                       Prague
                 10.250
                            29.25
                                                                         OK1MPI
                                                                                     5.169
                                                                                                58.00
  Kiangsu
         TE 5.000 59.96 (XGTE?) Chinese Triode
Electric Co., Mon. and Fri.
                                                                         OK1MPT
                                                                                     5.172
                                                                                                58.00 Tue.-Fri. 1-3:30 p.m.,
     XCTE
                                                                              8:30-10:30 p.m., EST.
COLOMBIA, South America (HJA-HKZ) Zone 16
Barranquilla
HKD 5.996 50.00 Elias J. Pellet, A
                                                                    DENMARK, Europe (OUA-OZZ) Zone 28
                                                                       Copenhagen
         715, daily 7:45-10:30 p.m., Mon.-Wed, 8-10:30
p.m., Sun. 7:45-30 p.m., EST. (5835? 5837?
5990? 6050? 6240?) 15 w.
                                                                         OZ7R
                                                                                      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
                           48.90 Jesus Amortequi P., Apar-
                  6.131
                                                                                                31.60
          tado 765, daily 8-10 p.m., ex. Mon., Wed., Fri. (61387 61607 62467 62507) 50 w.
                                                                         OZ7RL
                                                                                       9.500
                                                                                                31.56
                                                                         OXO-OXZ 15.300
                                                                                                19.53
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City-Call Megs. Meters	City-Call Megs. Meters
Lyngby OXY 15.300 19.53	FTN 12.250 24.48 St. Assise Tests U.S.A.
Skamlebak	days, irreg. Works Buenos Aires, Indo-China, Java, 9 a.m1 p.m.
OXY 9.520 31.49 Direction Generale des Postes et des Telegraph, Copenhagen, Relays	F8BZ 13.628 22.00 Telephone to ships. FW4 12.700 23.61 Daily noon-2 p.m., EST.
Postes et des Telegraph, Copenhagen. Relays Copenhagen 2-6:30 p.m., EST. 500 w.	FYA 15.234 19.68 Administration des PTT. Pontoise Service de la Radiodiffusion 103 Rue de
DOMINICAN REPUBLIC, North America (HIA-HIZ) ZONE 16	Grenelle, Paris, 7 a.m10 a.m., daily, EST.
Santo Domingo – HIX 4.610 65.04	F8BZ 15.456 19.40 Phones to ships. FTK 15.860 18.90 Telephony, St. Assise Phones FZS 9-10 a.m., EST.
DUTCH EAST INDIES, Oceania (UIA-UKZ-PKA-POZ) Zones 40-44	FRU-FRE 18.240 16.44 St. Assise.
Makassar	FTE 18.240 16.44 St. Assise, Phones FZR 5-9 a.m., EST.
PK6KZ 11.993 25.07	FTM 19.282 15.55 St. Assise, 10 a.mnoon, EST. (19344?)
Malabar PLF 17.640 16.99	FRO-FRE 19.400 15.45 St. Assise.
Tandjong Priok 6.055 49.60	FTD 19.830 15.12 St. Assise. Strasbourg
9.579 31.29	6.280 47.74 Toulouse
ECUADOR, South America (HCA-HCZ) Zone 16	6.120 48.99 Sundays 2:30-4 p.m., EST.
Guayaquail HC2JM 8.570 34.98	FRENCH INDO-CHINA, Asia (F) Zone 40 Saigon (Chi-Hoa)
Quito	F3ICD 6.131 48.90 106 Boulevard Charner,
HCJB 5.711 52.50 Daily, ex. Mon., 7:30-10 p.m., EST. HC1DR 6.380 46.99 Daily, 8-11 p.m., EST.	Chi-Hoa 6:30-10:30 a.m., daily, EST. (6120?) F3ICD 11.776 25.46 Sats. 10:30 a.m12:30
HC1DR 6.380 46.99 Daily, 8-11 p.m., EST. Riobamba	F3ICD 11.776 25.46 Sats. 10:30 a.m12:30 p.m., EST. 12 kw. FZG 12.000 24.99 Time sigs. 2-2:05 p.m.,
6.618 45.31 Thurs., 9-11 p.m., EST. (PRADO?)	EST. (12010?) FZG 13.010 23.04
7.530 39.82 Thurs., 9-11 p.m., EST.	F3ICD 15.750 19.03
EGYPT, Africa (STA-SUZ) Zone 30	FZR 16.200 18.51 FZS 18.310 16.38 Suns. 1-3 p.m., EST.
Cairo SUS 9.110 32.91 Egypt High Power Trans.	$\begin{array}{ccccc} FZA & 18.365 & 16.32 \\ FSR & 20.680 & 14.50 & Phones. \end{array}$
Radio to England.	GERMANY, Europe (D) Zone 28
FIJI ISLANDS, Oceania (VPA-VSZ-ZBA-ZJZ) Zone 50 Suva	Berlin (Konigswusterhausen) DJC 6.020 49.80 Deutsche Reichspost.
VPD 7.890 38.00	9.500 31.56 8 a.m7:30 p.m., EST.
	DIA 0.560 21.26 Doutscho Roichenost
VPD 14.420 20.80 FRANCE, Europe (F) Zone 26	DJA 9.560 31.36 Deutsche Reichspost a.m7:30 p.m.
FRANCE, Europe (F) Zone 26 Agen 9.750 30.75 Tues., Fri., 3-4:15 p.m.,	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost.
FRANCE, Europe (F) Zone 26  Agen	a.m7:30 p.m. DHI 10.654 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m.
FRANCE, Europe       (F)       Zone 26         Agen       9.750       30.75       Tues., Fri., 3-4:15       p.m.,         EST.       Lyons       7.460       40.19       Daily ex. Sun., 10:30 p.m.,	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m. 15.300 19.60 7 a.m. EST.
FRANCE, Europe (F) Zone 26  Agen	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m 15.300 19.60 7 a.m., EST.  DJE 17.760 16.88 Deutsche Reichspost 42.530 7.05 Telefunken Co. Tues.,  Thurs. 11:30 a.m1:30 p.m., EST.  Colthen
FRANCE, Europe (F) Zone 26       Agen     9.750     30.75     Tues., Fri., 3-4:15     p.m.,       Lyons     7.460     40.19     Daily ex. Sun., 10:30 p.m.,       1:30 a.m., EST.     19.350     15.50     4-5 p.m., EST.       Paris     4.760     62.99     Radio LL.       4.920     60.94     Radio LL.	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m 15.300 19.60 7 a.m., EST.  DJE 17.760 16.88 Deutsche Reichspost 42.530 7.05 Telefunken Co. Tues., Thurs. 11:30 a.m1:30 p.m., EST.  Colthen D4AFF 6.875 43.60 Sun. 4-6 a.m., Tues. and Fri. noon-2 p.m.
FRANCE, Europe (F) Zone 26       Agen (Agen)     9,750     30,75     Tues., Fri., 3-4:15     p.m.,       EST.     Lyons (YR)     7,460     40.19     Daily ex. Sun., 10:30 p.m.,       YR (1:30 a.m., EST.)     19,350     15.50     4-5 p.m., EST.       Paris (1:90)     4,760     62.99     Radio LL.       19,20     60.94     Radio LL.       19,20     60.94     Radio LL.       19,20     60.94     Radio LL.       19,20     60.94     10,90       19,20     14,97     15,50       19,20     14,97     15,61       19,20     16,90     14,97     15,61       19,20     14,97     15,61     10,90       19,20     14,97     15,61     10,90       19,20     14,97     15,61     10,90       19,20     14,97     15,61     10,90       19,20     14,97     15,61     10,90       19,20     15,60     15,01     10,90       19,20     15,60     15,01     10,90       19,20     15,00     10,90     10,90       19,20     15,00     10,90     10,90       19,20     15,00     10,90     10,90       19,20     15,00	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26           Agen         30.75         Tues., Fri., 3-4:15         p.m.,           EST.         Lyons         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           YR         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris         4.760         62.99         Radio LL.           4.920         60.94         Radio LL.           55.01         Ruggles.           6145 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.           FIL.         6.190         48.90         Fifel Tower Tests 6:30-6:45           6145 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.         Fifel Tower Tests 6:30-6:45	a.m7:30 p.m. DHI 10:44 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26           Agen         30.75         Tues., Fri., 3-4:15         p.m.,           EST.         Lyons         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           YR         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris         4.760         62.99         Radio LL.           4.920         60.94         Radio LL.           55.01         Ruggles.           6145 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.           FIL.         6.190         48.90         Fifel Tower Tests 6:30-6:45           6145 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.         Fifel Tower Tests 6:30-6:45	a.m730 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m.  15.300 19.60 7 a.m., EST.  DJE 17.760 16.88 Deutsche Reichspost.  42.530 7.05 Telefunken Co. Tues.,  Thurs. 11:30 a.m1:30 p.m., EST.  Colthen D4AFF 6.875 43.60 Sun. 4-6 a.m., Tues. and Fri. noon-2 p.m.  Deeberitz DOA 3.620 82.82 DOA 4.830 67.68 Mon., Wed., Fri. 6-7 p.m.,  2-3 p.m., EST.  DOA 7.230 41.47
FRANCE, Europe (F) Zone 26           Agen         30.75         Tues., Fri., 3-4:15         p.m.,           EST.         Lyons         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris         4.760         62.99         Radio LL.           -         4.920         60.94         Radio LL.           FSBP         5.450         55.01         Ruggles.           -         6.000         49.97         Eiffel Tower Tests 6:30-645 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.           FL         6.120         48.99         Eiffel Tower, 5:30-5:45 a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST.           -         6.860         43.71         Radio Vitus, 4-11 a.m., 3	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m 15.300 19.60 7 a.m., EST.  DJE 17.760 16.88 Deutsche Reichspost 42.530 7.05 Telefunken Co. Tues., Thurs. 11:30 a.m1:30 p.m., EST.  Colthen D4AFF 6.875 43.60 Sun. 4-6 a.m., Tues. and Fri. noon-2 p.m.  Deeberitz DOA 3.620 82.82 DOA 4.430 67.68 Mon., Wed., Fri. 6-7 p.m., 2-3 p.m., EST. DOA 7.230 41.47 DOA 7.930 37.81 Reichpostzentralamt, Berlin, 1-3 p.m.
