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**



# RADEX Reg. U. S. Patent Office



ELIZABETH S. BUTLER
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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 east-

ern 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 between 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 Darien. The Panama-Colombia frontier is considered as the southern terminus of the continent. From 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 Aleutian Islands. The first line 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 v Gomez and intervening islands are included in South America. The 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 Eddie Wragge, just graduated from the NBC's Children's Hour, are now featured players in the weekly series, True Story Court of Human Relations, heard 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 of 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.

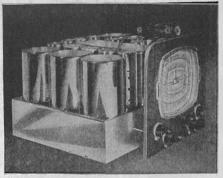
Oceania is a term used by geographers to include Australia, New Zealand and the Islands of the South Pacific. Its divisions are Malaysia, with the Philippines; Australia with Tasmania; New Zealand; Melanesia (New Guinea, New Britain, New Ireland, Admiralty, Solomons, New Hebrides, Santa Cruz, Fiji, Loyalties, 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, Bluefield, 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.

Speaking 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 be-

tween 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."

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". A large 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 purposes. 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 interference unavoidable. 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. And 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"-combination transmitters and receivers 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 DXers, Carroll Weyrich and B. L. Ahman, Jr., undertook to monitor the 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 now 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 in above the words: "This is to verify your reception of this Station on February — 1937. Thanks for writing us. THE 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 ZBW. 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 verie eventually will buck up 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 keys, commenced broadcasting on a 6 a. m. to midnight schedule September 28th. 4ZB, Dunedin, 1220 keys, 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 keys, 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 City, 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 keys, 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's 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:

2:00-2:30 KWOS 1310 Jefferson City, Mo. January 8
4:10-4:30 WKBZ 1500 Muskegon, Mich. 1200 Jonesboro, Ark. 1200 Nampa, Idaho 5:40-6:00 KFJM 1410 Grand Forks, N. D.

January 10
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. 1310 Shreveport, La. 1370 Jamestown, N. D. 1380 Pittsburgh, Pa. 1210 Carlsbad, N. M.

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

2:00-2:30 KWOS 1310 Jefferson City, Mo. 4:00-4:20 KIUL 1210 Garden City, Kans. 5:30-5:50 WLBC 1310 Muncie, 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. that I am entitled to a verie. As long as the station does not announce

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 inexpensive.

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 special on Pepsodent or Alka 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: KAND, WJNO, WKEU, WHLB, KPLT, WJRD, WEOA, KPDN, 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 Hawaii. Some of my best catches 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 keys 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 nower.

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 let-

ter 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. (RX21).

### 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).

### Fiii

VPD2 on 9540 kes 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 relaved. 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).

### Portugal

CT1AA is now announcing its new call letters. CS2WA. Their frequency is given over the air as 9650 kcs, and the power as 21/2 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 kes, 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 60971/2 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 kes. (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 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) 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)

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 vear.

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
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

Monday, January 24th 3:00-4:00 WHAM 1150 Rochester, N. Y. Sunday, January 30th 3:00-4:00 CHWK 780 Chilliwack, B. C.

Sunday, February 6th
3:00-4:00 KWYO 1370 Sheridan, Wyo.

3:00-4:00 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

Sunday, March 13th 3:00-4:00 WCKY 1490 Covington, Ky.

Sunday, March 27th 3:00-4:00 KFOR 1210 Lincoln, Neb.

All times listed are a.m., Eastern Standard.

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.

### 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 is numbered R-10 and 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 be matched to the circuit through a high 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. The output of the oscillator unit is fed into 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 a 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. A 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 set. 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. In 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. The

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 single-wire antenna for longerwave 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 with 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 dead. Local stations, too, are spread 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 cause whistling. The fading and 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. So, 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, if 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

1/2 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 coilsone 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 on 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 frequencies. In return, I feel that it 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 accordingly.

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,

### 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 experimental 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

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 'Shortwayes 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

LA1G (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); VK3U (f); VK4VD (f); VK5BP (l); VO-: 2N (f); 2Z (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 TIME CONVERTER 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.

We pay the postage,

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 loca-tion in the world. No calculation is necessary; the dial does all the work.

You Can't Get Along Without It.

The price is only

(26c in Ohio)

YV4-: AB (l); AF (l); AO (g); AX (l); YV5-: AA (f); ABA (l); ABF (fglm); 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 by f).

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.
Gilbert Harris, 60 N. Holden St., N.

Adams, Mass. Edward Hughes, 1212 Castlewood Ave., Louisville, Ky.

Merton T. Meade, 819 Wyandotte St., Kansas City, Mo. (Stromberg-Carlson Converter)

Martin Olthoff, 212 N. 16th, Independence, Kans. (REM69). Benjamin Peet, 352 Pleasant Ave., New York, N. Y.

