THE JANUARY 1938



# RADEX

The All-wave Radio Log



The Shortest Shortwaves
The Daily Programs
Broadcasting Stations of Oceania
Programs of the Week

## **JANUARY 1, 1938**



## RADIO

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## What is a Continent?

OME people DX solely for the enjoyment they derive from hearing stations in far away places, but most DXers get most of their pleasure out of building up their logs, adding up stations heard, countries heard and continents heard.

Nearly all DXers strive to obtain a verification from each continent, and after all continents are confirmed, they aim to see how many more times they can do it. Then they start keeping score, saying they have 2VAC, 6VAC or 50VAC, whatever the case may be, meaning of course that they have verified all continents two times, or six times, or fifty times.

As long as the stations one hears are in countries like France or Egypt, Argentina, China or Australia, there is no difficulty in placing the countries on the proper continent, but when one begins to log stations in Bermuda, Martinique, Sumatra, Hawaii or Pitcairn, then one begins to wonder in which continental area these islands should be counted.

In an attempt to place the boundaries of the continents, we have consulted all the references available, and have found that even geographers are in doubt about the proper placing of some of the land areas. They all agree that the Philippines and Hawaii are to be included in Oceania, however, and most of them consider the West Indies as a part of North America.

The observations following outline the most generally recognized boundaries and can be accepted by DXers as a guide.

According to Funk and Wagnalls, the land of the globe is sometimes divided into two continents, the eastern and western; sometimes into four, Africa, Asia and Europe being separately enumerated; more commonly into five, Australia being reckoned as one; still oftener into six, North America and South America being counted separately; and since 1909, the land about the South Pole as another, the Antarctic, Austral or seventh continent.

It is common practice among DXers to count six continents, as no radio stations exist at the present time in Antarctica. The six continents are North America. South America, Europe. Africa. Asia and Oceania. All the land surfaces in the world (except the South Polar Regions) can be included in these six continents.

North America is bounded on the north by the Arctic Regions. From the North Pole, the boundary passes through the Greenland Sea to a point between Greenland and Jan Mayen Island, then through Denmark Strait and into the Atlantic Ocean. A straight line drawn from Denmark Strait to Georgetown. British Guiana, will determine the eastern boundary of the continent. The southern boundary passes be-Venezuela and Trinidad, through the Caribbean Sea parallel to the coast of South America, but north of the Dutch islands off the Venezuelan coast, to the Gulf of Dar-The Panama-Colombia frontier is considered as the southern terminus of the continent. that point a line can be drawn to the intersection of the Equator and the 135th parallel, then from that point to the westerly tip of the The first line Aleutian Islands. will pass to the south of Cocos and Clipperton Islands, but north of the Galapagos. The second line

will pass to the east of the Hawaiians. Then from Attu, which is the most westerly of the Aleutians, the boundary can be considered as following the International Date Line, to the North Pole. It should be noted that the Date Line curves in the Arctic Ocean so that Wrangell Island is included in North America.

It will be noticed that all the West Indies, including the Bahamas, Bermuda, the Greater Antilles, the Leewards and the Windwards, as well as Central America, are considered as parts of the North American Continent.

South America is bounded on the north by the Caribbean Sea, including the Netherland West Indies (Aruba, Curacao, Buen Ayre, La Tortuga and Margarita Islands). The western boundary can be considered as starting at the Panama-Colombia frontier, to the intersection of the Equator and the 120th parallel, then along the 120th degree of longitude, south from the Equator to the Antarctic Ocean. The Galapagos, Rapanui (Easter), Sala y Gomez and intervening islands are included in South America. eastern boundary, from the Venezuelan coast, extends into the Atlantic Ocean towards Sierra Leone in Africa, but only to about 20 degrees west longitude, then south along the 20th parallel to the Antarctic Ocean. This will include the islands of St. Paul and Trinidad (both owned by Brazil), the Falklands, South Georgia, the Sandwich Group and the South Shetlands.

Europe is bounded on the west by the Greenland Sea, Denmark Strait and the Atlantic Ocean, including Iceland, Spitzbergen, Jan Mayen, and the Azores. The southern limit of Europe extends from a point south of the Azores, through the Straits of Gibralter, into the Mediterranean Sea and along the coast



Joan Tetzel and Eddle Wragge, just graduated from the NBC's Children's Hour, are now featured players in the weekly series, True Story Court of Human Relations, keard over the Red Network every Friday night.

of Africa, and includes Sicily, Malta, and Crete. The eastern boundary, from the Arctic regions, passes through Kara Sea, Kara Bay, along the Obdorsk Mountains, the Ural Mountains, and the Mugoiar Hills. to the Caspian Sea. Then along the Caucasus Mountains, through the Black Sea, the Bosporus, the Sea Marmora. the Dardanelles. through Aegean Sea to a point east and south of Crete. The Islands of Rodi (Italian) and Cyprus (British) are not included in Europe.

Africa is bounded on the north by the Mediterranean Sea, on the west by the Atlantic Ocean, and includes the Madeiras, the Canaries, the Cape Verdes, Ascension, St. Helena, Tristan da Cunha and Gough Island. The eastern boundary passes through the Suez Canal, the Gulf of Suez, the Red Sea, the Gulf of Aden, west of Socotra Island, and east of the Seychelles, Madagascar,

Mauritius and Rodriguez Islands.

Asia is bounded on the west by Europe and Africa, including the Transcaucasian States. Anatolia. Rodi, Cyprus, the Sinai Peninsula and Socotra Island. The southern limit is in the Indian Ocean, and includes the Laccadive and Maldive Islands and the Bay of Bengal, including the Nicobars and Andamans. The eastern boundary follows the International Date Line, the Japanese coast, to a point between Taiwan and the Philippines, then through the South China Sea to Singapore. From Singapore it goes through the Malacca Strait to the Bay of Bengal.

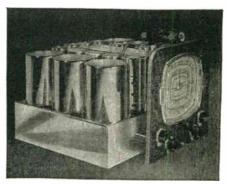
Oceania is a term used by geographers to include Australia, New Zealand and the Islands of the South Pacific. Its divisions are Malaysia, with the Philippines; Australia with Tasmania; New Zealand; Melanesia (New Guinea, New Britain, New Ireland, Admiralty, Solomons, New Hebrides, Santa Cruz, Fiji, Loyalties, New Caledonia); Micronesia (Ladrones); Pelew and Carolines, with Marshall and Gilbert groups; and Polynesia (Samoa, Tonga, Cook, Tahiti, Marquesas, Ellice, Hawaii); and all intervening clusters.

CTIAA Lisbon, Portugal, is now announcing as CS2WA.

A trial membership of 13 weeks in the Globe Circlers' DX Club is now available for only fifty cents, and on its expiration this subscription can be extended for a full year for only \$1.00. The offer is open only to new members. For full particulars address Raphael Geller, 1652 Radcliff Ave., Bronx, N. Y.

The Universal Radio DX Club, 2018 Green St., San Francisco, Calif., announces that dues are \$1.25 per year for the URDXC alone, or a combined membership is available at \$1.60 in the URDXC and the Quixote Radio Club.

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FTER several weeks of uncertain reception, the new DX season finally got going the latter part of October, and the month of November found it in full swing. Static gradually diminished in intensity and, on occasions, even became a negligible factor for the listeners. Signals showed favorable increases in strength and many distant stations pounded through with a potent wallop.

DXers who patrolled the midnight air lanes found many new and interesting catches to be logged. Throughout the United States, dozens of newly-authorized stations ran DX programs and equipment tests. New transmitters in Cuba and Mexico pushed signals through the barrier of domestic broadcasters.

First new catch of the season actually was logged on September 27th, when KPFA, Helena, Mont., showed its face on 1210 kcys. A few days later, October 4th, the 1200 channel gave up the second new station of the infant season—KELO at Sioux Falls, S. D. October 11th found the new KOAM of Pittsburg, Kans., using its kilowatt of power to advantage on 790.

From then on, the early morning hours provided a happy hunting ground for those who cared to tune. From out of the West came a procession which included KHUB,

KELA, KSRO and KTMS, with visits also from KBST, KOKO, KHBG and KAWM. The Middle West was well represented on the log by KRMC, KELO, WGRM, KATE and KSAL. Nearer home, WKAT, WRNL, WAGA, WRTD, WMBS, and WPRA showed to advantage.

Among the Spanish-speaking countries, there appeared to be pronounced activity. Throughout the Middle Atlantic states, a new Cuban caused consternation by parking on 710 and gumming up the WOR programs. Finally identified as CMBL at Havana, the station showed a real sock. Another Cuban causing interference was CMCM, which had a real battle with WWL on 850.

Down in Mexico, several stations cropped up. XEFW, Tampico, Tamps., was heard several times on 1310 kcys. Out in Mexicali, XECL has been using 1700 watts on 1100 kcys. XELO, Tijuana, appears to have settled down on 670 and asks that reports be sent to P. O. Box 6, San Diego, Calif. Another Tijuana station is XEOK, which is heard regularly Sunday mornings on 760. After a bit of ear straining, the Mex on 1160 was identified as XEP at Juarez, Chih.

A little farther South, our old friend TGW, Guatemala City, has re-appeared on the radio horizon—this time on approximately 1240 kcys.

#### **Europeans Coming In**

November brought its share of freakish reception. The morning of the 12th, for example, had all the earmarks of being pretty poor for DX. West Coasters like KFI and KPO showed barely S4 on the "S Meter" of the Super Skyrider, while KNX was just a degree higher. The smaller stations were hardly audible.

Stopping for a moment on 1040 for a few dance selections from what apparently was KRLD, it was a distinct surprise to hear an announcement in French. After a few selections, the station was identified as Rennes. A check-up on other likely frequencies was not uneventful and, within 45 minutes, seven other Europeans were heard.

From Germany, Stuttgart, Munich and Hamburg showed really excellent strength. Besides Rennes, the French Lille, Bordeaux, Nice and Poste Parisien pushed through signals ranging from S4 to S6. The latter station, incidentally, was heard for the first time in several years, and it was nice to find the channel free of XEAW.

On subsequent mornings, reception of from seven to ten Europeans was repeated, and each time the signals showed to best advantage, it was noticed that West Coast stations were below par.

Conversely, on mornings when the smaller Pacific stations were coming in well, signals from the Antipodes were well received. First Zedder of the new season to be logged was the old reliable 2YA, which hadn't been doing so well since it switched from its former 720 channel. However, the latter part of October found 2YA with a good S5 signal on 570.

As static diminished, 1YA and 3YA were other Zedders to be logged. From Australia, 2NR was easily the best of the TP's, with an S5 signal which occasionally was as

high as S7. 2BL, 2CO and 3LO were also heard with signals running from S4 to S6.

From Hawaii, KHBC lived up to its reputation from last year by showing amazing strength for its 250 watts. KGMB ran a good second, while, except for infrequent bursts of strength, KGU was a very poor third.

#### Radio Rambles

Everything considered, it begins to look as though this is going to be a pretty good season. Ballyhoo about sunspots to the contrary, signals from all points of the compass have been showing a dequate strength and static has not been excessive.

Just about the only limit to DX possibilities is the local noise level. In many instances a weak carrier will be tuned in and the volume advanced, only to have the barrage of man-made interference act as the real barrier. On most any good night, the DXer finds that static and weak signals are the least of his worries. And, fortunately, the listener in the average residential location is in a position to reduce and sometimes eliminate most of the man-made noise.

Too often, however, the DXer is inclined to do little and bemoan a lot when noise interferes with his dialing. He seems to forget that, despite opinion to the contrary, many power companies are quite willing to assist in tracing sources of racket. He fails to remember that most causes of interference may be remedied when located. And, failing all else, a considerable amount of noise may be abolished by an intelligent installation of a good antenna system.

So, when it becomes apparent that another good season is with us and that the only obstacle to real DX is the local noise level, there is no legitimate reason why reports for the year should not show a great

many fine catches.

#### **DX** Doings

Dialing during October and November finds a number of regular special programs worthy of attention. Every Saturday morning between 3 and 4 a. m., EST, KRLC, 1390, Lewiston, Idaho, has a DX broadcast. WEAU, Eau Claire, Wis., has a monthly program between 5:30 and 6 a. m., EST, on 1050 kcys, on the fourth Friday. WJAG, Norfolk, Neb., 1060 kcys, broadcasts between 1:30 and 2 a. m., EST, on the second Friday.

The first Saturday of each month finds two regular programs on tap. From 2:30 to 3 a. m., EST, KSAL, Salina, Kans., tests on 1500 kcys, while CHWK, Chilliwack, B. C., broadcasts between 2:45 and 4 a. m.,

EST, the same morning.

Neat targets for DXers are stations which sign on early every morning, and schedules of several of these have been noted. Coming on at 5 a. m., EST are WICC, Bridgeport, Conn., 600 kcys; WEAN, Providence, R. I., 780 kcys; WNAC, Boston, Mass., 1230 kcys; and WHIS, Bluefleld, W. Va., 1410 kcys. A half hour later, at 5:30 a. m., WIBX, 1200 kcys, Utica, N. Y., signs on—except during the week of the frequency checks, when they come on at 6:30.

Two new stations whose frequency checks were not listed in the schedule which appeared in the Decemer RADEX, are KSRO, Santa Rosa, Calif., and KHBG, Okmulgee, Okla. The former may be heard on 1310 between 6:20 and 6:40 a. m., EST, on the second Monday, while the latter can be logged on 1210 from 3:10 to 3:30 on the second Friday.

Špeaking of the frequency checks, a neat bit of CPC work has been accomplished by NNRC Vice President William H. Applegate. When arranging a special from XECZ, 1370 kcys, San Luis Potosi, Mr. Applegate decided on the period between 2 and 2:40 a. m., EST, on December 13th. Checking over the schedule of frequency checks, it will be noted that no other station on that channel will be operating at this time—perhaps the only opportunity listeners would have to hear this station.

#### Credit Where Due

A couple of issues back, it was proposed in this section that DXers form a new Anti-Hi Society. While intended solely as a sly poke at the listeners who have been apeing the lingo of the amateurs, it appears that at least one DXer took us seriously.

"You have received the CDXR bulletins," writes Charles Hesterman, president. "You counted the 13 'hi's' in Volume 1, No. 23. I would much prefer you to come right out into the open with any adverse criticism of the CDXR bul-



Fibber McGee, the prince of punsters, the nobleman of nonsense, the tank town tattler of the teeming metropolis of the Midwest, looks out at the world over his glasses and considers what rare philosophic comment he will use on his next NBC-Red Network broadcast. Heard regularly with Molly at 9 pm, EST, on Mondays.

letin. If the numerous 'hi's' cause you great displeasure, I advise that you consign all future copies of the CDXR bulletin immediately to the incinerator. Then you will not be offended by my childish and ridiculous habits. . . . In the future, please publish outright the name of an offending bulletin. Don't think that I will rant and rave if it transpires that it is the CDXR. In any case, I don't think for one moment that my numerous 'hi's' are as detrimental to the good of DX as are those 'monitored' veries."

物を特別でいます。

Correct is CDXR President Hesterman in his deduction concerning the identity of "The Bulletin of 13 Hi's." But had his bulletins been disposed of as suggested, it now would be impossible to refer back to them and give credit where due.

As any reader might determine for himself, the CDXR bulletin of August 5th contained 13 hi's. Production was curtailed for two issues. for on September 5th there were only 11 hi's and on September 22nd but five. A new hi (I mean high) was reached when 22 highs (I mean hi's) appeared on October 7th and a like number on October 23rd. At about this time the November RADEX appeared, with its anti-hi movement. It may be a coincidence that the November 9th bulletin contained but six hi's, or it may be significant.

In either case, however, I did want to get the record straight and give proper credit.

The March of Time is being transscribed in French in three halfhour recordings for broadcast to listeners in France. The project is under the supervision of Jean Masson, program editor of Radio Lusembourg, in cooperation with Time, Inc.

#### The SWL Trading Post

Allyn R. Fisher, 4290 E. 137th St., Cleveland, Ohio (letters).

Ben Follrath, 1419 Pearl St., Alameda, Calif. (exch. correspondence and SWL cards).

Harry G. Forster, Jr., 89 E. Stratford Ave., Lansdowne, Pa., wants to exchange SWL cards and correspondence with any DXer, especially those in Europe, Africa, Asia and Australia.

Gilbert L. Harris, 60 N. Holden St., North Adams, Mass. (SWL cards).

Edward Hughes, 1212 Castlewood Ave., Louisville, Ky. (Correspondence with overseas DXers, especially in Spanish-speaking countries).

Austin M. Rheiner, 500 S. Kolmar Ave., Chicago, Ill. (exch. SWL cards—wants one from each state).

Clyde A. Ritter, 320 Leonard St., Bloomsburg, Pa. (exch. SWL cards).

Jack Siringer, 1451 Lincoln Ave., Lakewood, Ohio, will exchange SWL cards and correspondence with s.w. listeners overseas.

Albert Steinmetz, 125 W. 27th St., Bayonne, N. J., wishes to correspond with Hungarian DXers in any part of the world.

The Intermountain BCB DX Club, with headquarters at 1404 Sherman Ave., Salt Lake City, announces that membership fees in their organization are 50c per year, and a club bulletin is available, also at 50c per year, or both membership and subscription for 75c per year.

Yoichi Hiraoka, NBC xylophonist, who is to make a concert appearance at New York's Town Hall November 24, will play the seldom heard and unique Japanese song, Echigo. It was from this song, Hiraoka says, that Puccini took the melody for his celebrated "Madame Butterfly."

## ARE SHORT, Short-wave Bands Worth While?

By B. FRANCIS DASHIELL

HE realm of the newly popular short, short-wave bands is being explored not only with unbounded enthusiasm by radio fans but with great seriousness by scientists. Here the future of short-wave radio will be found. But just now these very short waves, particularly those of less than 5 meters, are purely experimental and at present offer little of a practical nature to the radio listener. In fact, it is impossible to find a receiver that tunes much below 5 meters, except in the scientific, experimental field.

It is the short-wave band, upwards from 5 meters, that holds much promise to the radio fan. Radio sets that tune as high as 60 megacycles are available in the 1938 models, but in the great majority of cases the average moderate-priced all-wave set offered to the public usually tunes to a frequency of approximately 18 megacycles. Some larger sets, which of course are more expensive, include an additional short-wave band that tunes to about 45 megacycles.

#### 5 And 10 Meters

Many radio listeners are wondering whether it is worth while to purchase a 1938 receiver that tunes down to 5 and 10 meters. The question is often asked: Is this additional wave band necessary, and has it enough interest to the general public? Practically all of the shortwave radio business of the world is conducted on wave lengths greater than 10 meters; this fact alone properly raises the question of whether a set with an additional short, shortwave band covering 25 to 60 megacycles need be purchased.

The 1938 offering of radio receivers discloses that the more expensive types, those ranging from 9 to 12 tubes, and as high as 16 tubes, usually cover, in addition to the broadcast band, the 49, 31, 25, 19 and 13-meter international entertainment bands. Some special custombuilt sets go down to 5 meters, and are strictly "all-wave". number, however, do not include the 13-meter and additional short, shortwave bands. They do, of course, include the popular 20-meter amateur band. But, in most cases, the useful 10 and 5-meter bands that are becoming so sensational, are left off.

#### **International Bands**

Practically all sets, except those of inexpensive make, cover the very best of the international short-wave bands, as well as the amateur and commercial zones. So, when a 1938 all-wave set is examined, one need not feel that he has been slighted in the matter of normal all-wave reception. Such a set is best for ordinary household and simple DXing pur-The wave bands that provide best reception on all international transmissions are the 49, 31, 25 and 19-meter regions. Then, too, there are the 160, 80, 40 and 20-meter amateur bands. The foreign bands work best at different times, for it will be noted that several of the more important stations have separate places in all of the international bands, broadcasting simultaneously on all the different frequencies. If reception should be poor in the 15 megacycles band, for instance, it might turn out to be very good in the 12 or 9 megacycle zones. Therefore, when it is impossible to get London, Berlin, Rome, Prague, etc., on one frequency, it is likely that the station will be heard, loud and clear, on another of its frequencies.

Below 19 meters, and down to 5 meters, many frequencies are available. This fact provides radio with thousands of future channels. But these stations will be crowded closely, and tuning will be sharp and difficult. Even on 10 meters, with a band spread that will throw all the 2.000 kilocycles available over the entire 180 degrees of the dial, tuning is critically sharp and interferunavoidable. The present trend, therefore, is to the so-called "communications receiver", such as amateurs operate with almost exclusively. These sets are designed for very sharp tuning, with some loss of high fidelity of reproduction, and even then stations cannot always be separated sufficiently for clear reception when the band opens up perfectly. In the ordinary all-wave set. the mechanical separation of stations is not so good since the entire group is squeezed into a tiny spot on the dial. This is an engineering fact, and is to be expected; it is not the fault of the receiver.

#### 20-Meter Amateurs

This does not mean, however, that the short-wave bands below 20 meters are jammed with stations. In the 20-meter region are many of the better amateur phone stations. Many can be picked up easily on the all-wave set, but not, of course, as easily or in as great a number as with an amateur communications receiver. Here will be found some of the best known radio experimenters of the day, and radio's hams and engineers may be heard discussing scientific matters pertaining to radio.

The 20-meter region, is subject to certain conditions which man cannot control. When the band "opens up" nicely it provides an interesting evening. As a rule this band is in



A photographic impression of Benny Goodman, who, with his clarinet, leads his orchestra through intricate swing rhythms on his "Swing School" broadcasts each week over the Columbia network.

action all the time—sometimes better than others. But, if the receiver tunes still lower, down to 13 meters, which is the highest of the international frequencies, still more unstable conditions will be experienced. In this zone, and particularly on the busy 10-meter band, freak reception is a common experience. But when the band opens up, it performs in a way that, to the expert listener, seems little short of miraculous.

#### The Erratic 10 Meters

The amateur stations on the 10-meter band can be heard distances that seem unbelievable, considering the tiny bit of energy that is emitted by the transmitter. Just below 10 meters can be heard two-way conversations, such as the newer police calls. The 10-meter zone is one of radio's most remarkable regions. Natural static seldom troubles, but, of course, automobiles and man-

made static play their annoying part. This band, too, is where all-wave receivers may seem to perform at their worst. Often the fault is not in the design of the receiver, but due to the peculiar conditions which control 10-meter transmission and reception.

The 10-meter band is subject to severe "skip distance" effects. Radio stations, although close at hand, can not be heard, while weak stations, several thousand miles distant, may come pounding in like locals. And the skip distances vary in length, for it frequently is impossible to hear the same station again until many nights have passed. stations are entering the interesting 10-meter band, but patience, even with the best of receivers, is necessary to tune them in. However, an all-wave receiver which tunes down to 10 meters will provide many DX thrills, especially in summer when the longer wave bands are rendered useless with hot-weather static.

#### Sun Spots

No one knows when the 10-meter band will open up or close down without warning. A study of sun spots has given us some clue to this strange situation. Just now the sunspot maximum is approaching, as it does every 11 years, and it is expected that the short, short waves will carry extremely long distances during this winter. Just what will happen when the minimum of sun spots occurs some years hence is open to question, but it is easy to believe that the opposite will happen, and short-wave reception will be poor. Sun spots, which are believed to be violent solar storms with gas explosions and magnetic effects, change our ionosphere or "radio ceiling", and act to improve or retard its reflecting and conducting action. And the short, short waves are easily affected—either helped along or held back.

When we reach the 5-meter band everything is entirely different. Sun spots seem to have little effect. The ionosphere means nothing. there is little that can be said in favor of adding this band to an allwave receiver. The circuit must be simple; radio-frequency or pre-selectors are not needed; they hinder rather than help reception on 5 meters. Therefore, unless the receiver is specially built for short waves, 5-meter reception, while possible to some extent, is rather impracticable for the average listener with his moderate all-wave set.



"Janie" Webb, heard on the Tom Mix Straight Shooters broadcasts over the Blue Chain at 5:45 pm, is interested chiefly in paper dolls, doll furniture and, occasionally, in her school work. Janie firmly states she has no intention of making radio her life work; she thinks she prefers to be a detective.

#### Visual Radio

The 5-meter band is a zone where reception is limited to very short distances. Strange as it may seem, the 10-meter waves (30 megacycles) carry great distances with very little power, but the 5-meter waves (60

megacycles) travel only short distances with much power behind them. They move out in a straight line from the transmitter to the receiver. The limit of reception on 5 meters is visual, that is, the distance the eye can see. If you can see the point of transmission, you can hear the signal without difficulty. The best receivers for the 5-meter band are specially built, small one or two-tube super-regenerative circuits.

Intervening hills or buildings block 5-meter signals. The curvature of the earth causes the transmitted signal to pass into the air. high above the receiving antenna. In some unexplained freak conditions, however, in the present sunspot era, 5-meter signals have traveled far, once across the Atlantic. But the facts as we see them, then, prevent most persons from hearing 5-meter stations unless the receiver is located in a large city where experimental broadcasting and television work is being accomplished or a number of amateurs are using five meters, often in portable units known as "transceivers"-combinaand receivers tion transmitters which are now available at small cost.

## Scanning the AMATEUR BANDS

• • By B. L. Ahman, Jr.

We have just returned from a trip through North Carolina and Virginia, and during the trip we found that reception does not vary greatly in those states from reception in the east. The Central and South American stations predominate, however, while in the eastern and central states the European amateurs take only a close second to the Latin Americans. Naturally the northeastern states are more favorable for

Europeans because of the nearness of Europe.

Reports of reception this month were far too scarce. This, no doubt, is due to general poor conditions present on 20 meters. The band did break down one night, however, and ZU6P was heard conversing with several USA amateurs. It was heard on the LF end at 11:30 pm EST with R8 signals.

Merton Meade has a good record of African stations for this month, listing nine South Africans in his calls heard.

Art Judson writes that he heard the Greenland station OX2QY for 55 minutes from 8:00 until 8:55 pm one night. Many of our correspondents are hearing this station. Reports of reception should be addressed to W2QY, Mr. A. G. Sayre, Storm King School, Cornwall-on-Hudson, N. Y. They will be acknowledged next fall.

A report to VO6L's home address was acknowledged very nicely by his father from Montreal. QSL cards will be mailed out probably next year, after VO6L gets his mail. He is located at North West River, Labrador.

Dan Hurley of Philadelphia reports a new one, VO3Z in Newfoundland. Incidentally, Dan is now using a homebuilt TRF set. Station VK2ADE, Australia, was noticed in his list of calls heard—nice reception, Dan, on a TRF set!

Gail Beyer of Chicago says we can now add the Central Time Zone to our November listing of PK6CI as he has a QSL from this station.

Three Australasian SWL card traders descended on us in a group in one day. Add the following to those who will exchange SWL cards: Bob Russell, Taupo Road, Taumarunai, N. Z.; James Mildenhall, Byron Bay, NSW, Australia; and C. O. Pepperell, Rahotu, Taranaki, N. Z.

As usual, Hadley Wilcox of Los Angeles comes through with some news. He adds KA1BH, Manila, heard with R5-7 signals. In the same mail Tony Tarr of Seattle sends along a list, but most interesting is the fact he takes back his statement about not hearing Europeans. At last he heard one, GM5NW, R9 at 2:45 am PST.

Other reporters deserving thanks this month are Arthur Blick, Gilbert Harris, Carroll Weyrich, John Sanderson, Earl Roberts, Wm. Wood, Martin Olthoff, Benjamin Peet, R. Geller, Ed Hughes, Dave Schaller, Dale Smith, Al Steinmetz, the ISWC and the NNRC.

#### Addresses

Commencing this month we will list the call letters, the frequency and the address of every amateur station mentioned in these columns. Addresses will not be repeated, however, so readers are urged to keep these columns for future reference.

KA1BH: Mrs. Joseph Reich, 2 Escolastica, Pasay, Rizal, P. I.

PK6CI: E. R. Illing, Ambon, Netherland East Indies.

VK2ADE: C. A. Miller, 162 North St., Casino, NSW, Australia.

### Pitcairn Isle Radio Station

A COLORFUL throw-back to the days of the history-making mutiny of the British frigate "Bounty" is to be found in the life of the natives of lonely, mid-Pacific Pitcairn Island, which is totally inhabited by the descendants of Fletcher Christian, his band of mutineers and their Polynesian wives.

Word has been received from officials of the RCA Manufacturing Company that they were preparing to ship a set of transmitting and receiving radio tubes to Pitcairn

Island for use in modernizing its lone radio station, which is its only direct means of communication with the outside world. The island and its almost fabulous inhabitants were again brought into the international spotlight recently through a motion picture based on "Mutiny on the Bounty".

PITC, the island's only radio station, is in charge of Andrew Young, chief operator, and a group of assistants, all of whom are self taught in Morse code and radio technique. Alan Eurich, writing in the August issue of QST, recounts that even the children of Adamstown, the only village on the isle, are proficient Morse experts, sending messages to each other in the code with whistles.

Young's amateur radio station has been in operation since the early 1920's, and previous to its present modernization operated with one storage battery, which had to be sent to New Zealand, 2500 miles away, to be recharged when its power ran low. But Pitcairn Island has been threatened with even more complete isolation from the outside world because the simple crystal radio receiver and spark transmitter are almost completely outmoded by the modern vacuum tube radio installations on passing ships. However, a number of radio manufacturers, including RCA, are coming to the rescue by providing sufficient parts to permit the building of a complete new radio communications system.

Pitcairn Island is 3,500 miles from the United States, and supports its citizens by producing some of the most luscious fruit in the world, according to those who have passed that way. There is no harbor—the natives row a perilous course in open boats from their rocky shores to trade their fruit for clothing,

(Please turn to Page 39)

## Turning OUR READERS' Dials

• • • By CARLETON LORD

JUDGING by the comment going the rounds of radio circles, the attention of most DXers is centered upon the matter of "monitored veries." Seldom have readers shown as much interest in something which affects the DX hobby. Hardly a letter is received which does not allude to the question in some way, while many a veteran dial twister has skipped his usual report to make known his opinion of the problem.

Oddly enough, while every DXer has reason to defend a policy which may insure his verification from a given station, a huge majority of listeners are coming forward to condemn the scheme which, for a short time, was so favorably received. Or, upon consideration of the matter, perhaps it is not so odd after all.

For, behind the scenes, it is possible to foresee a situation which might easily upset the entire DX applecart. Even at this early stage, there is evidence of seeming abuses which promise little good for the hobby. If permitted to continue through support and sanction of DXers themselves, there is no telling what the final outcome may be.

When two Baltimore Carroll Weyrich and B. L. Ahman. undertook to monitor Daventry short wave stations, they were performing what they felt was a real service for listeners who desired verifications from these stations. Daventry had flatly refused to issue confirmations of any nature, and there were many DXers who felt that a "proxy verie" was better than none at all.

Previous attempts by listeners to issue confirmations for non-verifying broadcasters had been received



Annette King, brunette contralto soloist of the NBC Breakfast Club, landed her first job on a small radio station two years ago, and new she is one of NBC's most promising balladists.

with enthusiasm, and there was no reason to believe that this new service would not enjoy an even greater acceptance.

It just happened, however, that an unfortunate arrangement of the wording on the Daventry cards caused critics to claim that the veries were misleading and invalid. Typical protest is the following excerpts from a resolution passed on July 9th by the Golden Gate Chapter of the International DXers Alliance and forwarded by its secretary, Ashley Walcott:

"The members of the Chapter believe that no card or letter, so worded as to imply or indicate in any way that it is an official verification of reception authorized by the owners or operators of the station concerned, when no such authorization has actually been given, should be considered a verification of that station.

"It is the belief of the members of the Chapter that the continuance of the practice, although it was reportedly intended as a courtesy to DXers, will have harmful effects upon the future of DXing . . . that various stations of all types or classes will regard the practice as sufficient excuse to discontinue the issuance of officially authorized verifications of reception . . . that, in the estimation of those station owners or operators, whose sense of honor is offended by the issuance of such unauthorized verifications and their acceptance as valid by listeners, DXers and DXing in general will suffer greatly.

"Therefore be it resolved that the Golden Gate Chapter of the IDA expresses its entire and complete disapproval, and requests that immediate measures be taken to end the practices in question."

This resolution, it will be noticed, refers only to monitored veries which are so worded as to imply that they are sanctioned by the stations in question, when actually no authorization had been made. This, of course, is a direct reference to the type of cards which were sent out by Messrs. Ahman and Weyrich.

In fairness to these gentlemen, it is believed that the exact wording of their cards was inspired by a desire to make the veries impressive, rather than a deliberate attempt to be misleading. After all, listeners were perfectly aware that Weyrich and Ahman monitored the Daventry programs, that the reports were checked against the material which was heard by them, and that the veries were issued by them as individuals and not as agents of the B. B. C.

But there is no reference in the resolution to monitored veries which are not worded to imply official sanction by the stations. We have in mind the type of card which we sent out during the 1937 Mystery DX contest. DXers who received these cards will recall that the call and location of the station was filled "This is to in above the words: verify your reception of this Station on February — 1937. Thanks THE writing us. RADEX PRESS."

This card might be called a "proxy" verie, since the reports were checked against the station log by someone who had no official connection with the broadcasters. Still, there was no pretence that the card was coming from anyone but the Radex Press. Would the resolution of the IDA Golden Gate Chapter denounce this type of verie, even though it made no reference to it?

Granting that the verie which implies authorization which was never received, should not be accepted by DXers, what are we to do about the card which does not imply sanction by the station? Suppose the card merely certifies that a listener's report checks with the program which the monitor has heard. Is there anything wrong with an honest monitoring service which claims to be no more than that?

This question is neatly brought out by Anthony C. Tarr, 909 W. Lee St., Seattle, Wash., who writes:

"When a station announces that it will not verify, is there any reason why a public-spirited individual should not take over the job for those who were unfortunate enough to be left out in the cold? For those who scoff at the authenticity of a confirmation obtained through a monitoring station, may I inquire just what is a verie? There is only one reply to that: a verie is a certificate to the effect that a listener

heard a station at a certain time, as evidenced by his report of musical selections, and attested to by someone with knowledge of the correctness of the report. Whether or not this confirmation is supplied by the station is of little moment, because a monitor is in possession of knowledge of what was broadcast and is, therefore, qualified to issue verifications. No one has yet advanced any argument against the authenticity of the veries themselves!"

It is quite true that there has as yet been no question about the authenticity of the veries, and it is assumed that existing monitors have been conscientious in verifying only reports which check with the program they have heard.

But is it "of little moment" whether or not a confirmation is supplied by the station in question. For many DXers, a verification is more than mere proof that a station was heard at a given time. They are souvenirs of long nights spent at the dials, reminders of thrilling catches, of new horizons passed. And, like stamps or coins, they are authentic only when issued by the proper station officials.

Another side of this slant is propounded by Randolph Hunt, Box 715, Leucadia, Calif., who writes: "Suppose we take the case of the California DXer who is monitoring This station has sent out many veries in the past and may do so again at some later date. But whether or not they do, it will make no difference to those who have veries. What is going to cause confusion is to have in circulation Victoria ZBW veries and Beverly Hills ZBW veries. The holder of a real eventually will buck against one which is artificial. To promote conditions such as this may not kill DX, but it surely does not aid the honest, conscientious DXer one iota. And I believe that this

monitoring will tend to lower the status of the North American DXers, especially in the opinions of the lads Down Under."

#### Verie Clearing House

Moving on from the matter of monitored veries, we come to a situation which is undoubtedly a direct outgrowth of the monitoring idea. At about the time the question first came up for discussion, another verification service came into existence.

As recorded in the December RADEX, the Quixote Radio Club inaugurated a system whereby the club headquarters would accumulate reports for certain Central and South American stations, and then forward the reports in a body to the respective stations. The club announced that it had received the "assurance of some fifteen stations that verification requests via the QRC will be instantly honored."

At first glance, this service may appear to be meritorious. If, as was the case with Daventry, the stations had a policy of not verifying at all, it is reasonable to believe that many listeners would be more than pleased to receive confirmations in this manner. Some DXers conceivably would rather have a verie by proxy than no verie, and they probably have availed themselves of this opportunity to stock up.

But it now develops that the stations lined up with the QRC actually are doing their own verifying. They receive the reports gathered by the QRC and send their cards direct to the listeners. So it is apparent that these are not cases where the stations refuse to verify. On the contrary, they send out their own confirmations.

Even so, the system might not be so bad. If a radio club is able to procure verifications for members who otherwise might not be successful, they might be commended for being right on the job. However, we learn that, prior to this tie-up with QRC, many of these stations were verifying regular reports. They may have been slow, but the veries were forthcoming eventually. Now it appears that the stations concerned will verify only reports sent via QRC.

A number of readers have written in to say that reports addressed to YV2RA were returned by the station, with the request that all reports be sent via the Quixote Radio

Club.

(Editor's Note: After this copy was prepared, several interesting letters were received concerning the QRC Dime Veries. The verifications are sent to the reporters direct from the stations. The QRC sends ten cents to the station for each verification requested, and guarantees to refund the dime to the reporter if his verification is not received.)

#### **New Stations Reported**

As the season progresses, many new stations are reported by readers. From all points of the compass, transmitters are coming on the air and changes in existing stations are announced.

From the Postmaster-General's Department at Melbourne, we receive word of five new low-power stations in Australia: 2BE, Bega, N. S. W., 1490 kcys, 100 watts; 2HR, Singleton, N. S. W., 680 kcys, 300 watts; 2KM, Sydney, N. S. W., 980 kcys, 100 watts; 2MW, Murwillumbah, N. S. W., 1470 kcys, 100 watts; and 2XL, Cooma, N. S. W., 880 kcys., 100 watts.

"The New Zealand Government's chain of commercial stations throughout the country is almost completed," advises A. I. Breen, 68 Pine Hill Terrace, Dunedin, N. Z. "3ZB, 100 watts on 1430 kcys, commenced broadcasting on a 6 a. m. to midnight schedule September 28th. 4ZB, Dunedin, 1220 kcys, 1000 watts, began operations on October 5th,

also from 6 a. m. to midnight daily. Effective October 4th, 4ZP, Invercargill, 100 watts, moved from 620 to 680 kcys, to avoid interference from 3AR, which ruined his signal outside his immediate area."

From nearer home, Samuel A. Meyer, Jr., 83 Canterbury Road, Rochester, N. Y., supplies information on Spanish speaking stations. "TIPG in San Jose, C. R., has been heard on 625 kcys," he writes. "It is supposed to use 2000 watts power, and has a short wave relay on 6410 kcys. XEBO, Irapuato, Guan., has moved from 1280 to 1310 kcys; XELO, Tijuana, B. C., from 1110 to 670; and XEFO, Mexico City, from 940 to 930.

"I understand that there is a myriad of flea-power BCB stations in the Dominican Republic and in Honduras. A visitor from the latter country said that Tegucigalpa possessed nearly 20 little stations, some of them being 10-watters. It might be interesting to see a list of them."

Also forwarded by Mr. Meyer was the following clipping from the Laredo (Texas) Times:

"WASHINGTON, Oct. 7.—(AP)— Pan-American tourist traffic over the new International Highway was discussed today at a Communications Commission hearing of an application for a radio station in-Laredo.

"M. M. Valentine, Laredo electrical engineer and applicant, told examiner that programs planned for the station included broadcasting Mexican customs, weather and road conditions for the benefit of motoring tourists. He said there was abundant local musical talent. because Laredo's habitants 'are almost wholly of Mexican extraction and nearly all Mexicans are naturally gifted musicians.' He said that the nearest American radio station was in San Antonio, 156 miles North, and that Laredo must now depend largely for its daytime reception

from Mexican stations across the Rio Grande.

"His application is for operation on 1500 kcys, with 100 watts power at night and 250 watts daytime."

While the natural gifts of Mexican musicians are open to question, the plan to furnish information to tourists entering Mexico is indeed a novel idea. And one wonders why this hasn't been considered before.

#### Station Changes

"XELO, Tijuana, B. C., Mexico, has been giving a series of test programs on 660 kcys," informs David B. Browne, 550 E. Glenarm St., Pasadena, Calif. "From their announcements, I doubt if they plan a return to 1110. This evidently means the end of XEAO, Mexicali, as they have not been heard for several weeks and I don't believe they've changed frequencies."

Recent reports indicate that XELO is on 670, instead of 660, and they are putting out a potent signal

for their power.

"Did WJSV ever get permission to move from Virginia into Maryland and boost their power to 50 KW?" queries a Frederick, Md., reader. "Does WOL, Washington, expect to make that change from 1310 to 1230 and increase power from 100 to 1000 watts? Has W3XJ, College Park, Md., decided on the channel to which they will move from 1060 kcys?"

WJSV is still using 10 KW at its old location at Alexandria, Va. Permission to move and change power has not been granted as yet. WOL expects to make its change in frequency and power boost within the next month. W3XJ is of the nature of a booster station for WBAL, so it is not likely that they will change frequency. We haven't heard that they are contemplating any change.

"KOA's broadcast goes only to 2 a.m., EST, Sunday mornings," avers Kenneth Axelson, 5801 Dor-

chester Ave., Chicago, Ill., "instead of 3 a.m. as previously listed in RADEX. KMBC, Kansas broadcasts 19 hours daily, but their time on the air is not specified. WJRD is now verifying reception, and very promptly, too. According to a verification, WBAX hopes to have 250 watts soon. The new station at Hammond, Ind., WHIP, on 1480 kcys, broadcasts from 7:30 a.m. to 5:30 p.m., EST, daily, and from 9 a.m. to 5:30 p.m. on Sundays. They show greater signal strength than any of the five local 50-kilowatters."

#### Radex Dedications

Through the efforts of Raymond W. Sahlbach, 4708 A South Compton St., St. Louis, Mo., a number of stations are dedicating their January frequency check broadcasts to the readers of RADEX. Following is the schedule, with all times AM, Eastern Standard:

January 6 2:00-2:30 KWOS 1310 Jefferson City, Mo.

4:10-4:30 WKBZ 1500 Muskegon, Mich. 5:10-5:30 KBTM 1200 Jonesboro, Ark. 5:30-5:50 KFXD 1200 Nampa, Idaho 5:40-6:00 KFJM 1410 Grand Forks, N. D.

4:20-4:40 KLUF 1370 Galveston, Texas 4:50-5:10 KEUB 1420 Price, Utah 5:50-6:10 KGLO 1210 Mason City, Iowa

3:10-3:30 KPAC 1260 Port Arthur, Texas 4:10-4:30 KLPM 1360 Minot, N. D. 4:20-4:40 KRMD 1310 Shreveport, La. 5:00-5:20 KRMC 1370 Jamestown, N. D. 5:40-6:00 KQV 1380 Pittsburgh, Pa. 1210 Carlsbad, N. M.

3:10-3:30 WPAX 1210 Thomasville, Ga. 4:40-5:00 KPLT 1500 Paris, Texas 5:00-5:20 KFJB 1200 Marshalltown, Iowa

January 13 2:00-2:30 KWOS 1310 Jefferson City, Mo. January 14 4:00-4:20 KIUL 1210 Garden City, Kans. 5:30-5:50 WLBC 1310 Muncle, Ind.

There seems to be a question about the KWOS broadcast on January 13th. Normally, this station is scheduled for 3:40 to 4:00 a. m., EST, on the second Friday, which would be January 14th. However, the time and date are as reported by Mr. Sahlbach and readers needing

this station might do well to try at both times.

Naturally, RADEX is gratified that these stations are making these dedications, and it is hoped that readers will make a point of writing to the stations after the broadcasts. If a verification is not needed, a thank-you card would be in order.

#### Why I Verify

"A lot has been written about the question 'Why Verify?'" concedes J. E. Gardner, 1839 E. 79th St., Cleveland, Ohio. "While I have been DXing only about ten months, I have had plenty of experience. I am 67 years old and DXing is a hobby with me—one which I find very instructive, fascinating and invexpensive.

"I do not think I am different from a lot of others who like to have their catches verified. I have a certain pride in showing off the 140 veries which are on my wall, although one guest did think that they were license plates from foreign

countries.

& "The largest foreign station (England excepted) verify gladly and, as you know, a lot of them ask for reception reports. These stations do not advertise any product, so must get their revenue from other sources. The small stations in Mexico, Cuba, and Central and South America advertise many products and apparently depend upon this income for their support. Of course, it is not expected that a listener in Cleveland is going to buy a Cuban Pepsodent or on Seltzer, but the chances are that sponsors down there will be impressed by reports from a distance.

"Therefore, when I take the time and trouble to log a station which is advertising Pepsi Cola in Bucamaranga, when I make notes of an hour's broadcast, send out a good report of reception and spend money for a reply coupon, it seems to me

that I am entitled to a verie. As long as the station does not announce that reports will be ignored, they should show the courtesy of a reply merely as a matter of good business.

"I do not hold with the argument that a listener will not tune in on a program once he has received a verie from a certain station. I am glad to tune in on any program, time after time, if it furnishes me with good entertainment. I never fail to get Daventry at 6 p. m. to hear Big Ben strike the hour. PCJ has a good program and I have all their veries on all frequencies, but do not miss it when I think of tuning in on their broadcasts.

"In short, I feel that making notes, sending out a real reception report and enclosing reply coupons should entitle me to a reply. Fortunately, most stations are glad to verify a good report, but we DXers certainly have a kick coming when

we cannot raise a reply.

"However, I will continue to try for them and each addition to my collection will bring back memories. My first verie—HJ1ABP—has a place of honor in my collection, and I tune this station frequently for that very reason."

#### **Luck With Frequency Checks**

"I have listened to the frequency check programs a good many times in the last few years," states Alf Raymond, Avon, Ill., "but I never had the pleasure of perfect reception until November 10th. On that morning the schedule showed 12 stations which I had not heard, and I was certainly thrilled when I was able to hear every one of them: WJNO. WKEU. WHLB. KAND. KPDN, WEOA, WJRD, KPLT, WAYX, KRBC, WSAU and KABR."

"I had a good chance to boost my list of stations on the morning of October 11th," recalls Edgar D. Petrie, 1431 Gerrard St. E., Toronto, Ont. "Of the 64 stations which were on for the monthly frequency checks, I was able to log 47. Of these, fifteen were new to me and increased my total to 665. Perhaps the best catches in my log are KHJ, KHQ, KGIR, CMJK, CMCD, CMCW, CKMO, CMHJ, KIDW, KOY and KTFI, as well as many others. Incidentally, I would be grateful if some reader will send me a circuit for a two-tube, battery-operated short wave set."

"Can't someone arrange a series of special programs from the less-frequently heard Canadian stations?" queries Carl E. Sylvester, Box 213, Yale, Mich. "The only ones which I hear at all regularly are CBW, CFCO and CKLW. Those heard occasionally are CRCT, CFRB, and CKOC. Rarely heard are CBO, CRCM, and CKY, with the latter two not heard since they last changed frequency."

"I am 17 years old and have been DXing for about four years," writes Fred Gilbert, 363 Queen St., St. James, Winnipeg, Man. "On August 1, 1936, I received for a birthday present a 5-tube Dictator mantel set, which tunes from 540 to 1940 kcys. Since that date, I have received 210 amateurs, 43 police and 279 broadcast stations. I have logged stations in 40 states, six provinces of Canada, as well as Mexico, Cuba and Some of my best catches Hawaii. are CMCD, CMCJ, XEAC, XEAF, KHBC and CKWX.

"I am now using an RCA 9K3 receiver with an RCA doublet aerial," informs Kenneth Page, 292 Richmond Ave., Buffalo, N. Y. "The only real distance that I have logged is KHBC, Hilo, Hawaii. They can be heard nearly every morning from 2 until they sign off at 4 a. m., EST. The other two Hawaiian stations, KGU and KGMB, are very poor, being heard only occasionally."

#### Mystery Station On 650

"I've been DXing now for a little over six weeks," offers John T. Crabtree, 203 Santa Fe Ave., Santa Fe, N. M., "and in that time have logged 334 stations on the broadcast band. So far I have received stations in every state but Maine, New Hampshire, Rhode Island and Delaware, as well as several Canadians and Mexicans, 3 Cubans, one in Puerto Rico, all 3 Hawaiians and KFQD, Anchorage, Alaska.

"I am especially proud of this record, as this is without doubt one of the worst DX sections in the country. Our city is situated in a bowl formed by towering mountains, 10,000 feet high, on all sides. Naturally, a lot goes over us, and static is heavy the year round.

"For the past three weeks, I have been hearing an unknown station on 650 kcys. It is not WSM, yet all the announcements are in English. The signal strength is about R3, yet I haven't been able to identify them. Recently I heard an early-morning test from an XEAU at Tijuana, B. Cfa., on 1310 kcys. They were coming in R9, so there was no doubt about the call or location. Do you know about either of these?"

The station on 650 kcys is referred to RADEXers for identification, while the other station is confirmed by J. W. Hansen, 3028 Fairmont Blvd., Riverside, Calif., who writes:

"A new station in Tijuana, XEAU, was heard testing on 1310 kcys early in October. I received a verification from XEAA stating that they have moved permanently from 920 to 750 and are using the same power.

"Reception of the Aussies has been very poor, except for a few nights. The Zedders have been coming in a little better. but nothing to get excited about. The Japs have been very good, with programs heard regularly on 560, 590, 690, 730, 740, 770, 780, 790, 810, 820, 830, 850, 870, 940, and 970. What's happened to XGOA? Haven't heard them yet!"

#### Reception Good

"Reception has been very good so far this Fall," notes Arthur E. Foerster, 1213 Bosart Ave., Indianapolis, Ind., "with 40 new stations coming in to bring my log up to 865 logged, with practically all of them verified. The Aussies and Zedders have been missing so far and to date the Europeans have failed to put in an appearance, but I have hopes. Reception from the West Coast is the best I have seen since I began DXing five years ago."

"I have finally managed to raise my total of U. S. stations to well over the 400 mark," writes Walter V. Scholz, 33 N. Maple Ave., Webster Groves, Mo., "accomplishing that with the help of the November 11th frequency checks. My best catch so far is KHBC. While I was DXing this morning (November 11th), I came across a Spanish-speaking station on about 950 kcys. I could not catch the call letters, but heard Guatemala mentioned a few times. Could that be TGW on a new frequency?"

Just as we go to press, a letter from Samuel A. Meyer, Jr., of Rochester, N. Y., arrives advising of recent changes in Latin-American stations.

New stations heard are CMBL, 710 kcs, in Havana, Cuba. It is heard nightly from 8 until 11 pm, EST. TIPG in San Jose, Costa Rica, has also been heard on 625 kcs. This station is said to employ 2000 watts power.

XEBO in Irapuato, Gto., has moved from 1280 to 1310 kcs; XELO, Tijuana, B. Cfa., from 1110 to 670 kcs; and XEFO, Mexico City, D. F., from 940 to 930 kcs.

XENT is now using 60,000 watts power. XEBK in Nuevo Laredo, Tams., has decreased power from 100 to 60 watts.

"I am sending two clippings from the Laredo Times," Mr. Meyer's letter continues. "One of the clippings is relative to a new station under construction in Monterrey, Nuevo Leon, and the other about a Laredoan's (Texas) application for a 250-watt local station. There are already four stations in Nuevo Laredo, which has only half the population of Laredo, and to date there is no station on the American side. I believe there is to be a station in Ciudad Victoria, Tams., also, but I have no details.

"XEBK of Nuevo Laredo (1000 kcs) has a power of only 60 watts, although it is licensed for 100 watts. XENT has a power of 60,000 watts (not 150,000, although they hope to have that much some day)."

Sidelights on Eddy Duchin, NBC maestro: Learns a tune by hearing it once, but can't memorize a lyric. . . . Has his hands insured for \$100,000. . . . Organized his first orchestra while working as a waiter in a boys' camp, the group being composed entirely of waiters. . . . Made his microphone debut as pianist with Leo Reisman at the Central Park Casino. . . Dances for his own recreation and spends most of his leisure at the radio, listening to other bands.

Robert R. Irwin, President of the World Wide Dial Club, requests that his club be included in our Roster of DX Clubs which appeared in the November issue. This club is a "get together" organization which meets in Chicago twice a month. The second Wednesday of each month they meet somewhere down town, and on the fourth Wednesday the meeting is at the home of one of the members. For further information DXers in Chicagoland should get in touch with Mr. Irwin at 918 W. Gunnison St.

## The Shortwave Review

Belgian Congo

OPM at Leopoldville works with Belgium at 3 am, and from 1 to 4 pm, EST, on 10140 kcs. (RX27).

#### British Guiana

The Terry-Holden Expedition into the jungles of British Guiana, using the call letters VP3THE, has been heard throughout the United States. A 200 watt transmitter is in use, and the frequency is about 13910 kcs. (RX35).

#### British Honduras

There is a new station in Belize, ZIK2, operating on 10600 kcs. (RX21).

#### Bulgaria

LZA at Sofia, 14970 kcs, is heard from 7 to 7:30 am. (RX23).

#### Canada

A new shortwave station is now in operation in Sydney, N. S. It is CJCX, 6010 kcs, 1000 watts. It is owned by the Eastern Broadcasters, Ltd., Radio Bldg., Sydney. Programs of CJCB are relayed. (RX47).

A number of ship and shore 'phones are heard on 1630 kcs. Three of the shore 'phones are VBB at Sault Ste. Marie, Ont., VBE at Point Edward, Ont., and VBH at Port Arthur, Ont. They broadcast weather at 11 pm, EST. Some of the ships heard working these stations are the Algonquin, Canadian, Toronto, Lethbridge, Weyburn, etc., but none of their call letters are known. They can be heard near midnight. (RX55).

The new address of VE9CS on 6080 kcs is, c/o Station CKFC, Stock Exchange Bldg., Vancouver, B. C. (RX53).

#### Canary Islands

EAJ43, Tenerife, is heard on 10370 kcs from 9:45 to 10 pm, EST, or sometimes until 10:30 pm (RX25).

#### Ceylon

VPB in Colombo is on daily on 6160 kcs from 6:30 am, to 12:30



Edward G. Robinson, celebrated for his hard-boiled roles on stage and screen, is shown here with comely Claire Trevor, his co-partner in the new dramatic radio serial of newspaper life, "Big Town." Heard over the CBS every Tuesday from 8 to 8:30 pm, EST.

pm, and on Sundays from 7 am, until 11:30 am, EST. (RX27).

#### Colombia

HJ1ABE is now broadcasting daily from 6 to 10 pm, and after the regular broadcasting period, they read the names of DXers who have reported them. This station is in Cartagena. (RX48).