FRANCE, Europe (F) Zone 26           Agen         30.75         Tues., Fri., 3-4:15         p.m.,           EST.         1.30 a.m., EST.         40.19         Daily ex. Sun., 10:30 p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris         4.760         62.99         Radio LL.           FBBP         54.50         55.01         Rugles.           6:45 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.         FL         6.120           6:45 a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST.         48.99         Eiffel Tower Tests 6:30-5:45 a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST.           6.860         43.71         Radio Vitus, 4-11 a.m., 5:40 p.m., EST.           7.500         39.98         Radio Touraine.           FTL         7.600         39.98         Radio Touraine.	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26           Agen         30.75         Tues., Fri., 3-4:15         p.m.,           Lyons         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris         4.760         62.99         Radio LL.           FSBP         5.450         55.01         Ruggles.           6.45 a.m., 1:15-1:30, 5:15-345 p.m., EST.         FL         6.120         48.99         Eiffel Tower Tests 6:30-6:45 a.m., 5:45-123 p.m., 4:15-4:45 p.m., EST.           6.800         43.71         Radio Vitus, 4-11 a.m., 39.98         Radio Touraine.           FTL         7.660         39.98         Radio Touraine.           FTL         7.660         39.14         St. Assise.	a.m7:30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m 15.300 19.60 7 a.m., EST.  DJE 17.760 16.88 Deutsche Reichspost 42.530 7.05 Telefunken Co. Tues., Thurs. 11:30 a.m1:30 p.m., EST.  Colthen D4AFF 6.875 43.60 Sun. 4-6 a.m., Tues. and Fri. noon-2 p.m.  Deeberitz DOA 3.620 82.82 DOA 4.430 67.68 Mon., Wed., Fri. 6-7 p.m., 2-3 p.m., EST. DOA 7.230 41.47 DOA 7.930 37.81 Reichpostzentralamt, Berlin, 1-3 p.m.  Eberswalde 7.410 40.46 Mon.; Thurs. 1-2 p.m., EST.
FRANCE, Europe (F) Zone 26           Agen         9.750         30.75         Tues., Fri., 3-4:15         p.m.,           EST.         1.30 a.m., EST.         40.19         Daily ex. Sun., 10:30 p.m.,         p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris         4.760         62.99         Radio LL.           FSBP         4.920         60.94         Radio LL.           FSBP         55.01         Ruggles.           6:45 a.m., 1:15-130, 5:15-545 p.m., EST.         48.99         Eiffel Tower Tests 6:30-630-632-632-632-632-632-632-632-632-632-632	a.m7:30 p.m. DHI 7:30 p.m. DHI 10:44 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26           Agen         9.750         30.75         Tues., Fri., 3-4:15 p.m.,           EST.         Lyors         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           1:30 a.m., EST.         15.50         4-5 p.m., EST.           Nancy         4.760         62.99         Radio LL.           FSBP         54.50         55.01         Rugles.           6:45 a.m., 1:15-130, 5:15-145 p.m., EST.         Huggles.         FST.           6.45 a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST.         48.99         Eiffel Tower, 5:30-5:45           a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST.         3 p.m., EST.         3 p.m., EST.            7.500         39.98         Radio Touraine.           FTL         7.660         39.14         St. Assise.           FTF         7.770         38.59         St.Assise.           FTBZ         7.775         38.57         Phones to ships.           9.990         32.98         Radio LL, Daily, 6:30-7           4 p. neon 1:30         Sup. More, Wed Feir 2.4 p.m.	a.m7:30 p.m. DHI 10.654 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26           Agen         30.75         Tues., Fri., 3-4:15 p.m.,           Lyons         7.460         40.19         Daily ex. Sun., 10:30 p.m.,           Nancy         19.350         15.50         4-5 p.m., EST.           Paris           4.760         62.99         Radio LL.           FSBP         5.450         55.01         Ruggles.           6.45 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.         FL         6.120         48.99         Eiffel Tower Tests 6:30-6:45 a.m., 5:45-12:30 p.m., 4:15-4:45 p.m., EST.           6.800         43.71         Radio Utus, 4-11 a.m., 3-4:12:30 p.m., 4:15-4:45 p.m., EST.         39.98         Radio Touraine.           FTL         7.660         39.14         St. Assise.         FTF         7.775         38.59         St.Assise.           FTBZ         7.775         38.59         St.Assise.         Phones to ships.           Sam, noon-12:30, Sun., Mon. Wed., Fri., 2-4 p.m. Sat. 1-2:30 p.m., 15.00, Mon., Wed., Fri., 2-4 p.m. Sat. 1-2:30 p.m., Sun. 4-6:30 a.m., 8:30-10 a.m.,	a.m7.30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen	a.m7.30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen  9.750 30.75 Tues., Fri., 3-4:15 p.m., EST.  Lyons YR 7.460 1:30 a.m., EST.  Nancy 19.350 15.50 4-5 p.m., EST.  Paris 4.760 62.99 Radio LL. FSBP 5450 55.01 Ruggles 6:45 a.m., 1:15-1:30, 5:15-5:45 p.m., EST. FL 6.120 49.97 Eiffel Tower Tests 6:30-6:45 a.m., 1:15-1:30, 5:15-5:45 p.m., EST.  Long Sp.m., EST. 3 p.m., EST. 13 p.m., EST. 15 p.m., EST. 15 p.m., EST. 16 p.m., EST. 17 p.m., EST. 18 p.m., EST. 19 p.m., EST. 29 p.m., EST. 20 p.m., EST.	a.m7.30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen	a.m730 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen	a.m730 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen	a.m7.30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost.  Mon. 10-11 p.m
FRANCE, Europe (F) Zone 26  Agen	a.m7.30 p.m. DHI 10.054 29.82 DJD 11.760 25.50 Deutsche Reichspost. DJB 15.200 19.72 Deutsche Reichspost, Mon. 10-11 p.m

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City-Call
                                                                   City-Call
                Megs.
                          Motors
                                                                                 Megs.
                                                                                           Meters
  Nordeich(?)
                                                                   Hilversum
                11.340
                                                                                  9.590
    DAN
                          26.44 Deutsche Seewarte, Ham-
                                                                     PCJ
                                                                                           31.26 N. V. Phillips Radio, Ex-
                                                                     per. Station (Eindhoven?)
PCJ 15 220
         burg Time sigs. 7 a.m. and 7 p.m., EST.
                                                                                           19.71 N. V. Phillips Radio, Ex-
  Norden
    DAN
                 8.328
                          36.00 Phones ships 2-4 a.m.,
                                                                         per. Sta.
         3-9 a.m.
    DAN
               12.490
                          24.00 Phones ships noon-3 p.m.,
                                                                     PHI
                                                                          17.775, 16.87 N. V. Phillips Radio, Under constn. Transmission for E. Indies.
         4-9 a.m.
    DAN
                 8.300
                          18.06 Tests with ships 9 a.m.-
                                                                     PHO
                                                                                 17.775
                                                                                           16.87 Daily ex. Tues. 7-9 a.m.
                                                                          EST.
        noon.
                                                                   Kootwijk
  Zeesen
    DJB
               15.196
                          19.73 Mon., Fri., Sat., irreg. Sun.
                                                                                  7.758
                                                                                           38.65 Code usually (7628?)
                                                                     PCK
         8 a.m.-4 p.m.
                                                                                           38.59 9 a.m.-7 p.m., EST.
                                                                                  7.770
                          31.38 Relays various stations
                                                                     PĎV
                9.552
                                                                                  7.830
                                                                                           38.29 After 9 a.m.
         8-9 a.m., 10:30-1:30 p.m., 2-6:30 p.m. 8000 w.
                                                                     PDK
                                                                                 10.410
                                                                                           28.80
                                                                      PCP
                                                                                 10.800
                                                                                           27.76
GREAT BRITAIN, Europe (G-M) Zone 26
                                                                      PCL
                                                                                 16.300
                                                                                           18.39 Works with Bandoeng
  Bodmin
                                                                          from 7 a.m. EST.
    GBK
                 9.250
                          32.41 6 a.m.; 6 p.m.
                                                                                17.830
                                                                     PCV
                                                                                           16.82 With Java 6-9 a.m. Sats.
                11.490
    GBK
                          26.10
                                                                          9:40 a.m. (17836?)
                18,100
                          16.56 6 a.m., 2 p.m.
    GRK
                                                                     PCK
                                                                                            16.29
                          16.10 Telephones Montreal.
                                                                                 18.400
    GBJ
                18,620
                                                                     PDM
                                                                                 18.600
                                                                                           16.12
  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.
                                                                 HONDURAS, Central America (HRA-HRZ) Zone 14
    G5SW
                                                                   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.
    G5SW
                          11.55 Experimental.
                25.960
  London
    G2AA
                 8.570
                          33.70 Phones to ships.
                                                                 HUNGARY, Europe (HAA-HAZ) Zone 28
  Rugby
GBC
                 4.975
                          60.26 Phones ships irreg
                                                                          7.220 41.53 Budapest Technical
School, M.R.C. Tues., Thurs., Sat. 2:30-3:10
    GBS
                 6.989
                          42.90 6 a.m., 6 p.m. (6995?)
    GBS
                 9.022
                          33.25 6 a.m., 6 p.m. (9010?)
                                                                          a.m., EST.
    GBS
                 9.200
                          32.59
                                 Transatlantic phone.
                                                                   Szekesfehervar
    GBC
                 9.310
                          32.20 Sun. 2:30-5 p.m., EST.
                                                                                 9.125
                                                                     HAT
                                                                                           32.86
                                                                INDIA, Asia (VTA-VWZ) Zone 37-38

Bombay

VVD 6.110 49.07 Mon.