David Schaller, Biggs Hospital.

Ithaca, N. Y. Jack Siringer, 1451 Lincoln Ave.,

Lakewood, Ohio.
Dale Smith, Route 3, Box 536, Eugene, Ore.

Al Steinmetz, 125 W. 27th St.,

Bayonne, N. J. (RCA-ACR 136).

(m) Hadley Wilcox, 623 W. 40th Place, Los Angeles, Calif. (Tiffany Tone). 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 he calls "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

The Second Tuesday

Wilkes Barre, Pa.

Philadelphia, Pa.

Richmond, Va.

Richmond, Va.

Buffalo, N. Y.

Duluth, Minn.

Lynchburg, Va.

Danville, Va.

Port Arthur, Tex.

Cincinnati, Ohio

Rochester, N. Y.

Williamsport, Pa.

Cape Girardeau, Mo.

College Station, Tex.

Norman, Okla.

Detroit, Mich.

Johnstown, Pa.

Columbus, Ohio

Buffalo, N. Y.

Columbus, Ohio

Minot, N. Dak.

Shreveport, La.

Manitowoc, Wis

Syracuse, N. Y.

Cleveland, Ohio

Binghamton, N. Y.

Ketchikan, Alaska

Missoula, Mont.

Cleveland, Ohio

Pittsburgh, Pa.

Wolf Point, Mont.

Jamestown, N. D.

Rochester, N. Y.

Toledo, Ohio

Astoria, Ore.

Palestine, Tex.

Louisville, Ky.

Detroit, Mich.

Lamar, Colo.

Kansas City, Mo.

Klamath Falls, Ore.

Wenatchee, Wash.

Rapid City, S. Dak,

Carisbad, N. Mex.

Stevens Point, Wis.

Daytona Beach, Fla. Anderson, S. C.

Winston-Salem, N. C.

Cleveland, Ohio

Spokane, Wash.

Pittsburgh, Pa.

Eugene, Ore.

Marshfield, Ore.

Lafayette, La.

Memphis, Tenn.

San Juan, P. R.

Cincinnati, Ohio

Wilmington, N. C.

Fond du Lac, Wis.

Thomasville, Ga.

La Junta, Colo.

Vicksburg, Miss.

Corsicana, Texas

Lake Charles, La.

Janesville, Wis.

Augusta, Ga.

Canton, Ohio

Midland, Tex.

Newport News, Va.

Decorah, Ia.

Temple, Tex.

Wilkes Barre, Pa.

Portsmouth, Ohio

Parkersburg, W. Va.

Altoona, Pa.