HJ7ABD, Bucaramanga, 9610 kcs, announces reception of reports from listeners at 10:30 pm, EST. (RX23).

HJ4ABD has not been heard for some time, but was on 5980 kcs, the last time heard. HJ4ABP is heard on 6028 kcs but may shift back to 6033 to avoid interfering with Germany's DJC. HJ6ABA varies in frequency from 6050 to 6055 kcs. (R:321).

#### Denmark

The call and frequency of the new Danish station is OZF, 9520 kcs. It is heard daily between 2 and 6:45 pm, the broadcast for the first half hour being directed by special antenna to South America and East Asia. The second part of the program is intended for North America and Greenland. Evening programs are also heard occasionally from Denmark on 11805 kcs, but a call sign and regular schedule has not been assigned this station. (RX27).

#### **Egypt**

SUV in Abou Zabal (Cairo) works Europe between 1 and 6 pm, EST, on 10055 kcs. (RX27).

#### Fiji

VPD2 on 9540 kcs is heard with a good-to-fair signal between 6 and 7 am EST (RX23).

#### Great Britain

The British Broadcasting Corp. has been considering for some time the question of broadcasting in languages other than English. Inquiries made by representatives abroad have led to the conclusion that broadcasts from Daventry would be welcomed by listeners in Spanish and Portuguese South America, and by Arabic listeners in the Near East.

Changes in Transmissions IV and V from Daventry are announced. Part 1 of Transmission IV, broadcast from 12:20 to 3:45 pm, EST, is now carried over stations GSB 9510, GSD 11750, GSG 17790, GSI 15260 and GSP 15310 kcs. Part 2, from 4 to 6 pm, is radiated over GSB, GSD and GSO 15180 kcs.

GSP on Transmission V has been replaced by GSC on 9580 kcs. The time remains the same, 6 to 8:30 pm, EST.

#### Guatemala

TGWA in Guatemala City, 9690 kcs, is best heard near 7:45 pm, EST. (RX51-52).

TGWA on 15170 kcs is frequently heard late at night.

Hong Kong

ZBW has been reported, but with a poor signal, on 9525 kcs. (RX23).

Hungary

The Budapest shortwave stations are now using the new directional antenna system and it is expected the signal strength of HAS3 and HAT4 will rival that of other European stations. (RX35).

Italy

The Rome station has extended its broadcasting activities. The American Hour, one of the most popular programs on the shortwaves, is now broadcast daily, commencing at 7:30 pm, EST. The revised schedule of the Rome station is 11810 kcs, daily from 5 am to 12:20 pm. 9653 kcs, daily from 12:30 pm to 9 pm, EST.

Japan

JZJ comes in very well every day, with signals as good as R9 at times. JZK has also been heard, near 1 am, EST, (RX35). JZJ 11800 kcs, is heard daily from 4:30 to 5:30 pm. War news in English, Spanish and Japanese, as well as Japanese music. (RX51). JVH 14600 kcs, is heard from 11 pm, to midnight. (RX23).

#### Mexico

The newest Mexican is XETW, 6045 kcs, Tampico, Tams. Broadcast band station XEFW on 1310 is relayed. Heard until 11:30 pm, and sometimes later. (RX52).

Paraguay

Our Argentine representative reports that ZP14, Villarica, Paraguay, is now being heard on a frequency of 6040 kcs. The slogan used by ZP14 is "Radio Cultura."

Poland

A new transmitter has been added to the Polish s. w. system. It is SPD, working on a frequency of 11500 kcs. The new station, and SPW on 13635 kcs, are heard from 6 to 7 pm, every night, and on Sundays until 8 pm. Both stations

come in with good signals, but SPD is slightly the better. (RX49).

CARCELLO IN

#### Portugal

CTIAA is now announcing its new call letters, CS2WA. Their frequency is given over the air as 9650 kcs, and the power as 2½ kw. (RX35).

#### Siam

HS8PJ Bangkok, transmits from 8 to 10 am, EST, on 19020 kcs, on Mondays only, and at the same time on Thursday on 9510 kcs, with a power of 5 kilowatts. This station is owned by the Post and Telegraph Department, in charge of Colonel Phra Aram. Programs consist of Siamese and European music, and news bulletins. Announcements are in Siamese, English and French. (RX47).

#### Spain

"Radio Nacional" at Salamanca was heard broadcasting a special program for North America on 10370 kcs. The volume was "terrific." (RX25).

#### Union of South Africa

The Johannesburg station is now heard in all parts of the country. The programs start off with bugle calls, then setting-up exercises follow. The Town Hall Clock strikes 7 a. m. at midnight, our time. The address is Box 4559, and the schedule of broadcasts is 11:45 pm, to 12:45 am, EST, daily except Saturdays. Two frequencies are used now, announced as 9606 and 6097½ kcs. (RX21-23-35-51-52).

#### **United States**

The General Electric Co. has a construction permit for a new international broadcast station to operate on frequencies of 9530 and 15330 kcs with 20 kw. power, un-



The reception room of Radio Hall, the home of Station WHA, located on the campus of the University of Wisconsin. at Madison. Wis.

limited time. The station will be located near Belmont, Calif.

It is reported W2XAD and W2XAF will increase power soon to 100 kw. (RX54).

WWPA at St. Albans, Vt. is heard broadcasting time signals every night at midnight, on 1626 kcs. (RX55).

A complete list of the Police Stations of North America was printed in the September issue of RADEX, and changes and additions to this list are shown in this column every month. Alterations which have taken place since our December issue are shown below:

#### New

1.642 KASP Little Rock, Ark. (1.)
1.658 WQFR Portable in N. Y. State (.25)
1.674 KHPA Lees Summit, Mo. (1.)
KHPB Macon, Mo. (1.)
KHPD Springfield, Mo. (1.)
KHPE Poplar Bluff, Mo. (1.)
KHPF Jefferson City, Mo. (1.)
WAMF Portable in Pa. (.5)
1.706 WANH Raleigh, N. C. (1.)

1.706 WANH Raleigh, N. C. (1.)
WANI Williamston, N. C. (1.)
WANJ Williamston, N. C. (1.)
WANK Salisbury, N. C. (1.)
WANL Elizabethtown, N. C. (1.)

1.712 KAPM Wailuku, Hawaii. (1.) WMPR Revere, Mass. (.05)

2.036 WPDM Dayton, Ohio. (.5) 2.040 WPDM Dayton, Ohio. (.5)

2.044 WPDM Dayton, Ohio. (.5)

2.450 KADH Mangum, Okla. (.05)
 2.458 WDPW Wilmington, N. C. (.1)
 2.474 WKMP Kenton, Ohio. (.05)
 2.490 KSPM Portable in Wash. (.05)
 KSPN Portable in Wash. (.05)
 KSPW Portable in Wash. (.015)
 WMPQ Logansport, Ind. (.1)

Frequency

2.466 WRDR Grosse Points, Mich. (.35), from 2.414

Power

1.712 KACU Longview, Texas, 500 w. from 250 w.

Ohio State Police stations operate on 1596 kcs. They are not shown in our police station index because 1596 is now in the broadcast band. The stations are WPGG Findlay, WPGQ Columbus, WPHC Massillon, WPHK Wilmington, WPHT Cambridge, and WPFT, a portable.

WNYF, New York City Fire station on 1630 kcs, works fire boats in New York Harbor nightly at midnight. The boats reply on 35.6 megs. Some of the fire boats are W2XNA, "Wing," W2XNB, "Hewitt," W2XND, "Willet," W2XNC, F, G and I (RX55).

W2XGB at Hicksville, N. Y., 17310 kcs, is heard at 10:40 am, and 2:30 pm. WMI Lorain Ohio, 6450 and 2560 kcs, gives weather reports at 10 pm. WWOJ at Sault St. Marie, Mich., 2570, also broadcasts weather at 10 pm. (RX23).

#### Uruguay

CXA8, 9640 kcs, relaying LR3 at 7:40 pm, has ben heard very well. Reports should be sent to Radio Belgrano, Buenos Aires, Argentina. (RX23).

#### The Reporters

R21, Anthony Tarr;
RX23, Carl and Anne Eder, Minn.
RX25, George Nahas, N. Y.
RX27, Raphael Geller, N. Y.
RX35, Albert Steinmetz, N. J.
RX47, D. H. Dussek, Great Britain.
RX48, Harold Lund, Pa.
RX49, Kenneth Morey, Mass.
RX51, Gilbert Harris, Mass.
RX52 Samuel Meyer, N. Y.
RX53, Rob't. Morrison. Canada
RX55, C. Roman, Illinois.

### The Stamp Corner

■ ● By David Brockton Browne

MARCHING forward with the New Year, readers of RADEX will in the future find a column devoted to stamp collecting, or philately as some collectors prefer to call it, in each issue.

The column will feature news of current and future postal issues of those countries where radio stations exist; will try to solve some of your stamp collecting problems; and give a few hints and cautions concerning the hobby as well.

The success of a stamp column depends largely upon the support and co-operation of its readers. Your Stamp Editor will do his best to make this department interesting and worthwhile to RADEXERS, and will try to please your desires whenever he can. We shall be very happy to answer briefly any questions that may be worrying readers concerning stamp and cover collecting, if they will write to us in care of this magazine.

We cannot, however, enter into any exchange or lengthy correspondence with our readers on either stamp or radio matters, of any kind. Won't each of you, though, write a few words to RADEX' Editor, and tell him how you like this new venture? Thank you.

#### **New Stamp Issues**

1938 promises to be a "stamp-amonth year" for the United States if present predictions materialize. The long-awaited replacement of the regular postage series, in use since 1922, will begin soon after the New Year. Featured will be those Presidents who have never appeared on a U. S. postage stamp before. At least one new value, 4½c, will appear as this rate is widely used on church envelope mailings, etc. It is possible that an 18c stamp may also be added.

No definite plans for new commemorative issues have been announced as yet, but collectors might well prepare themselves for another Constitution stamp, and one honoring the State of Delaware. Now that the field of military heroes has been explored and the possessions series is finished—serious consideration is being given to a series honoring cultural leaders, such as famous American scientists, authors, inventors, and educators.

An imposing array of nations have chosen to honor the 150th anniversary of the United States Constitution by issuing one or more commemorative stamps. Among these countries are: France, Brazil, Salvador, Guatemala, Eucador, Honduras, and Nicaragua. Undoubtedly, before many more weeks pass, several other nations will be added to this ever-growing list which promises to make an interesting collection all by itself.

Italy has released a pleasing series of ten pictorial stamps honoring five Italian cultural celebrities whose centenaries occur this year. Composers Spontoni and Pergolesi, the painter Giotto, violin-maker Stradivari, and the poet Leopardi, are represented on two stamps each.

Miniature sheets are rapidly growing in number. The Franco government of Spain adds the Ayamonte sheet—5c red and blue—in an imperforate block of four.

Egypt honors the Abolition of Capitulations with three colorful pictorials showing a medallion of a native woman with a water jug. Values and colors are: 5M brown, 15M purple, and 20M deep blue.

#### Helpful Hints

Do not leave your stamps lying around carelessly in shoeboxes, envelopes, etc.—if you want to keep them in good condition. And condition in a stamp is all-important. There are numerous inexpensive

stamp albums available at your local stationers or stamp dealer that will help preserve your collection. A mounted stamp always makes a better appearance too. But be sure that you mount your stamps with peelable stamp hinges—not with paste or mucilage.

To get the greatest enjoyment from the hobby, every reader interested in stamp collecting should subscribe to a stamp magazine. No philatelic column in magazines or newspapers of general circulation can hope to cover the subject adequately. They can only hope to "hit the high spots."

For detailed information on stamp collecting, we sincerely recommend any of the leading American stamp magazines. Among the better known are—Weekly Philatelic Gossip, Holton, Kansas: Mekeel's Weekly Stamp News, Portland Maine; Stamps Magazine, New York City, N. Y.; Linn's Weekly Stamp News, Columbus, Ohio and The Western Stamp Collector, Albany, Oregon, We are sure that each of these publications will be glad to send a sample copy—without charge—if you will write direct to them. (Please mention RADEX when writing). The average subscription price of the larger stamp magazines is \$1.00 a year.

Philately has many subdivisions. Among the most important is cover collecting—First Day of Issue, First Flight Airmail, Naval, Historical, etc. We shall try to touch briefly on some of these in the next issue of RADEX. Until then, good luck, both on the air waves and in the stamp album. Don't forget to write the Stamp Editor, soon, and tell him what philatelic subjects you would like discussed in future issues. Remember, this is your stamp column.

ZP14, Villarica, Paraguay, is now on 6040 kcs.

#### Universal DX

## Club Corner

■ By "Pooky"



This month we have with us a little story that needs no comment, so "Pooky" feels that he can slip in another word or two about the contest. Well, there's really not much to say except, "Please write." There must be an idea or a bit of information in your head right now that someone else would like to hear about. Remove it! Put it down on paper and send it along to UDXC Headquarters, 345 Maple Ave., Oradell, N. J. It doesn't have to be a world-shaking idea, and it doesn't have to be written up in ten-league words. Just jot it down and send it. The chances are that we'll print it here in RADEX, with your name and all the trimmings, and if we do we'll send you a very generous reward. The list of prizes we are giving appeared in the September RADEX and will appear again shortly. If you haven't seen it, take our word for it.

What are you doing for the next

five minutes?

Well, Virgil F. Foster, of 2100 Rockwell Ave., Alton, Ill., takes the cake this month with a story of amateur radio. The title is ours but the rest of the credit is his. We're awfully glad you wrote, Virge.

#### Ham and Gob

"A friend of mine living in Maryland Park Addition, a little place near Alton, had an amateur radio station. He was always talking to

me about it, and wanting to send a message somewhere for me. I was skeptical but he kept right at me, until finally I said to myself, 'All right, I'll shut you up!' So I gave him a message for a friend of mine.

"The catch was that I had no idea in the world where this friend of mine was. He was a sailor, an old shipmate of mine, and I knew that he might literally be anywhere in the world. I had neither seen nor heard from him in over a year. The only address I could give was the name of the last ship from which he had been discharged.

"This didn't seem to bother my 'ham' friend a bit. About six months ago he started my message on its way. It went traveling across the United States, pausing here and there, touching every section of the country, but nowhere could my sailor friend be found. Finally, after more than a month, it reached the West Coast, but apparently my friend was not there either. Well, it did not hesitate. It started looking for him overseas.

"And nearly six months after it had left me my message reached him. He was serving on the U.S.S. Black Hawk, on duty in war-torn China! Imagine his surprise, and his shipmates' surprise, when he heard in this way from his buddy back home. And imagine my surprise when I received an answer from him the other day, telling me when and how my voice had reached him.

"This, my dear 'Pooky,' is one of the greatest things I have ever heard of, although I suppose it is not unique. From now on I am not skeptical of anything I hear about amateur radio. I am a solid backer of it. And may I use your column to thank all those 'Hams' who helped to speed my message on its way?"

Indeed you may, OM, and may "Pooky" add his humble "VFB?"

## IDA "Programs of the Week"

N THE IDA "Programs of the Week," the International DXers Alliance is attempting to present something new and different in DX broadcasts. Each week throughout the present season, one North American station will transmit a feature program.

Although some of these stations will be attractive from a DX angle, the programs will be arranged primarily for the mass entertainment of the DX fraternity. Each broadcast will be a four-star feature program, and many novel and interesting stunts have been arranged to add variety and zest to the shows.

While sponsored by the IDA, these weekly broadcasts are for the entertainment of all listeners and DXers, regardless of club or nonclub affiliations. It is hoped that listeners everywhere will give support and endorsement to this program series by listening in and forwarding a report, or at least a note of thanks, to the feature station.

As an added inducement for submitting reports, the IDA will award a cash prize of ten dollars to the DXer who receives verifications from the greatest number of "Program of the Week" broadcasts. In the event of a tie, the award will go to the DXer who has made the greatest all-around showing from the standpoint of location and acceptability of reports.

Suggestions for interesting and novel features to be included in these broadcasts will be welcomed by the director of this series, Herbert Tucker, 57 Kenilworth Drive, Akron, Ohio.

Following are the programs arranged to date:

Thursday, December 30th 1:00-2:00 WTAM 1070 Cleveland, Ohio

Sunday January 2
3:00-4:00 CMAB 1340 Pinar del Rio, Cuba Thursday, January 13
2:00-3:00 KFYR 550 Bismarck, N. Dak. Sunday, January 16th WCCO 810 Minneapolis, Minn. Monday, January 24th 3:00-4:00 WHAM 1150 Rochester, N. Y. Sunday, January 30th 780 Chilliwack, B. C. Sunday, February 30th KWYO 1370 Sheridan, Wyo. Sunday, February 20
3:00-4:00 KECA 1430 Los Angeles, Calif. Sunday, February 27th 3:30-4:00 KGU 750 Honolulu, Hawaii 3:00-4:00 WKY 1490 Covington, Ky. Sunday, March 13th 3:00-4:00 KFOR 1210 Lincoln, Neb. All times listed are a.m., Eastern

Reports to CHWK must be accompanied by ten cents for verification. Additional programs to complete the series will be announced in the IDA "Globe Circler" as well as

other radio publications.

Standard.

### Call-o-Gram Solution

The solution to the Call-o-Gram printed last month is given below:

RCA CQDX CKOC WWL
XEL WRR A ART AWA
KCMC MUSTANG WSJS
R AIR MA TG HIH T
VOAS ARID
W TIU TI OR NOW K
WTEL WINDSOR WAGA
VAS WOC O OIL YSN
AST KRKO KSOO XED

If the music of the La Conga Cuban orchestra that you hear over NBC on Friday nights sounds weird, maybe it's because the instruments they play are weird. Their instruments are a conga, a male drum; repicador, female drum; a bongo, which is two drums attached to each other; concerros (Cuban cowbells) and the quijadas, the jawbones of an ass.

## **OUR READERS** and Their Troubles

• • • By the TECHNICAL EDITOR

HAVE a Truetone receiver, model A2, which does not have a phonograph connection. Will you please tell me how to connect the phonograph pickup, and also how to plug in for earphones? I intend to put a pickup arm on a phonograph at home, so tell me how the old spring type motor can run a radio. How is the volume of the phonograph sound controlled?

It is evident that you are not very familiar with the principles of the phonograph pickup. You need make no change in the phonograph you have, as the spring motor will operate the turn-table in the usual manner. But, instead of using the original sound-box and needle as you do when you play the records, you push it aside and set in place the pickup which you must purchase from some reliable radio store or mail-order house. This pickup has the usual needle, but it operates a tiny magneto-like unit that generates a small electric current, instead of the sound producing box and diaphragm of the old phonograph. The weak electric current is fed into the audio amplifying portion of the radio receiver, and the sound comes out of the loud speaker. The volume of the reproduced sound is controlled by the radio volume control in the usual manner. The receiver, of course, is detuned from any radio signal, but usually the connection into the audio portion cuts the circuit so that radio signals cannot come through at the same time.

The receiver chassis must be removed from the cabinet. Turn it over so that the connections to the manual volume control can be seen. This volume control consists of a

resistance of 500,000 ohms with a sliding contact that moves from one end to the other. At one end of the resistance of this control you will find a lead that connects at once to a resistor of 50,000 ohms. This resistor numbered R-10 is should quickly be located. Do not mistake this resistor for another. No. R-14, of 2 megohms (much larger) which also attaches at the same point. Cut the wire connecting the end of the volume control and the first (R-10) resistor. From these two freshly cut ends run two short well-insulated leads to two binding post terminals or a phoneplug jack. When the pickup is used it is connected to these terminals or the jack. When not in use the terminals or jack should be short circuited with a piece of wire or shorted plug. If the leads are shielded, and the shielding grounded, operation will be better. Use a pickup of high impedance, for if a low-impedance pickup is utilized, it must matched to the circuit through a impedance output-matching transformer. "Astatic" pickup devices are always of high impedance.

We would like to bring to your attention, as well as to the many readers of this department, a device known as a modulated oscillator unit for connecting a phonograph pickup directly to the radio receiver without the necessity of making changes in the circuit. The entire unit may be placed within the cabinet, and the phonograph pickup is permanently attached to it. output of the oscillator unit is fed the receiver. demodulated, amplified, and re-produced through the loud speaker just the same as any radio signal. The volume control of the set is used to control the volume of the phonograph reproduction.

There is also an adapter that can be purchased. By placing it beneath one of the tubes, a pickup can easily be connected to the set. Another device, that fits on the grid cap of one of the tubes, has two tiny contacts into which the phone tips of the pickup are connected. The same situation also exists as to earphones. A simple adapter, that fits under one of the tubes, provides a convenient connection for the tips of the headphone cord. The "Perfect" phone adapter sold by RADEX, is a highly satisfactory unit of this type. You will experience no difficulties in its use. An inexpensive pickup may be purchased as low as \$3.85, while phono-adapters are but 30 to 75 cents. Headphone adapters are somewhat more costly.

#### On Pre-Selectors

I judge that many D-Xers are interested in pre-selectors but know very little about them from all I can hear. Why not give us an article on pre-selectors? For instance, what type of sets will it work with best? What is the proper number of tubes? What increase in sensitivity can one expect? Will selectivity be improved? Do they aid on fading stations?

This is an interesting subject and we know that it is of interest to our readers for so many of them write us in a similar vein. A pre-selector, it must be remembered, is simply a radio-frequency amplifier. As such it adds its efficiency to that of the radio receiver. A peak pre-selector or preamplifier will add increased efficiency to short-wave receivers or all-wave receivers on the short-wave bands. It increases the sensitivity of the set to weak signals. Most of these devices are best used on the short waves, although there are allwave pre-amplifiers that cover the entire wave band.

It is claimed that a pre-selector

will bring up weak signals to a strength of R-7 and R-8. Atmospheric noises are reduced because additional tuning circuits are utilized, and there is a very narrow frequency band available which tends to eliminate much interference noises and image-frequency faults.

A good pre-selector may be used on the short waves. It should cover at least three bands with separate coils and switching arrangements. These ranges preferably run from 10 to 35 meters; 35 to 75 meters: and 75 to 200 meters. One tube in a pre-selector will not give sufficient amplification. For this reason two tubes are universally utilized. This provides two full stages of radiofrequency tuning and amplification. It is a disadvantage to take the filament and plate voltages direct from the receiver, so the better pre-selector will take its current from a built-in power supply with rectifier tube. RADEX has not undertaken to design and submit to its readers pre-selector circuit, although there has been a demand for such. Radio-frequency circuits are difficult to arrange and assemble, and the relatively inexpensiveness of completed selectors is such as to preclude the thought of building one. However, excellent kits may be obtained, and we shall be glad to recommend manufacturers by mail.

To those who wish to build a very simple one we suggest that a radiofrequency coil, tuned with a variable condenser, both of capacity and inductance to cover the short wave bands, and one battery operated r-f tube, will suffice as an experiment. Feed the plate output of the tube to the antenna post of the receiver through a .002 mfd. bypass condenser. Obtain a shielded coil wound for the short-wave band desired, and use this with a small short-wave tuning condenser shunted across the ends of the coil. The top of the coil is connected to the

grid of the tube, and the bottom to the filament or negative A and B terminals. The primary of the coil is connected to the two ends of the doublet, or to the antenna and the ground.

#### **Antenna Location**

I am about to erect an RCA "Spiderweb" antenna. It will be about 200 feet from the street where there is a power line, and about 100 feet from my RCA 15-K receiver. Will 200 feet distance from the power line be enough to get away from interference from that source? I have been told that it should run north and south and that it ought to be parallel to the power lines. However, I have sufficient room to run it in any direction. I need additional leadin and how can I arrange this? The antenna will be erected on iron poles about 35 feet high. Is this satisfactory?

Since you are able to erect an antenna at least 200 feet from a street where there is a power line you should consider yourself fortunate indeed. The RCA Spiderweb unit which you have selected consists of a series of doublet antennas cut to different lengths that will cover most of the wave bands very fully. This arrangement requires only 38 feet of horizontal length and 12 feet of vertical clearance. The Spiderweb antenna really is a multiple double-doublet system.

Its directional characteristics are about the same as for any doublet or double inverted "L" antenna. The antenna will respond best to signals that come to it from a direction that is at right angles to its length. Therefore, if you point the antenna north and south it should pick up signals that come from the east and west. However, that does not mean that it will perform only in that direction. We think that for the southern portion of the United States a direction that is northwest

and southeast will be best for European work.

All interference that is picked up by the leadin wires will be cancelled out by the transposition of the two wires. But if the antenna itself is in a noise zone there is nothing that will prevent it from picking up induction noises. power line, if within the zone, will be troublesome. Whenever a power line is nearby, keep the antenna as far off as possible to lessen the chances for inductive pickup. Any doublet antenna or double-doublet has a minimum amount of signal pickup in the direction of its horizontal length. This makes it possible to utilize the rather positive directional effects of the antenna so as to eliminate much man-made interference. Therefore, if the antenna is pointed toward the source of interference, it will pick up a minimum of noise. This applies to power lines which should run at right angles and not parallel to the doublet antenna. There has been much discussion about this, but it has been rather definitely decided that doublet antennas should point as nearly as may be practicable directly toward the source of manmade interference.

Since you are using two tall iron pipe poles we suggest that you space them sufficiently far apart so that two or three insulators can be placed at the ends of the antenna with a spacing of about 12 inches between each insulator. Iron poles can pick up and reradiate interference and signals to the aerial top, and good insulation and spacing will tend to prevent most of this type of trouble. The matched transmission line must not be cut for any reason. If the line is too short then you might as well erect the antenna farther off and use a second section of leadin of the same length as the first. Any doublet antenna with coupling transformers which are matched to the impedance of the antenna and to the transmission line, must be connected to the receiver by the proper amount of leadin or transmission line.

#### Static Troubles

I have a 1937 Silvertone 7-tube It is used with a single-wire antenna about 75 to 100 feet long and 40 feet high. The leadin is 30 feet and the ground is 7 feet. How can I get a transformer to fit this antenna as I am troubled with static? Is this outfit suitable for D-X work? What do you think of a chemical ground, and how is it made? Does the length of leadin and ground make any difference? Shall I use a twisted leadin, but, if so, how is it connected to the receiver? When I lengthened my antenna I found more stations crowding and also began to hear stations when a local was quiet for announcements.

The receiver you own and the antenna used make a good combination for D-X work. But perhaps a few changes will be in order. It seems that the antenna must be too long, for the fact that stations interfere and are hard to tune out makes it appear so. Try shortening the aerial to 50 feet or even 40 feet. Make it into an inverted "L" shape with the leadin running directly to the receiver. Of course, one of the new doublet combinations will prove very satisfactory. They come in kit form ready to erect. The strong twisted wire is very good for this purpose. If the inverted "L" antenna is used, the wire may be all in one piece, beginning at the far end and passing direct to the radio set. The "L" antenna is slightly directional along the line of the wire towards the end in which the leadin comes down. The longer the flat top and the shorter the leadin, the more directional the antenna will prove. The doublet antenna is directional along a line that is

broadside to the length of antenna wire.

If a transformer is used with your present antenna, you must utilize a shielded leadin wire or twisted pair, such as the Zepp, and two transformers, one up at the antenna and one down at the set. These are useful only in preventing the pickup of man-made static in the neighborhood of the leadin wires. If you are going to try transformers for static elimination, we endorse one of the modern doublet noise-reducing antenna systems. This, however, will not prevent any static that is picked up by any portion of the antenna top that may remain in the noise zone. Full instructions accompany the antenna kits and you will have no difficulty in attaching the wires to the set. most cases a ground wire will no longer be necessary.

However, if you are troubled with static that comes into the set through the power line or electric lighting wires, you will need a filtering device that plugs into the electric light socket. The radio cord then plugs into the filter. These units are rather inexpensive, and you should be able to purchase a good one for about four dollars and upward.

We believe that a good ground is always a simple ground. If a copper wire is soldered or clamped to a bright spot on a cold-water pipe it should be very satisfactory. However, electrical instruments or devices should not be grounded to the same pipe. Chemical grounds outdoors are satisfactory, but very often a perfect ground can be obtained simply by driving three 6foot lengths of new 1/2" pipe into the earth. These pipes should be spaced several feet, and set into some spot that remains damp most of the time. The top of each pipe is connected to a heavy copper ground wire with clamps or solder.

length of the ground wire to the set should, of course, be kept as short as possible.

#### Two Antennas

I have an all-wave aerial up at present, but I intend to string another wire beside the first as a antenna for longersinale-wire wave reception. Actually, the two wires will be rather close together. Will this in any way ruin or cause absorption of the all-wave aerial? The all-wave antenna has a transformer at the set. Can I connect a throw switch so that the set may be shifted instantly from one antenna to the other without going. through the all-wave antenna transformer?

You will find it a simple matter to erect the additional single-wire antenna adjacent to the present allwave system. However, we suggest that you space the two as far apart as may be practical. Although you will be using but one aerial at a time, there is some truth in the belief that the wires of a closely adjacent system will detract from the maximum efficiency of the aerial. On the other hand, if a wire is placed correctly it might act as a reflector so as to aid reception from some particular point on a certain frequency.

You should procure a double-pole double-throw knife switch porcelain base. The two center contacts are those of the knife blades. The two wires from the radio receiver (antenna and ground) are connected to the center or knife blade contacts. The two outer contacts at one end of the switch should be attached to the terminals of the transmission-line matching transformer. When the switch is thrown to these two contacts, the connection between the set and transformer is completed, and the allwave antenna is then in use. There now remains the two contacts at the opposite end of the switch. Connect one of these to the single leadin from the single-wire antenna, and attach the other to the ground wire. When the switch is thrown to this end, the contacts will connect the antenna and ground terminals of the set to the antenna and ground contacts, respectively, of the switch. Merely by throwing the switch to one end or the other, either antenna may be connected to the receiver.

#### Whistling Set

The trouble with my set is that when the volume control is turned up the station gives a whistle, and finally the whole band becomes stations. too. Localspread out very badly, as much as 100 kilocycles to either side of the point on the dial where they are supposed to be heard. The locals are distorted and finally die as the volume control is increased. This receiver is a Mental with Hytron tubes, and I would like to know the values of the different resistors.

In most cases, troubles such as you describe would be caused by a defective tube-perhaps the 25A7. We suggest that, first, you have all the four tubes in the set carefully tested. Next, we should have our suspicions about the volume control itself, if the tube that connects to the control tests perfectly. The next following step in analyzing the trouble would be to check the plate voltages of all the tubes, for a failure in some operating voltage can The fading and cause whistling. failure of the set when the volume control is increased to maximum may be due to a great increase in grid biasing, thus rendering the tube in question inoperative. in addition to the above the grid bias must be carefully checked. Any failures in voltages indicate that some resistance is defective, or a bypass condenser is open. In short, a thorough examination of the set by a competent service man seems to be in order.

We regret that we cannot list the proper values of the resistors in this set as the information is not available in our files. However, the units are standard, and the color code, available to every service man, will instantly inform him as to what replacements are required, if any.

Broadtuning, such as you describe, is a bad disorder in the set. When the tubes and volume control have been checked and remedied. necessary, the trouble may correct itself to some extent. However, a realigning of the condensers and units is indicated. The r.f. and i.f. coils and condensers are most likely out of adjustment. But it is our opinion that you cannot expect too much in the way of highly selective tuning and station separation when the locals are on, when a set is constructed of but three tubes, two of which control the entire tuning operation.

#### Size of Coils

I am building an all-wave set which will use plug-in coils to be tuned with a .00025 variable condenser. I have experienced difficulty in obtaining data as to the correct number of turns of wire for the coils. Can you tell me how to make these coils and the number of turns of wire to be wound on?

You can purchase these coils ready wound from several of the mail-order radio supply houses, and we think this is the easiest way out of your problem. Even if you wind them you must first procure insulated forms, and these cost nearly as much as the completed coils. Finished coils, ready to use, also come completely shielded, and this is quite necessary in your case. However, make the coils the following sizes:

For a plug-in coil to cover the 10-20 meters band, wind 6 turns of 22 wire, each 3/16 inch apart. Skip

¼ inch and wind 4 turns closely of No. 30 for the primary or tickler coil. For the 20-40 meters coil wind 12 turns on the secondary and 6 turns on the primary. Wind the secondary in a space 1 inch long. For the 40-80 meters coil wind 24 turns on the secondary, at the rate of 16 turns to one inch, and put 7 turns on the primary. The 80-200 meters coil has 45 turns on the secondary, closely wound, and 15 turns on the primary. You can use a small variable condenser for these coils one of .00015 mfds. The .00025 you have will suffice, but if you remove two of the rotor plates its capacity will come closer to tuning the coils throughout the full movement of the rotor. The condenser you have is too small to cover the entire broadcast band with only one coil. It is best to use a standard coil of about 75 turns. 2 inches in diameter, with a .0005 mfd. condenser. Otherwise you will require two coils to cover the broadcast band properly.



Dorothy Thompson, the wife of Sinclair Lewis, discusses People in the News on the NBC-Red every Friday at 10:45 pm, EST.

## PROGRAMS from Hollywood

• • • By BETTY

YOUR Hollywood Parade, a new 52-week series of full hour musical and dramatic broadcasts designed to provide a panoramic radio view of activities in the movie capital, has been launched over the NBC-Red Network on Wednesdays. This program, replacing the Hit Parade, is sponsored by the American Tobacco Company and produced by Warner Brothers Pictures, Inc., with the addition of 15 minutes to round out a full hour.

With Dick Powell as master of ceremonies and central star, and all the talent resources of Warner Bros. Pictures behind it, the new show includes previews of Warner pictures and features guest stars of prominence in all fields.

Rosemary Lane is also starred in the new series. All other Warner screen stars will be heard in Your Hollywood Parade, and directors under contract to Warner will be available in the production of dramatic sketches and picture previews to be heard in the series.

#### O'Keefe Back

Walter O'Keefe, NBC comedian, who announced lugubriously on Town Hall Tonight that Fred Allen would succeed him on that program "just in time for me to be listed as Number One on the Unemployment Census," isn't worrying any more. He's got a permanent job, as Walter has joined the Hollywood Mardi Gras series over the NBC-Red and co-stars with Lanny Ross and Charles Butterworth.

The new contract for O'Keefe came as a reward for his outstanding success while pinch-hitting for Fred Allen.

In joining the Tuesday night pro-

gram, Walter will be reunited with an old friend and classmate, Charles "Dead-pan" Butterworth, with whom he attended Notre Dame. Walter's addition to the Mardi Gras will not cause any changes in the permanent cast that includes Jane Rhodes, rhythm singer, and Raymond Paige with his orchestra and chorus.

Walter calls Hartford, Conn. his home. He went from there to Notre Dame, where he and Butterworth discussed ambitions for the theater, then turned to newspaper work. Shortly thereafter he suffered an attack of infantile paralysis and during the long months of recuperation he turned his hand to writing comedy lyrics and sketches. Upon recovering he headed for Broadway and broke in through night club work, with Texas Guinan at Barney Gallant's.

#### More Hollywood

Unusual human interest stories about motion picture stars and exclusive news stories of the film capital are among the "Hollywood Screenscoops" by George McCall, broadcast over the nationwide Columbia network each Tuesday and Thursday from 7:15 to 7:30 pm, EST.

George McCall brings to his radio audience a variety of experience in the theater, newspaper and motion picture fields that lends color to his reporting. In Hollywood he became famous through his "Roamin' Round Hollywood" column. Some of his other ventures included acting as publicity head for a motion picture company; his production of "The Last Moment", the picture which was awarded the French Academy Cinema Award in 1927; his appointment by the Canadian Government

to produce a picture of the opening of the Hudson Bay shipping route as a short cut to Europe; and for writing several feature stories and interviews for newspapers and magazines.

#### Mental Telepathy

Presenting a unique series of tests and experiments in mental telepathy under the supervision of several of America's leading university scientists, the Zenith Foundation presents its weekly broadcasts over a nationwide CBS chain at 10 pm EST on Sundays.

Conceived and founded by Commander E. F. McDonald, Jr., president of the Zenith Radio Corporation, under whose sponsorship the series is offered, the programs are designed to determine whether telepathy as an extra-sensory power exists and if so, to learn what such powers of the human mind are, how common they may be, to what extent they may be cultivated, and how they function.

The tests consist of the selection of various objects, designs, colors and other things quickly identifiable by the mind, by a mechanical device, the action of which is unpredictable. Ten especially selected telepathic senders then concentrate on the machine's selection and attempt to project the thought to the listening audience. Senders are isolated in a room away from the broadcasting studio, and they alone know the selections the machine has made, which are revealed only after several days have elapsed.

#### On the Mutual Bandwagon

Morton Gould, Mutual's youthful orchestra leader who has won a name for himself by his smartly sophisticated arrangements, is heard over Mutual from coast-to-coast on Mondays from 8 to 8:30 pm EST.. Jack Arthur is the soloist on this show... Two popular Mutual features formerly heard on Fridays are



The NBC has announced immediate construction of one of the world's greatest studio buildings in the heart of Hollywood. The architect's sketch shows an ultra modern building, patterned after the motion picture unit plan, to house eight large studios and executive offices. This building will replace modernistic studios built only two years ago.

now broadcast on Saturdays . . . Pat Barnes and his Barnstormers with Paul Roberts, baritone, come to Mutual microphones from 8 to 8:30 pm Saturdays. Olga Baclanova's Continental Revue with Raoul Nadeau and the Chorus, comes to the stage of the Mutual Playhouse from 8:30 to 9 pm on Saturdays . . . Anson Weeks and his ever popular dance orchestra have returned to the Aragon Ballroom and the Mutual Network on Saturdays, succeeding Freddy Martin . . . With Weeks are vocalists Frankie Saputo, Margie Dee and a newcomer, Jack Wells.

Bits about NBC broadcasters: As might be expected, Edward Mac-Hugh, the Gospel Singer, collects hymn books. He has a library of 2,000. . . . Helen Jepson finds relaxation in the kitchen, specializing in fried frogs' legs which dinner guests pronounce a culinary masterpiece. . . . Smilin' Ed McConnell made his professional debut as a trap drummer at the age of nine.

Only the old timers in radio remember that Milton Cross sang as well as announce? over NBC. That he is still heard singing IS news. As announcer for Ireene Wicker's Singing Lady programs over the Blue Network he joins her in singing The Song of the Week, a tune chosen by Miss Wicker for her unseen audience to learn and sing.

## Inter-Club Plan for 1938

By Robert H. Weaver

H AVING recently been selected to take charge of the Inter Club Co-operation Plan for the 1937-38 season, I cannot help but feel that I should present my views in regard to the Plan and the good which it can accomplish.

As Clearing House Manager this season, it is my hope to go a little beyond that which has been done in the past.

First of all, I hope by some method to reach an agreement with the all-night broadcasters, whereby they will agree to remain silent for at least one period each month, during which time the various clubs will be able to contact stations operating on the same or adjacent fre-In return, I feel that it quencies. would be no more than fair for the clubs to refrain from scheduling special programs from other stations on these during the balance of the month. Thus the all-night broadcaster would be assured of a clear channel except when he was silent.

Letters have been sent to each of the all-night stations and a few replies have so far been received. WEXL advises that it broadcasts from 8 a. m. to 4 a. m., EST, daily except Sunday, and also signs off at 2 a. m., EST, during the week of the frequency checks. WNEW says that it is off the air during the following periods: Sunday from 12:30 to 6:30 p. m. and 9 p. m. to 7 a. m. Monday; 2 to 5 and 8 to 10 p. m. on Mondays; and from 4 to 5 a. m. the second Wednesday of each month.

KGFJ observes silent periods during the week of the frequency checks as follows: Monday—5:10 to 6:30 a. m., EST; Tuesday—6:40 to 7 a. m.; Wednesday—5:50 to 6:50 a. m.; Thursday—5:10 to 6:50 a. m.; Friday—5:10 to 6:50 a. m.; and Sat-



Alistair Cooke, brilliant young critic, journalist and radio commentator, is heard over the NBC-Red Network. His talks are light and entertaining reflections of happenings in the worlds of politics, books, theater and the passing scene. Until recently, Mr. Cooke was film critic of the British Broadcasting Corporation.

urday—5:10 to 5:50. WIL advises that it is silent after 2 a. m., EST, on weekday mornings from the 8th to 14th of each month. WABY has no all-night program from the 8th to the 14th.

I have written the Bureau of Standards at Washington to learn about plans for possible test programs from foreign stations, such as were broadcast during the past two winters. It was my intention to aid these tests by seeing that affected channels were kept clear to avoid interference by dedicatory programs.

In reply, the Bureau advises that no European stations will be asked to participate in any tests this winter, but that LR1, Buenos Aires, has been requested to broadcast a series of programs. Just as soon as dates are confirmed, we will be advised ac-

cordingly.

I am further endeavoring to get a complete list of regular test periods from the various stations, that is, any periods which take place outside of the regular frequency checks during the second week of each month. Whenever I am advised of a test, I will attempt to keep the channel clear of other special programs.

It is my hope to be able to conduct this Clearing House on a strictly impartial basis. I will welcome ideas from readers on how the Plan may be bettered, and ask that all suggestions be sent direct to my home at 603 W. Market St., York,

Pa.

## Station News

KTSM, El Paso, Texas, will become a member of the NBC-Pacific supplementary group, available to either the Red or Blue Network. Lines are now being constructed to KTSM from Albuquerque, N. Mex., and NBC service will start as soon as these are completed, about April 1, 1938.

The two new Canadian stations, CBM and CBF, Montreal, have joined the NBC. CBM (formerly CRCM) carries the Red Network programs in English, and CBF carries the programs of either the Red or Blue Network with French announcements. CFCF, NBC affiliate since 1931, broadcasts Blue Network programs in English.

All the Cincinnati NBC stations are now available to either the Red or Blue Networks. WCKY at Covington, Ky. was formerly a Blue affiliate and WSAI was on the Red Chain. WLW continues as optional

to either network.

KFBK Sacramento and KMJ, Fresno, both owned by the Mc-Clatchey Broadcasting Company, have been granted special experi-

mental authority to operate their regular broadcast transmitters for experimental facsimile signals from 12 midnight to 6:00 a.m. PST on their regularly assigned frequencies.

Station CHAB, Moose Jaw, which broadcasts many CBC programs, is being re-equipped from microphones to antenna. Sparing no expense in obtaining the last word in technical perfection, not one piece of its present equipment will remain in general use. H. Carson Buchanan, a pioneer broadcaster of Western Canada, is station manager.

CFAR, the new station at Flin Flon, Man., on 1370 kcs, is owned by the Arctic Radio Corp., 120 Main St. CFRB, Toronto, 690 kcs, has

moved from Bloor St. to 622 Fleet St.

The studios of CHLT, 1210 kcs, are located at 3 Marquette St., Sherbrooke, P. Q.

Studios of CKBI, 1210 kcs, have been moved from the Canada Bldg. to the Sanderson Bldg., Prince Albert, Sask.

### New Aerials for Millis

Westinghouse is erecting two modern directional antennas for use by W1XK at Millis, Mass. One aerial will be beamed toward South America and the other towards Europe. The directional aerial, together with an increase in power, will strengthen the signal ten times its present output, according to Walter Evans, manager of the radio division of Westinghouse.

#### VE9HS Identified

Mr. R. D. Cahoon of the Engineering Division, Canadian Broadcasting Corporation, Keefer Bldg., Montreal, P. Q., kindly forwards us information concerning shortwave station VE9HS. His letter follows:

"I note in your October Radio In-

dex in the section 'Shortwaves in Review', a request for information concerning Canadian shortwave station VE9HS. This station was operated during the summer on board the R. M. S. Nascopie under a portable license, doing experimental work on shortwave 'phone transmission from the Canadian Arctic to Ottawa. This station had an output power of 200-watts 'phone and operated on the following frequencies: 15190, 11705, 9820 kcs, as well as two lower frequencies for local testing.

"These tests were carried out with view to doing a series of broadcasts to be rebroadcast on the Canadian Broadcasting Corporation's network."

Amateur

CALLS HEARD

The names and addresses of persons reporting stations shown in this list are indicated by small letters following the call signs. Key to the small letters is given at the end of the column.

Canadian and United States calls heard are listed here only when reported by listeners not resident in North America. Cuban calls are not listed when heard by listeners in United States or Cuba.

CN8MB (l); EA9AH (bfl).

**F3-:** HM (*l*); NF (*l*); OO (*l*); **F8-:** DC (*l*); JI (*l*); QD (*l*); RR (*g*).

G2AV (f); G2PU (l); G5RV (l); G5ZJ (l); G6-: BW (gl); DL (l); DT (l); GF (l); LK (gl); WP (l); XR (f); G8SB (l).

HC1-: FG (f); JB (fgk); PM (f); HH-: 2B (fl); 2X (fl); 5PA (f); HI-: 3N (dfl); 5X (l); 7A (l); 7G (l); 7I (f); HK-: 1EP (k); 1MV (f); 2JA (f); 3JA (fk); HP1A (f); HR5C (l).

KA1-: BH (km); HS (k); ME (kl); K4-: EJF (l); SA (g); K6-: BAZ (fk); BNR (fk); CMC (f); GQF (fl); ICL (g); JHD (l); JLV (f); KMB (fk); LCV (g); MZK (f); NTV (g); NZQ (fkl); OJI (f); OQE (fk).

LAIG (l); LU-: 1HI (fk); 4BH (f); 5C (l); 6AF (f); 9BV (f); NY2AE (fk).

OA4-: AE (f); AI (g); AL (fg); C (f); ON4VK (fl); OQ5AA (fj); OX2QY (deijl).

PAOZB (g); PK-: 1GL (l); 1MX (a); 2WR (l); 6CI (a); PY2AK (f).

SUISG (f); TI-: 1AF (f); 2AV (fk); 2DC (g); 2FG (i); 2FJ (l); 2KP (f); 2LR (f); 2OFR (f); 2RC (f); 3EA (l).

VK2-: ADE (f); ADT (l); AFQ (f); AGE (l); AP (f); BQ (fm); CP (f); DJ (l); HF (fl); HS (l); OU (l); QR (f); ZC (l); VK3-: AL (fl); AO (l); WA (l); VK4U) (f); VK5BP (l); VO-: 2N (f); ZZ (l); 6D (f); 6L (g); VP3BG (l); VP3THE (df); VP7NC (l); VP9R (ghl); VU-: 2CQ (c); 2JN (c); 7FY (c).

XE1-: BC (f); BX (m); CV (g); DT (f); GF (g); GK (f); GS (g); LK (fk); Y (fk); XE2-: AF (g); FC (fg); K (k); XE3AH (g); XE3AR (f).

## RADIO AMATEUR CALL BOOK

LATEST EDITION

Lists over 40,000 amateurs in every country in the world as well as complete and accurate lists of all high frequency commercial and broadcasting stations. Every listener interested in amateur stations should have one. 292 pages.

pages. We pay the postage,



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## TIME CONVERTER

The RADEX Map of the World with Time Converting Dial is the most useful accessory any radio fan could have around. Just a twirl of the dial shows the correct time at any location in the world. No calculation is necessary; the dial does all the work.

You Can't Get Along Without It.

The price is only

25c

YV4-: AB (l); AF (l); AO (g); AX (l); YV5-: AA (f); ABA (l); ABF (fgln); ABG (l); ABJ (l); ABS (l); AD (fl); AE (kl); AM (fl); AS (f).

ZS3E; ZS5M; ZT5H; ZT5S; ZT6AL; ZT6AN; ZU6AF; ZU6AJ; ZU6P (All heard The Reporters

(a) Gail Beyer, 3226 Sunnyside Ave., Chicago, Ill. (Hallicrafters S8A).
(b) Carl and Anne Eder, Willmar, Minn.
(c) Raphael Geller, 1652 Radcliff Ave., Bronx, N. Y.
(d) Gilbert Harris, 60 N. Holden St., N. Addres Mose.

Adams, Mass.

(e) Edward Hughes, 1212 Castlewood
Ave., Louisville, Ky.

(f) Merton T. Meade, 819 Wyandotte St.,
Kansas City, Mo. (Stromberg-Carl-

son Converter).

(g) Martin Olthoff, 212 N. 16th, Independence, Kans. (REM69).

(h) Benjamin Peet, 352 Pleasant Ave., New York, N. Y.

(i) David Schaller, Biggs Hospital,

Ithaca, N. Y.
(i) Jack Siringer,

1451 Lincoln Ave., Lakewood, Ohio.
(k) Dale Smith, Route 3. Box

536. Eugene, Ore.

(I) Al Steinmetz, 125 W. 27th St., Bayonne, N. J. (RCA-ACR 136). (m) Hadley Wilcox, 623 W. 40th Place, Los Angeles, Calif. (Tiffany Tone). (n) William Wood, 817½ Lake St., Oak Park, Ill (Zenith 10-S-160).

Sidelights on Linton Wells, author, adventurer and NBC commentator: Has circumnavigated the globe nine times and visited all but five countries of the world . . . Twelve foreign nations have honored him with decorations and three countries have given him commissions in their armies . . . Has written four books including the current best seller, Blood On the Moon.

Herbert J. Sadler, organist on the CBC Sunday night feature, "The Choristers", is already well-known to Canadian radio audiences as the organist of "The Vesper Hour", a national network programme for over three years. He is a charter member of the Winnipeg Chapter of the Canadian College of Organists, and was the first Winnipeg organist to obtain the associate degree of the College.

## Pitcairn Isle

(Continued from Page 12)

meat and other necessities from steamers plying in the Australian trade lanes.

Young has made it his task to arrange with shipmasters to stop at some near distance from the island. He talks with vessels within a 400 mile radius of the tiny isle and has, on occasion, received messages from vessels 1000 miles away. Radiomen regard this as a remarkable feat considering the age of his equipment.

Pitcairn Island is known to radio operators who have heard of it as an amateur's paradise. The nearest automobile interference is 1,000 miles away, and except for PITC's lone storage battery, electricity is unknown on the island. Other interference is at a minimum. PITC is housed in a tiny, iron roofed shack next to Young's home and maintains a watch of more than 10 hours daily.



Broadcasting House, London. This new building houses the studios and offices of the British Broadcasting Corp. Programs originating in this building are heard throughout the entire world through the Empire Shortwave Service.

## Ultra-High Frequencies Allocated

S A RESULT of experimentation during the past few years, the Federal Communications Commission has decided to provide allocations of frequencies to various classes of service in the newly developed portion of the radio spectrum from 25,000 kilocycles to 300,000 kilocycles. Heretofore the rules have been confined to that portion of the radio band from 10 kcs. to 25,000 kcs. only.

The new allocation is covered in Orders No. 18 and No. 19. Order No. 18 concerns allocation from 10 to 30,000 kilocycles. No changes have been made in this part of the spectrum, except that the band from 25,600 to 26,600 kcs. has been set aside for broadcasting.

Order No. 19 covers the allocation of frequencies from 30,000 to 300,000 kcs. All the frequencies in this range, except the amateur band between 56,000 and 60,000 kcs., are assigned to specific services for the first time. All the outstanding licenses in this frequency range, except amateur and point-to-point communication in Hawaii, are for experimental services.

Seven channels between 44,000 and 108,000 kcs. are made available for the assignment of television stations. Television broadcast is also assigned twelve channels between 156,000 and 300,000 kcs. Each television channel is 6 megacycles (6000 kcs.) wide, and provides for the picture broadcast as well as the accompanying synchronized sound.

In the band 41,020 to 43,980 kcs., 75 channels are made available for assignment to aural broadcast stations.

Sixteen channels for relay broadcast stations are provided in the band from 30,830 to 39,820 kcs. These channels will enable a continuance

of the existing stations, as well as provide additional facilities for the growth of relay broadcast service. This number of channels and limited interference range is such that it will be possible to license every regular broadcast station for two relay stations in this band, the frequencies, of course, being available only on a shared basis.

#### **Police Service**

The allocation of frequencies between 30,000 and 40,000 kcs. provides 29 frequencies for assignment to police service. Of these frequencies, 25 will be available to municipal and county government and four to state police agencies. The frequencies will be assigned on a shared basis.

In this same band (30,000-40,000), four frequencies have been set aside primarily for use in instructing student airplane pilots during initial solo flights.

Other services which have been assigned frequencies on these ultrahigh bands are the Forestry Service, Mobile Press Service, Geophysical and Motion Picture Service, Coastal and Ship Harbor, Special Emergency, Marine Fire and other services.

Sidelights on Ted Fio-Rito, music conductor of the new Jack Haley show on NBC: Hobby is medicine and he reads everything on the subject he can lay his hands on . . . Hobnobs with physicians and surgeons and occasionally crashes an operation . . . Is fond of a pet canary hecalls "Mr. Peebles" . . . And proud of a night club piano painted white and autographed by more than 2,000 celebrities with whom he has worked.