    GBW
                 9.790
                          30.63
    GCW,
                          30.60 Phones America evenings.
                 9.798
                          30.15 5:11 p.m., EST.
    GBU
                 9.942
                                                                                          49.07 Mon., Wed., Fri. 12:30-
    ĞBX
                10.390
                          28.85
                                                                         1:15 p.m., EST.
    GBX
                10.800
                          27.76
                                                                   Calcutta
        S 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.-
                          24.60 Transatlantic
    GBS
                                                                                 11.870
                                                                                           25.27 Indian State Broadest.
                                                                     VUC
                                                                          Service, 9:45-10:45 p.m., 8-9 a.m., EST.
    GBX
                                                                 ITALY, Europe (I) Zone 28
        9 a.m.
                                                                   Coltana
    GBŰ
           ...12.290
                          24.39 To WMI 2 p.m.-7 p.m.
                                                                     IAC
                                                                                 12,760
                                                                                           23.50 Testing irreg.
    GBC
                12.780
                          23.46
                                                                   Rome
    GBB-GBC 13,591
                          22.06 Phones CGA and ships
                                                                     I3RO
                                                                                           79.95 Daily 3-5 p.m., EST.
                                                                                  3.750
    gbw.
        m. Radio Section, G. P. O. London (14480?)
X 16.150 18.56 VK2ME 4-11 p.m., EST.
                                                                                  6.220
                                                                     I2RO
                                                                                           48.20 9000 w.
                                                                                           45.00
                                                                     I1AX
                                                                                  6.667
                                                                                  6.900
                                                                                           43.45 Daily noon-2 p.m., EST.
    (16164?)
GBC
    GBX
                                                                     TMA
                                                                                           25.40 11 a.m.-12:30 p.m., 3-5:30
                                                                     T2RO
                                                                                11.800
                                                                          p.m., EST. (11811?) (11810?) (11:30 a.m. to 5:30
                17.080
                          17.55
    GBW
                          16.54 WNC 6 a.m.-2 p.m.
                                                                         p.m.?)
                18,124
                                                                   Turin
    GBS
                18,310
                          16.38 G. P. O., London, Tele-
                                                                                  3.750
    phones N. Y. 6 a.m.-2 p.m.
GBU 18.620 16.10 WMI 6 a.m.-2 p.m., EST.
                                                                 JAPAN, Asia (J) Zone 44
Kemikawa-Cho
                          14.70 Phones LSN and ships ir-
    GBA
                20.400
                                                                                  7.876
                                                                                           38.07 Tests KEL irreg. (9862?)
        reg.
                                                                     J1AA
  Sonning-on-Thames
G2NM 3.583
                                                                                           22.93 Exp. tests irreg.
                                                                     J1AA
                                                                                 13.074
                          83.68 Sun. 5 a.m., EST
                                                                     J1AA
                                                                                 15,760
                                                                                           19.02 Exp. early a.m. (15120?)
                          20.95 Sun. 1:30 p.m., EST.
                                                                   Tokyo
    G2NM
                14.310
GUATAMALA, Central America (TGA-TGZ) Zone 14
                                                                     JÍAA
                                                                                  7.890
                                                                                           38.00 Testing
37.01 Tests 5-8 a.m., EST.
                                                                                  8,100
  Guatamala City
                                                                     J1AA
                 6.480
                                                                          (Kemikawa?)
    TGW
                          46.27 9-11 p.m., EST. (6663?)
    (66787) 100 w.
TGX 8.950 33.50 Sr. Miguel Angel Meji
Norvales, 45 11th Ave., N. Sats. 10 p.m.-mid.
TGGA 9.370 32.00
                                                                                 12.090
                                                                                           24.80 5-8 a.m., EST.
                                                                     J1AA
                                                                                 15.760
                                                                                           19.02 Beam transm. to 10 a.m.
                          33.50 Sr. Miguel Angel Mejicano
                                                                     J1AA
                                                                                 17.380
                                                                                           17.25
    TGGA
                                                                 JAVA, Oceania (PKK-POZ, UIA-UKZ) Zone 40
Bandoeng
    TGX
                 9.516
                          31.52
    TGW
                          27.76 (10708?)
22.98 10 p.m.-mid., EST.
                10.800
                                                                          18.820 15.93 Phone to Holland PCK
Tues., Fri. 5:40-10:40 a.m., EST. (18860?)
                                                                     PLE
    TGCA
                13.043
HOLLAND, Europe (PAA-PIZ) Zone 26
                                                                     PMY
                                                                                          .58.30 Phones Australia 11 a.m.,
                                                                                  5.143
  Amsterdam
                                                                          Tues., 8:40-10:40 a.m., EST. (5799?) 2000 w.
    PHI
                17.760
                          16.88 (Huizen.) Mon. 3-6 a.m.,
                                                                     PLW
                                                                                  8.120
                                                                                           36.92
        Wed., Thurs., Fri. 2-6 p.m., EST.
                                                                                           31.86 Phones
                                                                     PLV
                                                                         9.410
Sumatra 4-8 a.m., Tu
                                                                                                            Australia
                                                                                                                         and
  Eindhoven
                                                                                              Tues. 8:40-10:40 a.m. 80 kw.
    PCJ
                 9.590
                          31.26 (Hilversum.) Wed.
                                                        2-3
                                                                     PLE
                                                                     PLW
        p.m., Thurs. 9 a.m.-5 p.m., Fri., 2-9 p.m., EST.
                                                                                           31.63 Phones Australia 3-8 a.m.,
                                                                                  9.480
                                                                         irreg. 10.630
  Hague
PCM
                 6.430
                          46.63 Sun. 3-6 p.m., Mon., Sat.
                                                                     PLR
                                                                                           28.20 Works Holland and
        4-7 p.m.
                                                                          France weekdays after 7 a.m.; sometimes after
    PBF5
                 6.438
                                                                          9.30.
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City-Call Megs. Meters PLM 12.290 24.40 Phones VK2ME abt. 6:30	City-Call Megs. Meters Nuevo Laredo
a.m. (12250?)	X26A 7.370 40.68 9-10 a.m., 11-noon, 1-2,
PLF 17.850 16.80 Radio Malabar.	X26A 7.370 40.68 9-10 a.m., 11-noon, 1-2, 4-5, 7-8 p.m., EST. Tests after midnight. DX program 11 p.m., Wed. X26A 7.612 39.39 Thurs. 11-noon EST.
PMC 18.170 16.50 Phones PCV 3:10-9:20 a.m. (18370?)	(7661 kcs.7)
PMB 20.600 14.55 3:10-4:40 a.m., 8-9:20 a.m. (20620?)	MOROCCA, Africa (CNA-CNZ) Zone 26 Casablanca
Batavia PK1AA 3.998 75.00	CN8MC 5.875 50.94
Djocjocarta PK2AF 6 000 49.97 6:40-9:40 a.m.	CN8MC 6.250 47.97 Relays Rabat Mon. 3-4 p.m., Tues. 7-8 a.m., 3-4 p.m. (6336 kes.?) F8MC 6.875 43.61 (CN8MC?) (10710 kes. ?)
11 210 26 50 Radio Goldborg Sun	Kabat
Tues., Thurs. 5-7 a.m., EST.	6.877 43.60 9.290 32.27 Radio Maroc. 6 k.w.
PK2AĞ 3.156 95.00 PK2AG 7.890 38.00	CNR 12.820 23.38 Phones St. Assise 5 a.m
Surabaya 2.143 140.00	8 a.m., Suns, 7:30-9 a.m., Daily 5-7 a.m. (12600 kcs.?) 2500 w.
PMB 5.170 57.99 PK3AN 6.040 49.64 6-9 a.m., EST.	NEW ZEALAND, Oceania (ZKA-ZMZ) Zone 49
PK3CH 6.662 45.00	Christchurch ZL3ZC 6.000 49.97 Tues., Thurs., Fri., 10
KENYA, Africa (VPA-VSZ, ZBA-ZJZ) Zone 31 Nairobi	p.mmid. EST.  Wellington  ZL2XX 4.770 62.86 (4776?)
VQ7LO 9.616 31.18	ZL2XX 4.770 62.86 (4776?) ZL2ZX 6.057 49.51 Mon., Wed., Thurs., Sat.
VQ7LO 6.060 49.48 Imperial and International Communications, Ltd., Mon., Wed., Fri. 11 a.m	12:30-4 a.m., EST. ZLT 8.898 33.70 Phones VLK 1 a.m., 9 a.m.
Communications, Ltd., Mon., Wed., Fri. 11 a.m2:30 p.m., Tues. 3-4 a.m., 11:30 p.m., Thurs. 8-9 a.m., 11:30 a.m2:30 p.m., Sat. 11:30 a.m3:30 p.m., Sun. 11 a.m1:30 p.m., EST. (6000 kes.?)	ZL2XX 9.560 31.36
p.m., Sun. 11 a.m1:30 p.m., EST. (6000 kcs.?) (6100 kcs.?) (6134 kcs.?)	(10990 kcs.?)
KONGO, Africa (ONA-OTZ) Zone 28 Leopoldsville	ESI.
OPM 10.090 29.70 Phones ORK 2-4, 9-11	ZLW 18.340 16.35 Phones VK2ME irreg. NORWAY, Europe (LAA-LNZ) Zone 28
a.m., 3-6 p.m., EST. OPL 20.028 14.97 Phones ORG a.m.	Bergen LGN 9.600 31.23
MADAGASCAR, Africa (F) Zone 32	PERU, South America (OAA-OCZ) Zone 16 La Punta
Tananarive FIUI 5.689 52.70 Sat., Sun. 1-3 p.m. Other	OBE 13.043 23.00 Lima
FIUI 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,	OCI 10.962 27.35 Phones HJY evenings.
Administration locale, Sat., Sun. 1-3 p.m. Other days 9:30-11 a.m., EST.	OCI 18.670 16.06 Tests HJY abt. 2 p.m. EST.