1210

1370

1210

1310

1210

1500

1200

WHBC

The Second Wednesday

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

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

iy ireq	uency	cnec	k broadcasts. The		WLVA	1200
latest	cchadu	10 33	ith times given in	3:10-3:30	KPAC	1260
					$\mathbf{WBTM}$	1370
Easter	n Stan	dard	, follows:	3:20-3:40	WKRC	550
					WHEC	1430
	The	e Secon	id Monday	3:30-3:50	WNAD	1010
2:00-2:20	WLNH	1310	Laconia, N. H.		WMBC	1420
2.00-2.20	WJBO	1420	Baton Rouge, La.		WRAK	1370
2:10-2:30	WBRB	1210	Red Bank, N. J.	3:40-4:00	KFVS	1210
2.10-2.00	WHBB	1500			WJAC	1310
9.90 9.40		1420	Selma, Ala.	3:50-4:10	WTAW	1120
2:20-2:40	WMAS		Springfield, Mass.	0100 2120	WBNS	1430
0.00 0.50	WIOD	610	Miami, Fla.		WBNY	1370
2:30-2:50	WWRL		Woodside, N. Y.	4:00-4:20	WCOL	1210
	WJBW	1200	New Orleans, La.	2.00-2.20		
2:40-3:00	MORO	1430	Albany, N. Y.	4.10 4.20	WBRE	1310
	WMBR		Jacksonville, Fla. Burlington, Vt.	4:10-4:30	KLPM	1240
2:50-3:10	WCAX	1200	Burlington, Vt.		WPAR	1420
	WOPI	1500	Bristol, Tenn.	4.00 4.40	WPAY	1370
3:00-3:20	WMBO			4:20-4:40	KRMD	1310
	$\mathbf{w}\mathbf{m}\mathbf{s}\mathbf{D}$	1420	Sheffield, Ala.		WOMT	1210
3:10-3:30	woc	1370	Davenport, Ia. Canton, N. Y.		WSYR	570
	WCAD	1220	Canton, N. Y.	4:30-4:50	KGCA	1270
	WRGM	1210	Grenada, Miss.		WCLE	610
3:20-3:40	KWLC	1270	Decorah, Ia.		WNBF	1500
	WMBQ	1500	Brooklyn, N. Y. Memphis, Tenn.	4:40-5:00	KTEM	1370
	WNBR	1430	Memphis, Tenn.		KGBU	900
3:30-3:50	KFPW	1210	Fort Smith, Ark.		WGH	1310
0.00 0.00	WDBO	580	Orlando, Fla.	4:50-5:10	KGVO	1260
	WMFF	1310	Plattsburg, N. Y.		KRLH	1420
3:40-4:00	KABC	1420	San Antonio, Tex.		WHK	1390
0.10 1.00	WQDM		St. Albans, Vt.		wwsw	1500
	WSMB	1320	New Orleans, La.	5:00-5:20	KGCX	1450
3:50-4:10	WFAS	1210	White Plains, N. Y.	0100 0120	KRMC	1370
3:30-4:10					WSAY	1210
4.00 4.00	WHEF	1500	Kosciusko, Miss.		WSPD	1340
4:00-4:20	KFDM	560	Beaumont, Tex.	5:10-5:30	KAST	1370
	KIS	1280	Oakland, Calif.	0.10-0.30		
	WAGF	1370	Dothan, Ala.		KNET WAVE	1420
	WCAP	1280	Asbury Park, N. J.	F-00 F-40		940
4:10-4:30	KCRJ	1310	Jerome, Ariz.	5:20-5:40	KCMO	1370
	KMLB	1200	Monroe, La.		KFJI	1210
	KYOS	1040	Merced, Calif.		$\mathbf{w}\mathbf{x}\mathbf{y}\mathbf{z}$	1240
4:20-4:40	KLUF	1370	Galveston, Tex.	5:30-5:50	KIDW	1420
	KGDM	1100	Stockton, Calif.		$\mathbf{KPQ}$	1500
	WDEV	550	Waterbury, Vt.		WGAR.	
	WDNC	1500	Waterbury, Vt. Durham, N. C.	5:40-6:00	KFIO	1120
4:30-4:50	KROC	1310	Rochester, Minn.		KQV	1380
	KGAR	1370	Tucson, Ariz.		WCAT	1200
	KALB	1210	Alexandria, La.	5:50-6:10	KLAH	1210
4:40-5:00	KOVC	1500	Valley City, N. D.		KORE	1420
	KROY	1210	Sacramento, Calif.	6:00-6:20	KOOS	1200
	WBNO	1200	New Orleans, La.		WLBL	900
4:50-5:10	KEUB	1420	Price, Utah			
2.00.0.10	KRE	1370	Berkeley, Calif.		The	Second
	WLAK	1310	Lakeland, Fla.	2:00-2:20	WMFJ	1420
5:00-5:20	KBST	1500	Big Spring, Tex.	2:10-2:30	WAIM	1200
	KIEM	1450	Furely Coffe	2:20-2:40	KVOL	1310
			Eureka, Calif. St. Augustine, Fla. Monterrey, Calif.	2:30-2:50	WHBQ	1370
	WFOY	1210	St. Augustine, Fig.	2.30-2.00	WKAQ	1240
5:10-5:30	KDON	1210	Monterrey, Can.	2:40-3:00		
	WMIN	1370	St. Paul, Minn.	2:50-3:10	WSJS	1310
	WTAL	1310	Tallahassee, Fla.	3:00-3:20	WCPO	1200
5:20-5:40	KTRH	1290	Houston, Texas		WMFD	1370
	KUMA	1420	Yuma, Ariz.	3:10-3:30	KFIZ	1420
	WAIR	1250	Winston-Salem, N. C.		WPAX	1210
5:30-5:50	KFGQ	1370	Boone, Ia.	3:20-3:40	KOKO	1370
	KWG	1200	Stockton, Calif.		WCLO	1200
	WGCM		Gulfport, Miss.		WRDW	1500
5:40-6:00	KGMB		Honolulu, T. H.	3:30-3:50	WQBC	1360
5:50-6:10	KGLO	1210	Mason City, Ia.	3:40-4:00	KAND	1310
	KVCV	1200	Redding, Calif.		KPLC	1500
6.10 6.20	77.1.0.4	1000	Ada Obla		WITTE	1000

6:10-6:30

KADA

1200

Ada, Okla.