## The Frequency Checks

In order to include many of the new stations which have recently come on the air, the engineers of the Federal Communications Commission have revised their list of monthly frequency check broadcasts. The latest schedule, with times given in

			k broadcasts. The		WLVA	1200	Lynchburg, Va.
latest	schedu	le. w	ith times given in	3:10-3:30	KPAC	1260	Port Arthur, Tex.
					WBTM	1370	Danville, Va.
Laster	n Stan	uaru	, follows:	3:20-3:40	WKRC	550	Cincinnati, Ohio
	Th	- E	id Monday	0.00 0.50	WHEC	1430	Rochester, N. Y.
				3:30-3:50	WNAD	1010	Norman, Okia.
2:00-2:20	WLNH	1310	Laconia, N. H.		WMBC	1420	Detroit, Mich.
0.10.0.00	WJBO	1420	Baton Rouge, La.	3:40-4:00	WRAK	1370 1210	Williamsport, Pa.
2:10-2:30	WBRB	1210	Red Bank, N. J.	9.20-E.00	KFV8 WJAC	1310	Cape Girardeau, Mo. Johnstown, Pa.
0.00 0.40	WHBB	1500	Selma, Ala.	3:50-4:10	WTAW	1120	
2:20-2:40	WMAS	1420	Springfield, Mass.	3.00-2.10	WBNS	1430	College Station, Tex.
0.20 0.50	WIOD	610	Miami, Fla.		WBNY	1370	Columbus, Ohio Buffalo, N. Y.
2:30-2:50	WWRL		Woodside, N. Y.	4:00-4:20	WCOL	1210	Columbus, Ohio
0.40.2.00	WJBW	1200	New Orieans, La.	1.00-1.20	WBRE	1310	Wilkes Barre, Pa.
2:40-3:00	WOKO	1430	Albany, N. Y.	4:10-4:30	KLPM	1240	Minot, N. Dak.
9-50-9-10	WMBR	1370	Jacksonville, Fla.	1.10-1.00	WPAR	1420	
2:50-3:10	WCAX WOPI	1200 1500	Burlington, Vt.		WPAY	1370	Parkersburg, W. Va. Portsmouth, Ohio
3:00-3:20	WMBO	1310	Bristol, Tenn.	4:20-4:40	KRMD	1310	Shreveport, La.
0.00-0.20	WMSD	1420	Auburn, N. Y. Sheffield, Ala.	1.50 1.20	WOMT	1210	Manitowoo, Wis.
3:10-3:30	WOC	1370	Described, Ala.		WSYR	570	Syracuse, N. Y.
0.10-0.00	WCAD	1220	Davenport, Ia. Canton, N. Y.	4:30-4:50	KGCA	1270	Decorah, Ia.
	WRGM		Canton, N. 1.	1.00-1.00	WCLE	610	Cleveland, Ohio
3:20-3:40	KWLC	1270	Grenada, Miss.		WNBF	1500	Binghamton, N. Y.
3.20-3.20	WMBQ	1500	Decorah, Ia. Brooklyn, N. Y.	4:40-5:00	KTEM	1370	Temple, Tex.
	WNBR	1430	Memphis, Tenn.	1.10 0.00	KGBU	900	Ketchikan, Alaska
3:30-3:50	KFPW	1210	Fort Smith, Ark.		WGH	1310	Newport News, Va.
0.00-0.00	WDBO	580	Orlando, Fla.	4:50-5:10	KGVO	1260	Missoula, Mont.
	WMFF	1310	Plattsburg, N. Y.	-100 0.10	KRLH	1420	Midland, Tex.
3:40-4:00	KABC	1420	San Antonio, Tex.		WHK	1390	Cleveland, Ohio
0.20 2.00	WQDM	1390	St. Albans, Vt.		wwsw	1500	Pittsburgh, Pa.
	WSMB	1320	New Orieans, La.	5:00-5:20	KGCX	1450	Wolf Point, Mont.
3:50-4:10	WFAS	1210	White Plains, N. Y.	0.00	KRMC	1370	Jamestown, N. D.
0.00-2.20	WHEF	1500	Kosciusko, Miss.		WSAY	1210	Rochester, N. Y.
4:00-4:20	KFDM	560	Beaumont, Tex.		WSPD	1340	Toledo, Ohio
2100 2100	KL8	1280	Oakland, Calif.	5:10-5:30	KAST	1370	Astoria, Ore.
	WAGF	1370	Dothan, Ala.		KNET	1420	Palestine, Tex.
	WCAP	1280	Asbury Park, N. J.		WAVE	940	Louisville, Ky.
4:10-4:30	KCRJ	1310	Jerome, Aris.	5:20-5:40	KCMO	1370	Kansas City, Mo.
					KFJI	1210	Klamath Falls, Ore.
	K M L PS	1200					
	KMLB	1200 1040	Monroe, La.				Detroit, Mich.
4:20-4:40	KY08	1040	Merced, Calif.	5:30-5:50	WXYZ	1240	Detroit, Mich. Lamar, Colo.
4:20-4:40	KYO8 KLUF	1040 1370	Merced, Calif. Gaiveston, Tex.	5:30-5:50	WXYZ KIDW		Lamar, Colo.
4:20-4:40	KYOS KLUF KGDM	1040 1370 1100	Merced, Calif. Galveston, Tex. Stockton, Calif.	5:30-6:50	WXYZ KIDW KPQ	1240 1420 1500	Lamar, Colo. Wenatchee, Wash.
4:20-4:40	KYO8 KLUF	1040 1370 1100 550	Merced, Calif. Gaiveston, Tex. Stockton, Calif. Waterbury, Vt.		WXYZ KIDW	1240 1420	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohlo
	KYOS KLUF KGDM WDEV	1040 1370 1100	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C.	5:30-5:50 5:40-6:00	WXYZ KIDW KPQ WGAR	1240 1420 1500 1450	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash.
4:20-4:40 4:30-4:50	KYOS KLUF KGDM WDEV WDNC	1040 1370 1100 550 1500 1310	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn.		WXYZ KIDW KPQ WGAR KFIO	1240 1420 1500 1450 1120	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohlo Spokane, Wash. Pittsburgh, Pa.
	KYOS KLUF KGDM WDEV WDNC KROC KGAR	1040 1370 1100 550 1500 1310 1370	Meroed, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris.		WXYZ KIDW KPQ WGAR KFIO KQV	1240 1420 1500 1450 1120 1380 1200	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohlo Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak.
	KYOS KLUF KGDM WDEV WDNC KROC	1040 1370 1100 550 1500 1310	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn.	5:40-6:00 5:50-6:10	WXYZ KIDW KPQ WGAR KFIO KQV WCAT	1240 1420 1500 1450 1120 1380 1200 1210 1420	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex.
4:30-4:50	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB	1040 1370 1100 550 1500 1310 1370 1210	Meroed, Calif. Gaiveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D.	5:40-6:00	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH	1240 1420 1500 1450 1120 1380 1200 1210	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohlo Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak.
4:30-4:50	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB KOVC	1040 1370 1100 550 1500 1310 1370 1210 1500	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif.	5:40-6:00 5:50-6:10	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE	1240 1420 1500 1450 1120 1380 1200 1210 1420	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore.
4:30-4:50	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB KOVC KROY	1040 1370 1100 550 1500 1310 1370 1210 1500 1210	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La.	5:40-6:00 5:50-6:10	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohlo Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis.
4:30-4:50 4:40-5:00	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB KOVC KROY WBNO KEUB KRE	1040 1370 1100 550 1500 1310 1370 1210 1500 1210 1200 1420 1370	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif.	5:40-6:00 5:50-6:10 6:00-6:20	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900 Second	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis.
4:30-4:50 4:40-5:00 4:50-5:10	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB KOVC KROY WBNO KEUS WLAK	1040 1370 1100 550 1500 1310 1370 1210 1200 1210 1420 1370 1310	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900 Second	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wednesday Daytons Beach, Fia.
4:30-4:50 4:40-5:00	KYOS KLUF KGDM WDEV WDNC KROC KROC KROVC KROV WBNO KEUB KRE WLAK KBST	1040 1370 1100 550 1500 1310 1210 1210 1200 1210 1200 1420 1370 1310 1500	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM	1240 1420 1500 1450 1120 1380 1200 1210 1420 900 Second 1420 1200	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wednesday Daytona Beach, Fla. Anderson, S. C.
4:30-4:50 4:40-5:00 4:50-5:10	KYOS KLUF KGDM WDEV WDNC KROC KGOC KROY WBNO KEUB KRE WLAK KLAK KLAK	1040 1370 1100 550 1500 1310 1210 1210 1210 1200 1420 1370 1310 1500 1450	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandris, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fis. Big Spring, Tex. Eureks, Calif.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL	1240 1420 1500 1450 1120 1380 1200 1210 1420 900 Second 1420 1200 1310	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedwesday Daytona Beach, Fla. Anderson, S. C. Lafayette, La.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB KOVC KROY WBNO KEUB WLAK KBST KIEM WFOY	1040 1370 1100 550 1500 1310 1370 1210 1200 1220 1370 1310 1500 1450 1450 1210	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureks, Calif. St. Augustine, Fla.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL WHBQ	1240 1420 1500 1450 1120 1380 1200 1210 1200 900 Second 1420 1200 1200 1200 1200	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohlo Spokane, Wash. Pittaburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. I Wednesday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn.
4:30-4:50 4:40-5:00 4:50-5:10	KYOS KLUF KGDM WDEV WDNC KROC KGAR KALB KOVC KROY WBNO KEUB KRE WLAK KBST KIEM WFOY KDON	1040 1370 1100 550 1500 1310 1370 1210 1200 1210 1370 1310 1500 1420 1420 1420 1210	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900 Second 1420 1200 1370 1370 1240	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedweeday Daytons Beach, Fia. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20	KYOS KLUF KGDM WDEV WDNC KROC KROY WBNO KEUS WLAK KBST WLAK KBST WIAK KBST WIAK KBST WIOY WHOY WHOY WHOY WHOY WHOY WHOY WHOY WH	1040 1370 1100 550 1500 1310 1370 1210 1200 1420 1310 1310 1450 1210 1210 1210 1210	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fia. Big Spring, Tex. Eureka, Calif. St. Augustine, Fia. Monterrey, Calif. St. Paul, Minn.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WMFJ WHEQ WHAQ WKAQ WKJS	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900 Second 1420 1200 1310 1370 1240 1310	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedeseday Daytons Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30	KYOS KLUF KGDM WDEV WDNC KROC KROY WBNO KEUB KRE WLAK KBST KIEM WFOY KDON WMON WHON WHON WHON	1040 1370 1100 550 1500 1310 1210 1210 1200 1210 1420 1370 1310 1450 1450 1210 1210 1310 1310	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fla.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WKJS WCPO	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900 Second 1420 1200 1310 1370 1240 1310 1200	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedwesday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Chrcinnati, Ohio
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20	KYOS KLUP WDEV WDNC KROC KROC KALB KOVC KROY WBNO KEUB KEUB KEUB KEUB KEUB KEUB KEUB KEUB	1040 1370 1100 550 1500 1310 1210 1210 1200 1420 1310 1500 1450 1210 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fia. Big Spring, Tex. Eureka, Calif. St. Augustine, Pla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fia. Houston, Texas	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL WMFJ WAIM KVOL WHBQ WKAQ WSJS WCPO WMFD	1240 1420 1500 1450 1120 1380 1200 1210 1420 900 Second 1420 1300 1310 1370 1240 1310 1200 1370	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedweeday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Ckichinnati, Ohio Wilmington, N. C.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30	KYOS KLUF KGDM WDEV WDNC KROC KROC KROY WBNO KEUB KRE WLAK KBST KLEM WFOY KDON WMIN WTAL KTRH KUMA	1040 1370 1100 550 1500 1310 1370 1210 1500 1220 1420 1370 1310 1450 1210 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fla. Houston, Texas Yuma, Aris.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WSJS WCPO WMFD	1240 1420 1500 11450 1120 1200 1210 1420 1200 1200 1200 1310 1370 1240 1310 1240 1310 1240 1370 1420	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Stevens Point, Wis. Wedeesday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40	KYOS KLUF KGDM WDEV WDNC KROC KROC KGAR KALB KOVC KROY WBNO KEUB KREF WLAK KKOY WBNO WEUB WLOW WFON WMIN WTAL KTRH KUMA	1040 1370 1100 550 1500 1310 1370 1210 1200 1420 1370 1310 1500 1450 1450 1450 1210 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fla. Houston, Texas Yuma, Aris. Winston-Salem, N. C.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 2:50-3:10 3:00-3:20 3:10-3:30	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WSJS WCPO WMFD KFIZ WPAX	1240 1420 1500 11500 11200 1200 1210 1200 900 Second 1420 1310 1370 1240 1310 1310 1310 1310 1310 1310 1310 13	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedweeday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R., Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis. Thomasville, Ca.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30	KYOS KLUF KODM WDEV WDNC KROC KROC KROC KROV WBNO KEUB KRE WLAK KBST KIEM WFOY KDON WTAL KTRH KUMA WAIR	1040 1370 1500 1500 1310 1370 1210 1200 1420 1370 1310 1450 1450 1210 1370 1210 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fla. Houston, Texas Yums, Aris. Winston-Salem, N. C. Boone, Ia.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WKAQ WSJS WCPO WMFD KFIZ WPAX KOKO	1240 1420 1500 11500 1120 1200 1210 1210 1200 120	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis.  Wedeseday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Teon. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lae, Wis. Thomasville, Ga. La Junta, Colo.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40	KYOS KLUF KGDM WDEV WDNC KROC KROC KROC KROC KROY WBNO KEUB KOVC KROY WBNO KEUB KOVC WLAK KROY WBNO KEUB KRE WLAK KEUM WHOY KDON WMIN WHOY KDON WMIN WTAL KTRH KUMA WAIR KFGQ KWG	1040 1370 1100 1500 1310 1310 1210 1210 1420 1370 1310 1450 1210 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fis. Big Spring, Tex. Eureks, Calif. St. Augustine, Pla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fla. Houston, Texas Yuma, Aris. Winston-Salem, N. C. Boone, Ia. Stockton, Calif.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 2:50-3:10 3:00-3:20 3:10-3:30	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WKAQ WKAQ WKAQ WKAQ WKAQ WKAQ WKA	1240 1420 1500 1450 11200 1380 1200 1210 1420 1200 900 <b>Second</b> 1420 1310 1310 1240 1310 1240 1310 1210 1370 1420 1210	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedwesday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lae, Wis. Thomasville, Ga. La Junta, Colo. Janeaville, Wis.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40 5:30-5:50	KYOS KLUF KODM WDEV WDNC KROC KROC KROC KROY WBNO KEUB KRE WLAK KBST KLEM WFOY KDOM WTAL KTRH KUMA WAIR KWG WGC KWG	1040 1370 1500 1500 1310 1370 1210 1200 1420 1370 1310 1210 1210 1210 1210 1210 1210 121	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fia. Big Spring, Tex. Eureka, Calif. St. Augustine, Fia. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fia. Houston, Texas Yuma, Aris. Winston-Salem, N. C. Boone, Ia. Stockton, Calif. Gulfport, Miss.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20 3:10-3:30 3:20-3:40	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL WMFJ WAIM KVOL WHBQ WKAQ WSJS WCFO WMFJZ WASS WCFO WMFJZ WOOO WCLO WCLO	1240 1420 1450 11500 1380 1200 1210 1200 900 1210 1420 1200 1310 1310 1310 1310 1240 1310 1210 1310 1210 1310 1310 1310 131	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedweeday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis. Thomasville, Ga. La Junta, Colo. Janeeville, Wis. Augusta. Ga.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40 5:30-5:50 5:40-6:00	KYOS KLUF KODM WDEV WDNC KROC KROC KGAR KALB KOVC WBNO KEUB KRE WLAK KROY WBNO KEUB KRE WLAK KROY WBNO WEON WHIN WHON WHIN KTRH KUMA WAIR KFGQ KWG WGCM KGMB	1040 1370 1500 1210 1210 1200 1210 1200 1420 1370 1310 1500 1410 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif. St. Augustine, Fla. Houston, Texas Yuma, Aris. Winston-Salem, N. C. Boone, Ia. Stockton, Calif. Gulfport, Miss. Honoluly, T. H.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20 3:10-3:30 3:20-3:40 3:20-3:50	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE WLBL The WMFJ WAIM KVOL WHBQ WKAQ WKAQ WKAQ WKJS WCPO WMFD KFIZ WPAX KOKO WCLO WRDW WQBC	1240 1420 1500 1450 1120 1380 1200 1210 1420 1200 900 1310 1200 1310 1240 1310 1240 1310 1200 1370 1420 1210 1370 1420 1310	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedweeday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis. Thomasville, Ga. La Junta, Colo. Janeeville, Wis. Augusta. Ga.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40 5:30-5:50	KYOS KLUF KGDM WDEV WDNC KROC KROC KGAR KALB KOVC WBNO KEUB KRE WLAK KBST KIEM WFOY KDON WMIN WTAL KUMA WAIR KFGQ KWGM KGMB	1040 1370 1500 1500 1310 1370 1210 1200 1210 1200 1420 1370 1310 1210 1210 1210 1210 1210 1210 121	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fia. Big Spring, Tex. Eureka, Calif. St. Augustine, Pla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fia. Houston, Texas Yuma, Aris. Winston-Salem, N. C. Boone, Ia. Stockton, Calif. Gulfport, Miss. Honoluit, T. H. Mason City, Ia.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20 3:10-3:30 3:20-3:40	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WKAQ WKAQ WKAQ WKAQ WKAQ WKAQ WKA	1240 1420 1450 11500 1450 1120 1210 1210 1210 1220 1200 1200 1370 1240 1370 1240 1310 1200 1210 1210 1220 1210 1370 1420 1310 1310	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marahfield, Ore. Stevens Point, Wis. Wedweeday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis. Thomasville, Ga. La Junta, Colo. Janesville, Wis. Augusta, Ga. Vicksburg, Miss. Corsicans, Texas
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40 5:30-5:50 5:40-6:00 5:50-6:10	KYOS KLUF KODM WDEV WDNC KROC KROC KRALB KOV WBNO KEUB KRE WLAK WHOY KDON WHIN WTAL KTRH KUMA WAIR KGMB KGMB KGMB KGMB	1040 1370 1500 1210 1210 1210 1210 1220 1420 1430 1450 1210 1370 1210 1210 1210 1210 1210 1210 1210 12	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fla. Big Spring, Tex. Eureka, Calif. St. Augustine, Fla. Monterrey, Calif. St. Augustine, Fla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fla. Houston, Texas Yuma, Aris. Winston-Salem, N. C. Boone, Ia. Stockton, Calif. Gulfport, Miss. Honolulu, T. H. Mason City, Ia. Redding, Calif.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20 3:10-3:30 3:20-3:40 3:20-3:50	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE WLBL  The WMFJ WAIM KVOL WHBQ WKAQ WKJB WCPO WFIZ WPAX KOKO WCLO WCLO WRDC KAND	1240 1420 1450 1150 1120 11380 1210 1210 1200 1200 1200 1200 1310 131	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marshfield, Ore. Stevens Point, Wis. Wedisseday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis. Thomasville, Ga. La Junta, Colo. Janeaville, Wis. Augusta, Ga. Vioksburg, Miss. Corsicana, Texas Lake Charles, La.
4:30-4:50 4:40-5:00 4:50-5:10 5:00-5:20 5:10-5:30 5:20-5:40 5:30-5:50 5:40-6:00	KYOS KLUF KGDM WDEV WDNC KROC KROC KGAR KALB KOVC WBNO KEUB KRE WLAK KBST KIEM WFOY KDON WMIN WTAL KUMA WAIR KFGQ KWGM KGMB	1040 1370 1500 1500 1310 1370 1210 1200 1210 1200 1420 1370 1310 1210 1210 1210 1210 1210 1210 121	Merced, Calif. Galveston, Tex. Stockton, Calif. Waterbury, Vt. Durham, N. C. Rochester, Minn. Tucson, Aris. Alexandria, La. Valley City, N. D. Sacramento, Calif. New Orleans, La. Price, Utah Berkeley, Calif. Lakeland, Fia. Big Spring, Tex. Eureka, Calif. St. Augustine, Pla. Monterrey, Calif. St. Paul, Minn. Tallahassee, Fia. Houston, Texas Yuma, Aris. Winston-Salem, N. C. Boone, Ia. Stockton, Calif. Gulfport, Miss. Honoluit, T. H. Mason City, Ia.	5:40-6:00 5:50-6:10 6:00-6:20 2:00-2:20 2:10-2:30 2:20-2:40 2:30-2:50 2:40-3:00 3:00-3:20 3:10-3:30 3:20-3:40 3:20-3:50	WXYZ KIDW KPQ WGAR KFIO KQV WCAT KLAH KORE KOOS WLBL The WMFJ WAIM KVOL WHBQ WKAQ WKAQ WKAQ WKAQ WKAQ WKAQ WKAQ WKA	1240 1420 1450 11500 1450 1120 1210 1210 1210 1220 1200 1200 1370 1240 1370 1240 1310 1200 1210 1210 1220 1210 1370 1420 1310 1310	Lamar, Colo. Wenatchee, Wash. Cleveland, Ohio Spokane, Wash. Pittsburgh, Pa. Rapid City, S. Dak. Carlebad, N. Mex. Eugene, Ore. Marahfield, Ore. Stevens Point, Wis. Wedweeday Daytona Beach, Fla. Anderson, S. C. Lafayette, La. Memphis, Tenn. San Juan, P. R. Winston-Salem, N. C. Cincinnati, Ohio Wilmington, N. C. Fond du Lac, Wis. Thomasville, Ga. La Junta, Colo. Janesville, Wis. Augusta, Ga. Vicksburg, Miss. Corsicans, Texas

The Second Tuesday

1210

1370

1210

1310

1210

1310

1500

1200

2:00-2:20

2:10-2:20

2:20-2:40

2:30-2:50

2:40-3:00 2:50-3:10

3:00-3:20

WBAX

WDAS

WBBL

WFBG

WMBG

WEBR

KDAL

WLVA

Wilkes Barre, Pa. Philadelphia, Pa. Richmond, Va.

Altoons, Pa.

Richmond, Va. Buffalo, N. Y. Duluth, Minn.

Lynchburg, Va.

		890	Little Rock, Ark.		WDWS	1370	Champaign, Ill.
3:50-4:10	KARK WGPC	1420	Albeny Ga.	5:50-6:10	KGKB	1500	Tyler, Texas
4:00-4:20	KFJZ	1370	Albany, Ga. Fort Worth, Tex.	•	KSUN	1200	Lowell, Aris.
€ :00-€ .20	WHBU	1210	Anderson, Ind.		WBCM	1410	Bay City, Mich. Roswell, N. M.
	WJNO	1200	W. Palm Beach, Fla.	6:00-6:20	KGFL	1370	Roswell, N. M.
4:10-4:30	WBEO	1310	Marquette, Mich.	6:10-6:30	KGIW	1420 1400	Alamosa, Colo.
_	WCOC	880	Meridian, Miss.	8.90 8.40	KHBC KVEC	1200	Hilo, T. H. San Luis Obispo, Calif.
	WLB	1250	Minneapolis, Minn. Des Moines, Ia.	0:20-0:40	WGL	1370	Fort Wayne, Ind.
4:20-4:40	KSO WKEU	1430 1500	Griffin, Ga.	6:30-6:50	KSUB	1310	Fort Wayne, Ind. Cedar City, Utah
	WAEU	570	Columbus, Obio	0.00			
4:30-4:50	KALB	1210	Alexandria, La. Royal Oak, Mich. Virginia, Minn.				nd Friday
£100 2100	WEXL	1310	Royal Oak, Mich.	2:00-2:20	WGNY	1210	Newburgh, N. Y.
	WHLB	1370	Virginia, Minn.	2:10-2:30	WCNW	1500	Brooklyn, N. Y. Freeport, N. Y. Albany, N. Y.
4:40-5:00	KPLT	1500	Paris, Tex.	2:20-2:40	WGBB	1210 1370	Freeport, N. Y.
	WJM8	1420 1200	Ironwood, Mich. Tuscaloosa, Ala.	2:30-2:50	WABY	1500	Rutland, Vt.
4:50-5:10	WJRD KFXR	1310	Oktahoma City, Okla.	2:50-3:10 3:00-3:20	WABI	1200	Bangor, Me.
E:00-0:10	WBIG	1440	Greensboro, N. C. Springfield, Ill.	3:20-3:40	WIBX	1200	Bangor, Me. Utica, N. Y.
	WTAX	1210	Springfield, Ill.	3:30-3:50	KASA	1210	Elk City, Okla.
5:00-5:20	KFJB	1200	Marshalltown, la.		WAGM		Presque Isle, Me.
	WEOA	1370	Evansville, Ind.	3:40-4:00	KW08	1310	Jefferson City, Mo.
5:10-5:30	KPDN	1310	Pampa, Tex.	3:50-4:10	WNBZ	1290	Saranac Lake, N. Y.
	WDZ	1020 1370	Tuscoia, Ill. Eldorado, Ark.	8:50-4:10	WJBK WMBH	1500 1420	Detroit, Mich. Joplin, Mo.
5:20-5:40	KELD WAYX	1200	Wanasaa Ca		WRDO	1370	Augusta, Me.
	WKBN	570	Youngstown, Ohio Devils Lake, N. D.	4:00-4:20	KIUL	1210	Garden City, Kans.
5:30-5:50	KDLR	1210	Devils Lake, N. D.	2.00 2.20	WTHT	1200	Hartford, Conn. Clovis, N. M.
0.00-0.00	WADC	1320	Akron, Obio	4:10-4:30	KICA	1370	Clovis, N. M.
5:40-6:00	KRBC	1420	Abilene, Tex. Wausau, Wis. Dubiin, Texas		WCAZ!	1070	Carthage, Ill.
	WSAU	1370	Wausau, Wis.		WNLC	1500	New London, Conn.
5:50-6:10	KFPL	1310	Dublin, Texas South Bend, Ind.	4:20-4:40	WMFG	1210	Hibbing, Minn.
	WFAM	1200 1290	Blytheville, Ark.	4:30-4:50	KIUP	1370 1420	Durango, Colo. Paducah, Ky. Austin, Tex.
6:00-6:20	WELL	1420	Battle Creek, Mich.	4:40-5:00	WPAD	1500	Augtin Tex.
6:10-6:30	KGBX	1230	Springfield, Mo.	4:40-0:00	WEMP	1310	Milwaukee, Wis.
0:10-0:30	WMPC	1200	Lapeer, Mich.	4:50-5:10	WEW	760	St. Louis, Mo.
6:20-6:40	KABR	1420	Aberdeen, S. D.	2100 0120	WGRC	1370	New Albany, Ind.
6:30-6:50	KFXJ	1200	Grand Junction, Colo.	5:00-5:20	K1UN	1420	Pecos, Tex.
	The	Secon	d Thursday		WEBQ	1210	Harrisburg, Ill.
				5:10-5:30	KGEK	1200	Sterling, Colo. Ashland, Ky.
2:00-2:20	WSVB	1370 1210	Buffalo, N. Y.	E-00 F-40	WCMI	1310 1370	San Antonio, Tex.
2:10-2:30	WKOK	1310	Sunbury, Pa. Reading, Pa.	5:20-5:40	KMAC WJW	1210	Akron, Ohio
2:20-2:40 2:30-2:50	WJTN	1210	Jamestown, N. Y.	5:30-5:50	WIL	1200	St. Louis, Mo.
2:40-3:00	WTEL	1310	Philadelphia Pa.	0.30-0.30	WLBC	1310	Muncie, Ind.
2:50-3:10	WHIS	1410	Bluefield, W. Va.	5:40-6:00	KTOK	1370	Okiahoma City, Okia.
3:00-3:20	WQAN	880	Bluefield, W. Va. Scranton, Pa.		WKBB	1500	E. Dubuque, Ili.
3:10-3:30	WLEU	1420	Treis Pa	5:50-6:10	KAN8	1210	Wichita, Kans.
3:20-3:40 3:30-3:50	WBLK	1370	Clarksburg, W. Va.		WHBY	1200	Green Bay, Wis.
3:30-3:50	WSAJ	1310	Grove City, Pa.	6:00-6:20	WACO	1420 1200	Waco, Tex.
3:40-4:00	WJBC	1200 1370	Bioomington, Ill. San Angelo, Texas	6:10-6:30	WJBL KROA	1310	Decatur, Ili.
3:50-4:10	KGKL WHAT	1310	Philadelphia, Pa.	6:20-6:40	WHDF	1370	Santa Fe, N. M. Calumet, Mich.
	WLAP	1420	Laxington, Ky.	6:30-6:50	KGDE	1200	Fergus Falis, Minn.
4:00-4:20	KRIS	1330	Corpus Christi, Tex.	0.00-0.00	11000		
E.00.1	WHDL	1400	Olean, N. Y.			e Secor	id Saturday
4:10-4:30	KAWM		Gallup, N. M.	2:00-2:20 2:10-2:30	WMFR	1200	High Point, N. C.
	WJIM	1210	Lansing, Mich.	2:00-2:20	WMFO		Decatur, Ala.
	WMB8	1420	Uniontown, Pa.	2:20-2:40	WSOC	1210	Charlotte, N. C.
4:20-4:40	WBBZ	1200	Ponca City, Okia. Terre Haute, Ind.	2:30-2:50	WTJ8	1310	Jackson Tenn
	WBOW		Richmond, Va.	2:40-3:00	WSIX	1210	Nashville, Tenn.
4:30-4:50	WRTD WCB8		Springfield, 111.	2:50-3:10	WROL	1310	Nashville, Tenn. Knoxville, Tenn. Pine Bluff, Ark
4 :30-E :00	WPRA		Mayagues, P. R.	3:00-3:20	KOTN	1500	Pine Bluff, Ark
4:40-5:00	KRRV	1310	Sherman, Tex.		WBLY	1210	Lima, Ohlo
4.10 0.00	WTMV	1500	Tree Ot Louis III		WQAM KWYO	560 1370	Miami, Fla.
4:50-5:10	KGGM	1230	Albuquerque, N. M.	3:10-3:30	WPRP	1420	Sheridan, Wyo. Ponce, P. R.
	WHBF	1210	Rock Island, Ill.	3:20-3:40		1240	Mandan, N. Dak.
5:00-5:20	KERN		Bakersfield, Callf. Wichita Falis, Tex.	0.20-0.20	WIBU	1210	Poynette, Wis.
	KCKO WTRC		Elkhart, Ind.		WNEL		San Juan, P. R. Houston, Tex.
5:10-5:30		1500	Brownsville, Tex.	3:30-3:50	KXYZ	1440	Houston, Tex.
8:10-0:00	KTRB		Modesto, Calif.		WAML		Laurel, Miss.
	WWAE		Hammond, 1nd.		WKBV		Richmond, Ind.
5:20-5:40				3:40-4:00	KRGV		Weslaco, Tex.
	KJB8	1070	San Francisco, Calif.	9.60 4.10	WFOR KNEL		Hattiesburg, Miss.
	WIBM	1370	SECKBOH, MARCH.	3:50-4:10	WEED		Brady, Tex. Rocky Mount, N. C.
5:30-5:50	KGHI	1200	Little Rock, Ark.		WGBF		Evansville, Ind.
	KXO	1500 1210	Little Rock, Ark. El Centro, Calif. Zanesville, Ohio	4:00-4:20		1210	Ardmore, Okla.
F.40 0.00	WALR KGHF		Pueblo, Colo.		WFDF	1310	Flint, Mich.
5:40-6:00	KHLS	1260	Chico, Calif.		WFTC		Kinston, N. C.
	PHI	1000					

4:10-4:30	KFQD	780	Anchorage, Alaska
	KONO	1370	San Antonio, Tex.
	WKBZ	1500	Muskegon, Mich.
4:20-4:40	KRLC	1390	Lewiston, Idaho
	KT8M	1310	El Paso, Tex.
	WBHP	1200	Huntsville, Ala.
4:30-4:50	KOCA	1210	Kilgore, Tex.
	KUJ	1370	Walla Walla, Wash.
4:40-5:00	KCMC	1420	Texarkana, Texas
	KRNR	1500	Roseburg, Ore.
	WGTM	1310	Wilson, N. C.
4:50-5:10	KEEN	1370	Seattle, Wash.
	KWTN	1210	Watertown, S. Dak.
5:00-5:20	KGFF	1420	Shawnee, Okla.
	KIT	1310	Yakima, Wash.
5:10-5:30	KBTM	1200	Jonesboro, Ark.
	KRKO	1370	Everett, Wash.
5:20-5:40	KFRO	1370	Longview, Tex.
	KGEZ	1310	Kalispel, Mont.
5:30-5:50	KBIX	1500	Muskogee, Okia.
	KFXD	1200	Nampa, Idaho
5:40-6:00	KFJM	1410	Grand Forks, N. D.
	KXRO	1310	Aberdeen, Wash.
5:50-6:10	KGY	1210	Olympia, Wash.
6:00-6:20	KINY	1310	Juneau, Alaska
6:10-6:30	KMED	1410	Medford, Ore.
6:20-6:40	KV08	1200	Bellingham, Wash.

#### ZNS, Nassau

A letter from the Superintendent of Telegraphs gives complete information concerning the new broadcasting station in Nassau, Bahamas.

Station ZNS transmits on 540 kcs with 400 watts power, on two daily schedules. The first transmission is from 1:30 to 1:45 pm, EST, and the second from 8:30 to 9:30 pm, EST. Programs from the shortwave station at Daventry are sometimes picked up and relayed at 8:00 pm.

Reports are requested and will be acknowledged. The address is Superintendent of Telegraphs, Box 48, Nassau N. P., Bahamas.

## **Always Prepay Postage**

When writing to overseas stations it is customary to enclose return postage in the form of International Reply coupons. These can be procured from any Post Office for nine cents each, and can be exchanged in any country in the Universal Postal Union for postage stamps on a first class letter to this country. Contrary to some published reports, all countries are members of the



Sheilah Graham, London-born actress, authoress and columnist. Miss Graham studied to be an actress at the Royal Academy of Dramatic Arts, London, and did her first writing in the London Daily Mail.

UPU except Laccadive and Maldive Island, the State of Alaouites, Northern Rhodesia, and Tonga. Radio stations in which we are interested do not exist in any of these localities.

## The Spanish Alphabet

A, Ah	O, Oh
B, Bay	P, Pay
C, Say or thay	Q, Koo
D, Day	R, Air-ray
E, Ay	S, Ess-say
F, Ef-fay	T, Tay
G, Hay	U, Oo
H, Ah-chay	V, Vay
I, Ee	W, Doo-ble-vay
J, Ho-tah	X, eckis; ay-kis
K, Kah	ek-key
L, El-lay	Y, Yay
M, Em-may	Z, Zed.
N Ennav	

## The Biography of Julius Twisdile

O BEGIN with, Julius is not an ordinary person. At the lovable and tender age of three, when most infants are fumbling with toys, Julius was patiently "pushing the slider" of a self-made crystal set. The neighbors marveled at his prowess and one of the local newspapers gave him front page publicity. All in all, everyone was of the opinion that someday Julius would take his place along with Marconi, Amlie and other great names in radio.

However, greatness was not meant for our hero, for Julius was bitten by the DX bug on his fifth birthday. It seems that he was listening to a local station and another station a thousand miles distant suddenly put in its appearance on an adjoining channel. Although the signals were not strong and identification seemed virtually impossible, Julius stayed at the controls and after three hours of steady vigilance finally succeeded in learning the call and location of the station. With a cry of victory, he ran to tell mamma and papa of his catch, but alas, in his excitement, he had forgotten to remove his headphones and his set lay dashed to bits upon the floor.

Fortunately, Julius had a bighearted papa who consented to purchase him a two tube Blooper so that he could continue his conquest of the ether. In the four years following, Julius heard five hundred and six broadcast stations and made a specialty of collecting pretty cards and letters of confirmation from the stations. Julius was quite revolutionary in his system of verifying. Instead of reporting but once requesting a verification, he attempted to secure twenty-four con-



Martha Tilton's rhythmic vocal interpretations of Benny Goodman's orchestra during the Nwing School broadcasts, a part of the Camel Caravan program. Miss Tilton was "discovered" by Goodman when she went to Hollywood to join the Oakie College Glee Club.

firmations from each station heard—one for each hour of the day. In the Spring of 1928 Julius had eleven thousand and thirty-seven veries.

received great criticism from members of the DX fraternity. who pointed out that it was foolish for him to verify a station twenty four times when one veri was sufficient to prove definite reception of any station. Julius, however, was quite satisfied with his system, maintaining that a station was received under different conditions every hour of the day. He also stated that a DXer who counted a transmitter, operating under two different calls, as two stations; or one who counted a slight change in frequency, a change of studio location or a change of call letters as new stations was by no means any more efficient than was he.

In the fall of 1928, the Twisdile heir became interested in short wave reception and proceeded to log stations from all corners of the world -broadcasting, commercial phone, amateur and what have you. Julius found this type of DXing far more interesting and educational than his earlier love, and some claim that he is able to converse in five languages with a reading knowledge of several more. He is well acquainted with the political setup, the geography and the economics of almost every country in the world, and it has been said that he is studying for the diplomatic service.

Julius was also very original in locations of tabulating heard. In the first place he never bothered about verifying all continents because he found that in his huge collection he had but one confirmation from Antarctica and was very much ashamed to admit that he had but one VAC. In the second place his method of counting countries was most unique. Every state in the United States, every province in Canada; in fact anyplace which possessed a border was counted as a different country. To say the least, Julius' log of verified countries reached amazing proportions and it is doubtful if any DXer in the entire world could have "touched him."

As you can probably guess, the SWL's Inc. ridiculed our hero and "poo-pooed" his system, stating that a country should consist of this, that and the other thing. Julius, however, was undaunted and replied that his system was, at least, consistent, and that those who counted Baffin Island, Yucatan, Tasmania and the Aleutian Islands as countries the same as The United States, were, in a great degree, far more inconsistent than he.

## Tommy Riggs

Tommy Riggs, whose vocal chords harbor the popular little radio star, "Betty Lou," modestly began life in Pittsburgh, Pa., on October 21, 1908.

His father was superintendent of a steel firm in the aptly named "Smoky City." Young Tommy could only think of two things—he wanted to be a football star and an actor. Unlike most childhood ambitions, his were later fulfilled.

Always an agreeable young man, Tommy didn't revolt when his parents suggested he study music. He took voice and piano lessons, which have since stood him in good stead as a radio entertainer.

During his freshman year in high school, he appeared in numerous class dramatic productions but never talked like "Betty Lou" except when entertaining at parties. The little girl voice didn't seem extraordinary to him then, though it always provoked laughter among his friends.

"Betty Lou" was again sidetracked when Tommy went to Bellefonte Academy. The young man with two voices displayed a greater interest in boxing than in entertaining there.

A year at Brown University was followed by study and football at Ohio State. While being rushed by a fraternity at the latter institution one of the "brothers" called Riggs on the phone to ask him over to dinner at the house. Tommy had "Betty Lou" do the answering.

"My daddy will be glad to come," said the child-like voice.

When Tommy arrived, the upperclassman exclaimed, "Why, I didn't know you were old enough to have a youngster!"

"I'm not," said Tommy.

Riggs then changed his voice to the higher register, and "Betty Lou" later became the mascot of the house.

Tommy got out of college at the height of the depression but managed somehow to land a job in Pittsburgh in a business firm. The lure of the theater was still in his blood and business seemed awfully dull to him.

He voluntarily gave up his position for a less lucrative one in a local vaudeville theater. He became a singing master-of-ceremonies, just a few blocks from the theater where Dick Powell was doing the same

thing.

"Betty Lou's" radio debut occurred as a result of a mistake. Tommy was rehearsing a comedy act with a radio partner. Things went from bad to worse with the script seeming to get less funny every minute. When he lost his place, Riggs expressed his annoyance in the "Betty Lou" voice.

The producer of the show shouted, "That's great. Where did you get that voice? Use it in the skit."

Tommy did. He titled the show "Tom and Betty," and it remained popular with WCAE listeners for several years before Riggs transferred his act to KDKA. The program got an enthusiastic reception and received the largest fan-mail response ever accorded an air show.

"I had an amusing experience in Pittsburgh," Tommy says. "I went on the air at eleven o'clock at night and one night a labor department representative called on me and demanded I send 'Betty' home to bed where she belonged at that hour. It took me quite a little while to convince them 'Betty' was only my idea child, but at last they believed me and left."

An offer came from Cleveland to do a 15 minute commercial program, five-times-a-week. It looked so good, the "Tom and Betty" act moved to a new locale, broadcasting over WTAM. The same enthusiastic response greeted the one man "pair" with a woman writing in begging to adopt "Betty." It took some tall letter-writing on the part of Riggs to assure the lady "Betty" was really an imaginary character.

Another offer over a more powerful station came to Tommy's attention and once more he packed up bag and baggage, heading this time for Cincinnati and WLW. He arrived with the flood, his first program being the longest and the most difficult he has ever gone through—he had "Betty" appeal for aid to flood-sufferers at intervals during one entire night and morning. The response was tremendous with the people of Cincinnati ever grateful.

Two months later when Tommy offered his photograph to radio listeners 32,000 requests came in immediately. Cincinnati looked mighty good to Tommy then and he felt he wanted to stay on. Besides, he had moved from city to city so often he was about ready to settle down!

Therefore, when he was asked to go to New York to audition for Rudy Vallee's Hour, he got around the trip by sending a set of records.

Senator Fishface and Professor Figgsbottle, daffy comics heard over NBC on Sunday afternoons, have just been signed for another two years by the NBC Artists Service.

Betty Winkler, pretty star of the NBC dramatic serial, Girl Alone, is creator of a new evening gown that caused a sensation in the fashion world. The Winkler creation is a flouncy, white chiffon evening gown with a photographic reproduction of the Chicago skyline ten inches high around the bottom. The hem was sensitized with a photographic solution and the pictures printed in the same manner as regular photographic prints are made.

#### THE BROADCASTING STATIONS OF OCEANIA

This completely revised list of Australasian stations is compiled from official information supplied by A. I. Breen of Dunedin, New Zealand, and the Postmaster-General's Department of Melbourne, Australia.

Frequencies are given in first column in kilocycles. Call letters are in second column, and power in watts in third column.

The abbreviations are N. Z. for New Zealand, P. I. for the Philippine Islands, and for the Australian states:

F.C.T., Federal Capital Territory N.S.W., New South Wales Qald., Queensland S. A., South Australia Tas., Tasmania Vic., Victoria W. A., West Australia

550	2CR	10000	Cumnock, N.S.W.	1040	5PI	2000	Crystal Brook, S. A.
560	6WA	10000	Minding, W. A.	1050	2CA	500	Canberra, F. C. T.
570	2YA	60000	Wellington, N. Z.	1060	2BH	100	Broken Hill, N.S.W.
580	3WV	10000	Horsham, Vic.	1070	6WB	2000	Katanning, W. A.
600	FJP	500	Noumea, New Caledoula	1080	2AD	100	Armidale, N.S.W.
	7ZL	1000	Hobart, Tas.		4MK	100	Mackay, Qsld.
610	KZRM	50000	Manila, Philippines		7HT	300	Hobart, Tas.
	2FC	3500	Sydney, N.S.W.	1090	1ZB	150	Auckland, N. Z.
620	3AR	4500	Melbourne, Vic.		3LK	2000	Lubeck, Vic.
630	4QN	7000	Clevedon, Qsld.	1100	4LG	500	Longreach, Qsld.
640	5CK	7500	Crystal Brook, S. A.		7LA	300	Launceston, Tas.
650	1YA	10000	Auckland, N. Z.	1110	2UW	750	Sydney, N.S.W.
660	2DU	100	Dubbo, N.S.W.	1120	2ZB	1000	Wellington, N. Z.
	7BU	100	Burnie, Tas.		4BC	1000	Brisbane, Qsld.
670	2CO	7500	Corowa, N.S.W.	1130	6ML	500	Perth, W. A.
680	2HR	300	Singleton, N.S.W.	1140	2HD	500	Newcastle, N.S.W.
000	4ZP	100	Invercargil, N. Z.		4YO	150	Dunedin, N. Z.
690	6WF	3500	Perth, W. A.	1150	2WG	2000	Wagga, N.S.W.
700	2NR	7000	Grafton, N.S.W.		2ZM	15	Gisborne, N. Z.
710	7NT	7000	Kelso, Tas.	1160	2KA	200	Katoomba, N.S.W.
720	3YA	10000	Christchurch, N. Z.		4TO	200	Townsville, Qsid.
	6GF	2000	Kalgoorlie, W. A.	1170	2NZ	2000	Inverell, N. S. W.
730	5CL	4000	Adelaide, S. A.	1180	3KZ	600	Melbourne, Vic.
740	2BL	3000	Sydney, N.S.W.	1190	2CH	1000	Sydney, N. S. W.
750	KGU	2500	Honolulu, Hawaii	1200	3YL	500	Christchurch, N. Z.
760	2YB	100	New Plymouth, N. Z.		5KA	500	Adelaide, S. A.
770	3LO	3500	Melbourne, Vic.	1210	2GF	100	Grafton, N. S. W.
780	KZEG	1000	Manila, Philippines		3YB	100	Warrnambool, Vic.
790	4YA	10000	Dunedin, N. Z.		6KG	500	Kalgoorlie, W. A
800	4QG	2500	Brisbanc, Qsid.	1220	4AK	2000	Oakey, Qsld.
820	2ZH	65	Napier, N. Z.		4ZB	1000	Dunedin, N. Z.
830	3GI	7000	Longford, Vic.	1230	2NC	2000	Newcastle, N. S. W.
840	2YC	5000	Wellington, N. Z.	1240	2ZL	20	Hastings, N. Z.
850	5RM	1000	Renmark, S. A.		3TR	1000	Sale, Vic.
860	4AY	500	Ayr, Qsld.		6IX	500	Perth, W. A.
500	7HO	120	Hobart, Tas.	1250	1ZM	175	Manurewa, N. Z.
870	2GB	1000	Sydney, N.S.W.	1260	3SR	2000	Shepparten, Vie.
880	1YX	150	Auckland, N. Z.	1270	29M	1000	Sydney, N. S. W.
000	2XL	100	Cooma, N.S.W.	1280	3AW	600	Melbourne, Vic.
	6PR	500	Applecross, W. A.		4ZC	20	Cronwell, N. Z.
900	KZIB	1000	Manila, P. I.	1290	4BK	500	Brisbane, Qsld.
000	2LM	500	Lismore, N.S.W.	1300	2TM	2000	Tamworth, N. S. W.
	2ZP	250	Walroa, N. Z.	1310	1ZJ	65	Auckland, N. Z.
	7QT	100	Queenstown, Tas.		5AD	500	Adelaide, S. A.
910	4RK	2000	Rockhamton, Qsid.	1320	KGMB	1000	Honolulu, Hawali
920	ZJV	400	Suva, Fiji		3BA	500	Ballarat, Vic.
	2ZR	50	Nelson, N. Z.	1330	38H	100	Swan Hill, Vic.
930	3UZ	600	Melbourne, Vic.		4RO	50	Rockhampton, Qsld.
940	3ZR	400	Greymouth, N. Z.	1340	4WK	100	Warwick, Qsld.
950	2UE	1000	Sydney, N.S.W.		5SE	100	Mount Gambier, S. A.
960	2ZF	250	Palmerston North, N. Z.	1350	3GL	100	Geelong, Vlc.
	5DN	500	Adelaide, S. A.	1360	3MA	100	Mildura, Vic.
970	3BO	200	Bendigo, Vic.		4PM	100	Port Moresby, Papua
980	2KM	100	Kempsey, N.S.W.	1370	2MO	100	Gunnedah, N. S. W.
+00	2ZJ	200	Gisborne, N. Z.	1380	4BH	1000	Brisbane, Qsld.
	6AM	2000	Northam, W. A.	1390	2GN	200	Goulburn, N. S. W.
990	2GZ	2000	Orange, N.S.W.		4CA	200	Cairns, Qsid,
1000	3UL	200	Warragul, Vic.		6PM	100	Fremantle, W. A.
	4GR	500	Toowoomba, Qsld.	1400	KHBC	250	Hilo, Hawali
1010	3IIA	750	Hamilton, Vic.		2ZO	200	Palmerston North, N. Z
.4.3	4ZD	35	Dunedin, N. Z.		4MB	100	Maryborough, Qsld.
	4ZM	60	Dunedin, N. Z.	1410	2KO	500	Newcastle, N. S. W.
1020	2KY	1000	Sydney, N.S.W.	1420	3XY	600	Melbourne, Vic.
1030	3DB	600	Melbourne, Vic.	1430	2WI.	300	Wollongong, N. S. W.
1000							

	3ZB 4VL	1000 50	Charleville, Qsld.
1440	2QN	100	Deniliquin, N. S. W.
	41P	100	Ipswich, Qeld.
1450	4ZR	100	Roma, Qsid.
	5MU	100	Murray Bridge, S. A.
1460	7UV	300	Ulverstone, Tas.
1470	2MW	100	Murwillumbah, N. S. W.
	2RG	50	Griffith, N. S. W.
	3ZM	60	Christchurch, N. Z.
1480	2AY	100	Albury, N. S. W.
	4BU	100	Bundaberg, Qeld.
1490	2BE	100	Bega, N. S. W.
	8MB	100	Birchip, Vic.
1500	2B8	100	Bathurst, N. S. W.
	3AK	200	Melbourne, Vic.
1510	YDA	500	Tandjongprick, Java, N.E. I.

## Arctic and Jungle Linked

A REMARKABLE three way conversation spanning the arctic and the tropics was heard over National Broadcasting Company networks on Christmas Eve when scientific expeditions at the North Pole and in the South American jungles exchanged Yuletide greetings with each other and with their respective families assembled in Radio City studios in New York City.

The Holden Expeditions of the American Museum of Natural History, located deep in the Amazonian jungles of British Guiana, and members of the MacGregor Expeditions, located near the North Pole, are both equipped with NBC broadcasting transmitters and both are keeping contact with the outside world through the magic of radio. The Holden group is the first jungle expedition in history to be equipped with radio.

The Holden Expedition is heard through station VP3THE, and the MacGregor Expedition through OX2QY. Both these stations have been heard many times in the 20-meter amateur band.

## Tune for Argentina

SOUTH AMERICAN broadcasting stations transmit at the same time as North American stations, and the only time they can be heard is before midnight, EST. Many of the more powerful stations come through, however, and are heard in spite of our own stations.

Station LR10 in Buenos Aires, working on 790 kcs with 10,200 watts, signs off at midnight. LR5 on 830 kcs with 29 kilowatts, signs off nightly at 11:45 pm; this Buenos Aires station is frequently logged through KOA Denver. LR6 in Buenos Aires, on 870 kcs, leaves the air at midnight.

The addresses of these Argentine stations are: LR10, Alberto de Bary y Cia., Florida 570, Buenos Aires. LR5, Alfredo B. Dougall, Maipu 462, Buenos Aires. LR6, "Ciudadela," S. A. La Nacion, Santa Fe 2043, Buenos Aires.

Other Argentine stations which should be heard this winter are LR3 on 950, LR1 on 1070, LS2 on 1190, and LS8 on 1230.

LR3, a 39 kilowatt station on 950 kcs, is owned by Jaime Yankelevich, Belgrano 1841, Buenos Aires. This station signs off at thirty minutes past midnight.

LR1, "Radio El Mundo," is perhaps the best known of all South American stations. It transmits on 1070 with 50 kilowatt power. Radio El Mundo is owned by Empresa Editorial Haynes, Ltda., S. A., Maipu 555, Buenos Aires, and transmits daily from 10 am to 11:30 pm, EST.

LS2, 1190 kcs and 30,000 watts, closes down at midnight. The owner is Teodoro Pietro, Bolivar 1356, Buenos Aires.

"Radio Stentor," LS8, works on 1230 kcs with 15 kilowatts, signing off at 11:30 pm EST.

## When to Get the DAY'S NEWS

• • Network News Flashes

E-Midn't., C-11:00 p.ms., M-16:00, P-9:00

Den Lee System, Dally
KDB KDON KFRC KFXM KGB
KGDM KHJ KPMC KQW KVOE
KXO

E-1:00a.m.,C-Midn't., M-11:00 p.m., P-10:00 CBC-Dally

To CBC Pacific Network

Den Lee System, Sunday only Same stations as at Midnight.

E-7:30 a.m., C-6:30, M-5:30, P-4:30 Michigan Radio Network, Daily. WXYZ

E-9:25 a.m., C-8:25, M-7:25, P-6:25 CBS—Press Radio, Menday through Friday

CKAČ KLRA KMOX WABC WADC WAIM WALA WBIG WCHS WCOC WDAE WDBO WDRC WEEI WESG WFBL WHIO WHP WIBX WJAS WJNO WKBW WLBZ WMAS WMBR WMMN WNBF WOKO WORC WPAR WPG WPRO WQAM WREC WRVA WSBT WSJS

E-9:48 a.m., C-8:40, M-7:40, P-6:40 NBC Red and Blue, Press Radie, Weekdays

To stations available

E-9:55 a.m., C-6:55, M-7:55, P-6:55
CBS—Press Radie, Sat. and Sunday
CKAC KLRA KMOX WABC WADC
WAIM WALA WCHS WCOC WDAE
WDBJ WDBO WEE! WESG WFBL
WFBM WHEC WHIO WIBX WJNO
MJR WJSY WLBZ WMAS WMBR
WMMN WNBF WOKO WORC WPAR
WQAM WREC WSVA WSFA WSJS
WTOC

E-10:45 a.m., C-9:45, M-8:45, P-7:45 Den Lee System, Daily except Sunday Same stations as at Midnight

E-11:00 a.m., C-10:00, M-5:00, P-8:00 NBC-Blue—Press Radie, Sunday To stations available NBC-Red—Press Radie, Sunday To stations available.