Tamatore FZU 19.460 15.40	POLAND, Europe (SPA-SRZ) Zone 28 Posen
MADEIRA ISLANDS (CSA-CUZ) Zone 24	EATH? 8.900 33.69 Sun., Wed. 11:30 a.m5 p.m., EST. EATH? 10.800 27.76 11:30 a.m., 5:30 p.m.,
Funchel CT2AG 6.380 46.99 5-7 p.m., Sat., EST.	EST.
Tues., Thurs. 4-6:30 p.m., Sun. 10:30-noon.	Poznan SR1 9.570 31.33 Tues. 12:45 p.m., 3:45
CT3AQ 12.490 24.00 Rue de Comercio 160, Tues., Thurs. 4-6:30 p.m., Sun. 10:30 a.mnoon.	p.m., Thurs. 12:30-7 p.m., EST. 1000 w. 9.836 30.49
MEXICO, North America (XAA-XFZ) Zone 14	PORTUGAL, Europe (CSA-CUZ) Zone 26 Lisbon
Chapultepec XDA 5.357 55.96 Daily 10-11 a.m., EST. 20	CT1AA 6.990 42.89 Fri. 4-6 p.m. EST. (6995 kcs.?) 2000 w.
kw. XDA 11.763 25.50 Daily 3-4 p.m., EST.	CT1AA 9.592 31.26 Tues., Thurs., Fri. 4-7
(11765 kcs.?) XDA 14.630 20.50 Daily 2:30-3 p.m., EST.	CT1BO 10.710 28.00
Merida XAM 5.766 52.00 Tests XDA 10 a.m8 p.m.,	ROUMANIA, Europe (CVA-CVZ) Zone 28 Bucharest
irreg. XAM 11.530 26.00 Phones XDA 10; a.m10	YO1? 13.950 49.97 300 w. YO1? 13.950 21.50 Institute Electrotechnique
p.m., irreg. Mexico City	Universitaire, Wed., Sat. 2-5 p.m., EST. SIAM, Asia (HSA-HSZ) Zone 40
XDA 5.860 51.16 Chapultepec? Tests XAM 10 a.m8 p.m., irreg. (5879 kcs.?) (5857 kcs.?)	Bangkok HS2PJ 6.080 49.31 6-6:30 a.m., EST.
XEW 6.020 49.80 8-11 p.m., Sun. to 2 a.m., EST.	HŠ2PJ 6.080 49.31 6-6:30 a.m., EST. HSP2 7.300 41.07 Administration des Postes et Telegraph Tests Mon. 8 a.m11 a.m., EST.
XIF 6.380 46.99 7-8 p.m., 11 p.m1 a.m.,	2500 w.
EST. XFD 6.667 44.98	
	et Telegraph 9-11 a.m., daily (9640 kcs.?)
XDA 6.818 44.00 XFD 9.091 32.97	et Telegraph 9-11 a.m., daily (9640 kcs.?) HS4PJ 8,100 37.01 HS2PJ 10.167 29.48
XFD 9.091 32.97 XDA 9.375 31.98 Chapultepec?	et Telegraph 9-11 a.m., daily (9640 kcs.?) HS4PJ 8.100 37.01
XFD 9.091 32.97 XDA 9.375 31.98 Chapultepec? XFD 11.111 26.08 XDA 11.760 25.71 Chapultepec? Daily 3-4	et Telegraph 9-11 a.m., daily (9640 kcs.?) HS4PJ 8.100 37.01 HS2PJ 10.167 29.48 HS1PJ 17.750 16.89 7-10:30 a.m., 1-3 p.m., EST. SPAIN, Europe (EAA-EHZ) Zone 26
XFD 9.091 32.97 XDA 9.375 31.98 Chapultepec? XFD 11.111 26.08	et Telegraph 9-11 a.m., daily (9640 kcs.?) HS4PJ 8.100 37.01 HS2PJ 10.167 29.48 HS1PJ 17.750 16.89 7-10:30 a.m., 1-3 p.m., EST.

City- $Call$	Megs.	Mete			Om.	(0101	Ci	y- $Call$	Megs.	Mete		m	G
EAR25 kes.?)	6.120	48.99	2:30-4 p	.m., E	ST.	(6124)	1	RFN a.m.,	6.000 EST	49.97	Tues.,	Thurs.,	Sat. 8-9
EAJ1	15.760	19.02					I	RW59	6.000	49.97	Union	Centrale	des Syndi-
Madrid		40.00	m (	~ . <b>-</b>	00 =			cats I	rofession				p.m., EST.
EAR110	6.976	43.00	Tues.,	Sat. 5	:30-7	p.m.,	т	20 kw	6.430	46 63	Ralave	Moscov	v 1-6 p,m.
EAR125	8 p.m., E8 7.020	42.71	6-7 p.m.	EST.	(7025]	kcs.?)	1	EST.	0.400	10.00	Itelays	11103001	v 1-0 p,m.
$\mathbf{E}\mathbf{A}\mathbf{M}$	9.772	30.68					I	RFN	6.560	45.70		4 p.m.,	EST.
EAQ	9.862		Apartad					RW72	6.610		10 kw.		
9 p.m. kes.?)	, Sat. 1-3	p.m.	(19991) (	9875	KCS.()	(9890		REN RW50	$6.611 \\ 11.923$	45.35 $25.16$	Comm	du Per	uple PTT.
EAJ7	10.090	29.70	Union S	tation	EAJ7	5:30-	•	20 kw		20.10	Commi	. uu 10	apio 111.
6:30 p.	m., irreg.					_	I	LW61	51.724		Institu	t Electr	otechnique
EAQ	19.684	15.23	Apartad	o 95	1. P	hones	υą	de Un essa	ion. 750 v	٧.			
STRAITS SET	11 a.m. ii TLEMEN	JT. As	ia (VPA	-VSZ.	ZBA-	-ZJZ)	- Ou	RW69	1.900	157.80	Institu	t Sviazi.	3000 w.
Zone 40		,				,	Per	edvijka					
Singapore VS1AB	7.195	41 07	M 1	TT-1	TP:	0.20	H	RW 65	3.560	84.22	Krestia	ınskaia (	Gazeta. 20
VOIAD 11 a.m	., EST. (7	41.07 260 kc	Mon.,	wea.,	rrı.	9:50-	Pet	w. ropavlovs	k				
SUMATRA, Asi				) Zone	40		Ï	RW71	5.000	59.96	Narko	msviaz. 5	00 w.
Medan						T TZ 0	Top	nsk	0 111	20.00			
PKP a.m., 8	10.410	28.80	Phones	Java a	and v.	LK 9	VATI	RW19 CAN CIT	8.111 V (Italy)	36.96	(HVA_	HVZ) Z	ne 28
Palembang	a.m.						Ï	IVJ	5.968	50.26	Daily	2 p.m.,	ne 28
PK4PA	59.964	5.00						severa	l language	es and $s$	${ m cientific}$	informa	tion. Suns.
SWEDEN, Euro Kalsborg	pe (SAA-	SMZ)	Zone 28				1	and ho IVJ	olidays at	5 a.m. (	(5965 kc	cs.?) 10 k	.m.; Sun.,
SAS	11.760	25.50						Tues.	5 a.m., E	20.19 ST.	Dany	0-0.10 a	.ш., юш.,
Motala							F	IVJ	15.120	19.83	5-5:15	a.m., E8	ST. (15112
Tacim	3.030	98.95	11:30-no	on,	1-10	p.m.,			10 kw.			77) 7	10
$_{\mathrm{SBG}}^{\mathrm{EST.}}$	6.065	49.43						ZUELA,	South Am	ierica (Y	VA-YV	Z) Zone	19
SAJ	6.065		6:30-7 a	.m., 1	1 a.m.	-4:30	Car	V2BC	6.000	49.97	7:45-11	p.m	daily ex.
p.m., E	ST.							Mon.	(6061 kcs.	.?)		,	
11 a m	6.120 -4:30 p.m	48.99 Holid	"Rundra	idio'' (	5:30-7 m ES	a.m.,	Ma	racaibo	6 105	40.05	0 11 %	m ret	
SWITZERLAND					ш., ш.	J1.	Ma	V11BMC	0.120	40.90	0-11 p.	m., EST.	•
Berne								'VQ	11.680	25.67	Tests (	Germany	5-7 p.m.,
HB90C	9.130	32.84	6:30 a.m	15:00	p.m.	EST.	•	EST.	10.000	16.00	m	L 10 -	
(9375 k	cs.r)												
	,						Val	encia	18.296	10.09	1 6565 2		ı.m., irreg.
Geneva HBP	7.790	38.49	Tests 3	3-8 p	.m. i	irreg.	Val	encia	11.700	25.62	10000 6		и.ш., птов.
Geneva HBP League	7.790 of Natio	ns.	Tests 3	3-8 p	.m. i	irreg.	Val YUG	encia V4BV D-SLAVIA	11.700	25.62			, птод.