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4	ч

3:50-4:10	KARK	890	Little Rock, Ark.		WDWS	1370	Champaign, Ill.
0100 2.20	WGPC	1420	Albany, Ga.	5:50-6:10	KGKB	1500	Tyler, Texas
4:00-4:20	KFJZ	1370	Fort Worth, Tex.		KSUN	1200	Lowell, Ariz,
	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	Alamosa, Colo.
	WCOC	880	Meridian, Miss.	6.20 6.40	KHBC	1400 1200	Hilo, T. H. San Luis Obispo, Calif.
1.00 1.10	WLB	1250 1430	Minneapolis, Minn. Des Moines, Ia.	6:20-6:40	WGL	1370	Fort Wayne Ind
4:20-4:40	KSO WKEU	1500	Griffin, Ga.	6:30-6:50	KSUB	1310	Fort Wayne, Ind. Cedar City, Utah
	WOSU	570	Columbus, Ohio	0.00-0.00			
4:30-4:50	KALB	1210	Alexandria, La.		The	Seco	nd Friday
2.00 1.00	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.
4:40-5:00	KPLT	1500	Paris, Tex.	2:20-2:40	WGBB	1210	Freeport, N. Y.
	WJMS	1420	Ironwood, Mich.	2:30-2:50	WABY	1370	Albany, N. X.
	WJRD	1200	Tuscaloosa, Ala.	2:50-3:10	WSYB	1500	Rutland, Vt. Bangor, Me.
4:50-5:10	KFXR	1310	Oklahoma City, Okla.	3:00-3:20	WABI	1200	Bangor, Me.
	WBIG	1440	Greensboro, N. C.	3:20-3:40	WIBX	1200	Utica, N. Y. Elk City, Okla.
1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WTAX	1210	Springfield, Ill.	3:30-3:50	KASA	1210	Elk City, Okla.
5:00-5:20	KFJB	1200	Marshalltown, Ia.	YOURSE	WAGM	1420	Presque Isle, Me.
	WEOA	1370	Evansville, Ind.	3:40-4:00	KWOS	1310	Jefferson City, Mo.
5:10-5:30	KPDN WDZ	1310 1020	Pampa, Tex. Tuscola, Ill.		WNBZ	1290	Saranac Lake, N. Y.
F.00 F.40	KELD	1370		3:50-4:10	WJBK	1500	Detroit, Mich.
5:20-5:40	WAYX	1200	Eldorado, Ark. Waycross, Ga.		WMBH		Joplin, Mo.
	WKBN	570	Youngstown, Ohlo	1.00 1.00	WRDO	1370	Augusta, Me.
5:30-5:50	KDLR	1210	Devils Lake, N. D.	4:00-4:20	KIUL	1210 1200	Garden City, Kans.
0.30-0.00	WADC	1320	Akron, Ohio	4:10-4:30	WTHT	1370	Hartford, Conn. Clovis, N. M.
5:40-6:00	KRBC	1420	Abilene, Tex.	4.10-4.50	WCAZ	1070	Carthage, Ill.
0.10 0.00	WSAU	1370	Abilene, Tex. Wausau, Wis.		WNLC	1500	New London, Conn.
5:50-6:10	KFPL	1310	Dublin, Texas	4:20-4:40	WMFG	1210	Hibbing, Minn.
0100 0110	WFAM	1200	South Bend, Ind.	4:30-4:50	KIUP	1370	Durango, Colo.
6:00-6:20	KLCN	1290	Blytheville, Ark.	1.00	WPAD	1420	Paducah, Ky.
	WELL	1420	Battle Creek, Mich.	4:40-5:00	KNOW	1500	Austin, Tex.
6:10-6:30	KGBX	1230	Springfield, Mo.		WEMP	1310	Milwaukee, Wis.
	WMPC	1200	Lapeer, Mich.	4:50-5:10	WEW	760	St. Louis, Mo.
6:20-6:40	KABR	1420	Aberdeen, S. D.		WGRC	1370	New Albany, Ind.
6:30-6:50	KFXJ	1200	Grand Junction, Colo.	5:00-5:20	KIUN	1420	Pecos, Tex.
	The	Secon	d Thursday		WEBQ	1210	Harrisburg, Ill.
			CALL TACKS OF CONTRACT OF STREET	5:10-5:30	KGEK	1200	Sterling, Colo. Ashland, Ky.
2:00-2:20	WSVS	1370	Buffalo, N. Y.		WCMI	1310	Ashland, Ky.