E-Noon, C-11:00 a.m., M-10:00, P-

Michigan Radio Network, Daily WASH WBCM WELL WFDM WIBM WJIM WKZO WOOD WXYZ

E-12:15 p.m., C-11:15 a.m., M-10:15, P-9:15 CBS—Edwin C. HIH, Monday through Friday

KFAB KFH KGKO KLRA KMBC
KMOX KNOW KOMA KRLD KRNT
KSCJ KTRH KTSA KTUL KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCHS WCOA
WCAU WCCO WCHS WCOA
WDAE WDBJ WDBO WDNC WDOD
WDRC WEEI WFBL WGR WGST
WHAS WHEC WHIO WHP
WIBN
WISN WJR WJSV WKBB WKBN
WKRG-WLAC WLBZ WMAS WMAZ

WMBD WMBR WMMN WNAX WNBF WNOX WOC WOKO WORC WPG WPRO WQAM WREC WRVA WSFA WSJS WTOC WWL WWVA

E-2:00 p.m., C-1:00, M-12:00, P-11:00 CBS—Monday, Wednesday, Friday KFAB KFH KLRA KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDCR WEEI WFBL WFBM WGST WHAS WHEC WHIO WISN WJAS WJR WJSV WKBB WKBW WKRC WLAC WLBZ WMBR WNBF WOKO WORC WPRO WQAM WREC WVAY WWA

E-3:00 p.m., C-2:00, M-1:00, P-Noon Don Lee System, Saturday Same stations as at Midnight

E-3:15 p.m., C-2:15, M-1:15, P-12:15 Don Lee Sys., Mon. through Fri. Same stations as at Midnight

E-5:00 p.m., C-4:00, M-3:00, P-2:00 Michigan Network, Daily WASH WBCM WELL WFDM WIBM WJIM WKZO WOOD WXYZ

E-5:10 p.m., C-4:10, M-3:10, P-2:10 Blue, Monday through Friday To stations available

E-5:30 p.m., C-4:30, M-3:30, P-2:30 CBS—Monday, Wednesday, Friday KFBB KFPY KLZ KMBC KNX KOIN KOL KOY KSFO KSL KVI

E-6:25 p.m., C-5:25, M-4:25, P-3:25 CBS—Press Radie, Thurs. and Sat. Available to entire Network

E-6:30 p.m., C-5:30, M-4:30, P-3:30 CBC—Sunday only To National Network

CBS—Press Radle, Men., Tues., Fri. KFH KLRA KNOW KOMA KSCIJ KSL KTRH KWKH WABC WACO WADC WADC WADC WOCO WOAE WDBJ WDBO WDOD WHEC WISN WJAS WJNO WJR WKBB WKBW WLEZ WMAS WMBR WOC WORC WPAR WQAM WREC WSFA WSJS WTAQ WTOC WWAY

NBC—Red, Press Radie, Weekdays To all stations available Blue--Saturday only To all stations available

E-6:49 p.m., C-5:49, M-4:49, P-3:48 CBS—Wednesday enly To all stations available

E-6:45 p.m., C-5:45, M-4:45, P-3:45 NBC-Blue-Lowell Themas, Mon.

through Fri.
CRCT KDKA WBAL WBZ WBZA
WEAN WEBR WFLA WHAM WIOD
WJAX WJZ WLW WMAL WOOD
WRTD WSPD WSUN WSYR WTAM
WXYZ

Don Lee Sys., Men. through Fri. Same stations as at Midnight

E-7:30 p.m., C-6:30, M-5:30, P-4:30 CBC—Monday through Friday To CBC French Network

E-7:45 p.m., C-6:45, M-5:45, P-4:45 CBS—Beake Carter, Mon., Wed., Frl. KFAB KFH KLRA KMBC KMOX KNOW KOMA KRLD KRNT KTRH KTSA KTUL WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBO WDOD WDRC WEEI WFAM WFBL WGR WGST WHAS WHEC WHIO WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMBD WMBR WNOX WOKO WORC WPRO WQAM WREC WRVA

E-8:00 p.m., C-7:00, M-6:00, p-5:00 Blue-Menday, Thursday KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMT WREN WSYR WTCN WXYZ

E-8:30 p.m., C-7:30, M-6:30, P-5:30
Blue—March of Time, Thursday
KDKA KECA KERN KFBK KFEL
KFSD KGA KGO KJR KLO KMJ
KOIL KSO KWG KWK KXYZ WABY
WBAL WBZ WBZA WCKY WCOL
WEBR WFIL WHAM WJZ WMAL
WMPS WMT WOWO WREN WSPD
WSYR WTCN WXYZ

E-9:45 p.m., C-8:45, M-7:45, P-6:45 Don Lee System, Daily Same stations as at Midnight Michigan Netwerk, daily WASH WBCM WELL WFDM WIBM WJIM WKZO WOOD

E-10:00 p.m., C-3:00, M-3:00, P-7:00 Blue—Tuesday, Wednesday KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMT WOWO WREN WSPD WSYR WTCN WXYZ

E-10:15 p.m., C-9:15, M-8:15, P-7:15 Michigan Radio Network, Daily WXYZ

E-19:45 p.m., C-9:45, M-8:45, P-7:45 CBC—Daily To National and French Networks

Red-Friday enly
KDYL KFI KGW KHQ KOA KOMO
KPO KSD KSTP KYW WBEN WCAE
WCSH WDAF WDEL WEAF WFBR
WGY WIRE WJAR WLW WMAQ
WNAC WOW WRC WTAG WTAM
WTIC WWJ

E-11:90 p.m., C-10:00, M-9:00, P-8:00 Blue, Sunday. Press Radio Available to Entire Network

E-11:15 p.m., C-10:15, M-9:15, P-6:15 CBS—Beake Carter, Men., Wed., Fri. KFPY KLZ KNX KOIN KOL KSFO KSL KVI WFBM

E-11:30 p.m., C-10:30, M-9:30, P-6:30 Red—Sunday only

To all stations available

## WHAT'S ON THE AIR TONIGHT

Fill in the calls and frequencies of the stations through which you best receive the network programs. You can then turn quickly to the one that has the feature you want.

Network	Stations
Canadian (CBC)	
Columbia (C)	
Mutual (M)	
National Red (R)	
National Blue (B)	

Time: E Eastern: C Central; M Mountain; P Pacific

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

#### MONDAY

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

CRCT KDKA WBAL WBZ WBZA WFLA WIOD WJAX WJZ WLW WMAL WOOD WRVA WSYR WTAM WXYZ

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

C - Poetic Meledies: Jack Fulton WABC WADC WBT WCAO WCAU WDRC WEAN WEEI WFBL WGR WHEC WHK WJAS WJR WJSV WKRC WOKO WSPD WTOC WWVA

- Ames 'n' Andy KSD KSTP KYW WBEN WCAE WCSH WEAF WFBR WGY WHO WJAR WLW WNAC WRC WTAG WTAM WTIC WWJ

E-7:15 p.m., C-6:15, M-5:15, P-4:15 R - Uncle Ezra's Radio Station KARK KFYR KGBX KGNC KPRC KTBS KTHS KVOO KYW KSTP WBAP WBEN WCAE WCKY WCOL WCSH WDAF WDAY WEAF WEBC WFAA WFBR WGBF WGY WHO WIBA WIRE WJAR WKY WMAQ WNAC WOAI WOOD WOW WRC WTAG WTAM WTIC WTMJ

E-7:30 p.m., C-6:30, M-5:30, P-4:30 B - Lum and Abner WBZ WBZA WENR WJZ WLW

WMC WSM WSYR M - The Lane Ranger WFIL WNBF WSYR WOR WXYZ

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

KMBC KMOXKOMA KRLD WABC WBBM WBT WCAU WCCO WDRC WEAN WFBL WGR WHAS WHK WJAS WJR WJSV WKRC WNAC

E-8:00 p.m., C-7:00, M-6:00, P-5:00 - Herace Heidt and Orchestra

KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WBBM WBRC WBT WCAO WCAU WCCO WDRC WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WLAC WMBR WNAC WNAX WOKO WREC WWL

**Burns and Alien** CRCT KYW WBEN WCAE WCSC

WCSH WEAF WFBR WFLA WGY WIS WJAR WHO WIOD WIRE WJAX WLW WMAQ WNAC WPTF WRC WRVA WROC WTAG WTAM WTAR WTIC WWJ

B - Gen. Hugh Jehnson KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC W.17. WLS WMAL WMT WREN WSYR

E-8:36 p.m., C-7:36, M-6:36, P-5:30 C - Pick and Pat

KFAB KMBC WABC WADC WBBM WBT WCAO WCAU WDRC WEAN WFBL WGR WGST WHEC WHK WHP WICC WJAS WJR WJSV WKRC WLBZ WMAS WNAC WOKO WORC WSPD

R — Voice of Firestone

WTCN WXYZ

CFCF CRCT KFYR KPRC KSD KSTP KTBS KVOO KYW WAVE WBEN WCAE WCSC WCSH WDAF WAVE WDAY WEAF WEBC WEEI WFAA WFBC WFBR WFLA WGY WHO WIOD WIRE WIS WJAR WIBA WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B - Campana's Grand Hotel

KDKA KFEL KFI KFSD KGA KGO KGW KJR KLO KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WLS WMAL WMT WOWO W.IZ WREN WSPD WSYR WXYZ

E-9:00 p.m., C-8:00, M-7:06, P-6:00

B --- Philadelphia Symphony KFEL KGO KSO KVOD KWK KXYZ WBAL WBZ WBZA WEAN WEBR WENR WFIL WHAM WJTN WJZ WLS WMAL WREN WRTD WSPD WSYR WTCN WXYZ

C — Lux Radio Theater CFRB CKAC KFAB KFH KFPY KLRA KLZ KMBC KMOX KNOW KOH KOIN KOL KOMA KNX KRLD KRNT KSFO KSL KTRH KTSA KTUL KVI WABC WADC WBBM WBNS WBRC WBT WCAO WCCO WDAE WDBJ WDRC WEEI WFBL WFBM WGAR WGST WHAS WHEC WHIO WIBX WISN WJAS

WJR WJSV WKBW WKRC WLAC WMAS WMBD WNAX WOKO WORC WPRO WQAM WREC WRVA WWL

M - Elder Michaux Available to entire network

R — Fibber McGee and Melly KFYR KPRC KSD KSTP KTBS KVOO KYW WAVE WBEN WCAE WCOL WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WIBA WIOD WIRE WJAR WJAX WJDX WLW WMAQ WOAI WOOD WOW WMC WNAC WSB WSM WSMB WPTF WRC WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-9:36 p.m., C-8:30, M-7:30, P-6:30 R-Phil Spitalny's Girl Orchestra CECE CRCT KDYL KFI KGHL KGIR KGO KGW KHQ KOA KOMO KPRC KSD KSTP KVOO KYW WAVE WBEN WCAE WCSH WDAF WEAF WFAA WFBR WFLA WGY WHO WIBA WIOD WIRE WIR WLW WMAQ WJAR WJAX WKY. WMC WNAC WOAI WOW WPTF WRC WRVA W8B W8M W8MB WTAG WTAM WTAR WTIC WTMJ WW.r

E-10:00 p.m., C-9:00, M-8:00, P-7:00 R — Contented Program

CFCF CRCT KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFLA WGY WHO WIS WJAR WJAX WIOD WMAQ WMC WOAI WOW WPTF WRVA WSB WSM WTAG WRC WTAM WTAR WTIC WWJ WWNC

B - Warden Lewis E. Lawe KDKA KECA KFSD KGA KJR KLO KOIL KSO KVOD KWK WBAL WBZ WBZA WCKY WEAN WEBR WENR WFIL WHAM WIIK WICC WJZ WMAL WMT WOWO WREN WSPD WSYR WTCN WXYZ

- Wayne King and Orchestra KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRNT KSL KVI KWG WAAB WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WDRC WEAN WFBI. WFBM WHAS WHK WIBW WJAS WJR WJSV WKBW WKRC WOKO WSPD WWL MONDAY (Continued)

E-10:30 p.m., C-9:30, M-8:30, P-7:30 C - Brave New World Available to entire network

- Burns and Allen KARK KDYL KFBK KFI KFYR KFBX KGHL KGIR KGNC KGO KGW KHQ KMJ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KVOO KWG WAVE WDAF WDAY WEBC WFAA WIBA WJDX WKY WMC WOAI WOW WSB WSMB WTMI

M - The Lone Ranger KDB KDON KFRC KFXM KGB KGDM KHJ KPMC KVOE KXO Available also to West Coast Section

E-11:00 p.m., C-10:00, M-9:00, P-8:00 C — Poetic Melodies; Jack Fulton KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI WBBM WBRC WCCO WFBM WGST WLAC

R - Amos 'n' Andy KDYL KERN KFBK KFI KGW KHQ KMJ KOA KOMO KPO KPRC KSD KWG WDAF WFAA WHO WIRE WKY WMAQ WMC WOAI WOW WSB WSM WSMB

E-11:15 p.m., C-10:15, M-9:15, P-8:15 C - Boake Carter KFPY KLZ KNX KOIN KOL KSFO KSL KVI

B — Lum and Abner KECA KERN KEX KFBK KFSD KGA KGO KJR KMJ KWG

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

KFPY KGKO KLRA KLZ KMOX KNX KOIN KOL KOMA KRLD KRNT KSCJ KSFO KSL KTUL KVI KWKH WACO WBRC WCCO WFBM WHAS WLAC WREC

#### TUESDAY

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

E-7:00 p.m., C-6:00, M-5:00, P-4:00 C — Peetic Melodies, See Menday R - Ames 'n' Andy, See Menday B — Easy Aces

KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WHIO WIRE WJZ WMAL WMT WSYR WXYZ

E-7:15 p.m., C-6:15, M-5:15, P-4:15 C — Gee. McCall, Hellywood Talk KFAB KFH KLRA KMOX KNOW KOMA KRLD KRNT KTRH KTSA KWKH WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WCH8 WDAE WDBO WDOD WDRC WEEL WFBL WGAR WGBI WGST WHAS WHEC WHIO WIBW WISN WJAS WJR WJSV WKRC WLAC WMAS WMBR WOC WOKO WORC WPRO WQAM WREC WRVA WWL

E-7:30 p.m., C-6:30, M-5:30, P-4:30 C — Helen Menken, Drama KFAB KFPY KIRO KLZ KMBC KMOX KNX KOIN KRNT KSFO

KSL KVI WABC WBBM WCAO WCAU WDRC WEEI WFBL WGAR WGR WHAS WHEC WHIO WJAS WJR WJSV WKRC WOKO WORC WPRO

E-8:00 p.m., C-7:00, M-6:00, P-5:00 R - Johnny with Russ Morgan

KFYR KPRC KSD KSTP KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WOSH WDAF WDAY WEAF WEBC WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WEAF WEBC WIDE WILL WAR WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMIAQ WMC WNAC WOW WPTF WRC WRYA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

- Husbands and Wives KDKA KECA KEX KFSD KGA KGO KJR KLO KOIL K80 KVOD KWK WABY WBAL WBZ WBZA WCKY WEAN WEBR WFIL WGAR WHAM WICC WJZ WLS WMAL WMT WREN WSYR WXYZ

C — Edward Robinson; Claire Trever CHE CFRB KFAB KFII KFPY
KIRO KLRA KLZ KMBC KMOX
KNOW KNX KOIN KOMA KRLD
KRNT KSFO KSL KTRH KTSA
KTUL KVI WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEEI WFBL WFBM WGAR WGR WGST WHAS WHEC WHIO WIBX WISN WJAS WJR WJSV WKRC WLAC WMAS WMBD WNAX WOKO WORC WPRO WQAM WREC WRVA WWL

E-8:30 p.m., C-7:30, M-6:30, P-5:30 C — Al Joison: Parkyakarkus

CFRB CRCM KFAB KFH KLRA KMBC KMOX KNOW KOMA KRLD KRNT KTRH KTSA KTUL WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEEI WFBL WFBM WGAR WGR WGST WHAS WHEC WHIO WIBX WISN WJAS WJR WJSV WKRC WLAC WMAS WMBD WNAX WOKO WORC WPRO WQAM WREC WRVA WWL

R — Wayne King and Orchestra KFYR KPRC KSD KSTP KTBS KVOO KYW WAVE WBAP WBEN WCAE WCKY WC8H WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WHIO WIBA WIRE WJAR WJDX WKY WMAQ WMC WOAI WOW WRC WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ

B — Edgar Guest, It Can Be Done KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

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

C — Al Pearce and Gang
CFRB CKAC KFAB KFH KGKO
KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKBH WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAC WNAX

WNBF WNOX WOC WOKO WORC WOWO WPG WOAM WREC WSBT WSFA WSJS WSPD WTOC WWL

M - Paul Whiteman Orchestra Available to entire network

R — Vox Pop; Sidewalk Interviews KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHO WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC

E-9:30 p.m., C-8:30, M-7:30, P-6:30 C — Jack Oakie's College

KFAB KFH KFPY KGKO KIRO KLRA KLZ KMBC KMOX KNOW KNX KOIN KOMA KOY KRLD KRNT KSCJ KSFO KSL KTRH KTSA KTUL KVI KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCHS WDAE WDBJ WDBO WDNC WDOD WDRC WEEI WFBL WFBM WGAR WGST WHAS WHEC WHIO WHP WIBW WIBN WISN WJAS WJR WJSV WKBB WKBN WKBW WKRC WLAC WIBZ WMAS WMBD WMBR WNAX WNBF WNOX WOC WOKO WORC WPG WPRO WQAM WREC WRVA WSBT WSFA WSJS WTOC WWL

R — Hollywood Mardi Gras CFCF CRCT KDYL KFI KGHL KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KVOO KYW WAVE WBAP WBEN WCAE WCOL WCSC WCSH WDAF WDEL WEAF WEBC WFBR WFLA WGY WHO WIBA WIOD WIRE WIS WHO WIBA WIOD WIKE WAS WJAR WJAX WKY WMAQ WMBG WMC WNAC WOAI WOOD WOW WRC WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ

E-10:00 p.m., C-9:00, M-8:00, P-7:00 C - Benny Geedman's Orchestra

Same stations as Jack Oakie's College, above

B — Gen. Hugh Johnson KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMT WOWO WREN WSPD WSYR WTCN WXYZ

E-10:38 p.m., C-9:38, M-8:38, P-7:38 M — Witch's Tale; Drama Available to entire network

R — Jimmy Fidler Hellywood Gessip KDYL KFI KGW KHQ KOA KOMO KPO KSD KTAR KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHO WJAR WLW WMAQ WNAC WOOD WOW WRC WTAG WTAM WTIC WWJ

E-11:00 p.m., C-10:00, M-9:00, P-8:00 - Poetic Meledies, See Menday - Ames 'n' Andy, See Menday

E-11:30 p.m., C-10:30, M-9:30, P-8:30 C — Al Jelson; Parkyakarkus KFPY KLZ KNX KOIN KOL KSFO KSL KVI

E-Midn't; C-11:00, M-10:00, P-9:00 C — Al Pearce and Gang KFBB KFPY KGVO KLZ KNX KOH KOIN KOL KOY KSFO KSL KVI KVOR

#### WEDNESDAY

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

E-7:00 p.m., C-6:00, M-5:00, P-4:00 C — Peetic Meledies, See Menday R — Ames 'n' Andy, See Menday B — Easy Aces, See Tuesday

E-7:15 p.m., C-8:15, M-5:15, P-4:15 C — Hebby Lebby KMBC WADC WBIG WBNS WBT WCAO WCAU WCHS WDAE WDBJ WDBO WDRC WEEI WFBL WGAR WOBI WGR WHEC WHO WIBX WJAB WJR WJSV WKBN WKRC WLBZ WMAS WMBR WOKO

WORC WPRO WQAM WRVA WWVA

R — Uncle Ezra, See Monday

E-7:30 p.m., C-6:30, M-5:30, P-4:30 B — Lum and Abner, See Monday M — Lone Ranger, see Mon.

E-7:45 p.m., C-6:45, M-5:45, P-4:45 C — Boake Carter, See Monday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Cavalcade of America
KDB KERN KFAB KFBK KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KRLD KRNT
KSL KVI KWG WABC WBBM
WBNS WCAU WCCO WDRC WEAN
WFBL WFBM WQR WHAS WHEC
WHK WJAS WJR WJSV WKRC
WILAC WMBG WNAC WOKO WTOC

R--One Man's Family
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KPRC KSD KSTP
KTAR KTBS KTHS KVOO KYRF
KTAR KTBS KTHS KVOO KYRF
WAPI WAVE WBAP WBEN WCAE
WCSH WDAF WDAY WEAF WEBC
WEEI WFAA WFBR WFLA WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WOAI WOW WPTF WRC
WRVA WSB WSM WSMB WSOC

WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

8"— Eddie Duchlin's Orchestra KDKA KECA KFEL KFSD KGA KGO KJR KLO KOIL KSO KWK KXYZ WAGA WBAL WBZ WBZA WCKY WDSU WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMPS WMT WOWO WREN WSGN WSPD WSYR WXYZ

E-8:38 p.m., C-7:38, M-6:38, P-5:38 C — Eddle Canter; Deanna Durbin CFRB CKAC KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEEI WFBL WFBM WGR WGST WHAS WHEC WHIO WHK WHP WIBW WJAS WJR WJSV WKRC WIBX WLAC WMBG BAMW WMBD WMBR WNAX WNOX WOKO WORC WOWO WPG WPRO WQAM WREC WWI.

R — Wayne King, See Tuesday

B — Skeisky frem Hellywood KDKA KECA KFEL KFSD KGA KGO KGW KJR KLO KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMT

WOWO WREN WSPD WSYR WXYZ

E-9:00 p.m., C-8:00, M-7:00, P-6:00 C — Chesterfield; Andre Kestelanetz KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLKA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBG WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WOST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKBW WKRC WLAC WLBZ WMBR WMBD WMBG RAINW WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC

R—Tewn Hall Tenight
KFYR KPRC KSD KSTP KTBS
KTHS KVOO KYW WAVE WBEN
WCAE WCSH WDAF WDAY WEAF
WEBC WEEI WFAA WFBR WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WOAI WOW WPTF WRC WSB
WSM WSMB WSOC WTAG WTAM
WTAR WTIC WTMJ WWJ WWNC

E-18:90 p.m., C-9:00, M-8:00, P-7:00
C — Crime Crusade; Phil Lerd
KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KRNT KSL KTRH
KTSA KTUL KVI KWG KWKH
WABC WACO WBBM WBNS WBRC
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDRC WEAN WFBL
WFBM WGST WHAS WHEC WHK
WICC WISN WJAS WR WJSV
WKBW WKRC WLAC WLBZ WMBG
WMBR WNAC WOKO WORC WOWO
WQAM WREC WTOC WWL

R-Yeur Hellywood Parade
KDYL KERN KFBK KFI KFYR
KOBX KGHL KGIR KGNC KGU
KGW KHQ KIDO KMJ KOA KOB
SOMO KPO KPRC KSD KSTP
KTAR KTBS KTHS KWG KYW
WAPI WAVE WBEN WCAE WCSC
WCSH WDAF WDEL WEAF WEBC
WFAA WFBC WFBR WFEA WFLA
WGL WGY WHO WIBA WIODWIRE
WIS WJAR WJAX WJDX WKY
WLW WMAQ WMBG WMC WAAC
WOAI WOOD WORK WOW WPTF
WRC WSB WSM WSMB WSOC
WSUN WTAG WTAM WTAR WTIC

B — Gen. Hugh Johnson, See Tues.

E-10:30 p.m., C-9:30, M-8:30, P-7:30 C — Hebby Lebby; Harry Salter KDAL KFAB KFH KFPY KGKO KIRO KLZ KMOX KNOW KNX KOH KOIN KOMA KRID KOY KRNT KSFO KSL KTRH KTSA KTUL KVI KWKH WALA WBBM WBRC WCCO WCOCO WFFM WGST WHAS WIBW WISN WI.AC WMBD WNBF WNOX WOC WREC WSBT WSFA WWL

M - Lone Ranger, see Mon.

E-11:00 p.m., C-10:00, M-9:00, P-8:00 C — Poetic Meledies, See Monday R — Ames 'n' Andy, See Monday

E-11:15 p.m., C-18:15, M-9:15, P-8:15 C — Boake Carter, See Monday

B — Lum and Abner, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30 C — Eddie Canter; Deanna Durbin KFBB KFFY KGVO KLZ KNX KOH KOIN KOL KOY KSFO KSL KVI KVOR

#### THURSDAY

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

E-7:00 p.m., C-6:00, M-5:00, P-4:00 C — Poetic Melodies, See Monday R — Ames 'n' Andy, See Monday B — Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15 C — Goo. McCall, see Tues.

E-7:30 p.m., C-6:30, M-5:30, P-4:30 C — "We, The People."

KFAB KMBC KMOX KNOW; KOMA KRLD KRNT KSCJ KTRH KTSA KTUL WABC WBBM WBNS WCAO WCAU WCCO WDAE WDBO WDRC WEEL WFBL WGAR WGR WHAS WHEC WHIO WHP WIBX WISN WJAS WJR WJSV WKRC WMBD WMBR WOC WOKO WPRO WQAM

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Kate Smith; Henny Yeungman
FFRB CRCM KDAL KFAB KFH
KGKO KLRA KMBC KMOX KNOW
KOMA KRLD KRNT KSCJ KTRH
KTSA KTUL KWKH WABC WACO
WADC WBBM WBNS WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDBD WDOD WDRC WEEI WEOA
WFBL WFBM WGAR WGR WGST
WHAS WHEC WHIO WHP
WISN WJAS WJR WJSV WKBN
WKRCWLAC WLBZ WMBD WMBR
WNAX WNOX WOC WOKO WORC
WPRO WQAM WRVA WREC WSFA
WTAQ WWL

R — Rudy Valleo's Varlety Hour CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO K8D KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WJAR WLW WMAQ WOW WRC WTAM WTIC WTMJ WWJ

B — Gen. Hugh Jehnson, See Mon.

E-8:30 p.m., C-7:30, M-6:30, P-5:30 B — March of Time KDKA KERN KECA KFBK KFEL KFSD KGA KGO KJR KLO KMJ KOIL KSO KWG KWK KXYZ WABY

WBAL WBZ WBZA WCKY WCOL WEBR WFIL WHAM WJZ WMAL WMPS WMT WOWO WREN WSPD WSYR WTCN WXYZ

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

C — Major Bawas' Amateurs
CFRB CKAC KDB KERN KFAB
KFBK KFH KFPY KFRC KGB
KGKO KLRA KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSA
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDNC W DOD WDRC WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX

#### THURSDAY (Continued)

WICC WISN WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMBD WMBG WMMN WNAC WNAX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC WWL

R — MGM Program

CRCT KDYL KERN KFBK KFI KFYR KGHL KGIR KGNC KGW KMJ KOA KOMO KPO KPRC KSD KSTP KTBS KWG KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEBC WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMBG WMC WNAC WOAI WOOD WOW WPTF WRC WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

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

R — Bob Burns; Bing Crosby CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WJAR WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30 - "We, The People," KFPY KIRO KLZ KNX KOIN KOY K8FO K8L KVI

E-11:00 p.m., C-18:00, M-9:00, P-8:00 C - Peetic Meledies, See Menday R - Ames 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15 C—Kate Smith; Henny Youngman KFBB KFPY KGVO KIRO KLZ KNX KOIN KOY KSFO KSL KVI KVOR

#### FRIDAY

E-8:45 p.m., C-5:45, M-4:45, P-3:45 B — Lowell Thomas, See Menday

E-7:00 p.m., C-8:00, M-5:00, P-4:00 C — Peetic Meledies, See Monday R - Armes 'n' Andy, See Menday

E-7:15 p.m., C-8:15, M-5:15, P-4:15 R-Uncle Ezra, See Menday

E-7:30 p.m., C-6:30, M-5:30, P-4:30 - Lum and Abner, See Menday M — Lone Ranger, see Mon.

E-7:45 p.m., C-6:45, M-5:45, P-4:45 C - Boake Carter, See Menday

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

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRNT KSL KVI KWG WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WFBR WGST WHAS WHK WJAS WJR WJSV WKRC WMAS WMBG WNAC WOKO WWI.

R — Cities Service Concert

CRCT CFYR KOA KPRC KSD KSTP KTBS KTHS KVOO KYW

WBAP WBEN WCAE WC8H WDAF WDAY WEAF WEBC WEEI WFAA WFBR WGY WHO WIBA WIOD WJAR WKY WMAQ WOAI WOW WRC WRVA WSAI WTAG WTAM

E-8:30 p.m., C-7:30, M-6:30, P-5:30 C — Hai Kemp; Alice Faye

KFAB KFH KGKO KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEEI WFBL WFBM WFEA WGR WGST WHAS WHEC WHIO WHK WHP WIBW WISN WJAS WJR WJSV WIRX WKBN WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WPRO WOAM WREC WSFA WSIS WSPD WTOC

B - Death Valley Days KDKA KDYL KFI KGW KHQ KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WIS WLW WMAL WMT WREN WAYR WXYZ

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

C — Hellywood Hotel CFRB CKAC KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WJSV WKBW WKRC WLAC WLBZ WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSPD WWL

R — Frank Munn; Abe Lyman KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WJAR WLW WMAQ WOW WRC WTAG WTAM WWJ

B — Pentiac Varsity Show

KARK KDKA KECA KERN KFBK KFEL KFSD KFYR KGA KGHF KGHL KGIR KGNC KGO KGW KJR KLO KOB KOIL KPRC KSD KTAR KTBS KTHS KWG KWK WAPI WAVE WBAL WBZ WBZA WCSC WDAY WEAN WEBC WEBR WFAA WFBC WFIL WFLA WHAM WICC WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WOOD WOWO WPTF WREN WSB WSM WSMB WSOC WSPD WSUN WSYR WTAR WTCN WWNC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30 R - True Story Court WEAF WEEI WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

8 — Temmy Dersey's Orchestra KARK KDKA KECA KFSD KGA KGO KJR KLO KOIL KPRC KSO KTBS KTHS KVOD KWK WABY WAVE WBAL WBZ WBZA WCKY WCOL WDSU WEAN WEBR WENR WFAA WFIL WFLA WHAM WHK WIBA WICC WIOD WIS WJAX WJZ WKY WMAL WMPS WMT WOOD WOWO WPTF WREN WRTD WSGN WSM WSPD WSOC WSUN WSYR WTAR WTCN WTMJ WWNC

E-10:00 p.m., C-9:00, M-8:00, P-7:08 C - Frank Crumit: Kitty Carlisie KDAL KFAB KFBB KFH KFPY KGKO KGLO KGVO KRLA KLZ KMOX KNOW KNX KOH KOIN KMOX KNOW KNX KUH KUIN
KOL KOMA KOY KRLD KRNT
KSCJ KSFO KSL KTRH KTSA
KTUL KVI KVOR KWKH WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WCHS WCOA WCOC WDAE WDBJ WDBO WDNC WDOD WDRC WEEI WEOA WFBL WFBM WGAR WGBI WGST WHAS WHEC WHIO WHP WIBW WIBX WISN WJAS WJNO WJR WJSV WKBB WKBW WKRC WLAC WLBZ WMAS WMBD WMBR WMMN WNBF WNOX WOC WOKO WORC WPAR WPG WPRO WQAM WREC WRVAWSBT WSFA

- First Nighter; Drame KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

Wals WTOC WWI

E-18:38 p.m., C-9:30, M-8:30, P-7:30 M - Lone Ranger, see Men.

R - Jimmy Fidier KDYL KFI KGW KHO KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDEL WEAF WBEN WFBR WGY WIBA WIRE WJAR WLW WMAQ WNAC WOW WRC WTAG WTAM WTIC WTMJ WWJ

E-19:45 p.m., C-9:45, M-8:45, P-7:45 R — Derethy Thompson News KDYL KFI KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDEL WEAF WFBR WGY WIRE WJAR WLW WMAQ WNAC WOW WRC WTAG WTAM WTIC WWJ

E-11:00 p.m., C-10:00, M-9:00, P-8:00 Poetic Meledies, See Menday R - Ames 'n' Andy, See Menday

E-11:15 p.m., C-10:15, M-9:15, P-8:15 C — Beake Carter, See Monday B - Lum and Abner, See Menday

E-11:30 p.m., C-10:30, M-9:30, P-8:30 C — Hai Kemp; Alice Faye KFBB KFPY KGMB KGVO KLZ KNX KOH KOIN KOL KSFO KSL KVI KVOR

#### SATURDAY

E-7:00 p.m., C-6:00, M-5:00, P-4:00 C - Saturday Night Swing Club Available to Columbia and Canadian. Networks

E-7:30 p.m., C-6:30, M-5:30, P-4:30 C - Carberundum Band KFAB KMBC KMOX WABC WBBM WBT WCAO WCAU WCCO WEEL

#### SATURDAY (Continued)

WFBL WGAR WGR WHAS WJAS WJR WKRC WPRO

8 - Uncle Jim's Question Bee KDKA WBZ WBZA WGY WHK WJZ WMAO

#### E-8:00 p.m., C-7:00, M-6:00, P-5:00 C - Your Unseen Friend

WABC WADC WBBM WCAU WEEL WFBL WGAR WHEC WHP WJAS

R - "Believe-it-or-not." Ripley KANS KDYL KFYR KGNC KOA KPRC KSD KSTP KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WDEL WEAF WEBC WFBC WFBR WGY WHO WIBA WIRE WJAR WKY WLW WMAQ WMBG WNAC WMC WOAI WOOD WOW WPTF WRC WSB WSMB WSOC WSPD WTAG WTAM WTAR WTIC WTMJ WWJ

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

C — Jehnny Presents Russ Mergan KFAB KFH KMBC KMOX KRNT WABC WADC WBBM WBIG WBNS WBT WCAO WCAU WCCO WCOA WDRC WEEI WFBL WFBM WGR WOST WHAS WHEC WHIO WHK WJSV WISN WJAS WJR WHP WKRC WMBD WMBG WNBF WOC WOKO WPRO WSBT WWVA

R — Jack Haley; Virginia Verrili KDYL KGNC KOA KPRC KSD KSTP KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDEL WEAF WEBC WFBC WFBR WGY WHO WIBA WIRE WJAR WKY WLW WMAQ WMBG WMC WNAC WPTF WRC WSB WOAT WOW WSMB WSOC WSPD WTAG WTAM WTAR WTIC WTMJ WWJ

#### E-9:00 p.m., C-8:00, M-7:08, P-6:00 C - Prof. Quiz

KDB KERN KFAB KFBK KFPY KERC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI KWG WABC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDBO WDRC WEAN WFBL WFBM WJAS WJR WJSV WKBW WKRC WMBR WOKO WQAM WREC WSPD wwr.

#### B - National Barn Dance

KDKA KOIL KPRC KSO KTBS KTHS KWK WABY WAPI WAVE WBAL WBAP WBZ WBZA WFIL WFLA WHK WHAM WIOD WIRE WIS WJAX WJDX WJZ WKY WLS WMAL WMC WMT WOAI WOOD WPTF WREN WRVA WSB WSMB WSOC WSUN WSYR WTAR WWNC WXYZ

#### E-9:30 p.m., C-8:30, M-7:30, P-6:30 C — Saturday Night Serenade

KFAB KFH KFPY KGKO KLRA KLZ KMBC KMOX KNOW KNX KOIN KOL KOMA KRLD KSFO KTRH KTSA KTUL KVI KWKH WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCOA WDAE WDBO WDOD WEEI WFBL WFBM WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WLAC WMBD WMBR WMMN WNOX WOC WQAM WREC WRVA WSFA WTOC WWL WWVA

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

KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WISN WJAS WJR WJSV WICC WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNAC WMRD WNAX WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL WWVA

R — NBC Symphony Orchestra Available to entire Red and Blue **Network** 

E-11:00 p.m., C-10:00, M-9:00, P-8:00 B - National Barn Dance

KDYL KFI KFSD KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KTAR WDAY WEBC KPO KSTP WIBA WLW WTMJ

- Northern Messenger To Mideast and Western Networks of the CBC

E-11:30 p.m., C-10:30, M-9:30, P-8:30 C — Johnny Presents Russ Morgan KFBB KFPY KGVO KIRO KLZ KNX KOIN KSFO KSL KVI KVOR

E-12:00 p.m., C-11:00, M-10:00, P-9:00 C — Professor Quiz KFBB KFPY KIRO KNX KOH

KOIN KOY KSFO KSL KVI R - "Believe-It-Or-Net" Ripley KERN KFBK KFI KGW KHQ KMJ

#### SUNDAY

KOMO KPO KWG

E-11:30 a.m., C-10:30, M-9:30, P-8:30 C - Major Bowes' "Family"

CFRB KERN KFAB KFBH KFBK KFH KFPY KFRC KGB KGVO KMBC KOH KOL KRLD KSL KTRH KTSA KVI KVOR KWG KWKH WABC WACO WADC WALA WBNS WBRC WCAO WCCO WDAE WDBJ WDBO WDNC WESG WFBL WFEA WJAS WJR WIBX WHAS WHK WMBD WMBR WKRC WLBZ WMMN WOC WOKO WORC WPG WOAM WSBT WSJS WSPD WTOC

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

C - Salt Lake Tabernacie Choir CFRB KFAB KFBB KFBK KFH KFPY KFRC KGB KLZ KOH KOL KRLD KSL KTRH KTSA KVI KVOR KWG WABC WACO WADC WALA WBIG WBNS WBRC WCAO WCCO WDAE WDBJ WDBO WESG WFBL WFEA WGR WHAS WICC WJAS WJR WKRC WLBC WMBR WMMN WOC WOKO WORC WQAM W8BT WSJS WSPD WTOC

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

C - Church of the Air

KFBK KFH KFPY KFRC KGB KHJ KMOX KOH KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KVI KVOR KWG WABC WALA WBNS

WBT WCAO WCCO WDAE WDBJ WDBO WDRC WESG WFBL WFBM WGR WHAS WHP WIBX WJAS WJSV WKBN WKRC WLAC WLBZ WMBR WNBF WOC WOKO WORC WPG WQAM WREC WSBT WAIS WSPD WTOC WWVA

E-1:45 p.m., C-12:45, M-11:45, P-10:45

C — Hellywood; Lleyd Pantages KFAB KLZ KMBC KMOX KRNT KSL WABC WBBM WCAU WCCO WEEI WFBM WGAR WGR WHEC WJAS WJR WORC

E-2:00 p.m., C-1:00, M-Noon, P-11:00 A.m.

B — Magic Key of RCA CFCF CRCT KDKA KDYL KFI KFYR KGU KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTBS WHAL WBZ WBZA WCKY WDAY
WEBC WENR WFAA WFIL WFLA
WGAR WHAM WHIO WIBA WIOD WIRE WIS WJAX WJDX WJZ WKY WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

C - The Fun Bug KDAL KFAB KFH KGKO KMBC KMOX KNOW KOMA KRLD KRNT KTSA KTUL WBBM WCCO WIBW WISN WKBB WNAX WTAQ

E-2:38 p.m., C-1:30, M-12:30, P-11:30 C — Jean Hersholt, "Dr. Christian." CFRB KFAB KFH KMBC KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSA KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WCHS WDAE WDBO WDRC WEEL WFBL WFBM WGAR WGST WHAS WHEC WHIO WHP WIBW WJAS WJR WJSV WKBW WKRC WLAC WI.BZ WMAS WMBR WOKO WORC WPRO WQAM WREC WRVA WWL

E-3:00 p.m., C-2:00, M-1:00, P-Neon C — N. Y. Philharmonic

CFRB CKAC KFAB KFBB KFH KGKO KGVO KLRA KLZ KMBC KMOX KNOW KOL KRLD KSCJ WADC WALA WBNS WBT WCAO
WCCO WCHS WDAE WDBJ WDBO
WDRC WEEI WESG WFBL WFBM WHAS WHK WHP WIBW WIBX WJAS WJR WJSV WKBB WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNBF WOC WOKO WORC WPAR WPRO WQAM WSBT WSJS WTAQ WTOC WWL

Also on Canadian Network

R — The Radio News Reel KSD KSTP KYW WBEN WCAE WCSH WDAF WDEL WEAF WFBR WGY WHO WIRE WJAR WMAQ WNAC WOW WRC WSAI WTAG WTAM WTIC WWJ

E-3:30 p.m., C-2:30, M-1:30, P-12:30 R — Bicycle Party

KDYL KFI KGW KHQ KARK KOA KOMO KPO KPRC KSTP KVOO KYW WAPI WAVE WBEN WCAE WDAF WEAF WFAA WFLA WGY WHO WIOD WIRE WJAX WLW WMAQ WMBG WMC WNAC WOAI WOW WRC WSB WSM WSMB WTAM WTIC WWJ

#### SUNDAY (Continued)

E-4:30 p.m., C-3:30, M-2:30, P-1:30 R - The World Is Yours: Drama Available to Red Network

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

E-SIGU D.M., C-4100, M-5100, F-2100
C—The Silver Theater
CFRB CKAC KFAB KFPY KLZ
KMBC KMOX KNOW KNX KOIN
KOL KOMA KRLD KRNT KSFO
KSL KTRH KTSA KTUL KVI WABC WADC WBBM WBNS WCAO WCAU WCCO WDAE WDRC WEEL WGAR WGR WGST WHAS WHEC WHIO WJAS WJR WJSV WKRC WMBR WOKO WPRO WQAM WWL Also on Canadian Network

R — Marien Tailey

KDYL KFI KGW KHQ KOA KOMO KPO KSTP KYW WBEN WCAE WCOL WCSH WDAF WDEL WEAF WEBC WFBR WGY WHO WIBA WIRE WJAR WMAQ WNAC WOOD WTAG WTAM WOW WRC WSAI WTIC WTMJ WWJ

- Metropolitan Opera Auditions CFCF CRCT KARK KDKA KECA KEX KFEL KFI KFSD KFYR KGA KGIR KGNC KGO KGU KJR KLO KOIL KPRC KSO KTBS KVOO KWK WABY WAPI WAVE WBAL WBAP WBZ WBZA WCKY WCSC WDAY WEAN WEBR WENR WFIL WFLA WHAM WHK WICC WIOD WIS WJAX WJDX WJZ WKY WMAL WMC WMT WOAI WOWO WPTF WREN WRTD WSB WSM WSMB WSOC WSPD WSUN WSYR WTAR WTCN WWNC WXYZ

E-5:38 p.m., C-4:38, M-3:38, P-2:30 C - Guy Lombardo and Orchestra KFH KMBC KMOX KOMA KTUL WAAB WABC WBNS WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WIBK WICC WJR WJSV WMAS WOKO WORC WSPD WWVA

- Smiling Ed McConnell KANS KDKA KECA KERN KEX KFBK KFSD KFYR KGA KGIR KGO KJR KLO KMJ KOIL K80 KTAR KWG KWK WAVE WBAL WBZ WBZA WCKY WCOL WDAY WDSU WEAN WEBC WEBR WENR WFIL WHAM WHK WICC WMAL WMT WREN WRTD WSM WSPD WSYR WTCN WXYZ

-Joe Rines; Shelia Barrett CFCF CRCT KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KTHS KVOO KYW WAPI WBAP WBEN WCAE WCSH WDAF WDEL WEAF WFBR WFLA WGY WHO WIOD WIRE WIS WJAR WJAX WJDX WKY WLW WMAQ WMBG WMC WNAC WOAI WOW WPTF WRC WSB WSMB WSOC

WTAG WTAM WTAR WTIC

E-6:00 p.m., C-5:00, M-4:00, P-3:00 C — Jee Penner; Gene Austin KFAB KFPY KGLO KLZ KMBC KMOX KNOW KNX KOIN KOL KOMA KRLD KRNT KSFO KSL KTRH KTSA KVI WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBO WDRC WEEI WFBL WFBM WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WKRC WOKO WORC WPRO WQAM WREC WRVA

M — George Jessel; Temmy Tucker To entire MBS and Michigan Notworks

E-6:30 p.m., C-5:30, M-4:30, P-3:30 C-Seymour Simon's Orchestra KDAL KFAB KFBB KFH KFPY KGKO KGVO KLRA KLZ KMBC KMOX KNOW KNX KOH KOIN KOL KOMA KOY KRLD KRNT KSCJ KSFO KSL KTRH KTSA KTUL KVI KVOR KWKH WABC WACO WADC WAIM WALA WBBM WBIG WBNS WBRC WBT WCAO WCAII WCCO WCHS WCOA WCOC WDAE WDBJ WDBO WDNC WDOD WDRC WEEI WEOA WFBL WFBM WGAR WGBI WGST WHAS WHEC WHIO WHP WIBW WIBX WISN WJAS WJNO WJR WJSV WKBB WKBW WKBH WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WMMN WNAX WNBF WNOX WOC WOKO WORC WPAR WPG WPRO WQAM WREC WRVA WSBT WSFA W8J8 WTAQ WTOC WWL WWVA - Tim and Irene

CKLW KWK WBAL WCAE WGN WHK WIRE WOR

R — A Tale of Today
WBEN WEAF WGY WJAR WMAQ WOW WRC WTAM

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

KFAB KFH KFPY KLZ KMOX KNOW KNX KOIN KOL KOMA KRLD KRNT KSFO KSL KTRH KTSA KTUL KVI KWKH WABC WADC WBBM WBIG WBRC WBT WCAO WCAU WCCO WDRC WEEI WFBL WFBM WGAR WGBI WGR WGST WHAS WHEC WHIO WJAS WJR WJSV WKRC WOKO WPRO WREC WRVA WTOC WWL

- Jack Benny: Mary Livingstone KSD KYA KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHO WJAR WLW WMAQ WNAC WRC WTAG WTAM WTIC wow LWW

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

C - Phil Baker; Oscar Bradley KLRA KLZ KRLD KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBIG WBNS WBRC WBT WCAO WCAU WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBX WICC WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBR WNAC WNOX WOKO WORC WQAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL WWVA

Fireside Recitals KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B - Ozzie Nelson: Harriet Hillard KARK KDKA KECA KFEL KEX KFSD KFYR KGA KGO KJR KLO KPRC KSO KSTP KTAR KOII. KTHS KVOO KWK WABY KTBS WAPI WAVE WBAL WBAP WBZ WBZA WCKY WCOL WDAY WEAN WEBC WEBR WFIL WFLA WHAM WIOD WIS WIBA WICC WHK WJAX WJDX WJZ WKY WLEU

WLS WMAL WMC WMT WOAI WPTF WREN WRTD WSB WSM WSMB WSOC WSUN WSYR WTAR WTMJ WWMC WXYZ

E-8:00 p.m., C-7:00, M-6:00, P-5:00 C — Celumbla Werkshop KFAB KFH KFPY KLRA KLZ KMBC KMOX KNX KOIN KOL KOMA KRLD KRNT KSCJ KSFD KTRH KTSA KTUL KRT. KWKH WABC WADC WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEEI WFBL WFBM WGR WGST WHAS WHEC WHIO WHK WHP WIBX WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBG WMBR WNAX WNBF WNOX WOKO WORC WPRO WOAM WREC WSBT

Also on Canadian Network

WWL WWVA

R — Don Ameche; Edgar Bergen CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRO KSD KSTP KTAR KTBS KVOO KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFAA WIDD WIRE WIS WIAR WIDD WKY WLW WMAQ WMC WOAL WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B - General Motors Concert KANS KDKA KERN KECA KFBK KFEL KFSD KGA KGHL KGIR KGO KGU KJR KLO KMJ KOIL KSO KVOD KWG KWK KXYZ WABY WAGA WBAL WBCM WBOW WBZ WBZA WCKY WCOL WDSU WEAN WEBR WFBR WFEA WFIL WGBF WGL WHAM WHK WICC WJBO WJIM WJTN WJZ WLEU WLS WMAL WMPS WMT WORK WROL WRTD WSGN WSMK WSPD WSUN WSYR WXYZ

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

C — Ford Concert CFRB CKAC KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WNAC WNAX WOC WOKO WORC WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL WWVA

B — Tyrone Power; Drama KDKA KECA KFSD KGA KGHL KGIR KGO KJR KLO KOIL KSO KTAR KWK WBAL WBZ WBZA WEBC WEBR WENR WFIL WGAR WHAM WICC WJZ WLW WMAL WMT WREN WSYR WXYZ

R - Manhattan Merry-Go-Round CFCF KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFAA

#### SUNDAY (Continued)

WFBR WFLA WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

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

R—Abum of Familiar Music CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KFO KPRC KSD KSTP KTBS KYW WAPI WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTMJ WWJ WWNC

B - Walter Winchell

KDKA KECA KEX KFSD KGA KGHL KGIR KGO KJR KLO KOIL KSO KTAR KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ E-9:45 p.m., C-8:45, M-7:45, P-6:45 B — Irene Rich, Drama

KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WENR WFIL WHAM WHK WICC WJZ WMAL WMT WREN WSPD WSYR WTCN WXYZ

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

KFAB KFPY KLRA KLZ KMBC
KMOX KNOW KNX KOIN KOL
KOMA KRLD KRNT KSFO
KSL KTRH KTSA KTUL KVI
WABC WBBM WBNS WBRC WBT
WCAU WCCO WDAE WDBO WDRC
WEFI WFBL WFBM WGAR WGST
WHAS WHEC WJAS WJR WJSV
WKBW WKRC WMBR WNOX
WOKO WORC WPRO WQAM WWL

R — Rising Musical Stars

KDYL KFI KGBX KGW KHQ KOA KPO KPRC KSD KSTP KTAR KTBS KTHS KYW WAVE WBAP WBEN WCAE WCSH WDAF WEAF WFBR WFLA WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WNAC WOAL WOOD WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-11:00 p.m., C-10:00, M-9:00, P-8:00 B — Irene Rich, Drama

KECA KERN KEX KFBK KFSD KGA KGO KJR KLO KMJ KVOD KWG WAPI WAVE WJDX WMC WSB WSM WSMB

E-11:15 p.m., C-19:15, M-9:15, P-8:15 B — Walter Winchell KDYL KFI KFSD KGHL KGIR

KDYL KFI KFSD KGHL KGIR KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

E-11:30 p.m., C-10:30, M-9:30, P-8:30 R — Jack Benny-Mary Livingstone KDYL KERN KFBK KFI KFSD KGHL KGIR KGU KGW KHQ KIDO KMJ KOA KCMO KPO KTAR KWG

B — Tyrone Power; Drama KARK KPRC KTBS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

### CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

C-Columbia: R-National (Red); B-National (Blue); M-Mutual

#### COMEDY

Fred Allen, 9:00 p.m. Wed., Red Phil Baker, 7:30 p.m. Sun., CBS Jack Benny-Mary Livingstone, 7 and 11:30 p.m. Sun.,

Edgar Bergen-Charlie McCarthy, 8 p.m. Sun., Red Bob Burns, 10:00 p.m. Thurs., Red Burns and Allen, 8 and 10:30 p.m., Mon., Red Charles Butterworth, 9:30 p.m. Tues., Red Eddle Cantor, 8:30 and 11:30 p.m. Wed., CBS Stuart Erwin, 9:30 p.m. Tues., CBS Billy Frans, 2:00 p.m. Sun., CBS Jack Haley, 8:30 p.m. Sat., Red Ariene Harris, 9 and 12 p.m. Tues., CBS George Jessel, 6:00 p.m. Sun., MBS Al Jolson, 8:30 and 11:30 p.m. Tues., CBS Ken Murray and Oswald, 9:00 p.m. Fri., CBS Jack Oakle, 9:30 p.m. Tues., CBS Walter O'Keefe, 9:30 p.m. Tues., Red Parkyakarkus, 8:30 and 11:30 p.m. Tues., CBS Al Pearce, 9 and 12 p.m. Tues., CBS Joe Penner, 6:00 p.m. Sun , CBS Joe Rines, 5:30 p.m. Sun., Cos Joe Rines, 5:30 p.m. Sun., Red Pinky Tomlin, 8:30 and 11:30 p.m. Wed., CBS Henny Youngman, 8 and 11:15 p.m. Thurs., CBS

#### CONCERTS

Frank Black, 2:00 p.m. Sun., Blue
Ford Sunday Evening Hour, 9:00 p.m. Sun., CBS
General Motors Concert, 8:00 p.m. Sun., Blue
Andre Kostelanets, 9:00 p.m. Wed., CBS
Metropolitan Opera, Sat. afternoons, NBC
Met. Opera Auditions, 5:00 p.m. Sun., Blue
NBC Symphony Orchestra, 10:00 p.m. Sat., Red and
Blue
N. V. Philharmonic, 3:00 p.m. Sun., CBS

N. Y. Philharmonic, 3:00 p.m. Sun., CBS Philadelphia Symphony, 9:00 p.m. Sun., Blue

#### DANCE BANDS

Robert Armbruster, 8:00 p.m. Sun., Red Oscar Bradley, 7:30 p.m. Sun., CBS Tommy, Dorsey, 10:00 p.m. Fri., Blue Eddie Duchin, 8:00 p.m. Wed., Blue Ted Fio Rito, 8:30 p.m. Sat., Red Al Goodman, 10:00 p.m. Sat., CBS Benny Goodman, 10:00 p.m. Tues., CBS Jimmy Grier, 6:00 p.m. Sun., CBS Gustav Haenschen, 9:30 p.m. Sun., Red; 10:00 p.m. Fri., CBS Phil Harris, 7 and 11:30 p.m. Sun., Red Carl Hoft, 9 and 12 p.m. Tues., CBS Hal Kemp, 8:30 and 11:30 p.m. Fri., CBS Wayne King, 8:30 p.m. Tues., Wed., Red; 10 p.m. Mon., CBS

Benny Kreuger, 8:30 p.m. Mon., CBS
Guy Lombardo, 5:30 p.m. Sun., CBS
Abe Lyman, 9:00 p.m. Fri., Red
Hugo Mariani, 3:30 p.m. Sun., Red
Frankie Masters, 8:30 p.m. Tues., Blue
Jack Miller, 8 and 11:15 p.m. Thurs., CBS

Russ Morgan, 8:30 and 11:30 p.m. Sat., CBS; 8:00 p.m. Tues., Red Ossie Nelson, 7:30 p.m. Sun., Blue Ray Noble, 8 and 10:30 p.m. Mon., Red

Raymond Paige, 9:30 p.m. Tues., Red; 9:00 p.m. Frl., CBS Jacques Renard, 8:30 and 11:30 p.m. Wed., CBS Joe Rines, 5:30 p.m. Sun., Red

508 R. A. Rolfe, 8:00 and 12:00 p.m. Sat., Red Harry Salter, 8:00 p.m. Sat., CBS; 10:00 p.m. Sat., CBS; 7:15 and 10:30 p.m. Wed., CBS

Seymour Simons, 6:30 p.m. Sun., CBS
Phil Spitalny, 9:30 p.m. Mon., Red
Georgie Stoll, 9:30 p.m. Tues., CBS
Johnny Trotter, 10:00 p.m. Thurs., Red
Tommy Tucker, 6:00 p.m. Sun., MBS
Rudy Vallee, 8:00 p.m. Thurs., Red
Peter Van Steeden, 9:00 p.m. Mon., Red
Don Voorhees, 8:00 p.m. Wed., CBS
Mark Warnow, 7:30 and 10:30 p.m. Thurs., CBS
Ted Weems, 9:00 p.m. Mon., Red
Paul Whiteman, 9:00 p.m. Tues., MBS
Meredith Willson, 9:00 p.m. Thurs., Red
Victor Young, 8:30 and 11:30 p.m. Tues., CBS

DIALOG

Amos 'n' Andy, 7:00 and 11:00 p.m. Mon. through Fri., Red Easy Aces, 7:00 p.m. Tues., Wed., Thurs., Blue Fibber McGee and Molly, 9:00 p.m. Mon., Red Lum and Abner, 7:30 and 11:15 p.m. Mon., Wed., Fri., Blue Pick and Pat, 8:30 and 11:30 p.m. Mon., CBS

Tim and Irene, 6:30 p.m. Sun., MBS

#### ORAMA

Campana's First Nighter, 10:00 p.m. Fri., Red Campana's Grand Hotel, 8:30 p.m. Mon., Blue Columbia Workshop, 8:00 p.m. Sun., CBS Death Valley Days, 8:30 p.m. Fri., Blue Gang Busters, 10:00 p.m. Wed., CBS Eddle Guest, 8:30 p.m. Tues., Blue Jean Hersholt, 2:30 p.m. Sun., CBS Hollywood Hotel, 9:00 p.m. Fri., CBS Hollywood Playhouse, 9:00 and 11:30 p.m. Sun., Blue Lone's Ranger, 7:30 and 10:30 p.m. Mon., Wed., Fri., MBS
Lux Radio Theater, 9:00 p.m. Mon., CBS Helen Menken, 7:30 p.m. Tues., CBS