Geneva HBP League HBJ	7.790	38.49 ns. 20.60	Tests 3	3-8 p	.m. i	irreg.	Val YUGO Bel	encia V4BV D-SLAVIA grade	11.700 , Europe	25.62 (UNA-U	JNZ) Z	one 28	
Geneva HBP League HBJ Zurich HB9XD	7.790 of Natio 14.550 3.488	ns. 20.60 85.92		3-8 p	).m. i	irreg.	Val YUGO Bel	encia V4BV D-SLAVIA	11.700	25.62 (UNA-U	JNZ) Z	one 28	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD	7.790 of Natio 14.550 3.488 7.220	95.92 41.53	1st-3rd	3-8 p Suns.		irreg. a.m.,	Val YUGO Bel	encia V4BV D-SLAVIA grade	11.700 , Europe 10.000	25.62 (UNA-U 29.98	JNZ) Z Mon. o	one 28 only 2-3 p	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD 2 p.m.,	7.790 of Natio 14.550 3.488 7.220 EST. (72	ns. 20.60 85.92 41.53 29 kcs.	1st-3rd				Val YUGO Bel	encia V4BV D-SLAVIA grade	11.700 , Europe 10.000	25.62 (UNA-U 29.98	JNZ) Z Mon. o	one 28 only 2-3 p	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD 2 p.m., HB9XD	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380	85.92 41.53 29 kcs. 31.96	1st-3rd				Val YUGO Bel	encia V4BV D-SLAVIA grade	11.700 L, Europe 10.000	25.62 (UNA-U 29.98 mer	Mon. o	one 28 only 2-3 p	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2	85.92 41.53 29 kes. 31.96	1st-3rd ?)	Suns.			Val YUGO Bel	encia V4BV D-SLAVIA grade The WDEV	11.700 1. Europe 10.000 Sum	25.62 (UNA-U 29.98 mer	UNZ) Z Mon. o	one 28 only 2-3 p Thang	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750	85.92 41.53 29 kcs. 31.96 8	1st-3rd ?) See Alge	Suns.			Val YUGG Bel	encia V4BV D-SLAVIA grade The  WDEV KVI	11.700 , Europe 10.000 Sum Water Tacom	25.62 (UNA-U 29.98 mer POWER bury, Vi	Mon. o	one 28 only 2-3 p hans to 500 to 500	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD TUNIS, Africa ( Constantine F8KR	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005	85.92 41.53 29 kcs. 31.96 8 79.95 42.80	1st-3rd ?) See Alge See Alge	Suns.	7		Val YUGG Bel  550 570 580	encia V4BV D-SLAVIA grade The WDEV KVI KMJ	11.700  , Europe  10.000  Sum: Waterly Tacom Fresno	25.62 (UNA-U 29.98 mer POWER bury, Vt a, Wash , Calif.,	Mon. of Mon. o	one 28 only 2-3 p hans to 500 to 500 500	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005	85.92 41.53 29 kcs. 31.96 8 79.95 42.80	1st-3rd ?) See Alge See Alge	Suns.	7		Val YUGG Bel	encia V4BV O-SLAVIA grade The WDEV KVI KMJ CNRA	11.700 L. Europe 10.000 Sum Waterl Tacom Fresno Monet	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash , Calif., on, N. F	Mon. o  Mon. o  t., 50 to 100 to 3, 500 to	one 28 only 2-3 p  Change 500 to 500 to 700	p.m., EST.
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (I Constantine F8KR UNION OF SOU Durban ZTD	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400	85.92 41.53 29 kcs. 31.96 8 79.95 42.80	1st-3rd ?) See Alge See Alge	Suns.	7		Val YUGG Bel	encia V4BV D-SLAVIA grade The WDEV KVI KMJ CNRA CKOC CKTB	11.700  , Europe 10.000  Sum: Wateri Tacom Fresno Monet Hamilt St. Cat	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash , Calif., on, Ont.	Mon. o Mon. o t., 50 to 1, 1000 100 to 3, 500 t 0, 00t.	one 28 only 2-3 p hans 500 to 500 to 700 to 100 500 to 10	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR F8KR UNION OF SOL Durban ZTD Johannesburg	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR	85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z	1st-3rd ?) See Alge See Alge SA-ZUZ)	Suns. ria. ria. Zone	7 30	a.m.,	Val YUGG Bel 550 570 580 630 635	encia VV4BV O-SLAVIA grade The WDEV KVI KMJ CNRA CKOC CKTB WSM	11.700 L. Europe 10.000 Sum: Waterl Tacom Fresno Monet Hamilt St. Cat Nashvi	25.62 (UNA-U 29.98 mer POWER bury, Vt a, Wash , Calif., on, N. I con, Ont therines,	Mon. of the state	one 28  nly 2-3 p  hang 500 to 500 to 700 o 1000 500 to 100 0 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD HB9XD TUNIS, Africa (Constantine F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072	85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52	1st-3rd ?) See Alge See Alge SA-ZUZ)	Suns. ria. ria. Zone	7 30 g. Co.	a.m.,	Val YUGG Bel 550 570 580 630 635 650 730	encia VV4BV D-SLAVIA grade WDEV KVI KMJ CNRA CKOC CKTB WSM CMK	11.700 Leurope 10.000 Sum: Water Tacom Fresno Monet Hamilt St. Cat Nashvi	25.62 (UNA-U 29.98 MET POWER bury, Vi a, Wash , Calif., on, Ont. herines, ille, Ten a, Cuba	Mon. of t., 50 to t., 1000 to t., 500 to t.	one 28 nly 2-3 p hans 500 to 500 to 700 o 1000 500 to 100 o 5000 o 5000	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m., (6	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (6.072)	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (B2) 5-1 (6098	1st-3rd ?)  See Alge: See Alge: SA-ZUZ)  African 1 7 a.m., 9: kos.?)	Suns. ria. ria. Zone Brdcst	7 30 g. Co. a.m., 1	a.m., Ltd. -3:30	Val YUGG Bel 550 570 580 630 635	encia VV4BV VV4BV PSLAVIA grade WDEV KVI KMJ CNRA CKOC CKTB CKTB CMK KMM CMK KXA	11.700 Leurope 10.000 Sum: Waterl Tacom Fresno Monet Hamilt St. Cat Nashvi Havan	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash , Calif., on, N. I. toon, Ont therines, ille, Ten a, Cuba	Mon. o t., 50 to l., 1000 3., 500 to 3., 500 to 6., Ont., i 7., 500 to 1., 3150 to 1., 3150 to	one 28 only 2-3 p classics confidence one 28 only 2-3 p classics one 28 one 28 one 29	ges
Geneva HBP League HBJ Zurich HB9XD HB9XD TUNIS, Africa (Constantine F8KR UNION OF SOI Durban ZTD Johannesburg ZTJ P. O. B ZTJ	7.790 of Natio (4.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (.0070 kes.?) 7.329	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (6098 40.90	1st-3rd ?) See Alget See Alget SA-ZUZ) African 1 7 a.m., 9: &cs.?) 9:30 a.m	Suns. ria. ria. Zone Brdest 30-11:	7 30 g. Co. a.m., 1 p.m.,	a.m., Ltd. -3:30	Val YUGG Bel 550 570 580 630 635 650 730 760 840	encia VV4BV VV4BV VV4BV VABV Frade WDEV KVI KMJ CNRAJ CKOC CKTB WSM CKOC CMK KGU KXA	11.700 Leurope 10.000 Sum Waterl Tacom Fresno Monet Hamili St. Cat Nashvi Havan Honold Seattle Toroni	25.62 (UNA-U 29.98 MET POWER ba, Wash , Calif., on, N. Hoon, Ont. sherines, ille, Ten a, Cuba alu, Hav , Wash.	Mon. of the state	one 28 nly 2-3 p hans 500 to 500 to 700 o 1000 0 to 5000 o 5000 o 5000 o 5000 to 5000 to 5000 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m. (60	7.790 of Natio (4.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (.0070 kes.?) 7.329	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (6098 40.90	1st-3rd ?) See Alget See Alget SA-ZUZ) African 1 7 a.m., 9: &cs.?) 9:30 a.m	Suns. ria. ria. Zone Brdest 30-11:	7 30 g. Co. a.m., 1 p.m.,	a.m., Ltd. -3:30	Val YUGG Bel 550 570 580 630 635 650 730 750 760 840 850	encia VV4BV V-SLAVIA grade WDEV KVI KMJ CNRA CKOC CKTB WSM CMK KGU KXA CKGW	11.700 Leurope 10.000 Sum: Waterl Tacom Fresno Monet Hamilt St. Cat Nashvi Havan Honolu Seattle Toront New O	25.62 (UNA-U 29.98 mer POWER bury, Vt a, Wash, Calif., on, N. I. ton, Ont. herines, ille, Ten a, Cuba a, Cuba a, Cuba ulu, Haw, Wash. o, Ont., rleans, J	Mon. o t., 50 to 1, 1000 100 to 3, 500 to 1, 1000 1, 10	one 28 only 2-3 p hans to 500 to 500 to 700 to 100 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD B9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P.O.B p.m. (6) ZTJ U.S.S.R. (Russia Khabarovsk	7.790 of Natio (4.550 as 488 7.220 g. 380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (6.070 ks.?) 7.329 as (7.329 as (7	85.92 41.53 29 kes. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (B?) 5-(6098 40.90 (RAA	1st-3rd ?) See Alge See Alge SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.m.	