2:10-2:30	WKOK	1210	Sunbury, Pa.	5:20-5:40	KMAC	1370	San Antonio, Tex.
2:20-2:40	WRAW	1310 1210	Reading, Pa. Jamestown, N. Y.		WJW	1210	Akron, Ohio
2:30-2:50	WITN	1310	Philadelphia, Pa.	5:30-5:50	WIL	1200	St. Louis, Mo.
2:40-3:00	WHIS	1410	Bluefield, W. Va.	F. 40 0.00	WLBC	1310	Muncie, Ind.
2:50-3:10 3:00-3:20	WQAN	880	Scranton, Pa.	5:40-6:00	KTOK	1370	Oklahoma City, Okla.
3:10-3:30	WLEU	1420	Erie, Pa.	5:50-6:10	WKBB KANS	1500 1210	E. Dubuque, Ill. Wichita, Kans.
3:20-3:40	WBLK	1370	Clarksburg, W. Va.	0.00-0.10	WHBY	1200	Green Bay, Wis.
3:30-3:50	WSAJ	1310	Grove City, Pa.	6:00-6:20	WACO	1420	Waco, Tex.
3:40-4:00	WJBC	1200	Bloomington, Iil.	6:10-6:30	WJBL	1200	Decatur, Ill.
3:50-4:10	KGKL	1370	San Angelo, Texas	6:20-6:40	KRQA	1310	Santa Fe, N. M.
	WHAT	1310	Philadelphia, Pa.	O Las O Tao	WHDF	1370	Calumet, Mich.
	WLAP	1420	Lexington, Ky.	6:30-6:50	KGDE	1200	Fergus Falls, Minn.
4:00-4:20	KRIS	1330	Corpus Christi, Tex.				March Comment
	WHDL	1400	Olean, N. Y.		The	Secon	d Saturday
4:10-4:30	KAWM	1500	Gallup, N. M.	2:00-2:20	WMFR	1200	High Point, N. C.
	WJIM	1210	Lansing, Mich.	2:10-2:30	WMFO	1370	Decatur, Ala.
	WMBS	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	WTJS	1310	Charlotte, N. C. Jackson, Tenn.
	WBOW	1310	Richmond, Va.	2:40-3:00	WSIX	1210	Nashville, Tenn.
4.20 4.50	WRTD	1500 1420	Springfield, Ill.	2:50-3:10	WROL	1310	Knoxville, Tenn.
4:30-4:50	WPRA	1370	Mayaguez, P. R.	3:00-3:20	KOTN	1500	Pine Bluff, Ark
4:40-5:00	KRRV	1310	Sherman, Tex.	0.00 0.00	WBLY	1210	Lima, Ohio
4.40-5.00	WTMV	1500	East St. Louis, III.		WQAM	560	Miami, Fla.
4:50-5:10	KOOM	1230	Albuquerque, N. M.	3:10-3:30	KWYO	1370	Sheridan, Wyo.
2.00 0.20	WHBF	1210	Rock Island, III.		WPRP	1420	Sheridan, Wyo. Ponce, P. R.
5:00-5:20	KERN	1370	Bakersfield, Calif.	3:20-3:40	KGCU	1240	Mandan, N. Dak.
	KGKO	570	Wichita Falls, Tex.		WIBU	1210	Poynette, Wis.
	WTRC	1310	Elkhart, Ind.		WNEL	1290	San Juan, P. R. Houston, Tex.
5:10-5:30	KGFI	1500	Brownsville, Tex.	3:30-3:50	KXYZ	1440	Houston, Tex.
421	KTRB	740	Modesto, Calif.		WAML	1310	Laurel, Miss.
	WWAE	1200	Hammond, Ind. Lubbock, Tex.		WKBV	1500	Richmond, Ind.
5:20-5:40	KFYO	1310	Lubbock, Tex.	3:40-4:00	KRGV	1260	Weslaco, Tex.
	KJBS	1070	San Francisco, Calif.	0.50	WFOR	1370	Hattiesburg, Miss.
T	WIBM	1370	Jackson, Mich.	3:50-4:10	KNEL	1500	Brady, Tex.
5:30-5:50	KGHI	1200	Little Rock, Ark.		WEED	1420	Rocky Mount, N. C.
	KXO	1500	El Centro, Calif.	4.00 4.00	WGBF	630 1210	Evansville, Ind. Ardmore, Okla.
	WALR	1210	Zanesville, Ohlo	4:00-4:20	KVSO WFDF	1310	Flint, Mich.
5:40-6:00	KGHF	1320	Pueblo, Colo.		WFTC	1200	Kinston, N. C.
	KHIS	1260	Chico, Calif.		HELO	1200	amoton, It. O.