Lux Radio Theater, 9:00 p.m. Mon., CBS
Helen Menken, 7:30 p.m. Tues., CBS
One Man's Family, 8:00 p.m. Wed., Red
Tyrone Power, 9:00 and 11:30 p.m. Sun., Blue
Irene Rich, 9:45 and 11:00 p.m. Sun., Blue
Edward G. Robinson, 8:00 p.m. Tues., CBS
Silver Theater, 5:00 p.m. Sun., CBS
A Tale of Today, 6:30 p.m. Sun., Red
Claire Trevor, 8:00 p.m. Tues., CBS
We, The People, 7:30 and 10:30 p.m. Thurs., CBS
Witch's Tale, 10:30 p.m. Tues., MBS
Your Unseen Friend, 8:00 p.m. Sat., CBS

#### **POPULAR PROGRAMS**

American Album of Familiar Music, 9:30 p.m. Sun., Believe It Or Not, 8:00 and 12:00 p.m. Sat., Red Believele Party, 3:30 p.m. Sun., Red Major Bowee' Amateurs, 9:00 p.m. Thurs., CBS Major Bowee' Family, 11:30 a.m. Sun., CBS Brave New World, 10:30 p.m. Mon., CBS Carborundum Band, 7:30 p.m. Sat., CBS
Cavalcade of America, 8:00 p.m. Wed., CBS Chase and Sanborn Hour, 8:00 p.m. Sun., Red Cities Service Concert, 8:00 p.m. Fri, Red Contented Program, 10:00 p.m. Mon., Red Death Valley Days, 8:30 p.m. Fri., Blue Fireside Recitals, 7:30 p.m. Sun., Red Fun Bug, 2:00 p.m. Sun., CBS Gang Busters, 10:00 p.m. Wed., CBS Jack Haley's Variety Show, 8:30 p.m. Sat., Red Hammerstein Music Hall, 8:00 p.m. Frl., CBS Hobby Lobby, 7:15 and 10:30 p.m. Wed., CBS Hollywood Mardi Gras, 9:30 p.m. Tues., Red Hour of Charm, 9:30 p.m. Mon., Red Husbands and Wives, 8:00 p.m. Tues., Blue It Can Be Done, 8:30 p.m. Tues., Blue Jello Program, 7:00 and 11:30 p.m. Sun., Red Johnny Presents-, 8:09 p.m. Tues., Red; 8:30 and 11:30 p.m. Sat., CBS Kraft Music Hall, 10:00 p.m. Thurs., Red Warden Lawes, 10:00 p.m. Mon., Blue Log Cabin Review, 8:30 p.m. Sat., Red Magic Key of RCA, 2:00 p.m. Sun., Blue Manhattan Merry-Go-Round, 9:00 p.m., Sun., Red March of Time, 8:30 p.m. Thurs., Blue MGM Program, 9:00 p.m. Thurs., Red Music From Hollywood, 8:30 and 11:30 p.m., Fri., CBS Nuller From Emplywood, 5.50 and 11.50 p.m., Fri., C.S. National Barn Dance, 9.00 and 11.00 p.m. Sat., Blue Northern Messenger, 11.00 p.m. Sat., CBC Jack Oakle's Cellege, 9:30 p.m. Tues., CB8 L. Pantages Covers Hollywood, 1:45 and 11:00 p.m. Sun., CBS

Poetle Melodies, 7:00 and 11:00 p.m. Mon. through Fri., CBS Pontias Varsity Show, 9:00 p.m. Fri., Blue

Pri., CBS
Pontiae Varsity Skow, 9:00 p.m. Fri., Blue
Professor Quis, 9:00 and 12:00 p.m. Sat.; CBS; Radio News Reel, 3:00 p.m. Sun.; Red
Sait Lake City Tabernacie, 12:30 p.m. Sun., CBS
Saturday Night Berenade, 9:30 p.m. Sat., CBS
Katurday Night Berenade, 9:30 p.m. Sat., CBS
Kate Smith Hour, 8:00 and 11:15 p.m. Thurs., CBS
Songshop, 10:00 p.m. Fri., CBS
Station E-Z-R-A, 7:15 p.m. Mon., Wed., Fri., Red
Swing School, 10:00 p.m. Tues., CBS
Texaco Town, 8:30 and 11:30 p.m. Wed., CBS

Time of Your Life, 5:30 p.m. Sun., Red
Town Hall Tonight, 9:00 p.m. Wed., Red
True Story Court, 9:30 p.m. Fri., Red
Uncle Jim's Question Bee, 7:30 p.m. Sat., Blue
Vick's Open House, 7:00 p.m. Sun., CBS
Voice of Firestone, 8:30 p.m. Mon., Red
Vox Pop, 9:00 p.m. Tues., Red
Watts Time, 9:00 p.m. Fri., Red
Watto the Fun go By, 9:00 and 12:00 p.m. Tues., CBS
We, The People, 7:30 and 10:30 p.m. Thurs., CBS
Your Hit Parade, 10:00 p.m. Sat., CBS
Your Hollywood Parade, 10:00 p.m. Wed., Red.
Zenith Foundation, 10:00 p.m. Sun., CBS

#### SINGERS

Stuart Allen, 10:00 p.m. Sat., CBS Gene Austin, 6:00 p.m. Sun., CBS Kenny Baker, 7:00 and 11:30 p.m. Sun., Red Henry Burr, 9:00 and 11:00 p.m. Sat., Blue Rachel Carlay, 9:00 p.m. Sun., Red Kitty Carlisle, 10:00 p.m. Fri., CBS Jerry Cooper, 9:00 p.m. Fri., CBS Alice Cornett, 10:00 p.m. Fri., CBS Richard Crooks, 8:30 p.m. Mon., Red Bing Crosby, 10:00 p.m. Thurs., Red Frank Crumit, 10:00 p.m. Fri., CB8 Jean Dickenson, 9:30 p.m. Sun., Red Deanna Durbin, 8:30 and 11:30 p.m. Wed., CBS Mary Eastman, 9:30 p.m. Sat., CBS. Nelson Eddy, 8:00 p.m. Sun., Red Wilbur Evans, 7:00 p.m. Sun., CBS Alice Faye, 8:30 and 11:30 p.m. Fri., CBS Jack Fulton, 7:00 and 11:00 p.m. Mon. through Fri., Freddie Gibson, 10:00 p.m. Sat., CBS Harriet Hilliard, 7:30 p.m. Sun., Blue Al Jolson, 8:30 and 11:30 p.m. Tues., CBS Reed Kennedy, 10:00 p.m. Fri., CBS Dorothy Lamour, 8:00 p.m. Sun., Red Rosemary Lane, 10:00 p.m. Wed., Red Frances Langford, 9:00 p.m. Fri., CBS Pierre Le Kreeun, 9:00 p.m. Sun., Red Nick Lucas, 9:00 and 12:00 p.m. Tues., CBS Luliaby Lady, 10:00 p.m. Mon., Red Lulu Belle, 9:00 and 11:00 p.m. Sat., Blue Jeanette MacDonald, 7:00 p.m. Sun., CBS Helen Marshall, 7:30 p.m. Sun., Red Smiling Ed McConnell, 5:30 p.m. Sun., Blue Lucille Manners, 8:00 p.m. Fri., Red Tony Martin, 8:00 and 10:30 p.m. Mon., Red Frank Munn, 9:30 p.m. Sun., Red; 9:00 p.m. Fri., Red Dick Powell, 10:00 p.m. Wed., Red Martha Raye, 8:30 and 11:30 p.m. Tues., CBS Jane Rhodes, 9:30 p.m. Tues., Red Lanny Ross, 9:30 p.m. Tues., Red Kate Smith, 8:00 and 11:15 p.m. Thurs., CBS Margaret Speaks, 8:30 p.m. Mon., Red Marion Talley, 5:00 p.m. Sun., Red Virginia Verrili, 8:30 p.m. Sat., Red Bert Whaley, 3:30 p.m. Sun., Red

#### TALKS

Boake Carter, 7:45 and 11:15 p.m. Mon., Wed., Fri., CBS
Jimmy Fidler, 10:30 p.m. Tues., Fri., Red
Gabriel Heatter, 7:30 and 10:30 p.m. Thurs., CBS
Gea. Hugh Johnson, 8:00 p.m. Mon., Thurs., Blue;
-10:00 p.m. Tues., Wed., Blue
John B. Kennedy, 8:00 p.m. Sun., Blue
Geo. McCall, 7:15 p.m. Tues., Thurs., CBS
Elder Michaux, 9:00 p.m. Mon., MBS
Rebert L. Ripley, 8:00 and 12:00 p.m. Sat., Red
Sidney Skolsky, 8:30 p.m. Wed., Blue
Deems Taylor, 9:00 p.m. Wed., Blue
Deems Taylor, 9:00 p.m. Wed., Blue
Dorothy Thompson, 10:45 p.m., Fri., Red;
Walter Winshell, 9:30 and 11:15 p.m. Sun., Blue

# The MONTH'S CHANGES in STATION DATA

This information is compiled just before we go to press, after the forms for most of the other pages are closed. Some very recent changes, received too late to index in this issue, are included here, and will be incorporated next month in our main indices.

710	NORT	H AMERICAN BROADCAST NEW Havana, Cuba. Radio Cadena Suari-	930 1200 1450	CFAC CKNX CFCT	Calgary, Aita., 1000 from 100 Wingham, Ont., 100 from 50 Victoria, B. C., 500 from 50 REINSTATED
1030	CJBR		1400	WARD WLTH	Brooklyn, N. Y. Brooklyn, N. Y. NETWORK
1200	CFGP	Brdestg. Corp., 906 McLeod Bldg., Edmonton, Alta.	580 710	CKUA KIRO	Edmonton, Alta., new CBC Seattle, Wash., new CBS
1210		Greenfield, Mass. John W. Halgis	910	CBF	Montreal, P. Q., new NBC and CBC
1310	KPBM	Poplar Bluff, Mo. Fields McCarthy Co.	1030	CFCN CJBR	Calgary, Alta., new CBC Rimouski, P. Q., new CBC
1370	CFAR	Flin Flon, Man. Arotic Radio Corp., 120 Main St.	1050 1180	CBM WDGY	Montreal, P. Q., new Red Minneapolis, Minn., new CBS
		Owen Sound, Ont. Owen Sound Sun-	1220 1230	KTMS KGBX	Santa Barbara, Calif., new Blue Springfield, Mo., new NBC
1420	CHLN	Times Three Rivers, P. Q. Three Rivers	1330	WSAI	Cincinnati, Ohio, NBC from Red
		Lo Nouvelliste FREQUENCY	1490	WCKY	DELETE
930	XEFO	Mexico City, D. F., from 940	920	WRAX	Philadelphia, Pa. OWNER
1310	XEBO	Irapuato, Guan., from 1280 POWER	1240	CJCB	Sydney, N. S. Eastern Broadcasters, Ltd., Radio Bldg.
880	CFJC	Kamloops, B. C., 1000 from 100 Havana, Cuba, 25000 from 2500		(Ple	ase turn to Page 95)

### SHORTWAVE BROADCASTING STATIONS OF THE WORLD

Frequencies are given in megacycles. Power is given in parentheses in kilowatts. Schedules are shown in Eastern Standard Time by the 24-hour clock. All schedules daily unless otherwise noted.

1.715	to 2.000	Amateur Stations.	5.825	TIGPH	(also TIXGP3), San Jose, Costa
2.500	XEXP	Monterrey, N. L. (.03).			Rica. 1100-1300; 1800-2200.
1.500	to 4.000	Amateur Stations.	5.850	YV1RB	Maracaibo, Venez. Sun., 1145-1245. Weekdays 0845-0945; 1115-1215;
3.040	YDA	Tandjong Priok, Java, N.E.I. (10.).			1645-2145.
4.273	RV15	Khabarovsk, USSR (Siberia). (20.). e100-1900.	5.855	HIIJ	San Pedro de Macoris, D. R. (.84). 1200-1400; 1836-2106.
4.600	HC2ET	Guayaquil, Ecuador. Wed., Sat., 2100-2230.	5.875	HRN	Tegucigalpa, Honduras. (.4). Sun 2830-2130. Weekdays 2030-2200.
4.780	HJ1ABB	Barranquilla, Colombia (.3). Apart-	5.885	HISB	Santiage, D. R. 1800-2300.
		ado 715.	5.895	YV3RA	Barquisimeto, Venez. 1890-2200.
4.787	HJ2ABC	Cucuta, Colombia. (.25). "La Vez de Cucuta."	5.965	TILS	San Jose, Costa Rica. 1800-2300.
4.810	YDE2	Sole, Java, N.E.I. (.1).	5.913	YV4RH	Vaincia, Venez. 1760-8108.
4.840		Bogeta, Colombia. 1930-2400.	5.925	HH2S	Port-au-Prince, Haiti. 1908-2299.
4.040	HJJABD	Aptde. 509.	5.935	YV1RL	Maracaibo, Venez. (.3). 1700-2230.
5.415	PMY	Bandeeng, Java, N.E.I. (.45). 8538- 1000.	5.945	TG2X	Guatemala City, Guat. (.2). Sun 1300-1400; Mon., Thurs., Sat., 1600- 1800: 2200-2400.
5.500	TISHH	San Ramon, Costa Rica. (.2). 2000- 2330.	5.947	PJC1	Willemstad, Curacae, N.W.I. (.15) 1835-2835.
5.710	TGS	Guatemala City, Guat. (.2). Wed., Thurs., Sat., 1800-2100.	5.975	OAX4P	Huancaye, Peru. (.25).
5.735	HC1PM	Quito, Ecuador. Sat., 2100-2300.	5.980	HJ4ABD	Medellin, Colombia. 2000-2230.
5.763		Managua, Nicaragua. 2000-2130.	5.990	HJ2AB0	Bucaramanga, Colombia. (.67).
5.765		San Cristobal, Venez. 1806-2330.			1900-2300.
5,800			6.000	CXA2	Montevideo, Uruguay. (.5).
3.090	TTORC	2338. Weekdays 8700-2238.		OAX5C	Ica, Peru, (.1).
5.813	TIGPH2	San Jose, Costa Rica.		XEBT	Mexico City, D. F. (1.). 1808-2408.

6.005	CFCX HP5K VE9DN	Montreal, P. Q. (.875). 8708-2488. Colon, Panama. 1880-2388. Montreal, P. Q. (6.).	6.125	CXA4 Montevidee, Uruguay. (1.). 1688- 2145. HPSH Panama City, Panama
	XZ1GY	Rangoon, Burma.		XEPW Mexico City, D. F. 2108-2406.
6.010	COCO	Sydney, N. S. (1.). Havana, Cuba. (2.5) Sun., 2000-2200. Weekdays 1030-1300; 1600-2000.	6.128 6.130	OAX7A Cuzco, Peru. (.1). COCD Havana, Cuba. (.35). 1700-0100
	OLR2A	Prague, Czecheslovakia. (35.). Men., Wed., Fri., 1600-1638.	6.132	VE9HX Halifax, N. S. (.5). 1700-2300. VP3BG Georgetown, British Guiana.
		Saigen, French Inde-China.	6.137	CR7AA Laurenco Marques, Port. East
6.012		Begeta, Colombia. (1.2). 1880-2399. Santiago de los Caballeres, D. R.	6,138	Africa, Sun. 0600-0900, Weekdays 9500-0700, HJ4ABD Medellin, Colombia,
6.815	HI3U	(.025). Mon. 2000-2100. Dally 0730- 0930; 1200-1430; 1700-1930.	6.148 6.145	W8XK Pittsburgh, Pa. (48.). 2200-sign off. HJ4ABE Modellin, Colombia (1.). "La Vez
6.020	DJC	Berlin, Germany. (50.). 1040-16307 1650-2245	6.150	de Antioquia." 1800-2238. CJRO Winnipeg, Man. (2.), 1800-2488.
	XEUW	Veracruz, Ver. (.82). 1808-2480.		VPB Celembo, Ceylen. (.3). Sun. 8760- 1130: Weekdays 8639-1238.
6.025	HJ1ABJ	Santa Marta, Colombia. (.85). 1800-2238.	6.153 6.156	HISN Cludad Moca, D. R. (.1). 1900-2000. YVSRD Caracas, Venez. 1030-1330; 1530-
6.030	HP5E	Panama City, Panama. (.1). 1798- 2290.	6.174	2200. XEXA Mexico City, D. F. 1700-2100.
	OLR28 VE9BJ	Prague, Czecho. (35.). St. Jehn, N. B. (.85).	6.190	HI1A Santiage de los Caballeres, D. R. (.05). Weekdays 2008-2208.
	XEBQ	Mazatlan, Sin. (.05).	6,198 6,200	HISQ Trujille, D. R. 1700-1980. COKG Santinge, Cuba. (.85). Daily exc.
6.033		Medellin, Colombia. (2.5). 1800- 2300.		Sat. 0300-2300. XEXS Mexice City, D. F.
6.038	HJ1ABC	Barranquilla, Colombia. (.15). 1100- 2300.	6.205 6.215	YVIRI Core, Venez. (.15). 1706-2206. TG2 Guatemaia City, Guat.
6.040	PRAS	Pernambuce, Brazil. (3.). 1586-	6.225 6.235	YVIRG Valera, Venez. 1739-1938. HRD La Celba, Honduras. (.25), 2008-
	W1XAL		6.243	2300. HIN Trujilio, D. R. (.75).
	W4XB	Miami, Fla. (5.).	6.250	YV5RJ Caracas, Venez.
	YDA	Tandjong Priok, Java, N.E.I. (18.).	6.270 6.288	YV5RP Caracas, Venez. (1.2). HIG Trujille, O. R. (.85).
6.050	GSA HJ6AB/	Daventry, Gt. Britain. (20.). A Pereira, Colombia (6054 assigned). 1800–2200.	6.282	COHB Sancti-Spiritus, Cuba. (.15). 2100- 2300.
6.860	VQ71 0		6.296	OAX4G Lima, Peru. (.4), 1900-2130, YV4RD Maracay, Venez, 1780-2300,
	W3XAL	l Philadelphia, Pa. (10.). 2000-2300.	6.3 <b>0</b> 0 6.310	YV4RD Maracay, Venez. 1760-2300. HIZ Trujille, O. R. (.1).
	WSXAL	Cincinnati, Ohio. (10.). Oally 2300- 9200. Sun. 0800-2000. Weekdays	6.312	ZP14 Villarrica, Paraguay (1.). 1100-1700.
6.062	SBG	0600-2000. Motala, Sweden. (.5). 1330-1700.	6.330 6.335	COCW Havana, Cuba. 9789-2480. OAXIA Chiclayo, Peru. (.2). Oaily 2688-
6.064	VP3MR		6.340	2300; Sat. 2000-2400. Hf1X Trujillo, D. R. (.5). Tues., Fri., 2000-2200.
6.065	HPSF	Colon, Panama.	6.357	HRP1 San Pedro Suia, Honduras.
6.063		Johannesburg, Union of S. Africa (5.). 2345-0038.	6.365	YV1RH Maracalbo, Venez. 1999-2488.
6.070	CFRX	Toronto, Ont. (1.). 1000-2300.	6.380 6.400	YV5RF Caracas, Venezuela. YV5RH Caracas, Venezuela.
	YV1RD	F Bogota, Colombia. (.05). 1900-2230. Maracaibo, Venez. 1900-2400.	6,418	TIPG San Jose, Costa Rica. (1.), 1800- 2230.
6.075	XEBW	Guadalajara, Jal. (.045). Guadalajara. Jal.	6.416	YV6RC Bolivar, Venez.
6.877		Lima, Peru. (10.) (6082 assigned). 1900-2330.	6.428 6.425	HI15 Santiago, D. R. (.82). 1890-2300, OAX4K Lima, Peru. (.2). W3XL Bound Brook, N. J. (100.). Irrreg.
8.080	DJM	Berlin, Germany. (50.).		W10XDA Effie M. Morrissey (.1).
	VE9CS W9XAA	Chicago, III. (20.). Dally 1900-2200.	6.450	HI4V San Francisco de Macoris, D. R. (.025).
6.085	HJSABI	Weekdays 0600-0730. D Cali, Colombia. 1900-2200.	6.479	HISA Trujille, D. R.
6.030	CRCX	Toronto, Ont. (1.). 1100-1900. C Ibague, Colombia. 2000-2200.	6.485	HIIL Santiago de los Caballeres, D. R. "Emisora Nacional." 0638-8800; 1738-1900; 2003-2100,
6.095	ZGE	Kuala Lampur, F.M.S.	6,479	HISA Trujille, D. R.
6.100	W3XAL W9XF	Beund Breek, N. J. (35.). 2100-0100.	6.500	HIL Trujille, D. R. (.05).
	Waxb	Chicage, III. (10.), 1700-2905. Belgrade, Jugeslavia. (1.), 1200- 1700.	6.508	YV1RM Maracaibe, Venez. Radio Guardia Civil, Tetuan, Sp. Merecce.
6,108	HJ4ABI	B Manizales, Colombia. 1809-2400.	6.520	1986-2000. YV4RB Valencia, Venezuela. 1706-2200,
6.110	GSL	London, Gt. Britain, (28.).	8.534	EDR4 Palma, Majerca, Balearic fei.
6.115	OLR2C	Prague, Czeche. (35.).	6.549	YNIGG Managua, Nicaragua.
6.118 6.128	XEUZ W2XE	Mexico City, D. F. (5.). 2308-8300. New York, N. Y. (10.).	6.545 6.550	YVSRB Belivar, Venez. 2106-2300. TIRCC San Jose, Cesta Rica. (.5). Tues.,
4.148	XEFT	Veracruz, Ver. (.812).		Thurs., Sat. 1700-1800.
6.122	YDA5 HJ3AB	Bandeeng, Java, N.E.f. (1.5). X Bogeta, Colembia. 1738-2238.	8.555 6.622	HI4D Trujille, D. R. (.025). 1700-2008.  Prade Rie Bamba, Ecuador. Thur. 2100-
	OAXSA	Arequipa, Peru. (.1).		2300.

	0110	ACT WILL DECOME			
6.630	ніт	Trujillo, D. R. (.2). Weekdays, 1800-2100.	9.520	НЈ4АВН	Armenia, Colombia. (1.). 0800-1100; 1800-2200.
6.635	HC2RL	Guayaquil, Ecuador. Sun. 1745- 1945. Tues. 2115-2315.		OZF YSH	Copenhagen, Denmark. 1400-1815. San Salvador, E. S.
6.690	TIEP	San Jose, Costa Rica. 1600-2300.			Radio Liberte. 1900-2000.
6.700	TIVL	San Jose, Costa Rica.	9.525	ZBW3	Hong Kong. (2.5). Sat. 2100-2400.
6,720	PMH	Bandoeng, Java, N.E.I. (1.5).			Sun. 0000-0100; 0300-0930. Other
6.730	HI3C	La Romana, D. R. 1745-2000.			days 0400-1000; 2330-0100.
6.788	нін	San Pedro de Macoris, D. R. (.15). 1986-2000.	9.530	LKJ1 W2XAF	Jeloy, Norway. (1.). 0500-8806. Schenectady, N. Y. (40.). Sat. 1200-
6.800	HITP PZH	Trujille, D. R. 1939-2100. Paramaribe, N. W. I.			2400. Other days 1600-2400. Belmont, Calif. (20.). General Elec. Co. (Under construction).
6.850	TIDW	Puerto Limon, Costa Rica. (.4).	9.535	JZ1	Nazaki, Japan. (50.). 1500-1600;
6.990	. VK8XI	Sum., 1600-1700. Daily 1200-1300. Port Moresby, Papua. (Doubtful). Amateur stations. Papeete, Tahiti. (.2). Tues., Fri.,			1630-1730.
7.000	to 7.300	Amateur stations.	9.536	VPD2 DJN	Suva, Fiji. (2.). 0539-0700. Berlin, Germany. (50.). 0005-1000;
7.100	FOSAA	2300-2400.	9.550	OLR3A	165)-2245. Prague, Czeche. (35.). 1439-1630.
		Guadalajara, Jal. "Voice of the Revolutionary Party."	3,330	XEFT	Veracruz, Ver. (.82). 1938-2480.
7.200	YNAM	Managua, Nicaragua. 2000-2400.	9.568	DJA	Berlin, Germany. (50.). 9005-1190;
7.380	XECR	Mexice City, D. F. (20.). Sun.,			165)-2245.
2.309	ALUN	1800-2000.		HJ1ABB	Barranquilla, Colombia. (.3).
		Radio Liberte. 1900-2000.		YOB	Sourabaya I, Java, N.E.I. (1.).
7.540	RKI	Mescow, U. S. S.R. (Assigned 7520). Jehannesburg, U. of S. Africa.	9.562		Lima, Peru. (10.). 1130-1330.
7.625	•••••	(5.), 2345-9030.	9.565	VUB YV3RB	Bombay, India. (4.5). Barquisimeto, Venez.
7.797	HBP	Geneva, Switz. (20.). Sat., 1730-	9,570	KZRM	Manila, P. I. 4480-1000.
	***	1830.		MIXK	Beston, Mass. (10.), Sun. 9890-
7.894	YSD	San Salvador, E. S. 2100-2230.			0103. Weekdays 9600-0100.
8.400 8.588	YNPR	Guayaquil, Ecuador. Managua, Nicaragua. "Radio		W8XK	Pittsburgh, Pa. (40.). (Not used).
	•	Pliot".	9.580	GSC	Daventry, Gt. Britain. (20.). 1500- 2939; 2103-2300.
8.600 8.655	HC1EC	Quito, Ecuador. A Effie M. Morrissey. (.1).		VK3LR	Melbourne, Australia. (.5). 8180-
8.665	COTK	Camaguey, Cuba. (2.4). 1800-0100.			0945.
	HCIB	Quite, Ecuador. (.15). Mon., Wed.,	9.590	PCJ	Huizen, Netherlands. (20.). Sun. 1430-1530; 1980-2115; Mon. 2100-
		Sat., 0200-0400; 1300-1500.			2230; Tues 1400-1530; 1900-2130;
9.030	COBZ	Havana, Cuba.			Wed., 1988-2130; Thurs., 1900-2130.
9.100 9.125	CDBX HAT4	Havana, Cuba. Budapest, Hungary. (26.). Sun.,		VK2ME	Sydney, Australia. (20.). Sun., 0030-0230: 0430-0830: 0930-1130.
9.195	CORX	Wed., 1900-2000. Sat., 1800-1900. Hayana, Cuba.		VKSME	Pertn, Australia. (5.). Weekdays
9.340	OAX4J			W2XE	9680-8800. New York, N. Y.
		6190.			Philadelphia, Pa. (18.). 1200-2000;
9.345	HBL,	Geneva, Switz. (20.). Fri. 1430- 1445; 1930-1945; 2000-2015.			Thurs., 2200-2300.
9.350	COBC	Havana, Cuba. Aptde. 132.		WSXAL	Cincinnati, Ohio. (18.). (Under construction).
	HS8PJ	0730-1000.	9.595	HBL	Geneva, Switzerland. (18.). Sat. 1730-1830.
9.415	PJC2	Willemstad, Curacao, N.W.I.		RAN	Mos.ow. USSR, 1900-2115.
	PLV	Bandeeng, Java, N.E.J. (80.). 1000-	9.600	CB960	Santiago, Chile. 1800-1930.
5.428	сосн	1100. Havana, Cuba. (.15). 0700-0100.	9 605	HP5J	Panama City, Panama. (1.). 1838-
9.445		Guayaguli, Ecuader, Sun. 1600-	9.618	HJ1ABP	2300. Cartagena, Colombia. (.75). 1800-
9,450	HC10C1	2200. Daily 2100-2200.			2200.
9.458	XCOY	Guayaquil, Ecuador. 2100 2200. Nanking, China. (.5).	9.625	•••••	Johannesburg, U. of S. Africa (5.).
9.468	PJC1	Willemstad, Curacao, N.W.I. (.15).	9,630	HJ7ARD	2345-0030. Bucaramanga, Colombia. "Radio
9,480	EAR	Sun. 1035-1235. Madrid, Spain. (20.). Mon. at 2000;	-10-6		Bucaramanga." Taihoku, Taiwan. 0430-1030.
		Tues., Fri. at 2100.	9.635	I2RO	Reme, Italy. (25.). 1238-2100.
	XEDQ	Guedalejara, Jal. 1900-0100.	9.635 9.640	CXAS	Mentevideo, Uruguay. 0700-2408.
9.500	EAC HJ1ABE	Madrid, Spain. Cartagena, Colombia. 1700-1800;	9.645	HH3W	Port-au-Prince, Haiti. (.03). 1300-
	XEWW	2000-2238.	9,650	CS2WA	1490; 1906-2006. Lisbon, Portugal. (2.). Tues.,
9.501	PRFS	Rio de Janeiro, Brazil. (60.). 1645-			Thurs., Sat., 1696-1906.
		1745.	9.660	CREAA	Lobito, Angela, Port. West Africa. (.5). Wed., Sat., 1445-1645.
9.504		Prague, Czecho. (35.).		A DV	Buenos Aires, Argentina. (5.).
9.510	GSB	Daventry, Gt. Britain. (20.). 0315- 0530; 1220-1545; 1600-2030; 2100-		LRX	1030-2430.
	HJU	2306. Buenaventura, Colombia. Men.,	9,670	TIANRH	Heredia, Costa Rica. 2160-2260; 2330-2400.
	HS8PJ	Wed., Fri. 2000-2300. Bangkok, Siam. Mon., Thurs.,	9.685	TGWA	Guatemala City, Guat. (10.). "Radio Nacional." Sun., 8008-9608.
		0800-1000. Melbeurne, Australia. (5.). Week-			"Radio Nacional." Sun., 9809-9606. Daily 2000-2408.
	ALTE	days 0400-0700.	9.700	COCA	Havana, Cuba. Relays CMCA.

## SHORTWAVE BROADCASTING STATIONS OF THE WORLD

		<del></del>			
9.730	• • • • • •	"Radio Martinique," Fort de	11.810	12RO	Rome, Italy. (25.). 9500-1220.
9,750	COCO	France, Mart. 1845-1945.	(1.820	GSN	Daventry, Gt. Britain.
		Havana, Cuba. 0796-0190.	11.830	KZRM	Manila, P. I.
9.830 9.860	COCM	Havana, Cuba. (Assigned 9833). Madrid, Spain. (28.).		W2XE	New York, N. Y. (10.). Dally 1830- 1900. Sun. 1900-2400.
	IDY			W9XAA	Chicago, III. (20.).
9.925	CSW	Darien, Manchukue. 9715-9800. Lisben, Portugal. (5.). 1900-2000.	11.849	CSW	Lisbon, Portugal. (5.).
10.065	CQN	Macau, Portuguese China,		KZRM	Manila, P. I. 8400-1000.
10.070		Communistic Station.		OLR4A	Prague, Czecho. (35.). Mon., Thurs., 1900-2100. Daily 1400-1415.
10.260	PMN	Bandoeng, Java, N.E.I. (1.5), 0530-	11.855	OJP	Berlin, Germany. (50.).
	ORK	1100.	11.860	GSE	Daventry, Gt. Britain. (20.).
10.330		Brusseis, Belgium. (11.). 1330-1500.		YDB	Soerabaja I, Java, N.E.I. (1.).
19.376	EAJ43	Santa Cruz de Tenerife, Canary Ist. 2000-2100.	11.870	W8XK	Pittsburgh, Pa. (40.). 1900-2200.
	• • • • • •	"Radio Nacional," Salamanca,	11.875	OLR4C	
10.430		Spain. 1700-1825; 2000-2045.	11.885	TPA3	Pontoise, France. 9200-8500; 1215- 1800.
10.430	• • • • • • • • • • • • • • • • • • • •	Pirate station announcing "Radio Milan."	11.895	HP51	Aguadulce, Panama. 1930-2130.
10.530	JIB	Taihoku, Taiwan. (6.). 9900-1030.	11,900	CD1190	Valdivia, Chile. 1000-1300: 1900-
10.600	ZIK2	Belize, British Honduras.			2200.
10.660	JVN	Nazaki, Japan. (58.).		OLR4D	Prague, Czecho. (35.).
10.679	CEC	Santiago, Chile. (4.).		XEW	Mexico City, D. F. (.25). 1930-2480.
10.740	JVM	Nazaki, Japan. (50.).	11.955	IUC	Addis Ababa, Ethiopia.
10.823	"Radio	Nacional," Salamanca, Spain. 1630- 1890.	11.960	HI2X	Trujillo, O. R. (.5). Tues., Fri., 2000-2200. Sun. 0740-1040.
11.000	PLP	Bandoong, Java, N.E.I. (1.5).	12,000	RNE	Moscow, USSR. (20.). Sun. 1000-
11.040	CSW	Lisbon, Portugal. (5.). 1500-1900.			1100. Sun., Wed., 0600-0700. Sun., Mon., Wed., Fri., 1600-1700.
11.402	HBO	Geneva, Switz., Fri. 1480-1415;	12,128		Algiers, Algeria.
	000Y	Sat. 1845-2030.	12.235	TFJ	Reykjavik, Iceland. (7.5), Sun.,
11.435	COCX	Havana, Cuba. Sun. 1800-2100. Other days 0800-2400.			1345-1430.
11.500	SPD	Warsaw, Poland. (2.). Daily 1800-	12.290	GBU	Rugby, Gt. Britain.
		1900. Sun. until 2000.	12.295	CB615	Santlago, Chile.
11.698	5BG	Metala, Sweden. (.5). 8106-8130.	12.500	HIN	Trujitio, D. R. (.75).
11.700	CB1179 HP5A	Santiago, Chile. 1000-1406; 1539- 2300.	13.635	SPW	Warsaw, Poland. (10.). Mon., Wed., Fri., 1230-1330. Daily 1800- 1900.
	HPSA	Panama City, Pan. (.5). 2000-2330. Salgon, Fr. Indo-China. 0500-1100.	13.986	OJS	Berlin, Germany. (20.),
11.710	XEWB	Guadalajara, Jal.		to 14.400	
	YSM	San Salvador, E. S.	14.400	UPOL	North Pole. 1400-1605.
11.713	TPA4	Pontoise, France. 0615-1300.	14.535	HBJ	Geneva, Switz. Sat. 1845-2186.
11.718	CR7BH		14.900	LZA	Sofia, Bulgaria.
		Africa. (.2), Sun. 9539-9700. Other days 9439-9630.	15.040	RKI	Moscow, USSR. 1900-2115.
11.720	CJRX	Winnipes, Man. (2.). 1800-2400.	15.110	DJL	Berlin, Germany. (50.). 9000-9200;
11.730	PHI XETM	Hilversum, Netherlands. (23.6). Villahermosa, Tab.			0800-0900; 1040-1630. Sun., 0600- 0800.
11.748	HP5L	David, Panama. (.35).	15.116	OLR5C	Prague, Czeche. (35.).
11.750	GSD	Daventry, Gt. Britain. (20.). 9315-	15.120	HVJ	Vatican City. (10.). 1000-1030.
		0530; 1045-1200; 1220-1545; 1600- 2030; 2100-2300.	15,148	GSF	Daventry, Gt. Britain. (15.). 0915- 1200.
11.760	OLR4B TGWA	Prague, Czeche. (35.). Guatemala City, Guat. (18.).	15.150	YDC	Bandoeng, Java, N.E.I. (3,).
		Mon., Thurs., 2000-2200.	15.160	JZK XEWW	Nazaki, Japan. (50.). Mexico City, D. F. (10.).
11.770	DID	Berlin, Germany. (50.). 1040-1630; 1650-2245.	15.170	CXA14 TGWA	Montevideo, Uruguay. Guatemala City, Guat. (18.).
11.790	W1XAL	Besten, Mass. (18.). Sat. 1345-1838.	15.175	RV96	Mescew, USSR.
		Sun. 1500-1806. Other days 1645-	15.186	GSD	Daventry, Gt. Britain. 0315-0530;
11.795	OLO				<b>0545-0855</b> ; <b>1600-1800</b> .
11.795		Berlin, Germany. (8.). Ica, Peru. (.1). 1296-1609: 1906-2339.	15.200	DJB	Berlin, Germany. (8.). Sun. 1118- 1225. Daily 0005-1100; 1659-2245.
11.800	COGF	Matanzas, Cuba. (1.). 1308-1600:	15,210	W8XK	
		1800-2200.	15.210	PCJ	Pittsburgh, Pa. (40.). 0900-1900. Huizen, Netherlands. (20.). Sun.
	JZJ	Nazaki, Japan. (50.), 1500-1600; 1630-1730; 0800-0900; 0030-0130.	20.229		0330-8500. Wed. 9800-1038.
	OER2	Vienna, Austria. (1.5). Weekdays	15,230	OLR5A	Prague, Czecho. (35.). 8930-1130.
		0300-1800.	15.243	TPA2	Pentoise, France. 0600-1100.
11.805	•••••	Copenhagen, Denmark. 1839-2190.	15.250	W1XAL	Beston, Mass. (10.), Fri. 2100-

		2200; Sun. 1015-1200; Daily exc. Sat. and Sun. 1415-1600.		WOXK	Pittsburgh, Pa. (40.). Chicago, Jll. (5.).
15.260	GSI	Daventry, Gt. Britain. 1229-1545;		WOXF	Chicago. III. (10.).
15.270	НІЗХ	2100-2300. Trujille, D. R. (.5). Sun., 8800-1100.	17.790	GSG .	Daventry, Gt. Britain. (15.). 0315-0530; 0545-0855; 0915-1200; 1220-
	W2XE	New York, N. Y. (10.). Sat., Sun. 1430-1800; 2000-2400. Mon. through Fri. 1300-1800; 2030-2400.	19.020	HS8PJ	1545. Bangkok, Siam. (5.). Mon. 0800- 1900.
15.280	DIQ	Berlin, Germany. (50.). Sun. 1110-	21.450	DLRGA	Prague, Czecho. (35.).
		1225. Daily 9005-0545; 0600-0800; 0815-1100; 1650-2245.	21.460	WIXAL	Boston, Mass. (16.). Tests irregularly.
15.290 15.300	LRU XEBM	Buenes Aires, Arg. (5.). 0800-1000. Mazatian, Sin. 1000-2300.	21.470	GSH	Daventry, Gt. Britain. 0545-0855; 0915-1200.
15,310	GSP	Daventry, Gt. Britain, 1345-1545,	21,480	W2XAD	Schenectady, N. Y. (25.).
15,320	OLR5B	Prague, Czeche. (35.),	21.520	W2XE	New York, N. Y. (18.). Sat., Sun.,
15.330	W2XAD	Schenectady, N. Y. (25.). 1100-2100.			0800-1300; Dther days 0730-1000.
		Belment, Calif. (29.). (Under construction).	21,530	W3XAU GSJ	Philadelphia, Pa.  Daventry, Gt. Britain, 0545-0855;
15.340	DJR				0915-1030.
13.340	DJK	Berlin, Germany. (50.). 9899-9990; 1650-2245.	21.540	W8XK	Pittsburgh, Pa. (40.). 6700-6960.
15.370	HAS3	Budapest, Hungary. (20.), Sun.	21.550	GST	Daventry, Gt. Britain.
		8300-100e.	25.950	W4XH	Spartanburg, S. C. (.05) (WSPA). Los Angeles, Calif. (.1) (KGFJ).
15.440	XEBM	Mazatian, Sin. (.05). 1000-2300.		WOARG	24 hours daily.
15.555		Tulnicu, Cuba. (2.).		WSXUP	St. Paul, Minn. (1.) (KSTP).
17.310	W3XL	Bound Brook, N. J. (20.).	26.100	GSK	Daventry, Gt. Britain.
17.760	DJE	Berlin, Germany. (58.). Sun. 1118-		W9XJL	Superior, Wis. (.88) (WEBC).
	W2XE	1225. Daily 0005-1000. New York, N. Y. (10.). 1030-2800.	26.406	W9XAZ	Milwaukee, Wis. (.5) (WTMJ). 1300-2400.
17.770	PHI	Hilversum, Netherlands. (23.6).	26,558	Waxon	Flushing, N. Y. (.1) (WMCA).
		Sun., 8725-1025. Mon., Tues., Thurs., Fri., 8825-1000. Sat., 8825-1848.	27,100		A Effie M. Morrissey (-1).
					Amateurs.
17 700	W3XAL Bound Brook, N. J. 1800-2100.		56.000 to 68.000 Amateurs.		
11.180					ty. Amateurs.

## Time Conversion Table

The time given in our indices is Eastern Standard by the 24-hour clock.

EST 24-hr.	Uy	the Millour	Cioca.		
Clock	EST	CST	MST	PST	GMT
0000	Midn't	11 pm	10 pm	9 pm	0500
0100	1 am	Midn't	11 pm	10 pm	0600
0200	2 am	1 am	Midn't	11 pm	0700
0300	3 am	2 am	1 am	Midn't	0800
0400	4 am	3 am	2 am	1 am	0900
0500	5 am	4 am	3 am	2 am	1000
0600	6 am	5 am	4 am	3 am	1100
0700	7 am	6 am	5 am	4 am	1200
0800	8 am	7 am	6 am	5 am	1300
0900	9 am	8 am	7 am	6 am	1400
1000	10 am	9 am	8 am	7 am	1500
1100	11 am	10 am	9 am	8 am	1600
1200	Noon	11 am	10 am	9 am	1700
1300	1 pm	Noon	11 am	10 am	1800
1400	2 pm	1 pm	Noon	11 am	1900
1500	3 pm	2 pm	1 pm	Noon	2000
1600	4 pm	3 pm	2 pm	1 pm	2100
1700	5 pm	4 pm	3 pm	2 pm	2200
1800	6 pm	5 pm	4 pm	3 pm	2300
1900	7 pm	6 pm	5 pm	4 pm	2400
2000	8 pm	7 pm	6 pm	5 pm	0100
2100	9 pm	8 pm	7 pm	6 pm	0200
2200	10 pm	9 pm	8 pm	7 pm	0300
2300	11 pm	10 pm	9 pm	8 pm	0400
2400	Midn't	11 pm	10 pm	9 pm	0500
	s througho	ut the entire	world	consult the	KADEA
Time Convert	er.				

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## KEY TO SYMBOLS

#### As shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wave lengths in meters. Night power is shown in watts in third column. Daytime power is shown in parentheses 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.

th louren column.	
postage.  b Verifies only occasionally. c Does not verify. d Verification 10c; letter 25c. h Sends own station stamp for 10c. i Sends own station stamp for 5c. j Sends own station stamp for postage. k Has no stamps. m Verifies for 5c. The sign-on and sign-off time of stations is shown	mm Symbols  "Blue" network. network. nily. with occasional hours. Brdcstg. Corp. lestg. Sys. Red" and Symbols Sy Synchronized.  X Has permit to increase power. Y Has permit to change location. A Has permit to change frequency.  a-b-c. Small letters show stations power. Small letters show stations processed in the stations power.  I have permit to change frequency.  a-b-c. Small letters show stations power.
540 keys. (555.2)	
CJRM ak 1000 F Regina, Sask.	—9:30 am—1:30 am
550 kcys. (545.1)  CFNB mk 500 F (1) Fredericton, N. B.	-7:00 am-11:00 pm
KFUO ak 500 2(1) St. Louis, Mo. KFYR ak 1000 N(5) Bismarck, N. Dak.	—8:00 am—Midnight —8:00 am—1:00 am
KOAC ak 1000 Corvallis, Ore.	NoonMidnight
KTSA ak 1000 C (5) San Antonio, Tex.	
WKRC ak 1000 C (5) Cincinnati, Ohio	—7:00 am—midnight
WSVA ak 500 D Harrisonburg ,Va. XEFC ak 100 Merida, Yuc.	
560 kcys. (535.4)	•
KFDM ak 500 (1) N Beaumont, Texas KLZ ak 1000 C (5) Denver, Colo. KSFO ak 1000 C (5) San Francisco, Cai.	-8:30 am-2:00 am
KWTO ak 5000 D Springheid, Mo.	10:00 am4:00 am
WFIL ak 1000 BM Philadelphia, Pa. WIND ak 1000 (5) Gary, Ind.	-7:00 am-midnight -6:00 am-4:00 am
WIS ak 1000 N (5) Columbia, S. C. WQAM ak 1000 C Miami, Fia.	—7:00 am—midnight —7:00 am—midnight
570 kcys. (526.0)	
CMCY ak 5000 Havana, Cuba KGKO ak 250 CY(1) Wichita Faiis, Tex.	
KMTR ak 1000 Los Angeles, Caiif. KVI ak 1000 C (5) Tacoma, Wash.	9:00 am3:00 am
WMCA ak 1000 New York, N. Y.	
WNAX ak 1000 C (5) Yankton, S. Dak. WOSU ak 750 1 (1) Columbus, Ohio	-9:00 am-11:00 pm
WSYR ak 1000 B (WSYU) Syracuse, N. Y. WWNC ak 1000 N Asheville, N. C.	7:00 am1:00 am 7:30 am1:00 am
580 keys. (516.9)	
CFPR ak 50 Prince Rupert, B.C. CHRC ak 100 Quebec, P. Q.	—8:00 am—midnight —8:00 am—midnight
CKCL ak 100 F Toronto, Ont.	—8:00 am—midnight
KMJ ak 1000 N Fresno, Calif.	-10:00 am-3:00 am

```
KSAC
                                Manhattan, Kans.
Charleston, W. Va.
                 500
                       2 (1)
C (1)
                                                           -10:30 am-6:30 pm
           яk
WCHS
           ak
                 500
WDBO
           ak
                1000
                                Orlando, Fla.
                                                           -7:00 am-midnight
                       2C (5)
                                Topeka, Kans.
Urbana, Ill.
WIBW
                1000
           ak
WILL
WTAG
XEMU
           ak
                1000
                       Ď
                                                             9:00 am-
           ak
                                Worcester, Mass.
Piedras Negras, Coah.
                                                           -7:30 am-1:00 am
                1000
590 kcys. (508.2)
KHQ
WEEI
WKZO
                       R (5)
C (5)
                                Spokane, Wash
                1000
           ak
                1000
                                Boston, Mass
                                Kalamazoo, Mich.
Omaha, Nebr.
         ak
                1000
                       BDX
                                                           -7:00 am-3:30 am
                1000
                       R (5)
600 kcys. (499.7)
                 500
                       F (1)
BF
                                Windsor, Ont.
                                                          -4:30 pm-11:30 pm
CBW
           ak
CFCF
CJOR
CMW
                                Montreal, P. O.
Vancouver, B. C.
                 500
           ak
                                                            -7:45 am-1:00 am
          ak
                 500
                       . . . .
          ak
                                                            -7:00 am-midnight
                1400
                                Havana, Cuba
                       B
                                San Diego, Calif.
Baltimore, Md.
KFSD
           ak
               1000
500
                       C (1) Baltimore, Md.
BM (1) Bridgeport, Conn.
BM (5) Cedar Rapids, Iowa
WCAO
WICC
           ak
                                                          -7:00 am-1:00 am
           ak
                 500
                                                          -6:30 am-1:00 am
          ak
                1000
                                                             7:30 am-1:00 am
WREC
                1000
                       C (5)
                                Memphis, Tenn.
610 kcys. (491.5)
KFRC
WCLE
WDAF
                1000
                       M (5)
DM
                               San Francisco, Cal.
                                Cleveland, Ohio.
Kansas City. Mo.
          ak
                                                            -7:00 am—ss
                 500
                       R (5) Kansas Utty, W.N. (WMBF) Miami, Fla. Philadelphia, Pa
               1000
1000
                                                           -7:30 am-1:00 am
          ak
WIOD
           ak
                                                           -7:00 am-1:00 am
                1000
620 kcys. (483.6)
KGW
KTAR
WFLA
                       R (5)
          ak
                1000
                                Portland, Ore.
                                                          —9:00 am—2:00 am
               1000
1000
                       N Phoenix, Ariz.
Na (5) Clearwater, Fla.
                                                          -9:00 am-1:15 am
-7:00 am-1:00 am
          ak
          ak
                 250
500
                       CD Greensburg, Pa.
CM (1) Bangor, Maine
Na (5) St. Petersburg, Fla.
N (5) Milwaukee, Wis.
                                                            -8:00 am-5:00 pm
WHJB
          ak
WLBZ
           ak
                                                          -7:00 am-1:00 am
WSUN
                1000
          ak
                1000
                                                          -7:15 am-1:00 am
WTMJ
630 kcys. (475.9)
                                Chatham, Ont. —8:00 am—10:30 pm
Charlottetown, P.E.I.—9:00 am—11:00 pm
CFCO
CFCY
CJRC
                 100
           ak
           ak
                                Winnipeg, Man.
Kelowna. B. C.
Havana, Cuba
                                                          -8:30 am-12:30 am
          ak
                       F (1)
CKOV
                                                          -11:00 am-1:30 am
          ak
                 100
                                                            -6:55 am-midnight
-7:00 am-9:30 pm
           Z.
                                Columbia, Mo.
Pierre, S. Dak.
Evansville, Ind.
          ak
                       1(1)
                 500
KFRU
                       D
N1 (1)
B (.5)
C (1)
                 200
KGFX
           ak
WGBF
          ak
                 500
                                Washington, D. C.
Providence, R. I.
Merida, Yuc.
                                                          -7:00 am-2:00 am
                 250
WMAL
          ak
WPRO
XEZ
          ak
                 500
                                                          -7:00 am-1:00 am
640 kcys. (468.5)
                                Havana, Cuba
Los Angeles, Calif.
Portland, Maine
CMCB
                                                           -9:45 am-3:00 am
ŘFI
           ak 50000
z 500
                       ĎΡ
WGAN
          Z
               500
5000
250
                                                            -6:30 am--8:15 pm
WHKC
          ak
                                Columbus, Ohio
          ak
                       ö
WOI
                                Ames, Iowa
XEBX
                                Sabinas, Coah.
650 kcys. (461.3)
                                                           -7:30 am-1:00 am
WSM
          ak 50000 MN
                                Nashville, Tenn.
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660 kcys. (454.3)	,
WAAW ak 500 D Omaha, Nebr. WEAF ak 50000 R New York, N. Y. XEAL z 1000 Mexico City, D. F. XEAO ak 250 Mexicali, B. Cfa.	—7:30 am—ss —7:30 am—1:00 am
670 kcys. (447.5)  WMAO ak 50000 R Chicago, Ili. XELO ak 5000 Tijuana, B. Cfa.	—7:00 am—1:00 am
CMCG ak 1000 Havana, Cuba KFEO ak 2500 D St. Joseph, Mo. San Francisco, Cal. Glace Bay, N. S. VOWR ck 500 681 St. John's, Nfid. Lawrence, Mass.	—7:00 am—midnight —7:00 am—as —11:00 am—3:00 am
WPTF ak 1000 N (5) Raleigh, N. C.	—7:00 am—11:00 pm
690 kcys. (434.5)	
CFRB ak 10000 C Toronto, Ont. CJCJ ak 100 F Calgary, Alta. XET ak 5000 Monterrey, N. L.	—8:00 am—midnight —9:30 am—1:00 am —8:30 am—10:00 pm
700 kcys. (428.3)	
WLW ak 500000 MN (W8XO) Cincinnati, O.	-6:30 am-1:30 am
710 kcys. (422.3)	
CMBL z Havana, Cuba KIRO ak 1000 C Seattle, Wash. KMPC ak 5000 M Beverly Hills, Calif. Newark, N. J.	—8:00 am-12:15 am —9:00 am—5:00 am —9:00 am—4:00 am
720 kcys. (416.4)	
WGN ak 50000 M Chicago, Ill. XEH ak 250 Monterrey, N. L.	—10:00 am—9:00 pm
730 kcys. (410.7)	
CFPL ak 100 F London, Ont.  CJCA ak 1000 F Edmonton, Alta.  CKAC ak 5000 C Montreal, P. Q.  CKPR ak 100 F Fort William, Ont.  CMK ak 3000 Havana, Cuba  XEPN ak 100000 Piedras Negras, Coah	—9:00 am—3:00 am —9:00 am—2:00 am —7:30 am—1:00 am —9:00 am—11:00 pm
740 kcys. (405.2)	
KMMJ ak 1000 D KTRB ak 250 D Modesto, Calif. WHEB ak 250 D Portsmouth, N. H. WSB ak 50000 R Atlanta, Ga.	—9:00 am—8:30 pm —6:55 am—1:00 am
750 kcys. (399.8)	
CMCW dk 150 Havana, Cuba KGU aj 2500 N WJR ak 50000 C XEAA ak 200 Mexicali, B. Cfa. XEAM z 25 Matamoros, Tams.	—11:30 am—4:30 am —5:30 am—2:00 am
760 kcys. (394.5)	
CKY ak 15000 F Winnipeg, Man. CMHX ak 200 Cienfuegos, Cuba	—8:00 am—1:00 am

## NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WBAL	NORTH AN	VIERICAIN B. C. S	TATIONS BY FREC
CMBS	WBAL ak 2500 BMSy WEW ak 1000 D WJZ ak 50000 BSy	St. Louis, Mo. New York, N. Y.	8:00 amss
CHWK dk 100 F CkSO ak 1000 F CkSO ak 1000 F CkSO ak 1000 F CkSO ak 1000 F CkSO	CMBS ak 150 KFAB ak 10000 CSy WBBM ak 50000 CSy	Havana, Cuba Lincoln, Nebr. Chicago, Ill.	8:00 am10:30 pm 7:00 am1:00 am
790 kcys. (379.5)  CMGH ak 500 Matanzas, Cuba — 10:00 am — 3:00 am — 7:00 am — 1:00 am — 8:00 ak 50000 Na Dallas, Texas — 7:00 am — 1:30 am — 8:30 am — 7:00 am — 8:15 pm Aguascallentes, Ags.  820 kcys. (365.6)  CMHW ak 100	CHWK dk 100 F CKSO ak 1000 F CMJK ak 259 KEHE ak 1000 (5) KFDY ak 1000 (5) KFDY ak 1000 (5) KFQD ck 250 KGHL ak 1000 N(5) WMC ak 1000 BM	Chilliwack, B. C. Sudbury, Ont. Camaguey, Cuba Los Angeles, Calif. Brookings, S. Dak. Anchorage, Alaska Billings, Mont. Longview, Wash. Providence, R. I. Memphis, Tenn.	—9:00 am—midnight —11:00 am—10:00 pm —1:30 pm—3 pm —10:00 am—1:00 am
CMCF ak 50000 C Minneapolis, Minn. —7:30 am—1:00 am WNYC ak 1000 D New York, N. Y. —7:00 am—7:00 pm Nuevo Laredo, Tams. —11:00 am—8:15 pm Nuevo Laredo, Tams. —11:00 am—11:00 am—8:15 pm Nuevo Laredo, Tams. —11:00 am—11:00 am—11:00 am—9:00 am—11:00 am—11:00 am—11:00 am—9:00 am—11:00 a	790 kcys. (379.10 kGys. (379.10 kGys. (379.10 kgys. (379.10 kgys. (374.10 kgys. (374.1	Matanzas, Cuba San Francisco, Cal. Pittsburg, Kans. Schenectady, N. Y.  Port Worth, Texas Dallas, Texas	-7:00 am-1:00 am -7:00 am-1:00 am -7:00 am-midnight -9:00 am-12:30 am
CMHW ak 100 Cienfuegos, Cuba Louisville, Ky. XEBG z 1000 Tijuana, B. Cfa.  830 kcys. (361.2)  CMJX ak 5000 R Denver, Colo. 9:00 am—11:30 pm —9:00 am—2:00 am —9:00 am—2:00 am —8:00 am—5:00 pm WHDH ak 1000 Dn Beaton, Mass. WRUF ak 5000 Dn Gainsville, Fla. —7:00 am—6:30 pm  840 kcys. (356.9)  CBL z 50000 P Toronto, Ont. Saskatoon, Sask. CRCT ak 5000 FN Toronto, Ont. VOGY ak 400 St. John's, Nfid. XERA ck 350000 Villa Acuna, Coah.  850 kcys. (352.7)  CMCM z Havana, Cuba —8:00 am—midnight	CMCF ak 600 X WCCO ak 50000 C WNYC ak 1000 D XEDF z 75 XEXC z 350	Ayana, Cuba Minneapolis, Minn. New York, N. Y. Nuevo Laredo, Tams. Aguascallentes, Ags.	
CBL z 50000 P Toronto, Ont. CRCT ak 5000 FN Saskatoon, Sask. CRCT ak 5000 FN Toronto, Ont. VOGY ak 400 St. John's, Nfid. XERA ck 350000 Villa Acuna, Coah.  850 kcys. (352.7)	CMHW ak 100 WHAS ak 50000 C XEBG z 1000 830 kcys. (361.2 CMJX ak 5000 R WEEU ak 1000 D MHDH ak 1000 D M	Clenfuegos, Cuba Louisville, Ky. Tijuana, B. Cfa.  2) Camaguey, Cuba Denver, Colo.	—9:00 am—2:00 am —8:00 am—5:00 pm
KIEV ak 250 D Glendale, Calif. WESG ak 1000 CD Elmira, N. Y. —7:30 am—6:00 pm	CBL z 50000 P CFOC ak 1000 F CRCT ak 5000 FN VOGY ak 400 XERA ck 350000 850 kcys. (352.2 CMCM z	Toronto, Ont. Saskatoon, Sask. Toronto, Ont. St. John's, Nfld. Villa Acuna, Coah.  Havana, Cuba	8:00 am-midnight
ee	KIEV ak 250 D	Glendale, Calif. Elmira, N. Y.	-7:30 am-6:00 pm

## NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

NORTH AL	VIERICAL D. C. C	TATIONS DI TIE
WKAR ak 1000 D WWL ak 10000 C	E. Lansing, Mich. New Orleans, La.	7:00 am5:00 pm 7:30 am1:00 am
860 kcys. (348.	6)	
WABC ak 50000 C (WI WHB ak 1000 DM	BOQ) New York, N. Y. Kansas City, Mo.	—7:30 am—1:00 am
XEMO ak 5000 XENC z 50	BOO) New York, N. Y. Kansas City, Mo. Tijuana, B. Cfa. Mexico City, D. F.	9:45 am3:00 am
870 kcys. (344.	6)	
WENR ak 50000 Ba WLS ak 50000 Ba	Chicago, Ill. Chicago, Ill.	-Noon-midnight -8:00 am-3:00 pm
XEFB ak 200 XEJW z	Monterrey, N. L. Mexico City, D. F.	
880 kcys. (340.	7)	
CBO ak 1000 F CFJC ak 100 F	Ottawa, Ont. Kamloops, B. C.	—10:30 am—midnight —12:30 pm—1:15 am
CMQ ak 25000 KFKA ak 500 2M (1 KLX ak 1000	Oakland, Calif.	7:30 am1:00 am 10:30 am2:30 am
FROR at 500 2	Danvar Colo	12-20 10-20
WGBI ak 500 C1 (1) WQAN ak 500 1 (1) WRNL ak 500 D	) Meridian, Miss. ) Scranton, Pa. Scranton, Pa. Richmond, Va.	—12:30 pm—10:30 pm —12:30 pm—10:00 pm —7:30 am—ss
WSUI ak 500 (1)	Richmond, Va. Iowa City, Iowa	—10:00 am—11:00 pm
890 kcys. (336	.9)	
KARK ak 500 N (1) KFNF ak 500 2 (1)	Little Rock, Ark. Shenandoah, Iowa	7:00 am1:00 am 7:00 am1:00 am 9:50 am3:00 am
KUSD ak 500 2 WRAA ak 500 (1)	Spokane, Wash. Vermillion, S. Dak. W. Lafayette, Ind.	
WGST ak 1000 C (5) WJAR ak 1000 R (5)	Atlanta Ga.	7:30 am1:00 am
WMMN ak 500 C (1) XRW ak 50000	Providence, R. I. Fairmont, W. Va. Mexico City. D. F.	—7:00 am—1:00 am
900 keys. (333	.1)	
KGBU ak 500 X KHJ ak 1000 M (5)	Ketchikan, Alaska Los Angeles, Calif.	0.20 1.00
KSEI ak 250 (1) WBEN ak 1000 R (5) WELI ak 500 D	Pocatello, Idaho Buffalo, N. Y. New Haven, Conn.	—9:30 am—1:00 am —7:00 am—1:00 am —6:00 am—ss
WFMD ak 500 D WJAX ak 1000 N (5)	New Haven, Conn. Frederick, Md. Jacksonville, Fla. Oklahoma City, Ok. Stevens Point, Wis.	-6:30 am-ss -6:45 am-1:00 am
WLBL ak 5000 D	Oklahoma City, Ok. Stevens Point, Wis. Ouincy, Ill.	7:45 am1:00 am 9:00 am2:00 pm 8:00 am5:45 pm
		0,00 am 0,10 pm
910 kcys. (329		
CBF z 50000 NP CJAT ak 1000 F XENT ak 150000	Montreal, P. Q. Trail, B. C. Nuevo Laredo, Tama	—10:00 am—2:00 am
920 kcys. (325	.9)	
CMX ak 1000 KFEL ak 500 Ma KOMO ak 1000 R (5)	Havana, Cuba Denver, Colo. Seattle, Wash.	8:00 am1:00 am 8:00 am2:30 am
KPRC ak 1000 R (5)	Seattle, Wash. Houston, Texas Denver, Colo.	
KVOD ak 500 Ba WAAF ak 1000 D WORL ak 500 D	Chicago, Ill. Boston, Mass. Philadelphia, Pa.	6:00 amss
WPEN ak 1000	Philadelphia, Pa.	

TORTH INVIDENTIAL B. C.	STATIONS DI FRE
WSPA ak 1000 D Spartanburg, S. C. WWJ ak 5000 R Detroit, Mich.	—6:00 am—12:30 am
930 kcys. (322.4)	
CFAC ak 1000 F Calgary, Alta. CFCH ak 100 F North Bay, Ont.	9:00 am-2:00 am
CFLC ak 100 Prescott, Ont. CHNS ak 1000 F Halifax, N. S.	-7:00 am-10:00 pm
CKPC ak 100 F Brantford, Ont.	-7:30 am-11:00 pm
KROW ak 1000 Oakland, Calif.	-9:00 am-5:00 am
WDBJ ak 1000 C (5) Roanoke, Va.	-8:00 am-12:30 am -7:00 am-midnight
XEBH ak 500 Hermosillo, Son. XEFO ak 5000 Mexico City, D. F.	—1:00 pm—midnight
940 kcys. (319.0)	
KOIN ak 1000 C (5) Portland, Ore. VOAS ak 100 St. John's, Nfld.	
VOAS ak 100 St. John's, Nfld. WAAT ak 500 D Jersey City, N. J. WAVE ak 1000 N Louisville, Ky.	-6:30 am-6:00 pm
WCSH ak 1000 R (2.5) Portland, Maine	—8:00—1:00 am —8:00 am—midnight
	-7:00 am-1:00 am -9:00 am-5:30 pm
WICA z 250 DP Ashtabula, Ohio XEYO z 500 Mexico City, D. F.	
950 keys. (315.6)	
CJOC ak 100 F Lethbridge, Alta. CMCD ak 250 Havana, Cuba	—9:00 am—1:00 am —Noon—1:00 am
CMCD ak 250 Havana, Cuba CRCK ak 1000 F Quebec, P. Q. KFWB ak 1000 (5) Hollywood, Calif.	1.0011 1.00 2111
KMBC ak 1000 C(5) Kansas City, Mo.	-6:55 am-1:00 am
WHAL z 500 DP Saginaw, Mich. WRC ak 500 RX (1) Washington, D. C.	
960 kcys. (312.3)	
CFRN ak 100 F Edmonton, Alta. CHNC ak 1000 F New Carlisle, P. Q.	-9:30 am-2:00 am -7:30 am-11:00 pm
CRCY ck 100 F Toronto, Ont. XEAW c 50000 Reynosa, Tams.	—/.30 am—11.00 pm
970 kcys. (309.1)	
CMBY z 150 Havana, Cuba KJR ak 5000 B Seattle, Wash.	8:55 am11:00 pm
WCFL ak 5000 N Chicago, Ill.	
980 kcys. (306.0)	
KDKA ak 50000 B Pittsburgh, Pa. XEAC ak 1000 Tijuana, B. Cfa. XEFE z 150 Nuevo Laredo, Tam:	s.
990 kcys. (302.8)	
WBZ ak 50000 BSy Boston, Mass. WBZA ak 1000 BSy Springfield, Mass.	-6:30 am - 1:00 am -6:30 am -1:00 am
XEAF ak 100 BSy Springfield, Mass. XEK ak 100 Nogales, Son. XEK ak 100 Mexico City, D. F.	A . SA WILL I :AA WILL
WBZA ak 1000 BSy Springfield, Mass. XEAF ak 750 Nogales, Son. XES ak 250 Tampico, Tams.	
1000 kcys. (299.8)	
CMBZ ak 500 (1) Havana, Cuba	-7:45 am-midnight
KFVD ak 1000 Dn Los Angeles, Calif. VOCM z 200 1006 St. John's, Nfld.	—9:00 am—8:15 pm
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### NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