Suns. ria. ria. Zone Brdest 30-11:	7 30 g. Co. a.m., 1 p.m., 1	a.m., Ltd. -3:30 EST.	Val YUGG Bel 550 570 580 630 635 650 730 760 840	encia V-SLAVIA grade The WDEV KVI KMJ CNRA CKOC CKTB WSM CMK KGU CKXA CKGW CKXA CKGW	11.700 Leurope 10.000 Sum: Water Tacom Fresno Monet Hamilt St. Cat Nashvi Havan Honolo Seattle Toront New O Sydney	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash, on, N. I. on, Ont. hherines, ille, Ten a, Cuba illu, Haw , Wash, o, Ont., rleans, I.	Mon. o t., 50 to 1., 50 to 1., 1000 100 to 3., 500 to 7., 500 to 10000 500 to 100000 100000 100000 100000 100000 100000 100000 100000 1000000 100000 100000 10000 100000 100000 100000 100000 1000	one 28  nly 2-3 1  han;  500  to 500  to 700  o 1000  o 5000  o 5000  o 5000  o 5000  to 5000  o 5000	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Ear	7.790 of Natio (4.550 as 488 7.220 g. 380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (6.070 ks.?) 7.329 as (7.329 as (7	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (B?) 5-' (6098 40.90 c (RAA 70.20	1st-3rd ?) See Alge See Alge SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.mRUZ) Z. Comm.	Suns. ria. ria. Zone Brdest 30-11:2:30 ones 3	7 30 g. Co. a.m., 1 p.m., 1 0-50 uple 1	a.m.,  Ltd3:30 EST.	Val YUGG Bel 550 570 580 630 635 650 730 750 760 840 850 880	encia VY4BV J-SLAVIA grade WDEV KVI KMJ CNRAC CKORA CKGW WSM CKGU KXA CKGW WL CJCB CKCV CMX	11.700 Learner 10.000 Sum: Waterl Tacom Fresno Monet Hamilt St. Cat Nashvi Havan Honolt Toront Toront Toront Toront New O Sydney Quebee	25.62 (UNA-U 29.98 mer POWER bury, Vt a, Wash, on, N. If herines, ille, Ten a, Cuba ilu, Hav o, Ont., rleans, I, (N. S.,	Mon. o t., 50 to l., 50 to l., 1000 l., 500 to l., 500 to l.	one 28  nnly 2-3 1  nany  500  to 500  to 700  o 1000  500 to 100  o 5000  o 5000  o 250  o 250  o 000  o 5000  o 000  o 5000	ges
Geneva HBP League HBJ Zurich HB9XD HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m. (60 ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Earkw.	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (,) 070 ks.?) 7.329 )), Europe 4.273 st Radio	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (B?) 5-' (6098 40.90 (RAA 70.20 Station	1st-3rd ?)  See Algee See Alge SA-ZUZ)  African 1 7 a.m., 9: &kss.?) 9:30 a.mRUZ) Z.  Comm. , Daily §	Suns. ria. ria. Zone Brdest 30-11:2:30 ones 30 du Pe	7 30 g. Co. a.m., 1 p.m., 1 0-50 suple la., ES	a.m.,  Ltd3:30 EST.	Val YUGG Bel 550 570 580 630 635 650 730 840 850 880 890 940	encia VY4BV J-SLAVIA grade WDEV KVI KMJ CNRA CKOC CMK WSM CCKTB WSM CCKTB WSM CCKGW WWL CJCB CJCB CJCB CKCV CMX	11.700  Learne 10.000  Sum: Waterl Tacom Fresno Monet Hamilit St. Cat Nashvi Havan Honol Vegues Cuebee Havan Mey Oughee Havan Mey Vegues Cuebee	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash, Calif., on, Ont., therines, ill., Haw, o, Ont., rleans, I, (N. S., v, Que., Que.,	Mon. of the state	one 28 only 2-3 1 hans 500 to 500 to 500 to 700 o 1000 0 to 5000 0 to 5000 0 5000 0 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m. (6t U.S.S.R. (Russia Khabarovsk RW15 Far Earkw.	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (,) 070 ks.?) 7.329 )), Europe 4.273 st Radio	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (B?) 5-' (6098 40.90 (RAA 70.20 Station	1st-3rd ?) See Alge See Alge SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.mRUZ) Z. Comm.	Suns. ria. ria. Zone Brdest 30-11:2:30 ones 30 du Pe	7 30 g. Co. a.m., 1 p.m., 1 0-50 suple la., ES	Ltd3:30 EST. PTT,	Val YUGG Bel 550 570 580 635 650 750 760 840 850 880 890 940 1030	encia VY4BV O-SLAVIA grade	11.700  Learne 10.000  Sum: Waterl Tacom Fresno Monet Hamilit St. Cat Nashvi Havan Honol Vegues Cuebee Havan Mey Oughee Havan Mey Vegues Cuebee	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash, Calif., on, Ont., therines, ill., Haw, o, Ont., rleans, I, (N. S., v, Que., Que.,	Mon. of the state	one 28 only 2-3 1 hans 500 to 500 to 500 to 700 o 1000 0 to 5000 0 to 5000 0 5000 0 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD B9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m. (6) ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Eack kw. RW15 Leningrad	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (,) 070 ks.?) 7.329 )), Europe 4.273 st Radio	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 (6098 40.90 (RAA 70.20 Station 34.98	1st-3rd ?)  See Algee See Alge SA-ZUZ)  African 1 7 a.m., 9: &kss.?) 9:30 a.mRUZ) Z.  Comm. , Daily §	Suns. ria. ria. Zone  Brdest 30-11:2:30 ones 30 du Pe 3-9 a.n	7 30 g. Co. a.m., 1 p.m., 1 0-50 suple la., ES	Ltd3:30 EST. PTT,	Val YUGG Bel 550 570 580 630 635 650 730 840 850 880 890 940	encia VY4BV D-SLAVIA grade The WDEV KVI KMJ CKOC CKTB WSM CMK KGU KXA CKGW WWL CJCB CKCW WHA CMHI WBT KSOO	11.700  Learne 10.000  Sum: Waterl Tacom Fresno Monet Hamilit St. Cat Nashvi Havan Honol Vegues Cuebee Havan Mey Oughee Havan Mey Vegues Cuebee Cuebee Havan Mey Vegues Cuebee Mey Vegues Cuebee	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash, Calif., on, Ont., therines, ill., Haw, o, Ont., rleans, I, (N. S., v, Que., Que.,	Mon. of the state	one 28 only 2-3 1 hans 500 to 500 to 500 to 700 o 1000 0 to 5000 0 to 5000 0 5000 0 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Ear kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 7.005 TTH AFR 7.400 6.072 ox 4559 (6.070 7.329 )), Europe 4.273 st Radio 8.570 8.333 (0.510	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 HS); 5-; 6698 40.90 c) (RAA 70.20 Station 34.98 35.98 28.53	1st-3rd ?)  See Algee See Alge SA-ZUZ)  African 1 7 a.m., 9: &kss.?) 9:30 a.mRUZ) Z.  Comm. , Daily §	Suns. ria. ria. Zone Brdest 30-11:2:30 du Pe 3-9 a. n. m., ES	7 30 g. Co. a.m., 1 p.m., 1 0-50 suple la., ES	Ltd3:30 EST. PTT,	Val YUGG Bel 550 570 580 635 650 730 750 760 840 850 880 890 940 1080	encia VY4BV D-SLAVIA grade WDEV KVI KMJ CNRAC CKOR CMK KGU KXA CKGW WWL CJCB CKCW CMHI WBT KSOG	11.700  Learne 10.000  Sum: Waterl Tacom Fresno Monet Hamilit St. Cat Nashvi Havan Honol Vegues Cuebee Havan Mey Oughee Havan Mey Vegues Cuebee Cuebee Havan Mey Vegues Cuebee Mey Vegues Cuebee	25.62 (UNA-U 29.98 MET POWER bury, Vt a, Wash, Calif., on, Ont., therines, ill., Haw, o, Ont., rleans, I, (N. S., v, Que., Que.,	Mon. of the state	one 28 only 2-3 1 hans 500 to 500 to 500 to 700 o 1000 0 to 5000 0 to 5000 0 5000 0 to 5000	ges