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
	KTSM	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.
. 160,000	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, Okla.
	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	KVOS	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. En-nav	

### 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 Swing 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.

Julius 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 tabulating locations of stations 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	Tas., Tasmania
N.S.W., New South Wales	Vic., Victoria
Qsld., Queensland	W. A., West Australia
S. A., South Australia	

	0	.,	h Australia				
550	2CR	10000	Cumnock, N.S.W.	1040	5P1	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 1070	2BH 6WB	100 2000	Broken Hill, N.S.W.
580	3WV	10000	Horsham, Vic. Noumea, New Caledonia	1070	2AD	100	Katanning, W. A. Armidale, N.S.W.
600	FJP	500 1000	Hobart, Tas.	1080	4MK	100	Mackay, Qsid.
610	7ZL KZRM		Manila, Philippines		7HT	300	Hobart, Tas.
010	2FC	3500	Sydney, N.S.W.	1090	1ZB	150	Auckland, N. Z.
620	3AR	4500	Melbourne, Vic.	2000	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.
	4ZP	100	Invercargil, N. Z.	1150	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.	1160	2ZM 2KA	15	Gisborne, N. Z.
710	7NT	7000	Kelso, Tas.	1100	4TO	200 200	Katoomba, N.S.W. Townsville, Qsld.
720	3YA	10000	Christchurch, N. Z.	1170	2NZ	2000	Inverell, N. S. W.
730	6GF	2000 4000	Kalgoorlie, W. A. Adelaide, S. A.	1180	3KZ	600	Melbourne, Vic.
740	$^{5\mathrm{CL}}_{2\mathrm{BL}}$	3000	Sydney, N.S.W.	1190	2CH	1000	Sydney, N. S. W.
750	KGU	2500	Hawall	1200	3YL	500	Christchurch, N. Z.
760	2YB	100	New Plymouth, N. Z.	2200	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	Brisbane, Qsld.	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.	1250	61X 1ZM	500 175	Perth, W. A. Manurewa, N. Z.
0.00	7HO	120	Hobart, Tas.	1260	3SR	2000	Shepparton, Vic.
870	2GB	1000	Sydney, N.S.W.	1270	2SM	1000	Sydney, N. S. W.
880	$^{1YX}_{2XL}$	150 100	Auckland, N. Z. Cooma, N.S.W.	1280	3AW	600	Melbourne, Vic.
	6PR	500	Applecross, W. A.	1200	4ZC	20	Cromwell, N. Z.
900	KZIB	1000	Manila, P. I.	1290	4BK	500	Brisbane, Qsld.
200	2LM	500		1300	2TM	2000	Tamworth, N. S. W.
	2ZP	250	Lismore, N.S.W. Wairoa, N. Z.	1310	1ZJ	65	Auckland, N. Z.
	7QT	100	Queenstown, Tas.		5AD	500	Adelaide, S. A.
910	4RK	2000	Rockhamton, Qsld.	1320	KGMB	1000	Honolulu, Hawaii
920	$z_{JV}$	400	Suva, Fiji		3BA	500	Ballarat, Vic.
	2ZR	50	Nelson, N. Z.	1330	3SH	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.	1250	5SE	100	Mount Gambier, S. A. Geelong, Vic.
960	2ZF	250	Palmerston North, N. Z.	1350	3GL	100 100	Mildura, Vic.
050	5DN	500	Adelaide, S. A.	1360	3MA 4PM	100	Port Moresby, Papua
970 980	3BO	$\frac{200}{100}$	Bendigo, Vic. Kempsey, N.S.W.	1370	2MO	100	Gunnedah, N. S. W.
980	2KM 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.	2000	4CA	200	Cairns, Qsid.
1000	3UL	200	Warragul, Vic.		6PM	100	Fremantle, W. A.
,000	4GR	500	Toowoomba, Qsld.	1400	KHBC	250	Hilo, Hawaii
1010	AHE	750	Hamilton, Vic.		2ZO	200	Palmerston North, N. Z
	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.	<b>143</b> 0	2WL	300	Wollongong, N. S. W.

	3ZB 4VL	1000 50	Charleville, Qsld.
1440	2QN	100	Deniliquin, N. S. W.
	4IP	100	Ipswich, Qsld.
1450	4ZR	100	Roma, Qsld.
	5MU	100	Murray Bridge, S. A.
1460	<b>7UV</b>	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, Qsid.
1490	2BE	100	Bega, N. S. W.
	3MB	100	Birchip, Vic.
1500	2BS	100	Bathurst, N. S. W.
	3AK	200	Melbourne, Vic.
1510	YDA	500	Tandjongpriok, Java, N.E.

### Arctic and Jungle Linked

REMARKABLE three way con-A REMARKABLE uncertainty of the arctic versation 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 20meter amateur band.

### Tune for Argentina

COUTH 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 kes 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.m., M-10:00, F-9:00

Don Lee System, Daily KDB KDON KFRC KFXM KGB KGDM KHJ KPMC KQW KVOE

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

CBC-Dally To CBC Pacific Network

Don 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.