```
WHO
                                Des Moines, Iowa
                                                          -7:00 am-1:00 am
          ak 50000
                       R
                                Aguascalientes, Ags.
Nuevo Laredo, Tams. —10:00 am—8:30 pm
Portable in Mexico
XEBI
          ak
                  25
                  60
XEBK
          ak
XEXS
                 100
          Z
1010 kcys.
                      (296.9)
                                                          -8:00 am-midnight
CHML
                 100
                       F
                                Hamilton, Ont
CKCD
CKCK
CKCO
          ak
                 100
                       ī
                                Vancouver, B. C.
          ak
                1000
                       F
                                Regina, Sask.
                                                          -9:30 am-2:00 am
                                                          -Noon-11:30 pm
                 100
                       Ē
                                Ottawa, Ont.
          ak
CKIC
CKWX
CMJA
                                Wolfville, N. S.
          ak
                                Vancouver, B. C.
          ak
                 100
                       FI
                                                          -Noon-4:00 am
                               Camaguey, Cuba
Coffeyville, Kans.
San Jose, Calif.
               300
1000
1000
          ak
                       ŻM
KGGF
KOW
WHN
          ak
                                                            9:30 am-3:00 am
          ak
                       M
               1000
                       (5)
2
                                New York, N. Y.
          ak
                                                          -3:00 pm-10:15 pm
-6:30 am-2:00 am
-8:00 am-1:00 am
WNAD
          ak
                                Norman, Okla.
WNOX
          ak
                1000
                       C (5)
                                Knoxville, Ten
Veracruz, Ver.
                                             Tenn.
XEII
                       (293.9)
1020
          kcys.
                                                          -7:05 am-10:00 pm
                                Philadelphia, Pa.
WDZ
                 250
                                Tuscola, Ill.
Juarez, Chih.
                                                          -7:00 am-6:00 pm
XEJ
               1000
1030 kcys. (291.1)
                               Calgary, Alta.
Rimouski, P. Q.
Windsor, Ont.
Havana, Cuba
Havana, Cuba
Mexico City, D. F.
CFCN
CJBR
CKLW
                                                          ---6:45 am--1:30 am
          ak 10000
                1000
          7.
                5000
                       M
          ak
                                                            -6:45 am—1:30 am
CMCK
          z
                                                          --9:00 am--11:00 pm
--10:00 am--12:15 am
ČMČX
XEB
                 150
          ak 10000
                       (288.3)
1040 kcys.
KRLD
KWJJ
KYOS
          ak 10000
                       C
                                                          -7:90 am-1:00 am
                                Dallas, Texas
                 500
          ak
                                Portland, Ore.
Merced, Calif.
                 250
WTIC
           ah 50000
                       R
                                Hartford, Conn.
                       (285.5)
          kcys.
1050
                       F
CBM
           ak
                5000
                                Montreal, P. Q.
          ak 250
ak 5000
ak 50000
                                Santiago, Cuba
Abilene, Kans.
Los Angeles, Calif.
Eau Claire, Wis.
ČMKD
KFBI
KNX
WEAU
WGVA
                                                             7:00 am-7:45 pm
                       Dn
                       CD
                                                             9:30 am-3:15 am
                1000
                       ĎΡ
                                Indianapolis, Ind.
                1000
                       (282.8)
 1060
          kcys.
                                Hot Springs, Ark.
St. John's, Nfld.
Baltimore, Md.
Norfolk, Nebr.
College Park, Md.
 KTHS
           ak 10000
                                                          ---9:00 am--ss
VOAC
WBAL
                       1065
           ak 10000
                        BM
                                                             -7:00 am—9:00 pm
WJAG
W3XJ
                1000
                                                             7:30 am-ss
           ak
                       D
                 100
                                                             Midnight to 6:00 am
           Z.
XEAD
           ak
                 125
                                Guadalajara, Jal.
                                Atzcapotzalco, D. F.
XEMG
          Z
                 100
                       (280.2)
 1070
          kcys.
 CMBX
                 500
50
                                Havana, Cuba
           ak
CMHA
                                Sagua la Grande, Cuba
           7.
                                San Francisco, Calif. -1:00 am-8:30 pm
KJBS
                 500
           ak
                       Ď...
                                Carthage, Ill.
Cleveland, Ohio
 WCAZ
                 100
                                                           -6:00 am-midnight
 WTAM
           ak 50000
                       R
                       (277.6)
          kcys.
 1080
WBT
WCBD
WMBI
XEBA
          ak 50000
ak 5000
                                Charlotte, N. C.
                                                            -6:45 am -midnight
                       Ďnl
                                Chicago, Ill.
Chicago, Ill.
                5000
           ak
                       Dnl
                   20
                                Guzman, Jal.
Mexico City, D. F.
           ak
                 500
 XEDP
```

E STATIONS BY FRE
1090 kcys. (275.1)
KMOX ak 50000 C St. Louis, Mo. —7:00 am—1:00 am
1100 kcys. (272.6)
CBR ak 5000 F Vancouver, B. C. CMCJ ak 500 Havana, Cuba. KGDM ak 1000 DM Stockton, Calif. WBIL ak 5000 1 New York, N. Y. WPG ak 5000 C1 Atlantic City, N. J. XECL z 1700 Mexicali, B. Cfa.
1110 kcys. (270.1)
KSOO ak 2500 DnN Sioux Falls, S. Dak. —7:00 am—6:45 pm WRVA ak 5000 CM Richmond, Va. —7:00 am—midnight
1120 kcys. (267.7)
CHLP ak 100 F Montreal, P. O. —9:00 am—11:00 pm CKOC ak 500 F (1) Hamilton, Ont. CKX ak 1000 F Brandon, Man. —5:00 am—midnight
CRCS ak 100 F Chicourini P O
KFIO ak 100 D Spokane, Wash.  KFSG ak 500 a (2.5) Los Angeles, Calif.  KRKD ak 500 a (2.5) Los Angeles, Calif.  KRSC ak 250 Seattle, Wash.  WCOP ak 500 D Austin, Texas  Boston, Mass. —8:00 am—4:00 pm
WCOP ak 500 D Boston, Mass.  WDEL ak 250 R (.5) Wilmington, Del.  WISN ak 250 C (1) Milwaukee, Wis.  Baton Rouge, La.  WTAW ak 500 College Sta., Tex.
1130 kcys. (265.3)  CMJI ak 150 Ciego de Avila, Cuba ak 50000 C Salt Lake City, Ut. —8:30 am—3:00 am 6:45 pm  WOV XEJP z 100 Mexico City, D. F.
1140 keys. (263.0)
CMBG z 200 Havana, Cuba —10:00 am—10:00 pm KVOO ak 25000 N1 Tulsa, Okla. WAPI ak 5000 R1 Birmingham, Ala.
WSPR ak 500 DM Springfield, Mass. —7:00 am—5:45 pm
1150 kcys. (260.7)
CMJF       z       200        Camaguey, Cuba         WHAM       ak       50000       B       Rochester, N. Y.       —7:00 am—midnight         XEC       ak       100        Tijuana, B. Cfa.         XEDW       z       20        Minatitlan, Ver.
1160 kcys. (258.5)
CMHJ         ak         175         Cienfuegos, Cuba           CMKG         z          Santiago, Cuba           WOWO         ak         10000         B1         Fort Wayne, Ind.           WWVA         ak         500         C1         Wheeling, W. Va.           KEBA         z         20         Merida, Yuc.           KEBJ         z         20         Merida, Yuc.           KED         ak         2500          Mexico City, D. F.           KED         ak         2500          Guadalajara, Jal.         -Noon-midnight           KEP         ak         500         Juarez, Chih.         -9:00 am-2:00 am
LEF ak 500 Juarez, Chih. —9:00 am—2:00 am

```
1170 keys. (256.3)
                                                                 —7:00 pm—midnight
—7:30 am—1:00 am
                                   Havana, Cuba
Philadelphia, Pa.
CMBD
WCAU
           ak 50000
                         (254.1)
1180 kcys.
                                   Ciego de Avila, Cuba
CMJO
           ak
                         B2
                         B2 Portland, Ore.
N2 Albuquerque, N. M. —1:00 pm—11:00 pm
CDn(5) Minneapolis, Minn.
New York, N. Y.
                 5000
           ak
KEX
           ak 10000
KOB
WDGY
           ak
                 1000
                         C ...
                 1000
1000
WINS
            ak
                                                                 -7:00 pm-7:00 pm
                                    Macon, Ga.
WMAZ
           ak
                                    Tacuba, D. F.
                   500
XEFA
                         (252.0)
1190 kcys.
                                    Santiago, Cuba
Visalia, Calif.
CMKX
                         Ď....
                   250
500
KTKC
                          1195
                                    St. John's, Nfld
            ak
                                    Waterbury, Conn.
San Antonio, Tex.
Huntington, W. Va.
WATR
                   100
                          DXZ
            ak
                                                               -7:30 am-12:30 am
-7:00 am-7:00 pm
            ak 50000
                          Ñ
 WSAZ
                 1000
 1200 kcys. (249.9)
                                    Grande Prairie, Alta.
Moose Jaw, Sask.
Wingham, Ont.
                          ....
 CFGP
                                                                    -9:00 am—12:30 am
 CHAB
CKNX
             яk
                    100
                          ....
F
                                                                 -11:00 am-1:00 am
             dk
                   100
                                    St. Catharines, Ont. -9:30 am-11:30 pm
                    100
 CKTB
             ak
                                    Havana, Cuba
                    250
 CMCO
             ad
                                     Ada, Okla.
Jonesboro, Ark.
                          DM
 KADA
KBTM
             ak
                    100
             ak
                    100
                           D
                          (.25) P
N
                                    Lewistown, Mont.
Sloux Falls, S. Dak.
 KDNC
             z
                    100
 KELO
KFJB
KFXD
KFXJ
KGCI
                    100
             7
                                                                  -7:00 am-10:00 pm
                           (.25)
(.25)
(.25)
DP
                                     Marshalltown, Ia.
             ak
                    100
                                                                 -8:00 am-10:00 pm
                                    Mampa, Idaho
—8:00 am—10:00 pm
Grand Junc., Colo.
Coeur d'Alene, Idaho
Fergus Falls, Minn. —8:00 am—10:00 pm
             ak
                    100
                    100
             ak
                    100
             z
                    100
                           (.25)
  KGDE
                                     Sterling, Colo.
Los Angeles, Calif.
Little Rock, Ark.
  KGEK
             ak
                    100
                                                                 -24 hours daily
  KGFJ
KGHI
KGVL
KMLB
             ak
                    100
                           (.25)
DP
                                                                 -8:30 am-11:00 pm
                                     Little Rock, Ark.
Greenville, Texas
             ak
                    100
                    100
             Z.
                           (.25)
(.25)
(.25)
                                     Monroe, La.
Marshfield, Ore.
             ak
                    100
  KMLB
KOOS
KSUN
KVCV
KVEC
KVOS
KWG
                                                                  -10:00 am-7:45 pm
-11:00 am-midnight
                    100
             ak
                                     Lowell, Ariz.
             C
                                     Redding, Calif.
San Luis Obispo, Calif.
Bellingham, Wash.
                    100
             Z
                           Ď...
                    250
             Z
              ďk
                    100
                           M
                                                                  -10:00 am-3:00 am
                    100
250
                                     Stockton, Calif. Winona, Minn.
             ak
                           DP
  KWNO
                           (.25)
C
(.25)
                                     Bangor, Maine
  WABI
                     100
                                                                  -6:00 am-10:00 pm
                                     Anderson, S. C.
Waycross, Ga.
                     100
  WAIM
             ak
  WAYX
             ak
                     100
                           M (.25) Ponca City, Okla.
Huntsville, Ala.
                                                                  -8:00 am-10:00 pm
                    100
  WBBZ
             ak
  WBHP
              ak
                     100
                                                                   -1:00 pm to midnight
                                     New Orleans, La.
Rapid City, S. Dak.
              ak
                     100
  WBNO
                                                                  -Noon-2:00 pm
                            Ď
  WCAT
WCAX
WCLO
                                     Rapid O.S.,
Burlington, Vt.
              ak
                     100
                            (.25)
(.25)
(.25)
                                                      ٧t.
                     100
              ak
                                     Janesville,
              ak
                     100
                                     Cincinnati, Ohio
Superior, Wis.
Easton, Pa.
                                                                   -7:00 am-11:30 pm
  WCPO
              ak
                     100
  WDSM
                     100
              z
                            3 (.25)
              ak
                     100
  WEST
                                      South Bend, Ind.
              ak
                     100
  WFAM
                            (.25) Kinston, N. C.
(.25) Canton, Ohio
(.25) Green Bay, Wis.
C (.25) Utica, N. Y.
(.25) St. Louis, Mo.
5 (.25) Bloomington, Ill.
                                      Kinston, N. C.
Canton, Ohio
  WFTC
              ak
                     100
  WHBC
                     100
              ak
              ak
                     100
  WHBY
                     100
100
100
                                                                   -7:00 am-1:00 am
   WIBX
              ak
   WIL
              ak
                                                                   -4:00 pm-8:30 pm
   WJBC
              ak
                                      Decatur, Ill.
New Orleans, La
   WJBL
              ak
                     100
                                                                  --2:00 am--9:00 pm
--7:00 am--11:00 pm
   WJBW
              ak
                      100
                                     W. Palm Beach, Fla.
                            C (.25)
   WJNO
              ak
                     100
                                     Tuscaloosa, Ala.
Harrisburg, Pa.
Lynchburg, Va.
High Point, N. C.
              ak
                      250
                            D
   WJRD
                                                                   -8:00 am-11:00 pm
                            3 (.25)
   WKBO
              ak
                      100
                                                                   -7:00 am-11:00 pm
                      100
                            (.25)
   WLVA
WMFR
              ak
              ak
                      100
                            (.25)
                      100
                                      Lapeer, Mich.
   WMPC
              ak
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WOLS	Z	100	DP	Florence, S. C.	
WRBL	ak	100	(.25)	Columbus, Ga.	-8:00 am-10:30 pm
WSAL	Z	250	DP	Salisbury, Md.	•
WTHT	ak	100	M	Hartford, Conn.	-7:00 am-4:15 pm
WTOL	Z	100	DP	Toledo, Ohio	_
WWAE	ak	100	8	Hammond, Ind.	