Geneva HBP League HBJ Zurich HB9XD HB9XD HB9XD TUNIS, Africa (Constantine F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m. (6) ZTJ U.S.S.R. (Russie Khabarovsk RW15 Far Ear kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 7.005 TTH AFR 7.400 6.072 ox 4559 (6.070 7.329 )), Europe 4.273 st Radio 8.570 8.333 (0.510	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 B?) 5-(6098 40.90 c (RAA 70.20 Station 34.98 35.98	1st-3rd ?) See Alge See Alge SA-ZUZ) African 1 7 a.m., 9:30 a.m. -RUZ) Z Comm. a, Daily 8 5-7:30 a.	Suns. ria. ria. Zone Brdest 30-11:2:30 du Pe 3-9 a. n. m., ES	7 30 g. Co. a.m., 1 p.m., 1 0-50 suple la., ES	Ltd3:30 EST. PTT,	550 570 630 630 630 650 750 750 750 840 850 880 890 940 1030 1110 1120	encia VY4BV J-SLAVIA grade WDEV KVI KVI KWI CNRA CKOC CKTB WSM CCMK KGU KXA CKGW WWL CJCB CKCY CMX CMHI KSOO CHGS KRSC	11.700  Learner 10.000  Sum: Water Tacom Fresno Monet Hamili St. Cat Nashvi Havann Honold Seattle Toront New O Sydney Quebec Havann Madiss Santa (Charlo Sioux F Summe Seattle Seattle Seattle Seattle Seattle Seattle Seattle	25.62 (UNA-UUNA-UUNA-UUNA-UUNA-UUNA-UUNA-UUNA-	Mon. o	one 28 only 2-3 1 han; 500 to 500 to 700 o 1000 to 5000 to 1000 to 5000 to 1000	ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m. HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Ear kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 2.50 3.488 2.50 2.50 2.50 2.50 2.50 2.50 2.50 2.50	ns. 20.60 85.92 85.92 11.53 22 kos. 31.96 879.95 42.80 1CA (Z 40.52 49.37 18?) 5-6098 40.90 4 (RAA 70.20 Station 34.98 35.98 28.53 26.08	1st-3rd ?) See Algee See Algee SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.m. -RUZ) Z. Comm. , Daily 3 5-7:30 a.	Suns. ria. ria. Zone Brdest:2:30 du Pe 3-9 a.n., E8	7 30 g. Co. a.m., 1 p.m., -0-50 uple 1 h., EST.	a.m., Ltd3:30 EST. PTT, r. 20	Val YUGG Bel 550 570 580 630 635 650 730 750 840 850 940 1030 1030	encia VY4BV D-SLAVIA grade WDEV KVI KWI KWI CKOC CKTB WSM CMK KGU CKGW WWL CJCB CKCW WHA CCMHI WBT KSOO CHGS KRSC CMHIS	11.700  , Europe 10.000  Sum: Water Tacom Fresno Monet Hamili St. Cat Nashvi Havan Honolu Seattle Toront New O Sydney Quebee Havan Madisc Santa ( Charlo Sioux I Summe Seattle Cienfu Cienfu	25.62 (UNA-U 29.98	Mon. c  Mon. c  L  L  J  S  L  J  S  L  J  S  L  J  S  S  S  S  S  S  S  S  S  S  S  S	one 28 only 2-3 1 han; 500 to 500 to 700 o 1000 00 to 5000 1000 to 250 00 to 5000 1000 to 250 100	p.m., EST.  ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P.O.B p.m. (66  U.S.S.R. (Russia Khabarovsk RV15 Far Eac kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 (0.000 f), Europe 4.273 \$4.273 \$4.273 \$4.273 \$6.000 \$8.333 0.510 1.111	ns. 20.60 85.92 85.92 11.53 22 kos. 31.96 879.95 42.80 1CA (Z 40.52 49.37 18?) 5-6098 40.90 4 (RAA 70.20 Station 34.98 35.98 28.53 26.08	1st-3rd ?) See Alge See Alge SA-ZUZ) African 1 7 a.m., 9:30 a.m. -RUZ) Z Comm. a, Daily 8 5-7:30 a.	Suns. ria. ria. Zone Brdest:2:30 du Pe 3-9 a.n., E8	7 30 g. Co. a.m., 1 p.m., -0-50 uple 1 h., EST.	a.m., Ltd3:30 EST. PTT, r. 20	Val YUGG Bel 550 570 580 635 635 650 730 850 880 1030 1030 1030 10120 1150	encia VY4BV O-SLAVIA grade   The   WDEV   KVI   KWJ   CNRAL   CKOC   CKTB   WSM   CMK   KGU   KXA   CKGW   WWL   CKCW   WHA   WBT   KSOO   CHGS   KRSC   CMHJ   CMJH   XEA	11.700  , Europe 10.000  Sum: Water Tacom Fresno Monet Hamili St. Cat Nashvi Havan Honolu Seattle Toront New O Sydney Quebee Havan Madisc Santa ( Charlo Sioux I Summe Seattle Cienfu Cienfu	25.62 (UNA-U 29.98	Mon. c  Mon. c  L  L  J  S  L  J  S  L  J  S  L  J  S  S  S  S  S  S  S  S  S  S  S  S	one 28 only 2-3 1 han; 500 to 500 to 700 o 1000 00 to 5000 1000 to 250 00 to 5000 1000 to 250 100	p.m., EST.  ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P.O.B p.m. (6i ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Eack kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 2.50 2.3.480 2.3.480 2.3.750 7.005 2.3.750 7.005 2.3.750 6.072 0.3.750 6.072 0.3.750 2.3.7	ns. 20.60 85.92 41.53 29 kcs. 31.96 87 79.95 42.80 ICA (Z 40.52 49.37 18?) 5-4 (6098 40.90 40.90 54 40.90 34.98 35.98 35.98 28.53 26.08	1st-3rd ?) See Algee See Algee SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.m. -RUZ) Z. Comm. , Daily 3 5-7:30 a.	Suns. ria. ria. Zone Brdest:2:30 du Pe 3-9 a.n., E8	7 30 g. Co. a.m., 1 p.m., -0-50 uple 1 h., EST.	a.m., Ltd3:30 EST. PTT, r. 20	Val YUGG Bel 550 570 580 635 635 730 760 840 880 880 890 940 1030 1120 1120 1155 1155	encia VY4BV P-SLAVIA grade P-SLAVIA	11.700  Learning Sum:  Water Tacom Fresno Monet Hamili St. Cat Nashvi Havan: Honolu Seattle Toront New O Sydney Quebec Havan: Madisc Santa Charlo Sioux F Summe Seattle Cienfuc Ciego C Guadal Albuqu	25.62 (UNA-U 29.98 POWER OUT), VI 29.98 POWER OUT, VI 20.00, Out of the rich at the rich a	Mon. of the state	one 28 only 2-3 1 han; 500 to 500 to 700 o 1000 500 to 100 0 5000 0 250 0 00 0 00 0 0 5000 0 to 5000 1000 0 to 2500 0 to 500 11 to 500 11 to 500 11 to 500 11 to 500	p.m., EST.  ges
Geneva HBP League HBJ Zurich HB9XD HB9XD HB9XD TUNIS, Africa (Constantine F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B D.m. (6) ZTJ U.S.S.R. (Russis Khabarovsk RW15 Far Ear kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 3.488 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 ox 4559 (, 273 st Radio 8.570 8.333 0.510 1.111 6.420 4.273	ns. 20.60 85.92 41.53 29 kcs. 31.96 8 79.95 42.80 ICA (Z 40.52 49.37 BP) 5-6 (RAA 70.20 Station 34.98 35.98 25.08 46.70 70.18	1st-3rd ?) See Algee See Algee SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.m. -RUZ) Z. Comm. , Daily 3 5-7:30 a.	Suns. ria. ria. Zone Brdest:2:30 du Pe 3-9 a.n., E8	7 30 g. Co. a.m., 1 p.m., -0-50 uple 1 h., EST.	a.m., Ltd3:30 EST. PTT, r. 20	Value 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	encia VY4BV V4BV V5SLAVIA grade WDEV KVI CNRA CKOC CKTB WSM CKKXA CKGW WWL CJCB CKCY CMX WHI KSOO CHGS CKHJ CKGK KGU KKSOO CHGS CKHJ CKGM KRSC CMHJ KEA KOB CKWW WWL CCMW WHI KSOO CHGS CKHJ KRSC CMHJ KEA KOB CKWW KRSC CMHJ CCMW KRSC CMHJ CKGMW KOB CKWW KRSC CMHJ CKGMW KOB CMW	11.700  Learne 10.000  Sum: Waterl Tacom Fresno Monet Hamilt St. Cat Nashvi Havan Honold Charlo South Madisc Charlo Sioux F Summe Seattle Cienfuc Ciego C Guadal Albuqu Havan Havan Hamilt St. Cat Nashvi Madisc Charlo Sioux F Summe Seattle Cienfuc Ciego C Guadal Albuqu Havan Ha	25.62 (UNA-U 29.98 mer 29.98 mer Powers of Calif. I non, Ontherines of Calif. I non, O	Mon. of, 50 to, 50 to .1 (5.50 to	one 28 only 2-3 1 constants one 500 to 500 to 500 to 700 to 1000 to 100 to 5000 to 1000	p.m., EST.  ges
Geneva HBP League HBJ Zurich HB9XD HB9XD HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P.O.B p.m. (6) ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Eac kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 3.488 F. 7.220 9.380 F. 7.005 JTH AFR 7.400 6.072 ox 4559 ( 7.329), Europe 4.273 st Radio 8.570 8.333 0.1.111 6.420 4.273 5.515 5.614	ns. 20.60 85.92 41.53 29 kcs. 31.96 87 79.95 42.80 ICA (Z 40.52 49.37 18?) 5-4 (6098 40.90 40.90 54 40.90 34.98 35.98 35.98 28.53 26.08	1st-3rd ?) See Algee See Algee SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.m. -RUZ) Z. Comm. , Daily \$ 5-7:30 a. (10526 kc)	Suns. ria. ria. Zone Brdest 30-11:2:30 ones 30 du Pe 3-9 a.n., ES	7 30 g. Co. 30 g. Co. 3.m., 1 p.m., , 0-50 uple J n., ES	a.m., Ltd3:30 EST. PTT, r. 20	Val YUGG Bel 550 570 580 635 635 730 760 840 880 880 890 940 1030 1120 1120 1155 1155	encia VY4BV V4BV V5-SLAVIA grade VDEV KVI KMJ CNRAC CKOMK KGU KXA CKGW WWLL CJCB CMX WHA CMHJ KSOO CHGS KRSC CMJH XEA KOB CMW WBH XEA KOB CMW WWHA CHGW WHA CHGW WHA CHGW WHA CHGW WHA CHGW WHA KSOO CHGS KRSC CMJH XEA KOB CMW WBHS WHA WBH XEA KOB CMW WWHA WHA WHA WHA WHA WHA WHA WHA WHA W	11.700  Learne 10.000  Sum: Waterl Tacom Fresno Monet Hamilt St. Cat Nashvi Havan Honold Charlo South Madisc Charlo Sioux F Summe Seattle Cienfuc Ciego C Guadal Albuqu Havan Havan Hamilt St. Cat Nashvi Madisc Charlo Sioux F Summe Seattle Cienfuc Ciego C Guadal Albuqu Havan Ha	25.62 (UNA-U 29.98 mer 29.98 mer Powers of Calif. I non, Ontherines of Calif. I non, O	Mon. of, 50 to, 50 to .1 (5.50 to	one 28 only 2-3 1 constants one 500 to 500 to 500 to 700 to 1000 to 100 to 5000 to 1000	p.m., EST.  ges