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

CKAC 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-9:40 a.m., C-8:40, M-7:40, P-6:40 NBC Red and Bise, Press Radio, Weekdays

To stations available

E-9:55 a.m., C-8:55, M-7:55, P-6:55 CBS Press Radio, Sat. and Sunday CKAC KLRA KMOX WABC WADC WAIM WALA WCHS WCOC WDAE WDBJ WDBO WEEI WESG WFBL WFBM WHEC WHIO WIBX WJNO WJR WJSV WLBZ WMAS WMBR WMMN WNBF WOKO WORC WPAR WQAM WREC WSVA WSFA WSJS

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

E-11:00 a.m., C-10:00, M-9:00. P-8:00 NBC-Blue-Press Radio, Sunday To stations available NBC-Red-Press Radio, Sunday To stations available.

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

Michigan Radio Network, Dally 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. Hill, 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 WCOC WDAE WDBJ WDBO WDNC WDOD WDRC WEEI WFBL WGR WGST WHAS WHEC WHIO WHP WIBX WISN WJR WJSV WKBB WKBN WKRC WLAC WLBZ WMAS WMAZ Same stations as at Midnight

WMBD WMBR WMMN WNAX E-7:30 p.m., C-6:30, M-5:30, P-4:30 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 WDRC WEEI WFBL WFBM WGST WHAS WHEC WHIO WISN WJAS WJR WJSV WKBB WKBW WKRC WLAC WLBZ WMBR WNBF WOKO WORC WPRO WQAM WREC WRVA WWL

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, Dally 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 Radio, 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 Radio, Mon., Tues., Frl. KFH KLRA KNOW KOMA KSCJ KSL KTRH KWKH WABC WACO WADC WAIM WALA WBIG WBRC WCCO WCOC WDAE WDBJ WDBO WDOD WHEC WISN WJAS WJNO WJR WKBB WKBW WLBZ WMAS WMBR WOC WORC WPAR WOAM WREC WSFA WSJS WTAQ WTOC WWVA

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

E-6:40 p.m., C-5:49, M-4:49, P-3:40 CBS-Wednesday enly To all stations available

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

CBC—Menday through Friday To CBC French Network

E-7:45 p.m., C-6:45, M-5:45, P-4:45 CBS-Boake Carter, Mon., Wed., Fri. 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 Biue-Monday, Thursday

KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WIS 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 Network, daily WASH WBCM WELL WFDM WIBM WJIM WKZO WOOD

E-19:00 p.m., C-9:00, M-8:00, 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-10:45 p.m., C-9:45, M-8:45, P-7:45 CBC—Dally

To National and French Networks Red Friday enly

KDYL KFI KGW KHO 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-11:08 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-8:15 CBS-Boake Carter, Men., Wed., Fri. KFPY KLZ KNX KOIN KOL KSFO KSL KVI WFBM

E-11:30 p.m., C-10:30, M-9:38, P-8:38 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
Canadlan (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 Melodies; Jack Fulton WABC WADC WBT WCAO WCAU WDRC WEAN WEEL WFBL WGR WHEC WHK WJAS WJR WJSV WKRC WOKO WSPD WTOC WWVA

### R — Amos '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 KSTP KTBS KTHS KVOO KYW 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 Lone Ranger WFIL WNBF WSYR WOR WXYZ

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

#### R - Burns and Allen CRCT KYW WBEN WCAE WCSC

WHO WIOD WIRE WIS WJAR WMAS WMBD WNAX WOKO WORC WJAX WLW WMAQ WNAC WPTF WPRO WQAM WREC WRVA WWL WRC WRVA WSOC WTAG WTAM WTAR WTIC WWJ

### B — Gen. Hugh Johnson KDKA KOIL KSO KWK WBAL R — Fibber McGee and Molly 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 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

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

### 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 WJZ WIS WMAL WMT WOWO WREN WSPD WSYR WXYZ

### E-9:00 p.m., C-8:00, M-7:00, 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 KIZ KMBC KMOX KNOW KNX KOH KOIN KOL KOMA KRLD KRNT KSFO KSL KTRH KTSA KTUL KVI WABC WADC WBBM WBNS WBRC WBT WCAO WCCO WDAE WDBJ WDRC WEEL WFBL WFBM WGAR WGST WHAS

WCSH WEAF WFBR WFLA WGY WJR WJSV WKBW WKRC WLAC

### M - Elder Michaux

### Available to entire network

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

#### E-9:30 p.m., C-0:30, 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 WIS WJAR WJAX WKY WLW WMAQ WMC WNAC WOAI WOW WPTF WJAX WJDX WKY WMAQ WMC WRC WRVA WSB WSM WSMB WTAG WTAM WTAR WTIC WTMJ