# 1210 kcys. (247.8)

				•	
CHLT	z	100		Sherbrooke, P. Q.	
CJCS	ak	50		Stratford, Ont.	-8:00 am-9:00 pm
CJCU	z	50		Aklavik, N.W.T.	otto atti 7,000 pitt
CKBI	ak	100	F	Prince Albert, Sask.	9:45 am-1:00 am
CKCH	ak	100		Hull, P. Q.	-8:00 am-11:00 pm
CKMC	ak	50	r	Cobolt Ont	
				Cobalt, Ont. Santa Clara, Cuba	
CMHI	ak	150		Alexandela Te	
KALB	ak	100	Ň	Alexandria, La.	# 20 II I.I.
KANS	ak	100	N	Wichita, Kans.	-7:30 am-midnight
KASA	C	100	M	Elk City, Okla.	7:00 am8:00 pm
KDLR	ak	100		Devils Lake, N. D.	—7:30 am—9:30 pm
KDON	Z	100	M	Monterrey, Calif.	
KFJI	ak	100		Klamath Falls, Ore.	
KFOR	ak	100	CM(.25	) Lincoln, Nebr.	-8:00 am-11:15 pm
KFPW	ak	100		Fort Smith, Ark.	
KFVS	ak	100	5 (.25)	Cape Girardeau, Mo.	
KFXM	ak	100	M2	San Bernardino, Cal.	-9:00 am-3:00 am
KGLO	Z	100	C (.25)	Mason City, Iowa Olympia, Wash.	
KGY	ak	100	M	Olympia, Wash,	
KHBG	z	100	D	Okmulgee, Okla.	
KIUL	ak	100	_	Garden City, Kans.	-8:00 am-10:00 pm
KLAH	ak	100		Carlehad N Mer	Oldo ann. 10100 pini
KOCA	Z	100	(.25)	Carlsbad, N. Mex. Kilgore, Texas Helena, Mont.	
KPFA		100	(.25)	Helene Mont	
KPPC	z ak	100	(.25) (.25) 2	Posedono Colif	10:00 am12:30 am
KPFU			Ŕ	Pasadena, Calif.	10:00 ant12:30 ant
KROY	ak	100		Sacramento, Calif.	9.00 11.00
KVSO	ak	100	M	Ardmore, Okla.	8:00 am11:00 pm
KWTN	ak	100		Watertown, S. Dak.	
WALR	ak	100		Zanesville, Ohio	7:00 am9:00 pm
WBAX	ak	100		Wilkes-Barre, Pa.	
WBBL	ak	100	<b>s</b>	Richmond, Va.	
WBLY	ak	100	D	Lima, Ohio	-6:00 am-5:15 pm
WBRB	ak	100	3	Red Bank, N. J.	_
WCOL	ak	100		Columbus, Ohio	-7:00 am-11:00 pm
WCRW	ak	100		Chicago, Ill.	-11:00 am-7:00 pm
WEBO	ak	100	5 (.25)	Harrisburg, Ill.	
WEDČ	ak	100		Chicago, Ili.	
WFAS	ak	100	3	White Plains, N. Y.	
WFOY	ak	100	( 25)	St. Augustine, Fla.	
WGBB	ak	100	(.25) 3	Freeport, N. Y.	
	ak	100	(.25)	Culfnort Miss	
WGCM			(.25)	Gulfport, Miss. Newburgh, N. Y.	-7:30 am-midnight
WGNY	ak	100	3	Caranda Miss	-7,50 and -intomigne
WGRM	ak	100	P	Grenada, Miss.	7-00 1-05
WHBF	ak	100	(.25)	Rock Island, Ill.	7:00 am1:05 am
WHBU	ak	100	(.25)	Anderson, Ind.	
WIBU	ak	100	(.25)	Poynette, Wis.	
WJBY	ak	100	(.25)	Gadsden, Ala.	—8:00 am—10:30 pm
WJEJ	ak	50	Dn(.1)	Hagerstown, Md.	
WJIM	Z	100	(.25)	Lansing, Mich.	—7:15 am—12:30 am
WJTN	ak	100	B (.25)	Jamestown, N. Y. Akron, Ohio	
WJW	ak	100	(.25)	Akron, Ohio	-8:00 am-10:30 pm
WKOK	ak	100		Sunhuev Po	-6:00 am-midnight
WLMU	z	100	P (.25)	Middleaboro, Ky.	_
WMFG	ak	100	(.25)	Hibbing, Minn.	7:30 am-10:00 pm
WOMT	ak	100		Manitowoc, Wis.	
WPAY	ak	100	Ď	Thomasville Ca	-8:00 am-6:00 pm
WPAX WSAY		100	Ď	Thomasville, Ga. Rochester, N. Y.	0100 mill 0100 pin
WORL	z ak		4 ( 25)	Chicado III	-6:00 am-midnight
WSBC		100		Chicago, Ill.	-7:00 am-1:00 am
WSIX	ak	100	p	Nashville, Tenn.	, ailii ;uv aili
WSNJ	Z	100	NI ( OE)	Bridgeton, N. J. Charlotte, N. C.	_7.00 am midelahe
WSOC	ak	100	IN (.25)	Charlotte, N. C.	7:00 am-midnight
WTAX	ak	100		Springneia, III.	11 00 0.00
XEAT	ak	250		Parral, Chih.	
XEE	ak	50		Durango, Dgo.	
XEFV	ak	100		Juarez, Chih.	
XETH	ak	100		Puebla, Pue.	
	Z	250	DP	Greenfield, Mass.	
				•	

```
1220 keys. (245.8)
CMJE
KFKU
KTMS
                                  Camaguey, Cuba
Lawrence, Kans.
                 1000
500
1000
           ak
                         a (5)
                                                              -3:30 pm-7:30 pm
                         В
                                  Santa Barbara, Cal.
KTW
            ak
                         \bar{S}_2
                                  Seattle, Wash.
KWSC
WCAD
WCAE
                 1000
                         2 (5)
D
                                  Pullman, Wash.
Canton, N. Y.
           ak
                                                              -9:45 am-12:30 am
-12:30 pm-4:00 pm
           ak
                                                              —7:00 am—2:30 am
—7:30 am—?
           ak
                 1000
                        MR (5) Pittsburgh, Pa. C (5) Tampa, Fla.
WDAE
WREN
           ak
                 1000
                         Ba(5)
                                  Lawrence, Kans.
                                                               -8:00 am-7:00 pm
XEBL
XEDA
XEG
                                  Mazatlan, Sin.
           2.
                         . . . .
                                  Gra. Anaya, D. F.
Monterrey, N. L.
Veracruz, Ver.
                  200
250
           2.
                         . . . .
XETF
           ak
                   30
                                                              -11:00 am-1:00 am
          kcys.
                        (243.8)
1230
                500
1000
1000
1000
1000
100
KGBX
           ak
ak
                        Ν..
                                  Springfield, Mo.
Albuquerque, N. M.
KGGM
KYA
WFBM
WNAC
                                                              —9:30 am—11:30 pm
                        (5)
C (5)
R (5)
           ak
                                  San Francisco, Cal.
                                  Indianapolis, Ind.
Boston, Mass.
Monterrey, N. L.
           ak
                                                               -7:30 am-1:00 am
           ak
                                                                 6:30 am—1:00 am
XEFJ
                                                              -11:00 am-8:00 pm
1240 kcys. (241.8) |
СЈСВ
СМНВ
                 1000
                        F .
                                  Syndey, N. S.
Sancti Spiritus, Cuba
           ak
                                                                -7:00 am-11:00 pm
                250
250
250
1000
1000
1000
           z
KGCU
KLPM
KTAT
                                 Sancti Spiritus, Cu
Mandan, N. Dak.
Minot, N. Dak.
Fort Worth, Texas
Twin Falls, Idaho
San Juan, P. R.
Detroit, Mich.
           ak
                        ixz
M
           ak
           ak
KTFI
WKAO
WX YZ
           ak
                        B ...
                                                              -6:00 am-9:30 pm
           ak
XEAP
XEAY
XEBS
XEKL
XELA
                  50
100
200
500
                                 Obregon, Son.
Mexico City, D. F.
Mexico City, D. F.
           2.
           2.
                        . . . .
           Z.
                        . . . .
           z
                                  Leon, Guan.
                        . . . .
                                  Saltillo, Coah
1250
          kcys.
                        (239.9)
                150
1000
250
CMCK
                                  Santiago, Cuba
KFOX
WAIR
WCAL
WDSU
           ak
                                  Long Beach, Calif
           ak
                                  Winst.-Salem, N. C.
                                                              --6:00 am---ss
                        ž XZ
                1000
           ah
                                  Northfield, Minn.
           ak
                1000
1000
                        B
                                  New Orleans, La.
                                                              -7:00 am-midnight
WHBI
                        a (2.5)
2XZ
           ak
                                  Newark, N. J.
                                 Minneapolis, Minn.
New York, N. Y.
Minneapolis, Minn.
San Luis Pot., S.L.P.
WLB
WNEW
           ak
                1000
1000
           ak
                        a (2.5)
WTCN
           ak
                1000
                        B (5)
                                                              -7:00 am-midnight
XEXH
                  250
           2
1260 kcys. (238.0)
CMC
                  150
                                  Havana, Cuba
                                                                -8:00 am-midnight
KGVO
KHSL
           ak
                1000
                        Ċ
                                  Missoula, Mont.
                                                              -9:00 am-1:00 am
                                 Missoula, Mont.
Chico, Calif.
Omaha, Nebr.
Port Arthur, Texas
Weslaco, Texas
Siloam Sps., Ark.
           ak
                  250
                        BM(5)
KOIL
           ak
ak
                1000
KPAC
                  500
                        D
                                                              -6:00 am-5:45 pm
KRGV
           ak
                1000
                        N
                                                              -8:00 am-11:00 pm
KUOA
           ak
                5000
                        D
KVOA
WHIO
WNBX
           ak
                1000
                                 Tucson, Ariz.
Dayton, Ohio
           ak
                1000
                                                              -6:00 am-1:00 am
           ak
                  500
                        CM(1) Springfield, Vt.
C Savannah, Ga.
WTOC
                1000
                                                              -7:00 am-midnight
1270
          kcys.
                        (236.1)
CMHD
           dk
                  250
                                  Caibarien, Cuba
                  100
                        2D
                                  Decorah, Iowa
Seattle, Wash.
KGCA
           ak
                                                              --9:30 am---3:30 pm
KOL
                        M (5)
           ak
                1000
KVOR
          ak
                 1000
                        C
                                  Colo. Springs, Colo.
                                                             -9:00 am-1:00 am
KWLC
          ak
                  100
                        2D
                                  Decorah, Iowa
          ak
WASH
                  500
                        DaN
                                 Grd. Rpds., Mich. Baltimore, Md.
                                                              -7:00 am-midnight
                  500
WFBR
           ak
                                                             -7:00 am-midnight
                        R (1)
```

```
Jackson, Miss.
Gd. Rapids, Mich.
WJDX
           ak
                1000
                        R (5)
WOOD
XEXB
XEXE
                        Na
                                                              -7:00 am-midnight
           ak
                  500
                                  Jalapa, Ver.
                   50
           ak
                                  Mexico City, D. F.
                   17
1280 kcys. (234.2)
CMCU
CMKO
KFBB
                                  Havana, Cuba
Holguin, Cuba
Great Falls, Mont.
                                                              -6:55 am-1:00 am
           аk
                  500
                        C (5)
           ak
                 1000
                                  Oakland, Calif.
Camden, N. J.
KLS
           ak
                  250
                  500
WCAM
           ak
                                  Asbury Park, N. J.
Chattanooga, Tenn. —7:30 am—12:30 am
                  500
WCAP
                        C (5)
N (5)
WDOD
           ak
                 1000
                                  Madison, Wis
WIBA
                 1000
           ak
                        C
                                                              -8:00 am-midnight
WORC
           ak
                  500
                                  Worcester, Mass.
WRR
WTNJ
                  500
                        M
                                  Dallas, Texas
                                                              -8:00 am-midnight
           ak
                                  Trenton, N. J.
Mexico City, D. F.
                  500
           ak
                        1
XEMX
                  100
           z
1290 kcys. (232.4)
                                  Salt Lake City, Ut.
                                                              -8:00 am-3:00 am
KDYL
KLCN
                        RX
           ak
                                  Blytheville, Ark.
Houston, Texas
Duluth, Minn.
           ak
                  100
                        C (5)
N (5)
C (5)
KTRH
           ak
                 1000
WEBC
           ak
                1000
                                                              -8:00 am-1:00 am
WJAS
WNBZ
WNEL
                                  Pittsburgh, Pa.
Saranac Lake, N. Y.
                                                                -7:30 am-12:30 am
                1000
                                                               -9:30 am ss
                  100
                        D
           ak
                        (2.5)
                                  San Juan, P. R.
                                                                -6:30 am-11:30 pm
                1000
1300 keys. (230.6)
KALE
KFAC
KFH
                  500
                        CM
                                  Portland, Ore
           ak
                                  Los Angeles, Calif.
Wichita, Kans.
           ak
                 1000
           ak
                1000
                        C (5)
                                  Brooklyn, N. Y.
New York, N. Y.
New York, N. Y.
Greenville, S. C.
WBBR
           ak
                1000
                1000
WEVD
           ak
WFAB
                1000
                        1
N (5)
WFBC
           ak
                1000
                                  Troy, N. Y.
                                                              -6:00 pm-midnight
           ak
                1000
                                  Sheboygan, Wis.
WHBL
                  250
1310 kcys. (228.9)
                                  Charlottetown, P.E.I.
                   50
           ak
                                  North Bay, Ont.
Yarmouth, N. S.
                         F
CJKL
           ak
                  100
CJLS
           ak
                  100
CKCV
KAND
KARM
                                                              -7:55 am-11:30 pm
                                  Quebec, P. Q. Corsicana, Tex.
           ak
                  100
                                  Corsicana, Tex.
Fresno, Calif.
Kansas City, Kans.
                         Ď
                  100
                  100
           2
                  100
KCKN
           ak
                         (.25)
(.25)
(.25)
                                  Jerome, Ariz.
Dublin, Texas
Okla. City, Okla.
Lubbock, Texas
Kalispell, Mont.
Kearney, Nebr.
Watsonville, Calif.
                  100
KCRJ
           ak
                                                                -7:00 am -- 10:45 pm
            dk
                  100
KFXR
KFYO
KGEZ
                                                               -8:00 am
                                                                              midnight
           ak
                  100
                                                                -8:00 am -
                                                                              -10:15 pm
           ak
                  100
                         (.25)
                                                                              -11:00 pm
                                                              -9:00 am-
                  100
           ak
KGFW
KHUB
KINY
                                                               -7:00 am-
                                                                             -10:00 pm
           ak
                  100
           ak
                  250
                  100 XZ Juneau, Alaska
100MXZ(.25) Yakima, Wash.
100 D Pampa, Texas
100 DP Lufkin, Texas
           ak
           ak
KIT
KPDN
           ak
KRBA
                                  Shreveport, La.
Rochester, Minn.
Santa Fe, N. Mex.
Sherman, Texas
                         (.25)
(.25)
KRMD
                  100
                                                              -7:00 am-12:15 am
                  100
           ak
KROA
           ak
                  100
                  250
                         D
                                  Santa Rosa, Calif.
Cedar City, Utah
El Paso, Texas
                                                              -11:00 am-9:00 pm
           ak
                  250
                         D
KSRO
                  100
KSUB
           ak
                         (.25)
                                                                -8:30 am-1:00 am
KTSM
           ak
                  100
                                  Lafayette, La.
Moorhead, Minn.
Jefferson City, Mo.
                                                                -8:00 am-10:30 pm
KVOL
           ak
                  100
                  100
KVOX
           2.
KWOS
KXRO
WAML
                  100
                         D
           2.
                                                              -10:00 am-2:00 am
                         M(.25) Aberdeen, Wash.
                  100
           ak
                                                               -8:00 am 8:00 pm
                                  Laurel, Miss.
Marquette, Mich.
                         (.25)
D
                  100
           ak
                                                               -10:30 am 5:30 pm
WBEO
            ak
                  100
```

```
WBOW
                         N (.25) Terre Haute, Ind.
Wilkes-Barre, Pa.
                                                                 -7:00 am-midnight
                   100
WBRE
            ak
                   100
100
WBRK
                          P (.25) Pittsfield, Mass.
                                                                   -8:00 am-9:30 pm
WCLS
                   100
                         Joliet, III.
(25) Ashiand, Ky.
S (25) El Paso, Texas
B (25) Buffalo, N. Y.
D Milwaukee, Wis.
... Royal Oak, Mich.
3 Aitoona, Pa.
... Flint, Mich.
(25) Newmort News Vo.
                                    Joliet, Ill.
                                                                   -6:00 am--11:30 pm
-11:30 am--10:30 pm (Sun. only)
WCMI
            ak
                   100
            ak
WDAH
                   100
WEBR
                   100
                                                                  -7:00 am-midnight
WEMP
WEXL
            ak
                   100
                                                                  --7:30 am-
                                                                                 -RR
                                                                   -8:00 am-
                                                                                 4:00 am
            ak
                                                                 -7:00 am-10:30 pm
-7:00 am-midnight
WFBG
                   100
            ak
WFDF
            ak
                   100
                          (.25)
D
                                    Newport News, Va.
Wilson, N. C.
WGH
                   100
                                                                 -7:00 am-midnight
WGTM
                   100
            z
WHAT
            ak
                   100
                                    Philadelphia, Pa.
WJAC
WLAK
                   100
                          3 (.25)
                                   Johnstown, Pa.
Lakeland, Fla.
            ak
                   100
            z
                          (.25)
            ak
                   100
100
                                    Muncie, Ind.
Laconia, N. H.
                                                                 -7:00 am-midnight
WLBC
WLNH
            ak
                          M
                                    Auburn, N. Y.
Plattsburg, N. Y.
WMBO
            ak
                   100
                          (.25)
WMFF
WNBH
            ak
                   100
                          M (.25) New Bedford, Mass.
MXZ Washington, D. C.
            ak
                   100
                                                                 -7:30 am-11:15 pm
WOL
WRAW
                         Reading, Pa.
N(.25) Knoxville, Tenn.
Grove City, Pa.
            ak
                   100
                                                                 -7:00 am-11:00 pm
WROL
WSAJ
WSGN
WSJS
            ak
ak
                   100
                   100
            ak
                   100
                          B (.25) Birmingham, Ala.
                                                                   8:00 am-midnight
                                    Winston-Salem, N. C.—8:00 am—10:00 pm
Tallahassee, Fla.—8:00 am—midnight
            ak
                                    Tallahassee, Fla.
WTAL
            ak
                   100
                                   Philadelphia, Pa.
Jackson, Tenn.
Elkhart, Ind.
WTEL
                   100
                                                                   -R:00 am-
                                                                                -midniäht
            ak
                          (.25)
(.25)
WŢĴŜ
            ak
                   100
WTRC
                   100
                                                                 -7:00 am-10:30 pm
            ak
                    10
25
XEAG
            z
                                    Cordoba, Ver.
                          . . . .
                                   Cordoba, ver.
Irapuato, Guan.
Mexico City, D. F.
Tampico, Tams.
Torreon, Coah.
Monterrey, N. L.
Poplar Bluff, Mo.
XEBO
XECW
            7.
                          . . . .
                    10
            ak
                          . . . .
XEFW
XETB
            ak
                   250
                                                                 -11:00 am-10:00 pm
                   125
125
            ak
                          . . . .
XEX
            ak
                          DP
                   100
1320 kcys.
                          (227.1)
                                    Havana, Cuba
Pueblo, Colo,
Honolulu, Hawaii
CMOX
                   200
            ak
                 500
1000
500
1000
1000
KGHF
KGMB
                                                                 --9:30 am---11:45 pm
--1:30 am---6:00 pm
                          В
            am
            ak
                          бм
KID
                                    Idaho Falls, Idaho
Des Moines, Iowa
                          (1)
C (5)
C
            ak
KRNT
                                                                   -6:30 am-1:00 am
            ak
                                    Akron, Ohio
York, Pa.
New Orleans, La.
                                                                   -7:00 am-1:00 am
-8:00 am-10:00 pm
WADC
            ak
                 1000
                         N
R
WORK
            ak
WSMB
                          (225.4)
1330
           kcys.
                 250
1000
1000
CMHK
                                    Cruces, Cuba
                                   San Diego, Calif.
Tacoma, Wash.
Corpus Christi, Tex.
Sioux City, Iowa
Hartford, Conn.
            ak
                                                                 -10:00 am-4:00 am
KGB
KMO
                                                                 -9:00 am-3:00 am
                          M
            ak
                   500
KRIS
            z
                         Ĉ (5)
C (5)
                 1000
1000
                                                                   -7:00 am—1:00 am
KSCJ
            ak
WDRC
            ak
                                                                 -7:00 am-midnight
                 1000
                               (2.5) Cincinnati, Ohio
Green Bay, Wis.
WSAI
            ak
                          MŃ
                                                                   -7:00 am--1:00 am
                         (223.7)
           kcys.
1340
CMAB
CMJL
                                   Pinar del Rio, Cuba
           z
                          ....
                  75
500
            z
                                   Camaguey, Cuba
Dubuque, Iowa
                          ĎĖ
KDTH
            z
                         D Huron, S. Dak.
N (2.5) Butte, Mont.
Dodge City, Kans.
                                                                 -10:00 am-1:00 am
KGDY
           ak
                   250
KGIR
KGNO
            ak
                 1000
                  250
           ak
                                                                 -8:30 am-midnight
                         CX Pensacola, Fla.
MN(1) Manchester, N. H.
WCOA
WFEA
           ak
                  500
           ak
                  500
                                                                 -6:30 am-1:00 am
                 1000
                                   Toledo, Ohio
Jalapa, Ver.
WSPD
            ak
                          B (5)
XEXD
                  350
           kcys.
                         (222.1)
1350
CMCA
           ak
                  450
                                   Havana, Cuba
CMKW
                         .... Santiago, Cuba
N (2.5) Boise, Idaho
           Z.
KIDO
           ak
                 1000
                                                                 -10:00 am-midnight
                         BM(5) St. Louis, Mo.
                                                                 -6:30 am-1:00 am
                 1000
```

```
WAWZ ak
WBNX ak
WMBG ak
                                Zarephath, N. J.
New York, N. Y.
Richmond, Va.
                        1(1)
                        Ř
1360 kcys. (220.4)
CMJH
           dk
                   50
                                Ciego de Avila, Cuba
                       M
 KCRC
           ak
                  250
                                Enid, Okla.
                                                            -8:00 am-11:00 pm
 KGER
           ak
                1000
500
                                Long Beach, Calif.
                       N (1)
C (5)
                                Charleston, S. C. Syracuse, N. Y.
 WCSC
           ak
                                                           -7:00 am-midnight
 WFBL
           ak
                1000
                                                          -7:00 am-1:00 am
WGES
           ak
                 500
                       1(1)
                                Chicago, Ill.
                                                             8:00 am -9:00 pm
           ak
WOBC
                1000
                       D
                                Vicksburg, Miss
WSBT
           ak
                 500
                                South Bend, Ind.
1370 keys. (218.8)
                       ....
CFAR
CKCW
                                Flin Flon, Man.
           ak
                 100
                                Moncton, N. B.
CMGE
           ak
                 150
                                Cardenas, Cuba
                       D ...
                                                          -10:00 am-10:30 pm
KAST
                                Astoria, Ore.
Kansas City. Mo.
Seattle, Wash.
           ak
                 100
                                                          -11:00 am-8:30 pm
КСМО
                 100
          яk
                                                          -7:00 am-2:00 am
                 100
KEEN
           ak
                       3
                                                           -3:00 pm-1:00 am
KELD
KERN
KFGQ
                                El Dorado, Ark
                 100
           Z
                       Ň...
           ak
                 100
                                Bakersfield, Calif.
                                                           -11:00 am-
                                                                          -3:00 am
                                Boone, Iowa
Fort Worth, Texas
                                                          —7:00 am—2:00 pm
—7:30 am—midnight
           ak
                 100
                       D
KFJZ
                       (.25)
           ak
                 100
KFRO
           ak
                 250
                                Longview, Texas
                                                            -7:00 am --- ss
                               Tucson, Arizona
Roswell, N. Mex.
KGAR
                 100
                       (.25)
KGFL
KGKL
KICA
KIUP
          ak
                 100
                               Roswell, N. Mex.
San Angelo. Texas
Clovis, N. Mex.
Durango, Colo.
Galveston, Texas
San Antonio, Tex.
Rapid City, S. Dak.
La Junta, Colo.
San Antonio, Tex
                       (.25)
          ak
                                                          -9:00 am-11:00 pm
          ak
                 100
          ak
                 100
                                                          -10:00 am-11:00 pm
KLUF
          ak
                 100
                                                          -9:00 am-midnight
                       5 (.25)
KMAC
          ak
                                                             8:00 am-9:00 pm
KOBH
                 100
          ak
                                                          -8:00 am-midnight
                       . . . .
KOKO
                 100
          Z
                        . . . .
KONO
          ak
                 100
                                San Antonio, Tex.
                                                          -7:00 am-11:00 pm
                      (.25)
KRE
KRKO
KRMC
           ak
                                Berkeley, Calif.
Everett, Wash.
                                                          -24 hours daily
          ak
                 100
                       (.25)
M
                                Jamestown, N. D.
          z
KSLM
          ak
                 100
                                Salem, Ore.
                                                          -10:00 am-1:00 am
                               Temple, Texas
Oklahoma City, Ok.
Walla Walla, Wash.
Great Bend, Kans.
KTEM
          ak
                 250
                       D
KTOK
          hk
                 100
                       M
KUJ
          ak
                 100
                                                         --9:30 am-1:00 am
KVGB
          z
                 100
                               Rock Springs, Wyo.
Sheridan, Wyo.
Albany, N. Y.
                       (.25)P
(.25)
B
KVRS
                 100
KWYO
                                                            9:00 am-midnight
          ak
WABY
          ak
                 100
                                                          -7:00 am-midnight
                               Dothan, Ala.
Atlanta, Ga.
Clarksburg, W. Va.
Buffalo, N. Y.
WAGF
                 250
          ak
                       D
                                                          -9:00 am -ss
                 100
          ak
                       (.25)
                                                          -7:00 am-1:00 am
WBLK
WBN Y
                100
100
100
          ak
                      2 (.25)
(.25)
(.25)
          ak
                                                          -7:30 am-midnight
                               Danville, Va
WBTM
          ak
                                                          -7:00 am-10:00 pm
WCBM
          ak
                 100
                                Baltimore, Md
                       (,25)
WDAS
                100
                                Philadelphia, Pa,
                                                          -8:00 am-midnight
WDWS
          ak
                 100
                                Champaign, Ill.
                       C(.25)
WEOA
                 100
                               Evansville, Ind.
WFOR
          ak
                 100
                               Hattiesburg, Miss.
Fort Wayne, Ind.
                                                           -8:00 am--9:00 pm
WGL
                 100
          ak
                               New Albany, Ind.
Memphis, Tenn.
Calumet, Mich.
Virginia, Minn.
WĞRC
          ak
                 250
                       D
                 100
                                                          -8:00 am-11:30 pm
WHBO
          ak
                      (.25)
(.25)
(.25)
          ak
                 100
                                                          -10:30 am-6:30 pm
WHDE
WHLB
          ak
                 100
                       (.25) Jackson, Mich.
MSy(.25) Lowell, Mass.
WIBM
          ak
                 100
                                                          ---6:30 am-12:30 am
WLLH
                 100
                                                          -7:30 am -midnight
          ak
                       C (.25) Jacksonville, Fla
WMBR
          ak
                 100
                                                          -7:30 am-midnight
                100
                               Wilmington, N. C.
WMFD
          ak
                       D
                                                          -8:00 am-6:30 pm
WMFO
          ak
                               Decatur, Ala.
St. Paul, Minn.
WMIN
                      (.25) St. Paul, Minn.
C (.25) Davenport, Iowa
                                                          -7:00 am-1:00 am
          ak
                 100
WOC
WPAY
                                                          -7:00 am--1:00 am
          ak
                 100
                               Portsmouth, Ohio
Mayaguez, P. R.
Williamsport, Pa.
          ak
                 100
                                                          --7:00 am--10:15 pm
                      (.25)
(.25)
M
WPRA
                 100
          ak
WRAK
                               Augusta, Maine
Racine, Wis.
WRDO
          ak
                 100
                                                          -8:00 am-11:15 pm
-8:25 am-midnight
                       (.25)
WRJN
          ak
                100
                               Wausau, Wis.
Buffalo, N. Y.
San L. Pot., S.L.P.
WSAU
          ak
                                                          -7:00 am-11:15 pm
                100
WSVS
                  50
                       2D
          ak
XECZ
                100
          Z
```

```
XEI
XELZ
                                Morelia, Mich.
Mexico City, D. F.
Lawrence, Mass.
                 125
           7.
                 100
           z 10-100
2
                       SyP
                                Owen Sound, Ont.
1380 kcys.
                       (217.3)
KOH
KOV
WALA
                       C
C1
           ak
                                Reno, Nevada
                                                             -11:00 am-
                                                                          -3:00 am
           ak
                                                           -7:00 am -10:00 pm -8:30 am -midnight
                 500
                                Pittsburgh, Pa.
           ak
                 500
                       Č(1)
                                Mobile, Ala.
WKBH
                                La Crosse, Wis.
New Britain, Conn.
          ak
                1000
WNBC
                 250
                       \tilde{\mathbf{D}}
                                                          -7:00 am-sa
WSMK
                 200
                       \bar{C} 1
                                Dayton, Ohio
1390 kcys. (215.7)
CJGX
          ak
                 100
                       F
                                Yorkton, Sask
                                                           -8:30 am-12:30 am
                 150
                                Camaguey, Cuba
Little Rock, Ark.
          z
KLRA
                       C (5)
          ak
                1000
                1000
          ak
                       C
                                Phoenix, Ariz.
                                                           -9:00 am-12:15 am
KRLC
          ak
                 250
                                Lewiston, Idaho
                       BM(2.5) Cleveland, Ohio
D St. Albans, Vt.
WHK
WODM
               1000
                                                          -7:00 am-midnight
          dk
1400 kcys.
                      (214.2)
CMGC
                                Matanzas, Cuba
                                                          -8:00 am-11:00 pm
                                Matanzas, Cuba
Santiago, Cuba
Hilo, T. H.
Ogden, Utah
Tulsa, Okla.
Brooklyn, N. Y.
Brooklyn, N. Y.
CKKR
                 100
KHBC
          ak
                 250
                       CM
KLO
KTUL
          ak
                       B
                                                          -10:00 am-1:00 am
                      \frac{\tilde{\mathbf{C}}}{2} (1)
                 500
          ak
WARD
          ok
                 500
               500
250
1000
                       \frac{5}{2}(1)
WBBC
          ak
WHDL
          ak
                       n
                                Olean, N. Y.
WIRE
                       MR (5) Indianapolis, Ind.
2 Brooklyn, N. Y.
2 Brooklyn, N. Y.
          ak
                                                          -7:30 am-1:00 am
WLTH
          ak
                 500
WVFW
          ak
                 500
1410 kcys. (212.6)
CKFC
CKMO
          ak
                                Vancouver, B. C. Vancouver, B. C.
          ak
                 100
                       5
CMCQ
          ak
                 250
                                Havana, Cuba
               500
1000
KFJM
          ak
                                Grand Forks, N. D.
                       (2.5) N
N
                               Amarillo, Texas
Medford, Ore.
Boston, Mass.
KGNC
          ak
KMED
          ck
                 250
WAAB
          ak
                 500
500
                       M (1)
                                                          -24 hours daily
                                Bay City, Mich.
Bluefield, W. Va.
WBCM
          ak
                       (I)
(I)
                                                          -9:00 am-12:30 am
WHIS
          ak
                 500
          ak
                 500
500
WROK
                       (1)
C (1)
                                Rockford, Ill.
                                                          -7:30 am-midnight
-7:30 am-midnight
WSFA
                               Montgomery, Ala.
1420 kcys. (211.1)
                                Three Rivers, P. Q.
North Bay, Ont.
CHLN
CKGB
          ak
                 100
                                                          -11:00 am-11:30 pm
-7:00 am-12:15 am
KABC
                 100
                       (.25)
XZ
                               San Antonio, Texas
Aberdeen, S. D.
          ak
KABR
KATE
KBPS
KCMC
                 100
250
          ak
                       ñ
          z
                                Albert Lea. Minn.
                                Portland, Ore.
          ak
                 100
                                                          -2:00 pm-8:00 pm
                       (.25)
          ak
                 100
                                Texarkana, Tex.
KEUB
          ak
                 100
                                Price, Utah
                                                          -9:30 am-midnight
KFAM
                 100
                                St. Cloud, Minn.
KFIZ
                 100
                                Fond du Lac. Wis.
KGFF
KGGC
KGIW
KIDW
          ak
                 100
                       (.25) M Shawnee, Okla.
                                                          -8:00 am-10:00 pm
          ak
                 100
                               San Francisco, Cal.
          ak
                 100
                               Alamosa, Colo.
Lamar, Colo.
Pecos, Texas
                                                          -9:30 am-10:30 pm
          ak
                                                          -9:00 am-8:00 pm
-8:00 am-10:00 pm
                       1
KIUN
          ak
                 100
                       (.25) P La Grande, Ore.
KLBM
          z
                 100
          ak
KNET
                       Ď
M
                 100
                               Palestine. Texas
KORE
                               Eugene, Ore.
Abilene, Texas
Midland, Texas
          ak
                 100
KRBC
          ak
                 100
                      (.25)
D
                                                          -8:08 am-10:00 pm
                 100
KRLH
          z
                       (.25) P
KTRI
                               Sioux City, Iowa
          z
KUMA
          ak
                 100
                                Yuma, Ariz.
```

```
... Hutchnison, Asno.
4 (.25) Portland, Ore.
C Waco, Texas
... Presque Isle, Me.
(.25) Chattanooga, Tenn.
Plazieton, Pa.
Hazleton, Pa.
Control of the contro
 KWBG
 KXL
                        ak
                                      100
 WACO
WAGM
WAPO
                                      100
                        ak
                                      100
                       ak
                       ak
                                      100
 WAZL
                                      100
                        ak
                                                   (.25)
3 (.25)
3 (.25)
                                                                      Springfield, Ill.
Charlotteaville, Va.
Rocky Mount, N. C.
Battle Creek, Mich.
 WCBS
                       ak
                                      100
 WCHV
                        ak
 WEED
                        ak
                       ak
ak
ak
 WELL
                                      100
                                                                                                                                   -7:30 am-midnight
 WGPC
WHFC
WILM
                                                 (.25)
2
                                                                       Albany, Ga.
Cicero, Ill.
                                      100
                                     100
                                                                                                                                 -7:00 am-1:00 am
                                                                      Wilmington, Del.
Ironwood, Mich.
                       aj
ak
                                                  Ironwood, Mich. (.25) Lexington, Ky. (.25) B Erie, Pa. (C (.25) Springfield, Mass. (.25) Detroit. Mich.
                                     100
100
 WJMS
 WLAP
                       ak
 WLEU
                                      100
 WMAS
                       ak
                                      100
                                                                                                                                   -7:00 am-midnight
 WMBC
WMBH
WMBS
                                                                      Detroit, Mich.
Joplin, Mo.
                                                                                                                                -7:30 am-midnight
                       ak
                                                   (.25)
D
                                                                      Joplin, Mo.
Uniontown, Pa.
Daytona Bch., Fla.
Sheffield, Ala.
Watertown, N. Y.
Paducah, Ky.
Parkersburg, W. V.
                       ak
ak
ak
                                      250
                                                                                                                                 -6:00 am-6:00 pm
WMFJ
WMSD
WNNY
                                     100
                                     100
                                                                                                                                 -8:00 am-11:00 pm
                                                   (.25) P
(.25)
C
                                     100
                       Z.
WPAD
WPAR
                       ak
                                     100
                                                                                                                                   -7:00 am-midnight
                       ak
                                      100
                                                    (.25)
WPRP
                                     100
                                                                       Ponce, Puerto Rico
1430 kcys. (209.7) [
                                                (5) B Los Angeles, Cal.
D North Platte, Neb.
BM(2.5) Des Moines, Iowa
C (1) X Columbus, Ohio
C (1) Rochester, N. Y.
C (1) Harrisburg, Pa
(1) B Memnhir
CMJP
KECA
KGNF
KSO
WBNS
                                       75
                       ak
                                   1000
1000
500
500
                       ak
                                                                                                                                     -10:00 am--3:00 am
                                                                                                                                -8:00 am-6:15 pm
                       ak
                       ak
                       ak
                                     500
500
500
 WHEC
                                                                                                                                -7:00 am-midnight
                       ak
                                                                     Harrisburg, Pa.
Memphis, Tenn.
Albany, N. Y.
 WHP
                                                                                                                                --6:30 am-midnight
                                                   Č (1)
                                                                                                                                -8:00 am-1:00 am
1440 kcys. (208.2) [
                                                                     Havana, Cuba
Casper, Wyo.
Centralia-Ghehalis, Wn.
Houston, Texas
Greensboro, N. C. —6
Allentown, Pa. —7
CMOA
                                     150
500
500
KDFN
                       ak
                                                  MP
KELA
                                 1000
1000
500
1000
KXYZ
                       ak
                                                   В
                                                                                                                               -6:30 am-11:30 pm
-7:30 am-11:30 pm
-7:00 am-midnight
WBIG
                       ak
                                                   Ē
WCBA
WMBD
                     aj
ak
                                                                      Peoria, Ill.
                                                   G(5)
                                   500
250
                                                                                                                                    -1:00 pm---11:30 pm
                                                  Na
                                                                       Allentown, Pa.
XEFI
                                                                     Chihuahua, Chih.
1450 kcys. (206.8)
                                                 <u>.</u>...
                                                                                                                                    -10:45 am—12:15 am
CFCT
                      nk
                                                                      Victoria, B. C.
                                                                     Summerside, P.E.I.
Clenfuegos, Cuba
Wolf Point, Mont.
Eureka, Calif.
CHGS
                      ak
                                       50
                                                                                                                                    -6:30 am-10:00 pm
CMHM
                                     100
                      2
                                  1000
500
KGCX
                      ak
                                                 M(1)
                                                                                                                                -10:00 am-1:00 am
KIEM
                                                                                                                                -7:30 am-1:00 am
                                  1000
500
 KTBS
                                                                      Shreveport, La.
                       ak
                                                  B (1)
C (1)
 WAGA
                       ak
                                                                       Atlanta, Ga.
WGAR
WHOM
                      ak
                                    500
250
                                                                      Cleveland, Ohio
                                                                                                                                —7:00 am →midnight
                                                                     Jersey City, N. J.
Fall River, Mass.
Juarez, Chih.
                                                                                                                                -7:00 am -midnight
                      ak
                                  1000
                                                   M
WSAR
                      ak
                                     100
                                                 (205.4)
1460 kcys.
                                                                   Holguin, Cuba
St. Paul, Minn.
Washington, D. C.
                                                 R (25)
                                                                                                                                --7:00 am--2:00 am
KSTP
WJSV
1470 kcys. (204.0)
                                                                      Spokane, Wash.
KGA
WLAC
                                                  BM
                  ak 5000
                                                 \mathbf{C}
                                                                     Nashville, Tenn.
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	11011	1 1 1 1 1 1 1	IDINIONIN D. C. C	JIHITONO DI TIC
1480	kcys.	(202	.6)	
KOMA	ak 5000	C	Oklahoma City, Ok.	-7:30 am-1:00 am
WHIP WKBW	z 5000 ak 5000	ĎP C	Hammond, Ind. Buffalo, N. Y.	—7:30 am—1:00 am —7:30 am—5:30 pm —8:00 am—1:00 am
1400	1	/201	2)	
	kcys.			
KFBK WCKY	ak 5000 ak 10000	N X N	Sacramento, Calif. Covington, Ky.	-7:00 am-midnight
1 700	1	/100	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
1500	kcys.	(199		
CJIC KAWM	ak 100 z 100		S. S. Marie, Ont. Gallup, N. Mex.	-10:00 am-10:00 pm
KBIX KBST	ak 100 z 100	M	Milekodoo (iklo	—8:00 am—11:00 pm
KDAL	ak 100	C	Duluth, Minn.	
KDB KGFI	ak 100 ak 100	M(,25)	Santa Barbara, Cal. Brownsville, Tex.	
KGKB	ak 100	(.25)	Tyler, Texas Scottsbluff, Neb.	
KGKY KNEL	ak 100 ak 250	(,25) D	Scottsbluff, Neb. Brady, Texas	-8:30 am-11:00 pm -8:00 am-6:00 pm
KNOW	ak 100	C	Brady, Texas Austin, Texas	• -
KOTN KOVC	ak 100 ak 100	D	Pine Bluff, Ark. Valley City, N. D.	-8:00 am-ss -8:00 am-10:00 pm
KPLC KPLT	ak 100 z 250	(.25) D	Valley City, N. D. Lake Charles, La. Paris, Texas	•
KPO	ak 1001	M (.25) M (.25)	Wenatchee, Wash.	
KRŇR KROD	ak 100 k ak 100	P	Roseburg, Ore. El Paso, Texas	
KSAL	ak 100	(.25) P	Salina, Kans.	
KUTA KVOE	z 160 ak 100	M	Santa Ana Calif	-Noon to 2:00 am
KXO	ak 100	17.4-	El Centro, Calif.	—11:00 am—midnight
WCNW WDNC	ak 100 ak 100	C (.25)	El Centro, Calif. Brooklyn, N. Y. Durham, N. C.	—9:00 am—midnight —7:30 am—12:30 am
WGAL WHBB	ak 100 ak 100	(.25)	Lancaster, Pa. Selma, Ala.	_7.20 a m_es
WHEF	ak 100	(.25)	Wasalisa Miss	—7:30 am—ss —7:30 am—10:00 pm
WJBK	ak 100 z 100	(.25)	Detroit, Mich. Miami Beach, Fia. E. Dubuque, Ill. Richmond, Ind.	-24 hours daily
WKAT WKBB	ak 100	(.25) (.25)	E. Dubuque, Ill.	
WKBV WKBZ	ak 100 ak 100	(.25) (.25)	Muskegon, Mich.	-7:00 am-10:00 pm
WKEU	ak 100 ak 100	D	Griffin, Ga.	
WMBO WMEX	ak 100	(.25)	Brooklyn, N. Y. Boston, Mass.	
WNBF	ak 100 ak 100	(.25) C(.25) DM	Binghamton, N. Y. New London, Conn.	
WOMI	z 100	P	Owensboro, Ky. Bristol, Tenn.	
WOPI WRDW	ak 100 ak 100	C(:25)	Bristol, Tenn. Augusta, Ga.	—7:00 am—10:30 pm —7:00 am—9:00 pm
WRGA	ak 100	C(.25) (.25) B	Rome, Ga.	-8:00 am-11:00 pm
WRTD WSYB	z 100 ak 100		Richmond, Va. Rutiand, Vt.	—10:00 am—9:00 pm
WTMV WWRL	ak 100 ak 100	(.25)	E. St. Louis, III. Woodside, N. Y.	-8:00 am-midnight
wwsw	ak 100	1 (.25) (.25)	Pittsburgh, Pa.	0.00 2111 11101112
1510	kcys.	(198	6)	
CFRC	ak 100	R		_Noon_11:00 pm
CKCR	ak 100	• • • • •	Kingston, Ont. Waterloo, Ont.	—Noon—11:00 pm —8:00 am—11:00 pm
1530	kcys.	(196	.0)	
KXBY WBRY	ak 1000 ak 1000	М	Kansas City, Mo. Waterbury, Conn.	—8:00 am—3:30 am —8:00 am—midnight
1550	kcys.	(193	.4)	
KPMC WOXR	ak 1000 ak 1000	M	Bakersfield, Calif. New York, N. Y.	-10:00 am-2:00 am -10:00 am-9:15 pm
	1444	• • • •		, mm , pm

Frequency in kilocycles in second column. Night power in watts in third column. Net work affiliations in fourth column. C Columbia, R National Red, B National Blue, N National Red and Blue. F Canadian, M Mutual.

	M M	utuai.	
ALABAMA	CALIFORNIA	Santa Barbara KDB 1500 100M	FLORIDA
Birmingham	Bakersfield KERN 1370 100 N	KTMS 1220 500 B	Clearwater WFLA 620 1000 N
WAPI 1140 5000 R WBRC 930 1000 C	KPMC 1550 1000M	Santa Rosa KSRO 1310 250	WFLA 620 1000 N Daytona Beach
WSGN 1310 100 B Decatur	Berkeley KRE 1370 100	Stockton	WMFJ 1420 100
WMFO 1370 100	Beverly Hills KMPC 710 500	KGDM 1100 1000M KWG 1200 100 N	Gainesville WRUF 830 5000
Dothan WAGF 1370 250	Chico KHSL 1260 250	Visalia KTKC 1190 250	Jacksonville WJAX 900 1000 N
Gadsden	El Centro	Watsonville	WMBR 1370 100 C
WJBY 1210 100 Huntsville	KXO 1500 100 Eureka	KHUB 1310 250	Lakeland WLAK 1310 100
WBHP 1200 100	KIEM 1450 500M Fresno	COLORADO	Miami
Mobile WALA 1380 500 C	KARM 1310 100 KMJ 580 1000 N	Alamosa KGIW 142 <b>0</b> 100	WIOD 610 1000 N WMBF 610 1000
Montgomery WSFA 1410 500 C	Glendale KIEV 850 250	Colorado Springs	WQAM 569 1000 C Miami Beach
Selma	Hollywood	KVOR 1270 1000 C Denver	WKAT 1500 100
WHBB 1500 100 Sheffield	KFWB 950 1000 Long Beach	KFEL 920 500M KLZ 560 1000 C	Orlando WDBO 580 1000 C
WMSD 1420 100	KFOX 1250 1000 KGER 1360 1000	KOA 830 50000 R	Pensacola
Tuscaloosa WJRD 1200 250	Los Angeles KECA 1430 1900 B	KPOF 880 500 KVOD 920 500 B	WCOA 1340 500 C
ALASKA	KEHE 780 1000 KFAC 1300 1000	Durango KIUP 1370 100	St. Augustine WFOY 1210 100 St. Petersburg
Anchorage	KFI 640 50000 R KFSG 1120 500	Grand Junction KFXJ 1200 100	WSUN 620 1000 N Tallahassee
KFQD 780 250	KFVD 1000 1000	Greeley KFKA 880 500M	WTAL 1310 100
Juneau KINY 1310 100	KGFJ 1200 100 KHJ 900 1000M	La Junta	Tampa WDAE 1220 1000 C
Ketchikan	KMTR 570 1000 KNX 1050 50000 C	Lamar	West Palm Beach WJNO 1200 100 C
KGBU 900 500	KRKD 1120 500 Merced	KIDW 1420 100 Pueblo	GEORGIA
ARIZONA	KYOS 1040 250	KGHF 1320 500 B Sterling	Albany
Jerome KCRJ 1310 100	Modesto KTRB 740 250	KGEK 1200 100	WGPC 1420 100
Lowell	Monterey KDON 1210 100M	CONNECTICUT	Atlanta WAGA 1450 500
KSUN 1200 100 Phoenix	Oakland KLS 1280 250	Bridgeport	WATL 1370 100 WGST 890 1000 C
KOY 1390 1000 C KTAR 620 1000 N	KLX 880 1000 KROW 930 1000	WICC 600 500M Hartford	WSB 740 50000 R
Tucson	Pasadena KPPC 1210 100	WDRC 1330 1000 C WTIC 1040 50000 R	Augusta WRDW 1500 100 C Columbus
KGAR 1370 100 KVOA 1260 1000	Redding	WTHT 1200 100M	WRBL 1200 100
Yuma	KVCV 1200 100 Sacramento	New Britain WNBC 1380 250	Griffin WKEU 1500 100
KUMA 1420 100	KFBK 1490 5000 N KROY 1210 100	New Haven WELI 900 500	Macon WMAZ 1180 1000 C
ARKANSAS	San Bernardino	New London	Rome WRGA 1500 100
Blytheville KLCN 1290 100	San Diego	WNLC 1500 100M Waterbury	Savannah WTOC 1260 1000 C
El Dorado	KFSD 600 1000 B KGB 1330 1000 M	WATR 1190 100 WBRY 1530 1000M	Thomasville WPAX 1210 100
KELD 1370 100 Fort Smith	San Francisco		Waycross
KFPW 1210 100	KFRC 610 1000M KGGC 1420 100 KGO 790 7500 B	DELAWARE	WAYX 1200 100
Hot Springs KTHS 1060 10000 N	KGO 790 7500 B KJBS 1070 500	Wilmington WDEL 1120 250 R	HAWAII
Jonesboro KBTM 1200 100	KPO 680 50000 R KSFO 560 1000 C	WILM 1420 100	Hilo KHBC 1400 250M
Little Rock KARK 890 500 N	KYA 1230 1000	DISTRICT OF COLUMBIA	Honolulu KGMB 1320 1000 C
KGHI 1200 100	San Jose KOW 1010 1000M	***************************************	KGU 750 2500 N
Pine Bluff	San Luis Obispo	Washington WJSV 1460 10000 C	IDAHO
KOTN 1500 100 Siloam Springs	KVEC 1200 250 Santa Ana	WMAL 630 250 B WOL 1310 100 M	Boise
KUOA 1260 5000	KVOE 1500 100M	WRC 950 500 R	KIDO 1350 1000 N
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NORTH	AMERICAN B. C. S	STATIONS BY LOC	ATIONS
Coeur d'Alene KGCI 1200 100	Fort Wayne WGL 1370 100 N	Kansas City KCKN 1310 100	MARYLAND
Idaho Falls KID 132 <b>0</b> 500	WOWO 1160 10000 B	Lawrence	Baltimore WBAL 760 2500 B
	Gary WIND 560 1000	KFKU 1220 1000 WREN 1220 1000 B	WBAL 1060 10000 B
Lewiston KRLC 1390 250	Hammond	Manhattan	WCAO 600 500 C
Nampa 250	WHLP 1480 5000	KSAC 580 500	WCBM 1370 100 WFBR 1276 500 R
KFXD 1200 100	WWAE 1200 100	Pittsburg	
Pocatello	Indianapolis WFBM 1230 1000 C	KOAM 790 1000 N	College Park W3XJ 1060 100
SEI 900 250	WFBM 1230 1000 C WGVA 1050 1000	Salina	Cumberland