Geneva HBP League HBJ Zurich HB9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P. O. B p.m. (6t Khabarovsk RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 (0.70 kcs.?) 7.329 (0.70 kcs.?) Europe 4.273 st Radio 8.570 8.333 (0.510 1.111 6.420 4.273 5.515 5.614 sss.?)	ns. 20.60 85.92 41.53 29 kes. 31.96 8 79.95 42.80 ICA (Z 40.52 40.	1st-3rd ?) See Algee See Algee SeA-ZUZ) African 7 a.m., 9: kcs.?) 9:30 a.mRUZ) Z Comm. a, Daily 55-7:30 a. (10526 kc) Comm.	Suns. ria. ria. Zone Brdest 30-11: -2:30 ones 3: du Pe -9 a.n. ES	7 30 g. Co. a.m., 1 p.m., , 0-50 uple 1 h., ES' ST.	a.m.,  Ltd3:30 EST.  PTT, F. 20	Val YUGG Bel 550 570 580 635 635 650 730 750 840 840 880 1080 1110 11120 1155 1180 1185 1200	encia VY4BV VABV VABV VABV VABV VABV VABV VAVI KMJ CKOC CKTB WSM CMK KGU KXA CKGW WWL CJCB CKCMH WBT KSOO CHGS CRMHJ CMJH XEA KOB CMHJ CMJH XEA KOB CMW WBHS WILAP 10-BP	11.700  Learne 10.000  Sum: Water Tacom Fresno Monet Hamilit St. Cat Nashvi Havan Honol Toront New O Sydney Quebec Charlo Sioux E Summe Seattle Cienfus Ciego of Guadal Albuqu Havan Hunts Louisvi Wingha	25.62 (UNA-U 29.98 mer 29.98 mer Powers 29.98 c. Calif., no. 1, c.	Mon. of the state	one 28 only 2-3 1 chan; to 500 to 500 to 500 to 700 o 1000 o 5000 o 5000 o 5000 o 5000 0 to 5000 0 to 5000 0 to 5000 0 to 5000 1000 to 5000 1000 to 5000 to 1000 to 1000 to 1000 to 1000 to 1000 to 1000 to 1500 to 1500 to 1000 to 1000	p.m., EST.  ges
Geneva HBP League HBJ Zurich HB9XD B9XD 2 p.m., HB9XD TUNIS, Africa (Constantine F8KR F8KR UNION OF SOL Durban ZTD Johannesburg ZTJ P.O.B p.m. (6i ZTJ U.S.S.R. (Russia Khabarovsk RW15 Far Eack kw. RW15 Leningrad RW3KAA	7.790 of Natio 14.550 3.488 7.220 EST. (72 9.380 F) Zone 2 3.750 7.005 JTH AFR 7.400 6.072 (0.70 kcs.?) 7.329 (0.70 kcs.?) Europe 4.273 st Radio 8.570 8.333 (0.510 1.111 6.420 4.273 5.515 5.614 sss.?)	ns. 20.60   85.92   41.53   29 kes. 29	1st-3rd ?) See Algee See Algee SA-ZUZ) African 1 7 a.m., 9: kcs.?) 9:30 a.m. -RUZ) Z. Comm. , Daily \$ 5-7:30 a. (10526 kc)	Suns. ria. ria. Zone Brdest 30-11: -2:30 ones 3: du Pe -9 a.n. ES	7 30 g. Co. a.m., 1 p.m., , 0-50 uple 1 h., ES' ST.	a.m.,  Ltd3:30 EST.  PTT, F. 20	Vall 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	encia VY4BV V4BV V5-SLAVIA grade VDEV KVI KMJ CNRAC CKOMK KGU KXA CKGW WWLL CJCB CMX WHA CMHJ KSOO CHGS KRSC CMJH XEA KOB CMW WBH XEA KOB CMW WWHA CHGW WHA CHGW WHA CHGW WHA CHGW WHA CHGW WHA KSOO CHGS KRSC CMJH XEA KOB CMW WBHS WHA WBH XEA KOB CMW WWHA WHA WHA WHA WHA WHA WHA WHA WHA W	11.700  , Europe 10.000  Sum: Water Tacom Fresno Monet Hamili St. Cat Nashvi Havan: Honolo Seattle Toront New O Sydney Quebee Havan: Madisc Santa c Sioux F Summe Seattle Cienfu Ciego c Guadal Albuqu Havan: Huntss Louisvi Wingha	25.62 (UNA-U 29.98 mer 29.98 mer Powers of Calif. I non, Ontherines of Calif. I non, O	Mon. oc. 1.50 to 1.00	one 28 only 2-3 1 han; 500 to 500 to 700 o 1000 500 to 100 0 to 5000 1000 0 to 250 0 to 5000 1 to 250 1 to 500 to 75 15 to 50 1500 1000 1000 1000 1000 1000 1000 1	p.m., EST.  ges

1240	WKAQ	San Juan, P. R., 500 to 1000 Decorah, Iowa, 50 to 100 Shreveport, La., 50 to 100 Morelia, Mex., 101 to 150 Monterrey, Mex., 50 to 100 Ciego de Avila, Cuba., 5 to 112 Havana, 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  DEFETED
1270	KGCA KRMD	Decorah, Iowa, 50 to 100
1310	KRMD XEI	Shreveport, La., 50 to 100
1315	XEFB	Monterrey, Mex., 50 to 100
1335 1355	CMJI CMCY	Ciego de Avila, Cuba., 5 to 112
1355	CMCY	Havana, Cuba, 250 to 500
1370	KGFL CMCH	Havana Cuba, 20 to 100
$1395 \\ 1450$	WHOM WKBZ	Jersey City, N. J., 500 to 250
1500	WKBZ	Ludington, Mich., 50 to 100
595 630	CNRL CHCS	London, Ont.
690	CNRX	Hamilton, Ont. Toronto, Ont.
730	CNRX CNRM CNRW	Montreal, Que.
780	CNRW	Winnipeg, Man.
818 840	CNRD	Montreal, Que. Winnipeg, Man. Mexico City, Mex. Red Deer, Alta. Quebec, Que.
880	CNRD CNRQ CNRS	Quebec, Que.
910	CNRS	
960	CJBR	Regina, Sask, Regina, Sask,
1120	CNRR CNRT	Toronto, Ont. Knoxville, Tenn. Springfold, Vt
1200	WFBC	Knoxville, Tenn.
1910	WNBX	Springfield, Vt.
$\frac{1210}{1370}$	WLCI HRB	Springfield, Vt. Ithaca, N. Y. Tegucigalpa, Hond.
1490	WCHI	Chicago, Ill. Long Island City, N. Y.
1500	WLBX	Long Island City, N. Y.
1500	WMBA	Newport, R. 1.
550	WDEV	FREQUENCY Waterbury Vt., from 1420
570	WDEV WNYC KMJ	New York City, from 810
580	KMJ	Fresno, Calif., from 1210
580 750	WDBO	Orlando, Fla., from 1120 St. Johns N. F. from 675
810	VOWR WPCH KSEI	New York City, from 570
890	KSEI	Pocatello, Idaho, from 900
1055	XES	FREQUENCY Waterbury, V.c., from 1420 New York City, from 810 Fresno, Calif., from 1210 Orlando, Fla., From 1210 St. Johns, N. F., from 675 New York City, from 570 Pocatello, Idaho, from 900 Tampico, Mex., from 890 Cienfuegos, Cuba, from 1125 Ciego de Avila, Cuba, from 1017 Guadalajara, Mex., from 1000 Havana, Cuba, from 588 Missoula, Mont., from 1420 Fort Smith, Ark., from 1340 Gulfport, Miss., from 590 San Juan, P. R., from 890 Canton, Ohio, from 1200 Morelia, Mex., from 1000 Ciego de Avila, Cuba, from 1260 Havana, Cuba, from 1200 Ciego de Avila, Cuba, from 1260
1150	CMHJ CMJH	Ciego de Avila, Cuba, from 1017
1155	$\mathbf{XEA}$	Guadalajara, Mex., from 1000
1185	CMW	Havana, Cuba, from 588
$\frac{1200}{1210}$	KGVO KFPW	Fort Smith, Ark., from 1340
1210	WGCM	Gulfport, Miss., from 590
1240	WGCM WKAQ	San Juan, P. R., from 890
$\frac{1260}{1310}$	WHBC XEI	Morelia Mex. from 1000
1335	CMJI	Ciego de Avila, Cuba, from 1260
1355 1370	CMCY XEFZ	Ciego de Avila, Cuba, from 1260 Havana, Cuba, from 1345 Coyoacan, Mex., from 1500
1370	XEFZ	Coyoacan, Mex., from 1500
930	WIBG	LOCATION 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, Idaho, from Sand Point, Idaho Yuma Ariz from Flagstaff Ariz
1050	KFBI	Abilene, Kans., from Milford, Kans.
1210	WFAS	White Plains, N. Y., from Yonkers, N. Y.
$1370 \\ 1420$	KGFL KGKX	Lewiston Idaho from Sand Point, Idaho
1420	KUMA	Yuma, Ariz., from Flagstaff, Ariz. Washington, D. C., from Alexandria, Va.
1460	WJSV	Washington, D. C., from Alexandria, Va.
***	OTZ OTZ	CALLS
540 660	CKOK CMAF	Windsor, Ont., from CKWO Havene Cube from CMDC
660 1200	WPHR	Windsor, Ont., from CKWO Havana, Cuba, from CMDC Petersburg, Va., from WLBG Elk City, Okla., from KGMP White Plains, N. Y., from WCOH Greenville. Miss., from WRBQ Coyoacan, Mex., from XETZ Yuma, Ariz., from KFXY
1210	WPHR KASA	Elk City, Okla., from KGMP
	WFAS	White Plains, N. Y., from WCOH
1370	WKFI XEFZ	Covered Mex. from XETZ
1420	KUMA	Yuma, Ariz., from KFXY
		NEW
600	WJED VOGT	Indianapolis. Ind. Wabana, N. F.
893 1210	VOGT WHET	Wabana, N. F. Troy, Ala.
1210	WJEJ	Hagerstown, Md.
1420	KIDW	Hagerstown, Md. Lamar, Colo. Springfield, Mass.
	WMAS	Springfield, Mass.
E70	WCVD	CHAINS
$\frac{570}{620}$	WSYR WSUN	CHAINS Syracuse, N. Y., new NBC St. Petersburg, Fla., new NBC Milwaukee, Wis., new CBS
1120	WHAD	Milwaukee, Wis., new CBS

1130 KSL Salt Lake City, Utah, new CBS. Fresno, Calif., new CBS Asbury Park, N. J., new CBS Washington, D. C., new CBS KMJ WCAP 1210 1280 1460 WJSV Permit to Change Frequency KFYO Lubbock, Texas, to 1420 Permit to Change Power 970 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. St. Joseph, Mo., to Springfield, Mo. KGBX 1310

### 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 keys, 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

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

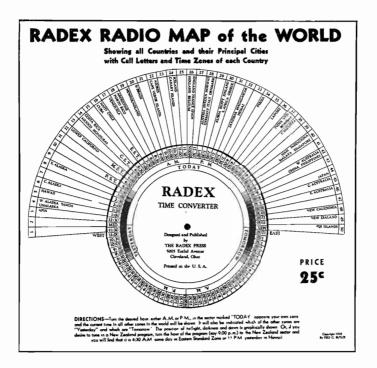
be mistaken."

"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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