Twin Falls	WGVA 1050 1000 WIRE 1400 1000 R	KSAL 1500 100	WTBO 800 250
KTFI 1240 1000	Muncie	Topeka WIBW 580 1000 C	Frederick
ILLINOIS	WLBC 1310 100		WFMD 900 500
	New Albany	Wichita KANS 1210 100 B	Hagerstown WJEJ 1210 50
Bloomington WJBC 1200 100	WGRC 1370 250	KFH 1300 1000 C	
	Richmond		Salisbury WSAL 1200 250
Carthage VCAZ 1070 100	WKBV 1500 100	KENTUCKY	WSAL 1200 250
Champaign	South Bend WFAM 1200 100		MASSACHUSETTS
VDWS 1370 100	WSBT 1360 500	Ashland WCMI 1310 100	P
Chicago	Terre Haute		Boston WAAB 1410 500M
VAAF 920 1000	WBOW 1310 100 N	Covington WCKY 1490 10000 N	WBZ 990 50000 B
VBBM 770 50000 C	West Lafayette	Lexington	WCOP 1120 500
WCBD 1080 5000 WCFL 970 5000 N	WBAA 890 500	WLAP 1420 100	WEEI 590 1000 C WHDH 830 1000
WCRW 1210 100	IOWA	Louisville	WMEX 1500 100
WEDC 1210 100		WAVE 940 1000 N	WNAC 1230 1000 R
WENR 870 50000 B WGES 1360 500	Ames	WHAS 820 50000 C	WORL 920 500
VGN 720 50000M	WOI 640 5000	Middlesboro WLMU 1210 100	Fall River
VJJD 1130 20000	Boone KFGO 1370 100		WSAR 1450 1000M Greenfield
VLS 870 50000 B VMAO 670 50000 R	Cedar Rapids	Owensboro WOMI 1500 100	1210 250
MBI 1080 5000	WMT 600 1000 B	Paducah	Lawrence
/SBC 1210 100	Davenport	WPAD 1420 100	WLAW 680 1000
Cicero	WOC 1370 100 C		Lowell
HFC 1420 100	Decorah	LOUISIANA	WLLH 1370 100M
Decatur IBL 1200 100	KGCA 1270 100 KWLC 1270 100		New Bedford WNBH 1310 100M
		Alexandria KALB 1216 160	Pittsfield
East Dubuque VKBB 1500 100	Des Moines KRNT 1320 1000 C	Baton Rouge	WBRK 1310 100
East St. Louis	KSO 1430 500 B	WJBO 1120 500 B	Springfield WBZA 990 1000 B
VT'MV 1500 100	WHO 1000 50000 R	Lafayette	I WMAS 1420 100 C
Harrisburg	Dubuque KDTH 1340 500	KVOL 1310 100	WSPR 1140 500M
VEBQ 1210 100		Lake Charles	Worcester WORC 1280 500 C
Joliet	Iowa City WSUI 880 500	KPLC 1500 100	WTAG 580 1000 R
VCLS 1310 100	Marshalltown	Monroe KMLB 1200 100	
Реогіа VMBD 1440 1000 С	KFJB 1200 100	New Orleans	MICHIGAN
Quincy	Mason City	WBNO 1200 100	Battle Creek
VTAD 900 1000	KGLO 1210 100 C	WDSU 1250 1000 B	WELL 1420 100
Rockford	Shenandoah	WJBW 1200 100 WSMB 1320 1000 R	Bay City
VROK 1410 500	KFNF 890 500 KMA 930 1000	WWL 850 1000 C	WBCM 1410 500
Rock Island WHBF 1210 100	Sioux City	Shreveport	Calumet
Springfield	KSCJ 1330 1000 C	KRMD 1310 100	WHDF 1370 100 Detroit
Springfield VCBS 1420 100	KTRI 1420 100	KTBS 1450 1000 N	WJBK 1500 100
NTAX 1210 100	T 137010	KWKH 1100 10000 C	WJR 750 50000 C
Tuscola VDZ 1020 250	KANSAS	MAINE	WMBC 1420 100   WWJ 920 5000 R
Urbana	Abilene	TATALIAE.	WXYZ 1240 1000 B
VILL 580 1000	KFBI 1050 5000	Augusta	East Lansing
INDIANA	Coffeyville KGGF 1010 1000M	WRDO 1370 100M	WKAR 850 1000
AINDAMINA	Dodge City	Bangor WABI 1200 100	Flint WFDF 1310 100
Anderson	KGNO 1340 250	WLBZ 620 500 C	Grand Rapids
VHBU 1210 100 Elkhart	Garden City KIUL 1210 100	Portland	WASH 1270 500 N
WTRC 1310 100	Great Bend	WCSH 940 1000 R	WOOD 1270 500 N Ironwood
Evansville	KVGB 1370 100	WGAN 640 500	WJMS 1420 100
WEOA 1370 100 C	Hutchinson KWBG 1420 100	Presque Isle	Jackson
WGBF 630 500 N	KWBG 1420 100	WAGM 1420 100	WIBM 1370 100
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Kalamazoo		A Almiration (Clause	THE PARTY OF THE P
	Kansas City	Atlantic City	WBOQ 860 50000
WKZO 590 1000 B	KCMO 1370 100	WPG 1100 5000 C	WEAF 660 50000 R
Lansing	KMBC 950 1000 C	Bridgeton	WEVD 1300 1000
WJIM 1210 100	KXBY 1530 1000	WSNJ 1210 100	WFAB 1300 1000
_	WDAF 610 1000 R		WHN 1010 1000
Lapeer	WHB 860 1000M	Camden	WINS 1180 1000
WMPC 1200 100	Poplar Bluff	WCAM 1280 500	WJZ 760 50000 B
Marquette	1310 100	Jersey City	WMCA 570 1000
WBEO 1310 100		WAAT 940 500	WNEW 1250 1000
	St. Joseph KFEO 680 2500	WHOM 1450 250	
Muskegon	KFEQ 680 2500		
WKBZ 1500 100	St. Louis KFUO 550 500	Newark .	
Royal Oak		WHBI 1250 1000	WQXR 1550 1000
WEXL 1310 50	KMOX 1090 50000 C	WOR 710 50000M	Olean
	KSD 550 1000 R	ł .	WHDL 1400 250
Saginaw	KWK 1350 1000 B	Red Bank	
WHAL 950 500	WEW 760 1000	WBRB 1210 100	Plattsburg
·	WIL 1200 100	Trenton	WMFF 1310 100
MININECOTA	Springfield	WTNJ 1280 500	Rochester
MINNESOTA	KGBX 1230 500 N	Whippany	WIIAM 1150 50000 B
444	KWTO 560 5000	W3XDD 50000	WHEC 1430 500 C
Albert Lea	EW 10 300 3000		WSAY 1210 100
KATE 1420 250	MONTANA	Zarephath	
Duluth	MONTANA	WAWZ 1350 500	Saranac Lake
KDAL 1500 100 C			WNBZ 1290 100
WEBC 1290 1000 N	Billings	NEW MEXICO	Schenectady
Fergus Falls	KGHL 780 1000 N		WGY 790 50000 R
KGDE 1200 100	Butte	Albuquerque	
	KGIR 1340 1000 N	KGGM 1230 1000	Syracuse
Hibbing	Great Falls	KOB 1180 10000 N	WFBL 1360 1000 C
WMFG 1210 100	KFBB 1280 1000 C		WSYR 570 1000 B
Minneapolis		Carlsbad	
WCCO 810 50000 C	Helena	KLAH 1210 100	Troy WHAZ 1300 1000
WDGY 1180 1000 C	KPFA 1210 100	Clovis	WHAZ 1300 1000
WLB 1250 1000	Kalispell	KICA 1370 100	Utica
WTCN 1250 1000 B	KGEZ 1310 100		WIBX 1200 100 C
Moorhead	Lewistown	Gallup	
KVOX 1310 100	KDNC 1200 100	KAWM 1500 100	Watertown WNNY 1420 100
Northfield	Missouia	Roswell	*******
WCAL 1250 1900	KGVO 1260 1000 C	KGFL 1370 100	White Plains
	Wolf Point	Santa Fe	WFAS 1210 100
Rochester	KGCX 1450 1000	KRQA 1310 100	337 4-1-4
KROC 1310 100	ROCK 1100 1000	1111011	Woodside
St. Cloud	NEBRASKA	NEW WORK	WWRL 1500 100
KFAM 1420 100	NEDRASKA	NEW YORK	
St Paul			NORTH CAROLINA
ot, I au	C1 C		HORIH GARODINA
KSTP 1460 10000 R	Clay Center	Albany	
	KMMJ 740 1000	Albany WABY 1370 100	Asheville
WMIN 1370 100	KMMJ 740 1600 Kearney	Albany WABY 1370 100 WOKO 1430 500 C	
WMIN 1370 100 Virginia	KMMJ 740 1000 Kearney KGFW 1310 100	WABY 1370 100 WOKO 1430 500 C	Asheville WWNC 570 1000 N
WMIN 1370 100 Virginia WHLB 1370 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln	WABY 1370 100 WOKO 1430 500 C Auburn	Asheville WWNC 570 1000 N Charlotte
WMIN 1370 100 Virginia WHLB 1370 100 Winona	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C
WMIN 1370 100 Virginia WHLB 1370 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham
WMIN 1370 100 Virginia WHLB 1370 100 Winona	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250 MISSISSIPPI	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada	KMMJ 740 1000 Kearney KGPW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000	WABY 1370 100 WOKO 1430 500 C Auburn 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WBBR 1300 1000	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100	KMMJ 749 1000 Kearney KGPW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WBBR 1300 1000 WCNW 1500 100	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WGRW 1500 100 WCTH 1400 500	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg	KMMJ 749 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WBBR 1300 1000 WCNW 1500 100 WLTH 1400 500 WMBO 1500 100	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100
WMIN 1376 100 Virginia WHLB 1376 100 Winoma KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1440 500 WBBC 1400 500 WBBR 1300 1000 WCNW 1500 100 WLTH 1400 500 WMBO 1500 100 WVFW 1400 500	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh
WMIN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattlesburg WFOR 1370 100 Jackson	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottsbluff	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WWHBO 1500 100 WWHBO 1500 100 WWFW 1400 500 Buffalo	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh WPTF 680 1000 N
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WMIN 1370 100 Virginia WHILB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1370 1000 R Kosciusko	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNP 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottsbluff KGKY 1500 100	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WGNW 1500 1000 WCNW 1500 100 WLTH 1400 500 WMFW 1400 500 Buffalo WBEN 900 1000 R WBN 900 1000 R	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh WPTF 680 1000 N Rocky Mount WEED 1420 100
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WMIN 1370 100 Virginia WHLB 1376 100 Winoma KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1270 1000 R Kosciusko WHEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg WOBC 1360 1000  MISSOURI  Cape Girardeau KFVS 1210 100 Columbia KFRU 630 500	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 D WAAW 660 500 WOW 590 1000 R Scottabluff KGKY 1500 100  NEVADA  Reno KOH 1380 500 C  NEW HAMPSHIRE  Laconia WLNH 1310 Manchester WFEA 1340 500 N Portsmouth WHEB 740 250	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1440 500 WBBC 1400 500 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WLTH 1400 500 Buffalo WBBN 900 1000 R Buffalo WBBN 1370 100 WBBN 1370 100 WBBN 1370 100 WBBN 1370 500 Canton WCAD 1220 500 Elmira WESG 850 1000 C Freeport WGBB 1210 100 Jamestown WJTN 1210 Newburgh WGNY 1210 100 B	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFIC 1200 100 Raleigh WPTF 680 1000 N Rocky Mount WEED 1420 100 Wilmington WMFD 1370 100 Wilson WGTM 1310 100 Wilson WGTM 1310 100 NORTH DAKOTA Biamarck KFYR 550 1000 N Devils Lake KDLR 1210 100
WMIN 1370 100 Virginia WHILB 1370 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1370 1000 R Kosciusko WHEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg WOBC 1360 1000  MISSOURI  Cape Girardeau KFVS 1210 100 Columbia KFRU 630 500 Jefferson City	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottsbluff KGKY 1500 100  NEVADA  Reno KOH 1380 500 C  NEW HAMPSHIRE  Laconia WLNH 1310 100M Manchester WFEA 1340 500 N Portsmouth	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBR 1300 1000 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WVFW 1400 500 Buffalo WBBN 900 1000 R WBN 1370 100 WEBR 1310 100 B WGR 550 1000 C WKBW 1480 5000 C	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFIC 1200 100 Raleigh WPTF 680 1000 N Rocky Mount WEED 1420 100 Wilmington WMFD 1370 100 Wilson WGTM 1310 100 Wilson WGTM 1310 100 NORTH DAKOTA Biamarck KFYR 550 1000 N Devils Lake KDLR 1210 100
WMIN 1370 100 Virginia WHLB 1376 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1270 1000 R Koeciusko WHEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg Vicksburg WGC 1360 1000  MISSOURI  Cape Girardeau KFVS 1210 100 Columbia KFRU 630 500 Jefferson City KWOS 1310 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottabluff KGKY 1500 100  NEVADA  Reno KOH 1380 500 C  NEW HAMPSHIRE  Laconia WLNH 1310 100M Manchester WFEA 1340 500 N Portsmouth WHEB 740 250	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1440 500 WBBC 1400 500 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WWLTH 1400 500 WMBO 1500 100 WWLTH 1400 500 WMBO 1500 100 WWLTH 1400 500 WWLTH 1400 500 WLTH 1400 500 WWLTH 1400 500 Buffalo WEBR 1310 100 WEBR 1310 100 B WGR 550 1000 C WSVS 1370 Canton WCAD 1220 500 Elmira WESG 850 1000 C Freeport WGBB 1210 100 Jamestown WJTN 1210 Newburgh WGNY 1210 New York WABC 860 50000 C	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh WPTF 680 1000 N Rocky Mount WEED 1420 100 Williand ton WMFD 1370 100 Wilson WGTM 1310 100 Wilson WGTM 1310 100 WISON WGTM 1310 100 C NORTH DAKOTA  Bismarck KFYR 550 1000 N Pargo WDAY 940 1000 N
WMIN 1370 100 Virginia WHLB 1370 100 Winoma KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1270 1000 R Kosciusko WHEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg WOBC 1360 1000  MISSOURI  Cape Girardeau KFVS 1210 100 Columbia KFRU 630 500 Jefferson City KWOS 1310 100 Joplin	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottabluff KGKY 1500 100  NEVADA  Reno KOH 1380 500 C  NEW HAMPSHIRE  Laconia WLNH 1310 100M Manchester WFEA 1340 500 N Portsmouth WHEB 740 250  NEW JERSEY  Asbury Park	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1440 500 WBBC 1440 500 WGNW 1500 100 WCNW 1500 100 WCNW 1500 100 WVFW 1440 500 Buffalo WBBN 900 1000 R WBNY 1370 100 WBNY 1370 100 WBNY 1370 100 WEBR 1310 100 B WGR 550 1000 C WKBW 1480 5000 C WKBW 1480 5000 C WKBW 1480 5000 C Rreeport WGBB 1210 Jamestown WJTN 1210 100 B Newburgh WGNY 1210 100 B	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh WFFF 680 1000 N Rocky Mount WEED 1420 100 Willington WMFD 1370 100 Willington WGTM 1310 100 WINGTM 1310 100 NORTH DAKOTA  Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Pargo WDAY 940 1000 N Grand Forks
WMIN 1370 100 Virginia WHLB 1376 100 Winona KWNO 1200 250  MISSISSIPPI  Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1270 1000 R Koeciusko WHEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg Vicksburg WGC 1360 1000  MISSOURI  Cape Girardeau KFVS 1210 100 Columbia KFRU 630 500 Jefferson City KWOS 1310 100	KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottabluff KGKY 1500 100  NEVADA  Reno KOH 1380 500 C  NEW HAMPSHIRE  Laconia WLNH 1310 100M Manchester WFEA 1340 500 N Portsmouth WHEB 740 250	WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1440 500 WBBC 1400 500 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WCNW 1500 100 WWLTH 1400 500 WMBO 1500 100 WWLTH 1400 500 WMBO 1500 100 WWLTH 1400 500 WWLTH 1400 500 WLTH 1400 500 WWLTH 1400 500 Buffalo WEBR 1310 100 WEBR 1310 100 B WGR 550 1000 C WSVS 1370 Canton WCAD 1220 500 Elmira WESG 850 1000 C Freeport WGBB 1210 100 Jamestown WJTN 1210 Newburgh WGNY 1210 New York WABC 860 50000 C	Asheville WWNC 570 1000 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh WFTF 680 1000 N Rocky Mount WEED 1420 100 Willington WMFD 1370 100 Willington WGTM 1310 100 Winston-Salem WAIR 1250 250 WSJS 1310 100 C NORTH DAKOTA  Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks

NONTH	AMERICAN D. C. C	JIAIIONO DI DOC	11110110
Jamestown	Tulsa	Reading	Chattanooga
KRMC 1370 100	KTUL 1400 500 C	WEEU 830 1000	WAPO 1420 100
Mandan	KVOO 1140 25000 N	WRAW 1310 100	WDOD 1280 1000 C
KGCU 1240 250	OREGON	Scranton WGBI 880 500	Jackson WTJS 1310 100
Minot KLPM 1240 250	OREGON	WOAN 880 500	Knoxville
	Astoria	Sunbury	WNOX 1010 1000 C
Valley City KOVC 1500 100	KAST 1370 100	WKOK 1210 100	WROL 1310 100 N
1000 1000 100	Corvallis KOAC 550 1000	Uniontown	Memphis
оню	Eugene	WMBS 1420 250	WHBQ 1370 100
	KORE 1420 100M	Wilkes-Barre	WMC 780 1000 R WMPS 1430 500 B
Akron WADC 1320 1000 C	Klamath Falls KFJI 1210 100	WBAX 1210 100   WBRE 1310 100	WREC 600 1000 C
WJW 1210 100	La Grande	Williamsport	Nashville
Ashtabula	KLBM 1420 100	WRAK 1370 100	WLAC 1470 5000 C
WICA 940 250	Marshfield KOOS 1200 100	York	WSIX 1210 100 WSM 650 50000 N
Canton	Medford	WORK 1320 1000 N	W3M 030 3000 N
WHBC 1200 100	KMED 1410 250 N	PUERTO RICO	TEXAS
Cincinnati WCPO 1200 100	Portland KALE 1300 500 C		Abilene
WKRC 550 1000 C	KBPS 1420 100	Mayaguez WPRA 1370 100	KRBC 1420 100
WLW 700 500000 N	KEX 1180 5000 B	Ponce	Amarillo
WSAI 1330 1000 N W8XO 700 500000	KGW 620 1000 R KOIN 940 1000 C	WPRP 1420 100	KGNC 1410 1000 N
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	KOIN 940 1000 C KWJJ 1040 500	San Juan WKAO 1240 1000	Austin
Cleveland WCLE 610 500M	KXL 1420 100	WKAQ 1240 1000 WNEL 1290 1000	KNOW 1500 100 C
WGAR 1450 500 C	Roseburg		KTBC 1120 1000
WHK 1390 1000 B	KRNR 1500 100M	RHODE ISLAND	Beaumont KFDM 560 500 N
WTAM 1070 50000 R	Salem KSLM 1370 100M	Providence	
Columbus WBNS 1430 500 C	KSEM 1370 100M	WEAN 780 1000M	Big Spring KBST 1500 100
WCOL 1210 100 N	PENNSYLVANIA	WJAR 890 1000 R	Brady
WHKC 640 500	Allentown	WPRO 630 500 C	KNEL 1500 250
WOSU 570 750	WCBA 1440 500	SOUTH CAROLINA	Brownsville
Dayton WHIO 1260 1000 C	WSAN 1440 500 N		KGFI 1500 100
WSMK 1380 200 C	Altoona	Anderson WAIM 1200 100 C	College Station WTAW 1120 500
Lima	WFBG 1310 100	Charleston	Corpus Christi
WBLY 1210 100	Easton WEST 1200 100	WCSC 1360 500 N	KRIS 1330 500 N
Portsmouth	Erie 1200 100	Columbia   WIS	Corsicana
WPAY 1370 100	WLEU 1420 100 B	Florence	KAND 1310 100
Toledo WSPD 1340 1000 B	Glenside	WOLS 1200 100	Dallas   KRLD 1040 10000 C
WTOL 1200 100	WIBG 970 100	Greenville WFBC 1300 1000 N	WFAA 800 50000 N
Youngstown	Greensburg	Spartanburg	WRR 1280 500M
WKBN 570 500 C	WHJB 620 250 C	WSPA 920 1000	Dublin
Zanesville WALR 1210 100	Grove City WSAJ 1310 100	SOUTH DAKOTA	KFPL 1310 100
WALK 1210 100	l .	SOUTH DAKOTA	El Paso KROD 1500 100
OKLAHOMA	Harrisburg WHP 1430 500 C	Aberdeen	KROD 1500 100 KTSM 1310 100
Ado	WKBO 1200 100	KABR 1420 100	WDAH 1310 100
Ada KADA 1200 100M	Hazleton	Brookings KFDY 780 1000	Fort Worth
Ardmore	WAZL 1420 100	Huron	KFJZ 1370 100
KVSO 1210 100M	Johnstown	KGDY 1340 250	KTAT 1240 1000M   WBAP 800 50000 N
Elk City KASA 1210 100M	WJAC 1310 100	Pierre KGFX 630 200	Galveston
Enid	Lancaster WGAL 1500 100	Rapid City	KLUF 1370 100
KCRC 1360 250M	Philadelphia	KOBH 1370 100	Greenville
Muskogee KBIX 1500 100M	KYW 1020 10000 R	WCAT 1200 100 Sioux Falls	KGVL 1200 100 Houston
Norman	WCAU 1170 50000 C	KELO 1200 100 N	KPRC 920 1000 R
WNAD 1010 1000	WDAS 1370 100 WFIL 560 1000 B	KSOO 1110 2500 N	KTRH 1290 4000 C
Oklahoma City KFXR 1310 100	WHAT 1310 100	Vermillion KUSD 890 500	KXYZ 1440 1000 B
KOMA 1480 5000 C	WIP 610 1000	Watertown	Kilgore KOCA 1210 100
KTOK 1370 100M	WPEN 920 1000 WTEL 1310 100	KWTN 1210 100	Longview
WKY 900 1000 N	Pittsburgh	Yankton WNAX 570 1000 C	KFRO 1370 250 Lubbock
Okmulgee KHBG 1210 100	KDKA 980 50000 B	WNAX 570 1000 C	KFYO 1310 100
Ponca City	KOV 1380 500 C	TENNESSEE	Lufkin
rollea City			KRBA 1310 100
WBBZ 1200 100M	WCAE 1220 1000 R	Detect	
WBBZ 1200 100M Shawnee KGFF 1420 100M	WČAE 1220 1000 R WJAS 1290 1000 C WWSW 1500 100	Bristol WOPI 1500 100	Midland KRLH 1420 100

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Palestine	WRTD 1500 100 B	LaCrosse	Winnipeg CJRC 630 500 F
KNET 1420 100 Pampa	WRVA 1110 5000 C Roanoke	WKBH 1380 1000 C Madison	CJRC 630 500 F CKY 760 15000 F
KPDN 1310 100 Paris	WDBJ 930 1000 C	WHA 940 5000 WIBA 1280 1000 N	NEW BRUNSWICK
KPLT 1500 250	WASHINGTON	Manitowoc WOMT 1210 100	Fredericton
Pecos KIUN 1420 100	Aberdeen	Milwaukee	CFNB 550 500 F Moncton
Port Arthur KPAC 1260 500	KXRO 1310 100M Bellingham	WEMP 1310 100 WISN 1120 250 C	CKCW 1370 100 F
San Angelo KGKL 1370 100	KVOS 1200 100M Centralia-Chehalis	WTMJ 620 1000 N Poynette	St. John CHSJ 1126 500 F
San Antonio	KELA 1440 500M	WIBU 1210 100 Racine	N. W. TERRITORY
KABC 1420 100 KMAC 1370 100	Everett KRKO 1370 50	WRJN 1370 100	-
KONO 1370 100 KTSA 550 1000 C	Longview KWLK 780 250	Sheboygan WHBL 1300 250	Aklavik CJCU 1210 50
WOAI 1190 50000 N Sherman	Olympia	Stevens Point WLBL 900 5000	NOVA SCOTIA
KRRV 1310 250	KGY 1210 100M Pullman	Superior WDSM 1200 100	Glace Bay
Temple KTEM 1370 250	KWSC 1220 1000	Wausau	VAS 685 2000
Texarkana KCMC 1420 100	Seattle KEEN 1370 100	WSAU 1370 100	Halifax CHNS 930 1000 F
Tyler KGKB 1500 100	KIRO 710 1000 C	WYOMING	Sydney CJCB 1240 1000 F
Waco	KJR 970 5000 B KOL 1270 1000M	Casper KDFN 1440 500	Wolfville CKIC 1010 50
WACO 1420 100 C Weslaco	KOMO 928 1000 R KRSC 1120 250	Rock Springs	Yarmouth
KRGV 1260 1000 N Wichita Falls	KTW 1220 1000 KXA 760 250	Sheridan	CJLS 1310 100
KGKO 570 250 C	Spokane	KWYO 1370 100	ONTARIO
UTAH	KFPY 890 1000 C	CANADA	Brantford CKPC 930 100 F
Cedar City	KGA 1470 5000 B KHO 590 1000 R	ALBERTA	Chatham
KSUB 1310 100 Ogden	Tacoma	Calgary	CFCO 630 100 F Cobalt
KLO 1400 500 B Price	KMO 1330 1000M KVI 570 1000 C	CFAC 930 1000 F CFCN 1030 10000	CKMC 1210 50 Fort William
KEUB 1420 100	Walla Walla	CJCJ 690 100 F	CKPR 730 100 F Hamilton
Salt Lake City KDYL 1290 1000 R	KUJ 1370 100 Wenatchee	Edmonton CFRN 960 100 F	CHML 1010 100 F
KSL 1130 50000 C KUTA 1500 100	KPQ 1500 100M	CJCA 730 1000 F CKUA 580 500	CKOC 1120 500 F Kingston
VERMONT	Yakima KIT 1310 190M	Grande Prairie	CFRC 1510 100 F London
	WEST VIRGINIA	Lethbridge	CFPL 730 100 F North Bay
Burlington WCAX 1200 100	Bluefield		CFCH 930 100 F
Rutland WSYB 1500 100	WHIS 1410 500	BRIT. COLUMBIA	CJKL 1310 100 CKGB 1420 100
St. Albans WODM 1390 1000	Charleston WCHS 580 500 C	Chilliwack CHWK 780 100 F	Ottawa CBO 880 1000 F
Springfield	Clarksburg	Kamloops	CKCO 1010 100 F Owen Sound
Waterbury	WBLK 1370 100	CFJC 880 100 F Kelowna	1370 100
WDEV 550 500	WMMN 890 500 C	CKOV 630 100 F Prince Rupert	Prescott CFLC 930 100
VIRGINIA	Huntington WSAZ 1190 1000	CFPR 580 50	St. Catharines CKTB 1200 100 F
Charlottesville WCHV 1420 100	Parkersburg WPAR 1420 100 C	Trail CJAT 910 1000 F	Sault Ste, Marie CJIC 1500 100
Danville	Wheeling	Vancouver CBR 1100 5000 F	Stratford
WBTM 1370 100 Harrisonburg	WWVA 1160 5000 C	CJOR 600 500 CKCD 1010 100	CJCS 1210 50 Sudbury
WSVA 550 500	WISCONSIN	CKFC 1410 50 CKMO 1410 100	CKSO 780 1000 F Toronto
Lynchburg WLVA 1200 100	Eau Claire	CKWX 1010 100 F	CBL 840 50000 CFRB 690 10000 C
Newport News	WEAU 1050 1000	Victoria CFCT 1450 50	CKCL 580 100 F
WGH 1310 100 Norfolk	Fond du Lac KFIZ 1420 100	MANITOBA	CRCT 840 5000 N CRCY 960 100 F
WTAR 780 1000 N	Green Bay		Waterloo CKCR 1510 100
Richmond WBBL 1210 100	WHBY 1200 100 WTAQ 1330 1000 C	Brandon CKX 1120 1000 F	Windsor
WMBG 1350 500 R	Janesville WCLO 1200 100	Flin Flon CFAR 1370 100	CBW 600 500 F CKLW 1030 5000M
WRNL 880 500			

Wingham CKNX 1200 100	XELO 670 50000 XEMO 860 5000	MICHOACAN	Camaguey CMJA 1010 300
CKNA 1200 100	XEOK 760 2500	Morelia	CMJC 1390 150
PRINCE EDWARD		XEI 1370 125	CMJE 1220 50
ISLAND	CHIHUAHUA		CMJF 1150 200
	OL II.	NUEVO LEON	CMJK 780 250
Charlottetown CFCY 630 1000 F	Chihuahua XEFI 1440 250	Monterrey	CMJL 1340 75 CMJX 830 500
CHCK 1310 50		XEFB 870 200	
Summerside	Juarez XEFV 1210 100	XEFJ 1230 100	Cardenas CMGE 1370 150
CHGS 1450 50 F	XEF 1450 100	XEG 1220 250	
OVIDBEC	XEJ 1020 1000	XEH 720 250	Ciego de Avila CMJH 1360 50
QUEBEC	XEP 1160 500	XET 690 5000 XEX 1310 125	CMJI 1130 150
Chicoutimi	Parral XEAT 1210 250	AEA 1310 123	CMJO 1180 50
CRCS 1120 100 F	XEAT 1210 250	PUEBLA	Cienfuegos
Hull	COAHUILA		CMHJ 1160 175
CKCH 1210 100 F Montreal		Puebla XETH 1210 100	CMHM 1450 100 CMHW 820 100
CBF 910 50000 N	Piedras Negras	XE111 1210 100	CMHX 760 200
CBM 1050 5000 F	XEMU 580 XEPN 730 100000	SAN LUIS POTOSI	Cruces
CFCF 600 500 B	Sabinas		CMHK 1330 250
CHLP 1120 100 F CKAC 730 5000 C	XEBX 640 250	San Luis Potosi XECZ 1370 100	Havana
New Carlisle	Saltillo	XEXH 1250 250	CMBC 630
CHNC 960 1000 F	XEAS 1160 50 XELA 1240 50	1204 204	CMBD 1170 500
Ouebec	Torreon	SINALOA	CMBG 1140 200
CHRC 580 100	XETB 1310 125	Manadan	CMBL 710 CMBS 770 150
CKCV 1310 100 F CRCK 950 1000 F	Villa Acuna	Mazatlan XEBL 1220 50	CMBX 1070 500
Rimouski	XERA 840 350000	AEDD 1444 50	CMBY 970 150
CJBR 1030 1000 F	D. F.	SONORA	CMBZ 1000 500
Sherbrooke			CMC 1260 150 CMCA 1350 450
CHLT 1210 100 Three Rivers	Atzcapotzalco	Hermosillo XEBH 930 500	CMCB 640 150
CHLN 1420 100	XEMG 1060 100	Nogales 500	CMCD 950 250
	Gra. Anaya XEDA 1220 200	XEAF 990 750	CMCF 810 600
SASKATCHEWAN	Mexico City	Obregon	CMCG 680 1000 CMCJ 1100 500
Moose Jaw	XEAL 660 1000	XEAP 1240 50	CMCK 1030
CHAB 1200 100 F	XEAY 1246 100	TAMAULIPAS	CMCM 850
Prince Albert	XEB 1030 10000   XEBS 1240 200		CMCO 1200 250
CKBI 1210 100 F	XEBZ 1160 100	Matamoros XEAM 750 25	CMCQ 1410 250 CMCU 1280 500
Regina CJRM 540 1000	XECW 1310 10	Nuevo Laredo	CMCU 1280 500 CMCW 750 150
CKCK 1010 1000 F	XEDP 1080 500 XEFO 930 5000	XEBK 1000 60	CMCX 1030 150
Saskatoon	XEFO 930 5000 XEJP 1130 100	XEDF 810 75	CMCY 570 5000
CFQC 840 1000 F	XEJW 870	XEFE 980 150 XENT 910 150000	CMK 730 3000 CMOA 1440 150
Yorkton	XEK 990 100		CMOA 1440 150 CMOX 1320 200
CJGX 1390 100 F	XEL 780 1000 XELZ 1370 100	Reynosa XEAW 960 50000	CMO 880 25000
NEWFOUNDLAND	XEMX 1280 100	Tampico XEFW 1310 250	CMW 600 1400
	XENC 860 50	XEFW 1310 250 XES 990 250	CMX 920 1000
St. John's	XEW 890 50000	774 204	Holguin CMFK 1460 250
VOAC 1065 40 VOAS 940 100	XEXE 1270 17 XEYO 940 500	VERACRUZ	CMKO 1280
VOAS 940 100 VOCM 1006 200	Tacuba 500	Cordoba	Manzanillo CMKM 1120 200
VOGY 840 400	XEFA 1180 500	XEAG 1310 10	Matanzas
VONF 1195 500		Jalapa	CMGC 1400 150
VOWR 681 500	DURANGO	XEXB 1270 50 XEXD 1340 350	CMGF 1120 250
MEXICO	Dumando	Minatitlan	CMGH 790 500
AGUASCALIENTES	Durango XEE 1210 50	XEDW 1150 20	Moron CMJP 1430 75
		Veracruz	Pinar del Rio
Aguascalientes XEBI 1000 25	GUANAJUATO	XETF 1220 30 XEU 1010 250	CMAB 1349
	Transacto	AEU 1010 250	Sagua la Grande CMHA 1070 50
XEXC 810 · 350	Irapuato XEBO 1310 25	YUCATAN	CMHA 1070 50   Sancti Spiritus
BAJA CALIFORNIA	Leon		CMHB 1240 50
	XEKL 1240 500	Merida	Santa Clara
Mexicali	TALLEGO.	XEBJ 1160 20 XEFC 550 100	CMHI 1210 150
XEAA 750 200 XEAO 660 250	JALISCO	XEZ 630 500	Santiago CMKC 1250 150
XECL 1100 1700	Guadalajara		CMKC 1250 150 CMKD 1050 250
Tijuana	XEAD 1060 125	CUBA	CMKG 1160
XEAC 980 1000 XEBG 820 1000	XED 1160 2500	C-151	CMKR 1400 100
XEBG 820 1000 XEC 1150 100	Guzman XEBA 1080 20	Calbarien CMHD 1270 250	CMKW 1350 CMKX 1190
ALC HOT IVE	ALDA 1909 49	12/4 250	CMKX 1190

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	CBF 918 50600 Montreal, P. Q.		CJAT 916 Trail, B. C.	1000		CKSO 780 1900 Sudbury, Ont.
	CBL 840 50000		CJBR 1030	1000		CKTB 1200 100
	Toronto, Ont.	<b></b>	Rimouski, P. Q.			St. Catharines, Ont.
	Montreal, P. Q.		CJCA 730 Edmonton, Alta.	1000		CKUA 580 500 Edmonton, Alta.
	CBO 888 1900 Ottawa, Ont.		CJCB 1240	1000		CKWX 1010 100
	CBR 1100 5000	<u> </u>	Sydney, N. S.	100	<b>—</b>	Vancouver, B. C. CKX 1120 1900
	Vancouver, B. C.		Calgary, Alta.	100		Brandon, Man.
	CBW 600 500 Windsor, Ont.		CJCS 1210 Stratford, Ont.	50		CKY 760 15000
	CFAC 930 1000		CJCU 1210	50		Winnipeg, Man. CMAB 1348
	Calgary, Alta. CFAR 1370 100		Aklavik, N. W. T.	-		Pinar del Rio, Cuba
	CFAR 1378 100 Flin Flon, Man.		CJGX 1396 Yorkton, Sask.	100		CMBC 630 Havana, Cuba
	CFCF 606 500		CJIC 1500	180		CMBD 1170 500
	Montreal, Que. CFCH 938 100	<u> </u>	S. Ste. Marie, Ont	. 100		Havana, Cuba CMBG 1146 200
•	North Bay, Ont.		North Bay, Ont.	100		CMBG 1148 200 Havana, Cuba
	CFCN 1839 19999 Calgary, Alta.		CJLS 1318	100		CMBL 710
	CFCO 630 100		Yarmouth, N. S.	190		Havana, Cuba CMBS 770 150
	Chatham, Ont.		Lethbridge, Alta.			Havana, Cuba
	CFCT 1450 50 Victoria, B. C.		CJOR 696 Vancouver, B. C.	500		CMBX 1070 500 Havana, Cuba
	CFCY 630 1000		CJRC 630	500		CMBY 970 150
<u> </u>	Charlottetown, P.E.I.		Winnipeg, Man.		$\vdash$	Havana, Cuba
	Grande Prairie, Alta.		CJRM 540 Regina, Sask.	1000		CMBZ 1000 500 Havana, Cuba
	CFJC 888 180		CKAC 730	5000		CMC 1260 150
	Kamloops, B. C. CFLC 939 100		Montreal, Que.	100	-	Havana, Cuba CMCA 1350 450
	Prescott, Ont.		Prince Albert, Sasi			Havana, Cuba
	CFNB 550 500 Fredericton, N. B.		CKCD 1010	100		CMCB 640 158 Havana, Cuba
	CFPL 730 100		Vancouver, B. C. CKCH 1210	100		CMCD 950 250
	London, Ont.		Hull, Que.		$\vdash$	Havana, Cuba
	CFPR 586 50 Prince Rupert, B. C.		CKCK 1818 Regina, Sask.	1000		CMCF 818 600 Havana, Cuba
	CFQC 840 1000		CKCL 588	100		CMCG 680 1000
	Saskatoon, Sask. CFRB 690 10000		Toronto, Ont.	100	<b>-</b>	Havana, Cuba CMCJ 1100 500
	Toronto, Ont.		Ottawa, Ont.			Havana, Cuba
	CFRC 1510 100 Kingston, Ont.		CKCR 1510 Waterloo, Opt.	100		CMCK 1038 Havana, Cuba
	CFRN 960 100		CKCV 1318	190		CMCM 850
	Edmonton, Alta. CHAB 1200 190	<u> </u>	Quebec, Que.	400		Havana, Cuba CMCO 1200 250
	Moose Jaw, Sask.		CKCW 1370 Moneton, N. B.	100		Havana, Cuba
	CHCK 1310 50		CKFC 1410	50		CMCQ 1410 250
	Charlottetown, P.E.I. CHGS 1450 50		Vancouver, B. C. CKGB 1420	100	<u> </u>	Havana, Cubu CMCU 1280 500
	Summerside, P.E.I.		North Bay, Ont.			Havana, Cuba
	CHLN 1420 100 Three Rivers, P. Q.		Wolfville, N. S.	50		CMCW 758 158 Havana, Cuba
	CHLP 1120 100		CKLW 1030	5000		CMCX 1030 150
	Montreal, Que. CHLT 1210 100		Windsor, Ont. CKMC. 1210	50		Havana, Cuba CMCY 570 5000
	Sherbrooke, P. Q.		Cobalt, Ont.			Havana, Cuba .
	CHML 1818 100 Hamiiton, Ont.		CKMO 1418	100		CMGC 1400 150
	CHNC 960 1000		Vancouver, B. C. CKNX 1200	100		Matanzas, Cuba CMGE 1370 150
	New Carlisie, Que.		Wingham, Ont.			Cardenas, Cuba
	CHNS 938 1006 Halifax, N. S.		CKOC 1129 Hamilton, Ont.	500		CMGF 1120 250 Matansas, Cuba
	CHRC 580 100	$\vdash$	CKOV 630	100		CMGH 790 500
	Quebec, Que. CHSJ 1120 500		Kelowna, B. C.			Matanzas, Cuba CMHA 1070 50
	CHSJ 1120 500 St. John, N. B.		CKPC 938 Brantford, Ont.	100		CMHA 1070 50 Sagua la Grande, Cuba
	CHWK 780 100		CKPR 730	100		CMHB 1240 58
	Chilliwack, B. C.		Fort William, Ont.			Sancti Spiritus, Cuba

	CMHO 1270 250		CRCY 960	100		KELD 1378	100
	Calbarien, Cuba		Toronto, Ont.	100		El Dorado, Ark.	100
	CMHI 1210 150		KABC 1420	100		KELO 1200	100
	Santa Clara, Cuba CMHJ 1160 175	<del></del>	San Antonio, Texas KABR 1420	100		Sloux Falls, S. Dak. KERN 1370	100
1	Clenfuegos, Cubs		Aberdeen, S. Dak.	100		Bakersfield, Calif.	100
	CMHK 1330 250		KADA 1200	100		KEUB 1429	100
	Cruces, Cuba CMHM 1450 100		Ada, Okia. KALB 1210	100		Price, Utah KEX 1180 5	5000
1	Cienfuegos, Cuba		Alexandria, La.	100		Portland, Ore.	7000
	CMHW 820 100		KALE 1300	500		KFAB 770 10	0000
	Clenfuegos, Cuba CMHX 760 200		Portland, Ore.	100	<u></u>	Lincoln, Neb.	
	Clenfuegos, Cuba		KAND 1310 Corsicana, Texas	100	ì	KFAC 1300 1 Los Angeles, Calif.	1000
	CMJA 1010 300		KANS 1210	100		KFAM 1420	100
	Camaguey, Cuba		Wichita, Kans			St. Cloud, Minn. KFBB 1280 1	
	CMJC 1390 150 Camaguey, Cuba	1	KARK 890 Little Rock, Ark.	500	1	Great Falls, Mont.	1006
<u> </u>	CMJE 1220 50		KARM 1310	100		KFBI 1050 5	5000
	Camaguey, Cuba		Fresno, Calif.			Abilene, Kans.	
	CMJF 1150 200 Camaguey, Cuba	1	KASA 1219 Elk City, Okla.	100		KFBK 1490 5 Sacramento, Calif.	5000
	CMJH 1360 50		KAST 1370	100	<b>—</b>	KFDM 560	500
	Clego de Avila, Cuba		Astoria, Ore.			Beaumont, Texas	
	CMJI 1130 150 Ciego de Avila, Cuba		Albert Lea, Minn.	250		KFDY 789 1 Brookings, S. D.	1000
_	CMJK 780 250		KAWM 1500	100	$\vdash$	KFEL 920	500
	Camaguey, Cuba		Gallup, N. Mex.			Denver, Colo.	
	CMJL 1340 75		KBIX 1500	100		KFEQ 680 2 St. Joseph, Mo.	2500
	Camaguey, Cuba CMJO 1180 56	-	Muskogee, Okla. KBPS 1420	100		KFGQ 1370	100
	Ciego de Avila, Cuba	1	Portland, Ore.			Boone, Iowa	
	CMJP 1430 75		KBST 1500	100			1000
	Camaguey, Cuba CMJX 830 500	-	Big Spring, Texas	100		Wichita, Kans. KFI 640 56	0000
	Camaguey, Cuba		Jonesboro, Ark.	200		Los Angeles, Calif.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	CMK 730 3000		KCKN 1310	100		KFIO 1120	100
	Havana, Cuba CMKC 1250 150		Kansas City, Kans, KCMC 1420	100		Spokane, Wash. KFIZ 1420	100
	Santiago, Cuba		Texarkana, Texas	100		Fond du Lac, Wis.	100
	CMKD 1050 250		KCMO 1370	100		KFJB 1200	100
	Santiago, Cuba CMKF 1468 250		Kansas City, Mo.	250		Marshalltown, Iowa KFJI 1210	100
	Holguin, Cuba		Enid, Okla.	230		Klamath Falls, Ore.	
	CMKG 1169		KCRJ 1310	100		KFJM 1410	500
	Santiago, Cuba CMKM 1120 200		Jerome, Aris. KDAL 1500	100		Grand Forks, N. D. KFJZ 1378	100
	Mansanillo, Cuba		Duluth, Minn.	100		Fort Worth, Texas	104
	CMKO 1280		KDB 1500	100		KFKA 880	500
	Holguin, Cuba CMKR 1400 100		Santa Barbara, Cal KDFN 1446	if. 500 -		Greeley, Colo. KFKU 1226 1	1000
	Santiago, Cuba		Casper, Wyo.	308 .		Lawrence, Kans.	
	CMKW 1350		KDKA 980 5	0000		KFNF 890	500
	Santiago, Cuba CMKX 1190		Pittsburgh, Pa.	100		Shenandoah, Iowa	400
	Santiago, Cuba		KOLR 1210 Devils Lake, N. D.	100		KFOR 1210 Lincoln, Neb.	100
	CMDA 1440 150		KONC 1200	100			1000
	Havana, Cuba		Lewistown, Mont. KDON 1210	100		Long Beach, Calif.	46-
	CMOX 1320 200 Havana, Cuba		KDON 1210 Monterrey, Calif.	100		KFPL 1310 Dublin, Texas	100
	CMQ 880 25000		KOTH 1340	500		KFPW 1210	100
	Havana, Cuba CMW 600 1400		Dubuque, Iowa	4000		Fort Smith, Ark.	
	Havana, Cuba		KDYL 1290 Salt Lake City, Utah	1000		KFPY 896 1 Spokane, Wash.	1000
	CMX 920 1000			1000		KFQO 780	250
	Havana, Cuba		Los Angeles, Calif.			Anchorage, Alaska	
	CRCK 950 1000 Quebec, Que.		KEEN 1370 Seattle, Wash.	100		KFRC 618 1 San Francisco, Calif.	1000
	CRCS 1120 100			1000		KFRO 1370	250
	Chicoutimi, Que.		Los Angeles, Calif.			Longview, Texas	
	CRCT 840 5000		KELA 1440 Centralia-Chehalis,	500 Wn.		KFRU 636	500
	Toronto, Ont.		Contralia-Chonalis,	₩11.		Columbia, Mo.	

KFSD 600 1000 San Diego, Calif.	KGGM 1230 1000 Albuquerque, N. M.	KeT 1310 100 Yakima, Wash.
KFSG 1129 500 Los Angeles, Calif.	KGHF 1320 500 Pueblo, Colo.	KIUL 1210 100 Garden City, Kans.
KFUO 550 500	KGHI 1200 100	KIUN 1420 100
St. Louis, Mo KFVD 1000 1000	Little Rock, Ark,	Pecos, Texas KIUP 1376 100
Los Angeles, Calif.	Billings, Mont.	Durango, Colo.
KFVS 1210 100 Cape Girardeau, Mo	KGIR 1340 1000 Butte, Mont.	San Francisco, Calif.
KFWB 95 1000	KGIW 1420 100	KJR 970 5000
 Hollywood, Calif. KFXD 1200 100	Alamosa, Colo. KGK8 1500 100	Seattle, Wash.
Nampa, Idaho	Tyler, Texas	Carlsbad, N. Mex.
KFXJ 1200 100 Grand Junction, Colo.	KGKL 1370 100 San Angelo, Texas	KLBM 1420 100 La Grande, Ore.
KFKM 1210 100	KGKO 570 250	KLCN 1290 100
 San Bernardino, Calif.	Wichita Falls, Texas	Blytheville, Ark.
Oklahoma City, Okla.	Scottsbluff, Neb.	Ogden, Utah
KFYO 1310 100 Lubbock, Texas	KGLO 1210 100 Mason City, Iowa	Minot, N. D.
KFYR 550 1000	KGMB 1320 1000	KLRA 1390 1000
Bismarck, N. D. KGA 1470 5000	Honolulu, T. H. KGNC 1410 1000	Little Rock, Ark.
Spokane, Wash.	Amarillo, Texas	Oakland, Calif.
KGAR 1370 106 Tucson, Aris.	North Platte, Neb.	KLUF 1379 100 Galveston, Texas
KGB 1330 1000	KGNO 1340 250 Dodge City, Kans.	KLX 880 1006 Oakland, Calif.
San Diego, Calif. KGBU 900 500	KGO 790 7500	KLZ 560 1000
 Ketchikan, Alaska KGBX 1230 500	San Francisco, Calif.	Denver, Colo.  KMA 930 1000
Springfield, Mo.	Honolulu, T. H.	Shenandoah, lowa
KGCA 1270 100 Decorah, Iowa	KGVL 1200 100 Greenville, Texas	KMAC 1370 100 San Antonio, Texas
KGCI 1200 100	KGVO 1260 1000	KMBC 950 1000
 Coeur d'Alene, Idaho	Missoula, Mont.	Kansas City, Mo.
Mandan, N. D.	Portland, Ore.	Medford, Ore.
Wolf Point, Mont.	KGY 1210 100 Olympia, Wash.	KMJ 580 1900 Fresno, Calif.
KGDE 1200 100	KHBC 1400 250	KMLB 1200 100
Fergus Falls, Minn.	Hilo, T. H.	Monroe, La.
Stockton, Calif.	Okmulgee, Okla.	Clay Center, Neb.
KGDY 1340 250 Huron, S. D.	KHJ 900 1000 Los Angeles, Calif.	KMO 1330 1000 Tacoma, Wash.
KGEK 1200 100	KHQ 590 1000	KMOX 1090 5000
 Sterling, Colo.	Spokane, Wash.  KHSL 1260 250	St. Louis, Mo. KMPC 710 50
Long Beach, Calif.	Chico, Calif.	Beverly Hills, Calif.
KGEZ 1310 100 Kalispell, Mont.	Watsonville, Calif.	Los Angeles, Calif.
KGFF 1420 100 Shawnee, Okla	KICA 1376 100 Clovis, N. M.	KNEL 1500 25 Brady, Texas
KGFI 1500 100	KID 1320 500	KNET 1420 10
 Brownsville, Tex.	Idaho Falls, Idaho	Palestine, Texas
Los Angeles, Calif.	Boise, Idaho	Austin, Texas
KGFL 1370 106 Roswell, N. M.	KIDW 1420 100 Lamar, Colo.	KNX 1050 5000 Los Angeles, Calif.
 KGFW 1310 100	KIEM 1450 500	KOA 830 5000
 Kearney, Neb.	Eureka, Calif.	Denver, Colo.
Pierre, S. D.	Giendale, Calif.	Corvallis, Ore.
KGGC 1420 100 San Francisco, Calif.	KINY 1310 100 Juneau, Alaska	KOAM 790 100 Pittsburg, Kans.
	KIRO 710 1000	KOB 1180 1000
KGGF 1010 1000 Coffeyville, Kans.	Seattle, Wash.	Albuquerque, N. M.

Rapid City, S. Dak.	KRLC 1390 250 Lewiston, Idaho	KTMS 1220 500 Santa Barbara, Calif.
KOCA 1218 100	KRLD 1940 19900	KTOK 1370 100
Kilgore, Texas	Dallas, Texas	Oklahoma City, Okla.
KOH 1380 500 Reno, Nev.	KRLH 1420 100 Midland, Texas	Modesto, Calif.
KOIL 1260 1000	KRMC 1370 100	KTRH 1290 1000
Omaha, Neb.	Jamestown, N. Dak.	Houston, Texas KTRI 1420 100
Portland, Ore.	KRMD 1316 100 Shreveport, La.	Sioux City, Iowa
KOKO 1370 100	KRNR 1500 108	KTSA 550 1000
La Junta, Colo.	Roseburg, Ore.	San Antonio, Texas KTSM 1310 100
KOL 1276 1999 Seattle, Wash.	KRNT 1320 1000 Des Moines, Iowa	El Paso, Texas
KOMA 1480 5000	KROC 1310 100	KTUL 1400 500
Oklahoma City, Okla.	Rochester, Minn.	Tulsa, Okla. KTW 1226 1000
Seattle, Wash.	El Paso, Texas	Seattle, Wash.
KONO 1370 100	KROW 930 1000	KUJ 1370 100
San Antonio, Texas KOOS 1200 100	Oakland, Calif.	Walla Walla, Wash. KUMA 1429 100
Marshfield, Ore.	Sacramento, Calif.	Yuma, Ariz.
KORE 1429 100	KRQA 1310 100	KUOA 1260 5000
Eugene, Ore.	Santa Fe, N. Mex. KRRV 1310 250	Siloam Springs, Ark. KUSD 890 500
Pine Bluff, Ark.	Sherman, Texas	Vermillion, S. Dak.
KOVC 1500 100	KRSC 1120 250	KUTA 1500 100
Valley City, N. Dak.	Seattle, Wash. KSAC 588 500	Salt Lake City, Utah KVCV 1200 100
Phoenix, Ariz.	Manhattan, Kans.	Redding, Calif.
KPAC 1260 500	KSAL 1500 100	KVEC 1200 250
Port Arthur, Texas KPON 1310 180	Salina, Kans.	San Luis Obispo, Cal. KVGB 1370 108
Pampa, Texas	Sioux City, Iowa	Great Bend, Kans.
KPFA 1210 100	KSD 550 1000	KVI 570 1000
Helena, Mont. KPLC 1500 100	St. Louis, Mo. KSEI 900 250	Tacoma, Wash. KVOA 1260 1000
Lake Charles, La.	Pocatello, Idaho	Tucson, Aris.
KPLT 1500 100	KSFO 560 1000	KVOO 928 '500
Parls, Texas  KPMC 1550 1000	San Francisco, Cailf.	Denver, Colo. KVOE 1500 100
Bakersfield, Calif.	Salt Lake City, Utah	Santa Ana, Calif.
KPO 680 50000	KSLM 1370 100	KVOL 1310 180
San Francisco, Calif.	Salem, Ore. KSO 1430 500	Lafayette, La. KVOO 1140 25000
Denver, Colo.	Des Moines, Iowa	Tulsa, Okla.
Pasadena, Calif.	KSOO 1110 2500 Sioux Falis, S. Dak.	KVOR 1276 1000 Colorado Springs, Colo.
KPQ 1500 100	KSRO 1310 250	KVOS 1200 100
Wenatchee, Wash.	Santa Rosa, Calif.	Bellingham, Wash.
KPRC 920 1000 Houston, Texas	KSTP 1460 10000	Moorhead, Minn.
KQV 1380 500	St. Paul, Minn. KSUB 1310 100	KVRS 1370 100
Pittsburgh, Pa.	Cedar City, Utah	Rock Springs, Wyo.
KQW 1010 1000 San Jose, Calif.	KSUN 1200 100 Lowell, Ariz,	KVSO 1210 100 Ardmore, Okla.
KRBA 1310 100	KTAR 620 1000	KWBG 1420 100
Lufkin, Texas	Phoenix, Aris.	Hutchinson, Kans.
KRBC 1420 100 Abilene, Texas	KTAT 1240 1000 Fort Worth, Texas	KWG 1209 100 Stockton, Calif.
KRE 1370 100	KTBC 1120 1000	KWJJ 1040 500
Berkeley, Calif.	Austin, Texas	Portland, Ore.
Weslaco, Texas	KTBS 1450 1000 Shreveport, La.	KWK 1350 1000 St. Louis, Mo.
KRIS 1330 500	KTEM 1370 250	KWKH 1100 10000
Corpus Christi, Tex.	Temple, Texas	Shreveport, La.
KRKD 1120 500 Los Angeles, Calif.	KTF# 1240 1006 Twin Falls, Idaho	KWLC 1270 100 Decorab. Iowa
KRKO 1370 50	KTHS 1060 10000	KWLK 780 250
Everett, Wash.	Hot Springs, Ark.	Longview, Wash.
	KTKC 1190 250 Visalia, Calif.	Winona, Minn.

		0.1225
 KWOS 1310 100 Jefferson City, Mo.	WASR 1250 250 Winston-Salem, N. C.	WBOQ 866 56000 New York, N. Y.
KWSC 1229 1000 Pullman, Wash,	WALA 1380 500 Mobile, Ala.	WBOW 1310 100
KWTN 1210 100	WALR 1210 100	Terre Haute, Ind. WBRB 1210 100
 Watertown, S. Dak.	Zanesville, Ohio WAML 1310 100	Red Bank, N. J.
 Springfield, Mo.	Laurel, Miss.	WBRC 930 1000 Birmingham, Ala.
KWYO 1370 199 Sheridan, Wyo.	WAPI 1148 5000 Birmingham, Ala.	WBRE 1310 100 Wilkes-Barre, Pa.
KXA 768 · 259 Seattle, Wash.	WAPO 1420 100 Chattanooga, Tenn.	WBRK 1310 10
 KXBY 1530 1000	WARD 1408 500	Pittsfield, Mass. WBRY 1530 100
 Kansas City, Mo. KXL 1420 100	Brooklyn, N. Y. WASH 1270 500	Waterbury, Conn.
 Portland, Ore.	Grand Rapids, Mich.	WBT 1888 50000 Charlotte, N. C.
 El Centro, Calif.	WATL 1370 100 Atlanta, Ga.	WBTM 1370 18 Danville, Va.
KXRO 1310 100 Aberdeen, Wash.	WATR 1190 100 Waterbury, Conn.	WBZ 998 50000
KXYZ 1440 1000	WAVE 940 1000	Boston, Mass.  WBZA 990 1000
Houston, Texas KYA 1230 1000	Louisville, Ky. WAWZ 1350 500	Springfield, Mass. WCAD 1220 580
 San Francisco, Calif. KYOS 1848 259	Zarephath, N. J. WAYX 1200 100	Canton, N. Y.
 Merced, Calif.	Waycross, Ga.	WCAE 1220 1000 Pittsburgh, Pa.
KYW 1626 16066 Philadelphia, Pa.	WAZL 1420 100 Hasleton, Pa.	WCAL 1250 1000 Northfield, Minn,
VAS 685 2000 Glace Bay, N.S.	WBAA 890 500	WCAM 1280 500
VOAC 1865 48	West Lafayette, Ind. WBAL 760 2500	Camden, N. J. WCAO 600 500
 St. John's, Nfid.	Baltimore, Md. WBAL 1969 1999	Baltimore, Md. WCAP 1289 500
 St. John's, Nfld.	Baltimore, Md.	Asbury Park, N. J.
St. John's, Nfid.	WBAP 800 50000 Fort Worth, Texas	WCAT 1206 100 Rapid City, S. Dak.
VOGY 840 400 St. John's, Nfld.	WBAX 1219 100 Wilkes-Barre, Pa.	WCAU 1170 50000
VONF 1195 500	WBBC 1400 500	Philadelphia, Pa. WCAX 1200 100
 St. John's, Nfld.	Brooklyn, N. Y. WBBL 1210 100	Burlington, Vt.
 St. John's, Nfld. WAAB 1410 500	Richmond, Va. WBBM 779 50000	Carthage, Ill.
 Boston, Mass.	Chicago, Ill.	WCBA 1449 500 Allentown, Pa.
WAAF 920 1000 Chicago, Ill.	WBBR 1300 1000 Brooklyn, N. Y.	WCBD 1080 5000 Chicago, Ill.
WAAT 948 500 Jersey City, N. J.	WBBZ 1206 100 Ponca City, Okla.	WCBM 1370 100
WAAW 668 508	WBCM 1410 500	Baltimore, Md. WCBS 1420 100
 Omaha, Neb. WABC 860 50000	Bay City, Mich. WBEN 900 1000	Springfield, Ill. WCCO 819 50000
 New York, N. Y. WARI 1200 100	Buffalo, N. Y.	Minneapolis, Minn.
 Bangor, Maine	WBEO 1310 100 Marquette, Mich.	WCFL 970 5000 Chicago, Ili.
WABY 1376 100 Albany, N. Y.	WBHP 1200 106 Huntsville, Ala.	WCHS 588 500 Charleston, W. Va.
WACO 1420 100 Waco, Texas	WBIG 1440 1000	WCHV 1420 100
 WADC 1320 1000	Greensboro, N. C. WBSL 2100 5000	Charlottesville, Va. WCKY 1490 18000
 Akron, Ohio WAGA 1450 500	New York, N. Y. WBLK 1370 100	Covington, Ky.
 Atlanta, Ga.	Clarksburg, W. Va.	Cleveland, Ohio
WAGF 1376 258 Dothan, Ala.	WBLY 1210 100 Lima, Obio	WCLO 1200 100 Janesville, Wis.
WAGM 1429 100 Presque Isle, Me.	WSNO 1200 100 New Orleans, La.	WCLS 1310 100
WAIM 1200 100	WBNS 1430 500	Joliet, Ill. WCMI 1310 100
Anderson, S. C.	Columbus, Ohio	Ashland, Ky. WCNW 1500 100
	New York, N. Y.	Brooklyn, N. Y.
	WBNY 1370 100 Buffalo, N. Y.	

	WCOA 1340 500	WEEU 838 1006	WGCM 1219 100 Gulfport, Miss.
	Pensacola, Fla.	Reading, Pa. WELI 900 500	WGES 1360 500
	WCOC 880 500 Meridian, Miss.	New Haven, Conn.	Chicago, Ill.
	WCOL 1210 100	WELL 1420 100	WGH 1318 100
	Columbus, Ohio	Battle Creek, Mich.	Newport News, Va.
	WCOP 1128 500 Boston, Mass.	Milwaukee, Wis.	Fort Wayne, Ind.
	WCPO 1200 100	WENR 870 50000	WGN 720 50000
	Cincinnati, Ohio	Chicago, Ill.	Chicago, Ill.
	WCRW 1210 100	WEOA 1370 100 Evansville, Ind.	WGNY 1218 180 Newburgh, N. Y.
<u> </u>	Chicago, Ill. WCSC 1360 500	WESG 850 1000	WGPC 1420 100
	Charleston, S. C.	Elmira, N. Y.	Albany, Ga,
	WCSH 940 1000	WEST 1200 100	WGR 558 1000
	Portland, Me.	Easton, Pa. WEVD 1300 1000	Buffalo, N. Y. WGRC 1378 258
ĺ	WDAE 1220 1000 Tampa, Fla.	New York, N. Y.	New Albany, Ind.
<del></del>	WDAF 618 1900	WEW 768 1000	WGRM 1210 180
	Kansas City, Mo.	St. Louis, Mo.	Grenada, Miss.
	WDAH 1310 100	WEXL 1318 50 Royal Oak, Mich.	WGST 890 1999 Atlanta, Ga.
	El Paso, Texas	WFAA 800 50000	WGTM 1310 100
1	WDAS 1370 100 Philadelphia, Pa.	Dallas, Texas	Wilson, N. C.
	WDAY 948 1900	WFAB 1300 1006	WGVA 1850 1000
1	Fargo, N. Dak.	New York, N. Y.	Indianapolis, Ind.
1	WDBJ 930 1000	WFAM 1200 100 South Bend, Ind.	WGY 790 50000 Schenectady, N. Y.
	Roanoke, Va. WDBO 586 1900	WFAS 1210 100	WHA 940 5000
1	WDBO 586 1900 Orlando, Fla.	White Plains, N. Y.	Madison, Wis.
	WDEL 1120 250	WFBC 1300 1000	WHAL 950 500
	Wilmington, Del.	Greenville, S. C. WFBG 1310 100	Saginaw, Mich. WHAM 1150 50000
	WDEV 558 500	WFBG 1310 100 Altoona, Pa.	Rochester, N. Y.
	Waterbury, Vt. WDGY 1188 1800	WFBL 1360 1000	WHAS 820 50000
	Minneapolis, Minn.	Syracuse, N. Y.	Louisville, Ky.
	WDNC 1500 100	WFBM 1230 1000	WHAT 1318 100 Philadelphia, Pa.
	Durham, N. C.	Indianapolis, Ind.	WHAZ 1388 1000
	WDOD 1286 1660 Chattanooga, Tenn.	Baltimore, Md.	Troy, N. Y.
	WDRC 1330 1000	WFDF 1310 100	WHB \$68 1808
	Hartford, Conn.	Flint, Mich.	Kansas City, Mo.
	WDSM 1200 100	WFEA 1348 500 Manchester, N. H.	Selma, Ala.
	Superior, Wis.	WFIL 568 1000	WHBC 1200 100
1	New Orleans, La.	Philadelphia, Pa.	Canton, Ohio
	WDWS 1370 100	WFLA 620 1000	WHBF 1216 100 Rock Island, Ill.
-	Champaign, Ill.	Clearwater, Fla. WFMD 900 500	WHBI 1250 1000
	WDZ 1020 250	Frederick, Md.	Newark, N. J.
-	Tuscola, Ill. WEAF 660 50000	WFOR 1370 100	WHBL 1300 250
	New York, N. Y.	Hattleeburg, Miss.	Sheboygan, Wis.
	WEAN 780 1000	St. Augustine, Fla.	WHBQ 1370 190 Memphis, Tenn.
<u> </u>	Providence, R. I. WEAU 1959 1900	WFTC 1200 100	WHBU 1210 100
1	Eau Claire, Wis.	Kinston, N. C.	Anderson, Ind.
	WEBC 1290 1000	WGAL 1500 100	WHBY 1200 100 Green Bay, Wis.
	Duluth, Minn.	Lancaster, Pa. WGAN 640 500	WHDF 1370 190
1	WEBQ 1210 100 Harrisburg, Ill.	Portland, Me.	Calumet, Mich.
-	WEBR 1310 100	WGAR 1450 500	WHDH 830 1000
	Buffalo, N. Y.	Cieveland, Ohlo	Boston, Mass. WHDL 1400 250
	WEDC 1218 106	Freeport, N. Y.	Olean, N. Y.
-	Chicago, Ill. WEED 1420 100	WGBF 630 500	WHEB 748 250
	Rocky Mount, N. C.	Evansville, Ind.	Portsmouth, N. H.
	WEEI 590 1000	WGBI 888 500	WHEC 1430 500 Rochester, N. Y.
L-	Boston, Mass.	Scranton, Pa.	WHEF 1500 196
	1		Kosciusko, Miss.
	1		
	j		<u> </u>

WHFC 1420 Cicero, Ill.	100	WJBC 1200 100 Bloomington, Ill.	WLAP 1420 100 Lexington, Ky.
 WHIO 1260 Dayton, Ohio	1000	WJBK 1500 100 Detroit, Mich.	WLAW 680 1000 Lawrence, Mass.
WHIP 1480	5000	WJBL 1200 100	WLB 1250 1000
 Hammond, Ind. WHIS 1410	500	Decatur, Ill.	Minneapoils, Minn. WLBC 1310 100
 Bluefield, W. Va. WHJB 620	250	Baton Rouge, La.	Muncie, Ind. WLBL 900 5000
 Greensburg, Pa.		New Orleans, La.	Stevens Point, Wis.
WHK 1396 Cleveland, Ohio	1000	WJBY 1210 180 Gadsden, Ala.	WLBZ 620 500 Bangor, Me.
WHKC 640 Columbus, Ohio	500	WJDX 1270 1000 Jackson, Miss.	WLEU 1420 100 Erie, Pa.
WHLB 1370	100	WJEJ 1210 50	WLLH 1370 100
Virginia, Minn. WHN 1910	1000	Hagerstown, Md. WJIM 1210 100	Lowell, Mass. WLMU 1210 100
New York, N. Y.	5000e	Lansing, Mich.	Middlesboro, Ky.
Des Moines, Iowa		Chicago, Ill.	Laconia, N. H.
WHOM 1450 Jersey City, N. J.	250	WJMS 1420 100 Ironwood, Mich.	WLS 870 58000 Chicago, Ill.
WHP 1430 Harrisburg, Pa.	500	WJNO 1200 100 W. Palm Beach, Fla.	WLTH 1400 500 Brooklyn, N. Y.
WIBA 1280	1000	WJR 750 50000	WLVA 1200 100
 Madison, Wis.	100	Detroit, Mich. WJRD 1200 250	Lynchburg, Va. WLW 700 580000
Glenside, Pa. WIBM 1370	100	Tuscaloosa, Ala. WJSV 1460 10000	Cincinnati, Ohio WMAL 630 256
Jackson, Mich.		Washington, D. C.	Washington, D. C.
WIBU 1210 Poynette, Wis.	100	Jamestown, N. Y.	WMAQ 670 50000 Chicago, Ili.
WIBW 580 Topeka, Kans.	1000	WJW 1210 100 Akron, Ohio	WMAS 1420 100 Springfield, Mass.
 WIBX 1200	106	WJZ 760 50000	WMAZ 1180 1000
Utica, N. Y. WICA 940	250	New York, N. Y. WKAQ 1240 1000	Macon, Ga. WMBC 1420 100
Ashtabula, Ohlo WICC 600	500	San Juan, P. R. WKAR 850 1000	Detroit, Mich.
Bridgeport, Conn.		East Lansing, Mich.	Peoria, Ill. WMBF 610 1006
WIL 1200 St. Louis, Mo.	100	Miami Beach, Fla.	Miami, Fla.
Will 580 Urbana, Ill.	1000	WKBB 1500 100 East Dubuque, Ill.	WMBG 1350 500 Richmond, Va.
WILM 1420	100	WKBH 1380 1000	WMBH 1420 100 Joplin, Mo.
Wilmington, Del. WIND 566	1000	LaCrosse, Wis. WKBN 579 509	WMBI 1080 5000
Gary, Ind. WINS 1180	1000	Youngstown, Ohio WKBO 1200 100	Chicago, Ill. WMBO 1319 100
New York, N. Y.	1000	Harrisburg, Pa.	Auburn, N. Y.
WIOD 610 Miami, Fla.	7000	WKBV 1500 100 Richmond, Ind.	WMBQ 1500 100 Brooklyn, N. Y.
WIP 610 Philadelphia, Pa.	1000	WKBW 1480 5000 Buffalo, N. Y.	WMBR 1370 100 Jacksonville, Fla.
WIRE 1400	1800	WKBZ 1500 100	WMB\$ 1420 250
Indianapolis, Ind. WIS 560	1000	Muskegon, Mich. WKEU 1500 100	Uniontown, Pa. WMC 780 1000
Columbia, S. C. WISN 1128	250	Griffin, Ga.	Memphis, Tenn. WMCA 570 1000
Milwaukee, Wis.		Sunbury, Pa.	New York, N. Y. WMEX 1500 100
Johnstown, Pa.	100	WKRC 550 1000 Cincinnati, Ohio	Boston, Mass.
WJAG 1060 Norfolk, Neb.	1000	WKY 900 1000 Oklahoma City, Okla.	WMFD 1370 100 Wilmington, N. C.
WJAR 890	1000	WKZO 590 1000	WMFF 1310 100
Providence, R. I. WJAS 1290	1000	WLAC 1470 5000	Plattsburg, N. Y. WMFG 1210 100
Pittsburgh, Pa. WJAX 900	1000	Nashville, Tenn.	Hibbing, Minn.  WMFJ 1420 100
Jacksonville, Fla.		Lakeland, Fla.	Daytona Beach, Fla. WMFO 1370 100
			Decatur, Ala.

	1	•	
	WMFR 1200 100 High Point, N. C.	WOV 1136 1990 New York, N. Y.	WSAI 1330 1000 Cincinnati, Ohio
	WMIN 1370 100	WOW 590 1000	WSAJ 1310 100
	St. Paul, Minn.	Omaha, Neb.	Grove City, Pa.
	WMMN 890 500 Fairmont, W. Va.	WOWO 1160 10000 Fort Wayne, Ind.	WSAL 1200 250 Salisbury, Md.
	WMPC 1200 100 Lapeer, Mich.	WPAO 1420 100	WSAN 1440 Sec
	Lapeer, Mich.	Paducah, Ky.	Allentown, Pa.
	WMPS 1430 500 Memphis, Tenn.	WPAR 1420 100 Parkersburg, W. Va.	WSAR 1450 1090
	WMSD 1420 100	WPAX 1210 100	Fall River, Mass. WSAU 1370 100
	Sheffield, Ala.	Thomasville, Ga.	Wausau, Wis.
	WMT 600 1000 Cedar Rapids, Iowa	WPAY 1370 100	WSAY 1216 100
	WNAC 1230 1000	Portsmouth, Ohio WPEN 928 1800	Rochester, N. Y. WSAZ 1190 1006
	Boston, Mass.	Philadelphia, Pa.	Huntington, W. Va.
	WNAD 1016 1000 Norman, Okia.	WPG 1100 5000 Atlantic City, N. J.	WSB 740 50000 Atlanta, Ga.
	WNAX 570 1000	WPRA 1370 100	WSBC 1210 100
	Yankton, S. D.	Mayagues, P. R.	Chicago, Ill.
	WNBC 1380 256 New Britain, Conn.	WPRO 630 500 Providence, R. I.	WSBT -1360 500
	WNBF 1500 100	WPRP 1420 100	South Bend, Ind. WSFA 1410 500
	Binghamton, N. Y.	Ponce, P. R.	Montgomery, Ala.
	WNBH 1310 100 New Bedford, Mass.	WPTF 680 1000	WSGN 1310 100
	WNBX 1260 500	Raleigh, N. C. WQAM 569 1900	Birmingham, Ala. WSIX 1210 100
	Springfield, Vt.	Miami, Fla.	Nashville, Tenn.
	WNBZ 1296 100 Saranac Lake, N. Y.	WQAN 880 500	WSJS 1310 100
_	WNEL 1290 1000	Seranton, Pa. WQBC 1368 1990	Winston-Salem, N. C. WSM 650 50000
	San Juan, P. R.	Vicksburg, Miss.	Nashville, Tenn.
	WNEW 1250 1000	WQDM 1390 1000	WSMB 1320 1000
	New York, N. Y. WNLC 1500 100	St. Albans, Vt. WQXR 1550 1000	New Orleans, La. WSMK 1380 200
	New London, Conn.	WQXR 1550 1000 New York, N. Y.	Dayton, Ohio
	WNNY 1420 100	WRAK 1370 100	WSNJ 1210 100
	Watertown, N. Y. WNOX 1010 1006	Williamsport, Pa. WRAW 1319 100	Bridgeton, N. J. WSOC 1210 100
	Knoxville, Tenn.	WRAW 1319 100 Reading, Pa.	WSOC 1216 100 Charlotte, N. C.
	WNYC 810 1000	WRBL 1200 100	WSPA 928 1000
	New York, N. Y. WOAL 1190 50000	Columbus, Ga. WRC 950 500	Spartanburg, S. C. WSPD 1348 1888
	San Antonio, Texas	Washington, D. C.	WSPD 1346 1000 Toledo, Ohlo
	WOC 1370 100	WROO 1370 100	WSPR 1140 500
	Davenport, Iowa WOI 640 5000	Augusta, Me. WRDW 1589 100	Springfield, Mass. WSUI 380 500
	Ames, Iowa	Augusta, Ga.	Iowa City, Iowa
	WOKO 1430 500	WREC 608 1000	WSUN 620 1000
	Albany, N. Y. WOL 1310 100	Memphis, Tenn.	St. Petersburg, Fla. WSVA 558 588
	Washington, D. C.	Lawrence, Kans.	WSVA 550 500 Harrisonburg, Va.
	WOLS 1200 100	WRGA 1500 100	WSVS 1370 50
	Florence, S. C. WOM! 1506 100	Rome, Ga. WRJN 1376 160	Buffalo, N. Y. WSYB 1500 100
	Owensboro, Ky.	Racine, Wis.	Rutland, Vt.
	WOMT 1210 100 Manitowoc, Wis.	WRNL 880 500	WSYR 570 1000
	WOOD 1270 500	Richmond, Va. WROK 1410 500	Syracuse, N. Y. WTAD 900 1000
	Grand Rapids, Mich.	Rockford, Ill.	Quincy, Ili.
	WOPI 1500 100	WROL 1319 100	WTAG 580 1000
	Bristol, Tenn. WOR 710 50000	Knoxville, Tenn.	Worcester, Mass. WTAL 1319 100
	Newark, N. J.	Dallas, Texas	Taliahassee, Fla.
	WORC 1289 500	WRTO 1580 100	WTAM 1870 50000
	Worcester, Mass. WORK 1328 1808	Richmond, Va. WRUF 830 5000	Cleveland, Ohio WTAQ 1339 1000
	York, Pa.	Gainesville, Fla.	Green Bay, Wis.
	WORL 920 500	WRVA 1110 5000	WTAR 786 1000
	Boston, Mass. WOSU 570 750	Richmond, Va.	Norfolk, Va. WTAW 1120 500
	11040 310 /30	1	College Station, Tex.

	WTAX 1218 100 Springfield, Ill.	XEAW 960 50000 Reynosa, Tams.	XEI 1370 125
_	WTBO 800 258	XEAY 1248 100	Morelia, Mich. XEJ 1929 1986
-	Cumberland, Md. WTCN 1258 1000	Mexico City, D. F. XEB 1839 18998	Juares, Chih. XEJP 1130 100
	Minneapolis, Minn.	Mexico City, D. F.	Mexico City, D. F.
	WTEL 1318 100 Philadelphia, Pa.	XEBA 1986 26 Gusman, Jal.	XEJW 878 Mexico City, D. F.
	WTHT 1200 100	XEBG 820 1000	XEK 990 100
	Hartford, Conn. WTIC 1848 50000	Tijuana, B. Cfa.	Mexico City, D. F. XEKL 1248 500
-	Hartford, Conn.	Hermosillo, Sonora XEBI 1000 25	Leon, Guan. XEL 788 1990
	Jackson, Tenn.	Aguascalientes, Ags.	XEL 788 1900 Mexico City, D. F
1	WTMJ 620 1000 Milwaukee, Wis.	XEBJ 1160 20 Merida, Yuc.	XELA 1240 50 Saltillo, Coab.
	WTMV 1500 108	XEBK 1000 68	XELO 678 58800
	East St. Louis, III.	Neuvo Laredo, Tams.	Tijuana, B. Cfa. XELZ 1370 100
	Trenton, N. J. WTOC 1260 1900	Masatlan, Sin.	Mexico City, D.F.
	Savannah, Ga.	XEBO 1310 25   	XEMG 1060 198 Atscapotsalco, D. F.
	WTOL 1200 100 Toledo, Ohio	XEBS 1249 200     Mexico City, D. F.	XEMO 868 5000 Tijuana, L. C.
	WTRC 1310 100	XEBX 648 250	XEMU \$80
	Elkhart, Ind. WVFW 1400 500	Sabinas, Coah.	Piedras Negras, Coah. XEMX 1288 100
	Brooklyn, N. Y.	Mexico City, D. F.	Mexico City, D. F.
	WWAE 1200 100 Hammond, Ind.	XEC 1158 100 Tijuana, L. C.	XENC 860 50 Mexico City, D. F.
	WWJ 928 5000 Detroit, Mich.	XECL 1100 1700 Mexicali, B. Cfa.	XENT 918 150000 Nuevo Laredo, Tams.
	WWL 850 10000	XECW 1310 10	XEOK 760 2500
	New Orleans, La. WWNC 579 1000	Mexico City, D. F.  XECZ 1379 100	Tijuana, L. C. XEP 1160 500
	Asheville, N. C.	San Luis Potosi, S.L.P.	Juares, Chih.
	WWRL 1500 100 Woodside, N. Y.	XED 1160 2506 Guadalajara, Jal.	XEPN 738 188088 Piedras Negras, Coah.
	WWSW 1500 100	XEDA 1220 200	XERA 840 350000
	Pittsburgh, Pa. WWVA 1160 5000	Gra. Anaya, D. F. XEDF 810 75	Villa Acuna, Coab.
	Wheeling, W. Va. WXYZ 1248 1060	Nuevo Laredo, Tams. XEDP 1080 500	Tampico, Tams.
	Detroit, Mich.	Mexico City, D. F.	Monterrey, N. L.
	W3XDD 50000 Whippany, N. J.	XEDW 1150 20 Minatitian, Ver.	XETB 1319 125 Torreon, Coah.
	W3XJ 1060 100	XEE 1210 50	XETF 1220 30
	College Park, Md. W8XO 700 500000	Durango, Dgo. XEF 1450 100	Veracrus, Ver.
	Cincinnati, Ohio	Juarez, Chih. XEFA 1180 500	Puebla, Pue.
	XEAA 750 200 Mexicali, B. C.	Tacuba, D. F.	XEU 1010 250 Veracrus, Ver.
	XEAC 980 1000 Tijuana, L. C.	XEFB 870 200 Monterrey, N. L.	XEW 890 50000 Mexico City, D. F
	XEAD 1960 125	XEFC 550 100	XEX 1310 125
	Guadalajara, Jal. XEAF 990 750	Merida, Yuc.  XEFE 988 158	Monterrey, N. L. XEXB 1270 50
	Nogales, Son. XEAG 1310 10	Laredo, Tams.	Jalapa, Ver.
	Cordoba, Ver.	Chihuahua, Chih.	XEXC 818 350 Aguascalientes, Ags.
	XEAL 660 1000 Mexico City, D. F.	XEFJ 1230 100 Monterrey, N. L.	XEXD 1340 350 Jalapa, Ver.
	XEAM 750 25	XEFO 938 5000	XEXE 1270 17
$\vdash \vdash \vdash$	Matamoros, Tams. XEAO 660 250	Mexico City, D. F.  XEFV 1219 100	Mexico City, D. F. XEXH 1250 . 250
$\vdash$	Mexicall, B. C.	Juares, Chih.	San Luis Potosi, S.L.P.
	XEAP 1240 50 Obregon, Son.	XEFW 1310 250 Tampico, Tams.	XEXS 1909 190 Portable in Mexico
	XEAS 1160 50 Saltillo, Coah.	XEG 1220 250 Monterrey, N. L.	XEYO 940 500 Mexico City, D. F.
	XEAT 1210 250	XEH 720 250	XEZ 630 580
<u> </u>	Parral, Chih.	Monterrey, N. L.	Merida, Yuc.

# Special DX Calendar

THE time given in the DX Calendar following is in EST by the twenty-four hour clock.

DX Tips Periods Mon., 2115-2130, CJCJ, 690 kcs. Tues., 1735-1800, W2XAF, 9530 kcs. and W2XAD, 15330 kcs. Wed., 0035-0045, KOY, 1390 kcs.

1345-1400, WTAR, 780 kcs.

Thur., 0230-0245, KGMB, 1320 kcs. Sat., 0015-0030, W8XK, 6140 kcs. 0230-0245, KLS, 1280 kcs.

"Programs of the Week"

The IDA "Programs of the Week". broadcast each Sunday morning, are full-hour programs, full of surprises, thrills, and laughs. Don't miss any of them. (CHWK requires ten cents for a verification.)

Dec. 23 (Thurs.), 0300-0400, WJJD, 1130 kcs.

Dec. 30 (Thurs.), 0100-0200, WTAM, 1070 kcs.

Jan. 16 (Sun.), 0300-0400, WCCO, 810 kcs.

Jan. 24 (Mon.), 0300-0400, WHAM, 1150 kcs.

Jan. 30 (Sun.), 0300-0400, CHWK, 780 kcs.

Feb. 6 (Sun.), 0300-0400, KWYO, 1370 kcs.

Feb. 27 (Sun.), 0330-0400, KGU. 750 kcs.

Mar. 13 (Sun.), 0300-0400, WCKY, 1490 kcs.

Mar. 27 (Sun.), 0300-0400, KFOR, 1210 kcs.

## Special Broadcasts

Jan. 1, 0245-0400, CHWK, 780 kcs (UDXC).

Jan. 11, 0510-0530, KAST, 1370 kcs (UDXC).

Feb. 5, 0245-0400, CHWK, 780 kcs (UDXC).

Feb. 8, 0510-0530, KAST, 1370 kcs (UDXC).

Mar. 5, 0245-0400, CHWK, 780 kcs (UDXC).

Apr. 2, 0245-0400, CHWK, 780 kcs

May 7, 0245-0400, CHWK, 780 kcs (UDXC).

June 4, 0245-0400, CHWK, 780 kcs (UDXC).

## The Month's Changes

(Continued from Page 58)

WNBX Springfield, Vt. Twin States Brdcstg. Corp., 39 Main St PERMIT TO CHANGE FREQUENCY 1190 WATR

Waterpury, Conn., to 1290 KLPM 1240 Minot, N. Dak., to 1360 1250 WCAL Northfield, Minn., to 760 Minneapolis, Minn., to 760 Juneau, Alaska, to 1430 Yakima, Wash., to 1250 WLB 1310 KINY KIT Washington, D. C., to 1230 Aberdeen, S. Dak., to 1390 WOL

KABR 1420 PERMIT TO CHANGE POWER WKZO 500 Kalamasoo, Mich. 250 (1)

810 CMCF Havana, Cuba. 5000 880 WCOC Meridian, Miss. 1000 900 KGBU Ketchikan, Alaska. 1000 Washington, D. C. 1000 (5) Washerbury, Conn. 250 950 WRC

1190 WATR 1240 KLPM Minot, N. Dak. 500 (1) WCAL 1250 Northfield, Minn. 5000 WLB Minneapolis, Minn. 5000 1310 KINY Juneau, Alaska. 250

KIT Yakima, Wash. 250 (.5) WOL Washington, D. C. 1000 1340 WCOA Pensacola, Fla. 1000 1420 KABR

Aberdeen, S. Dak. 500 (1)

1430 WBNS Columbus, Ohio. 1000 (5) 1490 KFBK Sacramento, Calif. 10000

PERMIT TO CHANGE LOCATION Wichita Falls, Tex., to Fort Worth FOREIGN BROADCAST

(Excluding Oceania, which is listed complete in this issue) NEW

1122 Stagshaw, Gt. Britain. 60000 w. Genoa No. 2, Italy. 5000 Rome No. 3, Italy. 1000 FREQUENCY 1357

720 PRA8 Pernambuco, Brazil, from 730 San Salvador, Brazil, from 1090 740 PRA4 760 PRA6 Sao Paulo, Brasil, from 800 800 PRA2 Rio de Janeiro, Brasil, from 780 Rio de Janeiro, Brazil, from 1240 1060 PRD2 1080 Joso Pessoa, Brazil, from 640

PRH8 1120 Rio de Janeiro, Brazil, from 1080 1220 PRA9 Rio de Janeiro, Brasil, from 1120 1420 PRB2 Curityba, Brazil, from 1480 1470 PRES Nictheroy, Brazil, from 1170 POWER

850 Sofia, Bulgaria, 100,000 from 1000 1220 PRA9 Rio de Janeiro, Brazil, 25000 from 1000 DELETE

580 PRF8 San Salvador, Brazil 620 PRB3 Juis de Fora, Brasil 630 San Salvador, Brazil PRF6 1122 Newcastle, Gt. Britain

At DEADLINE  Merlin Almstead of Washington, D. C. reports ZNS, Nassau, Ba- hamas, on 540 kcs, daily from 8:30 to 9:30 pm, EST.  WICA, 940 Ashtabula, Ohio is now on the air.	Names of Owners Oct. '37, p. 63 Owners' Addresses Dec. '37, p. 63 Time on the Air Jan. '38, p. 63  Shortwaves  Broadcasters, with Time on Air Jan. '38, p. 58 North American Police Sept. '37, p. 59 1.6 megs. to 6 megs Feb. '37, p. 53 6 megs. to 400 megs June '37, p. 50 Owners and Addresses June '37, p. 50 By Locations Apr. '37, p. 61
CMQ, Havana, has moved to 600 kcs.	By Calls
On December 29 the Irish Free State became the Irish Republic.  CMCX Havana has moved to 1380	By Locations       Dec. '36, p. 52         By Calls       Dec. '36, p. 57         Oceania       Jan. '38, p. 47         South America       May '37, p. 50         Europe       June '37, p. 49
kcs.	Long Waves
QUICK INDEX TO STATION DATA	By Frequencies       Apr. '36, p. 49         By Locations       Apr. '36, p. 51         By Calls       Apr. '36, p. 52
North American Broadcast	Miscellaneons
By Frequencies       Jan. '38, p. 63         By Locations       Jan. '38, p. 80         By Calls       Jan. '38, p. 86         Frequency Checks       Jan. '38, p. 41	Choosing a Radio Sept. '37, p. 3 Roster of DX Clubs Nov. '37, p. 58 Columbia Network Stations Jan. '37, p. 47 Mutual Network Stations Feb. '37, p. 16 Canadian Network Stations Mar. '37, p. 49
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profit—thanks again to
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Felton St., Philadelphia,
Penna.



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