#### 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 WIOD WIS WJAR WJAX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WTAG WTAM WTAR WTIC WWJ WWNC

#### B — Warden Lewis E. Lawes

KDKA KECA KFSD KGA KGO KJR KLO KOIL KSO KVOD KWK WBAL WBZ WBZA WCKY WEAN WEBR WENR WFIL WHAM WHK WICC WJZ WMAL WMT WOWO WREN WSPD WSYR WTCN WXYZ

### C -- 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 WFBL WFBM WHAS WHK WIBW WJAS WJR WJSV WHEC WHIO WIBX WISN WJAS 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 WTMJ

#### 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 WREC WWL

### 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 — 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 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 - Geo. McCall, Hollywood Talk

KFAB KFH KLRA KMOX KNOW KOMA KRLD KRNT KTRH KTSA KWKH WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WCHS 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 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 WCSH WDAF WDAY WEAF WEBC WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WNAC WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

### B -- Husbands and Wives

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

C - Edward Robinson; Claire Trevor CBM CFRB KFAB KFH 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: Parkvakarkus

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 WEEL 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 WCSH 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 Dona 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 KMOX KNX KOIN KRNT KSFO WMBR WMMN WNAC WNAX KVI KVOR

KSL KVI WABC WBBM WCAO WNBF WNOX WOC WOKO WORC WOWO WPG WQAM 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 WEEL WFBL WFBM WGAR WGST WHAS WHEC WHIO WHP WIBW WIBX WISN WJAS WJR WJSV WKBB WKBN WKBW WKRC WLAC WLBZ 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 KHO 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 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 Goodman's Orchestra

Same stations as Jack Oakle'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-10:30 p.m., C-9:30, M-8:30, P-7:30 M — Witch's Tale; Drama Available to entire network

R --- Jimmy Fidler Hollywood Gossip 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 C — Poetic Melodies, See Monday — Amos 'n' Andy, See Monday

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

### 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 — Poetic Melodies, See Monday R - Amos 'n' Andy, See Monday B — Easy Aces, See Tuesday

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

KMBC WABC WADC WBIG WBNS WBT WCAO WCAU WCHS WDAE WDBJ WDBO WDRC WEEI WFBL WGAR WGBI WGR WHEC WHIO WIBX WJAS 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 WRNS WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WMBG WNAC WOKO WTOC wwt.

R - One Man's Family

KDYL KFI KFYR KGW KHO KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW 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

B'- Eddio Duchin's Orchestra KDKA KECA KFEL KFSD KGA KGW KHQ KIDO KMJ KOA KOB KGO KJR KLO KOIL KSO KWK KXYZ WAGA WBAL WBZ WBZA KTAR KTBS KTHS KWG KYW WCKY WDSII WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMPS WMT WOWO WREN WSGN WSPD WSYR WXYZ

E-8:30 p.m., C-7:30, M-6:30, P-5:30 C — Eddio Cantor: 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 WIBX WJAS WJR WJSV WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOKO WORC WOWO WPG WPRO WQAM WREC

R — Wayne King, See Tuesday

B — Skolsky from Hollywood KDKA KECA KFEL KFSD KGA KGO KGW KJR KLO KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK C - Poetic Meledies, See Monday WICC WJZ WLS WMAL WMT R - Amos 'n' Andy, See Monday

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

R — Town Hall Tonight

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-10:00 p.m., C-9:00, M-8:00, P-7:00 C - Crime Crusade; Phil Lord

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 WARC WACO WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNAC WOKO WORC WOWO WQAM WREC WTOC WWL

R -- Your Hollywood Parade KDYL KERN KFBK KFI KFYR KGBX KGHL KGIR KGNC KGU KOMO KPO KPRC KSD KSTP WAPI WAVE WBEN WCAE WCSC WCSH WDAF WDEL WEAF WEBC WFAA WFBC WFBR WFEA WFLA B - Gen. Hugh Johnson, See Mon. WGL WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WLW WMAQ WMBG WMC WNAC WOAI WOOD WORK WOW WPTF WRC WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Gen. Hugh Johnson, See Tues.

E-10:30 p.m., C-9:30, M-8:30, P-7:30 C — Hobby Lobby; Harry Salter KDAL KFAB KFH KFPY KGKO E-9:00 p.m., C-8:00, M-7:00, P-6:00

KIRO KIZ KMOX KNOW KNX C - Major Bowes' Amateurs KOH KOIN KOMA KRLD KOY KRNT KSFO KSL KTRH KTSA KTUL KVI KWKH WALA WBBM WBRC WCCO WCOC WFBM WGST WHAS WIBW WISN WLAC 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

WOWO WREN WSPD WSYR WXYZ E-11:15 p.m., C-10:15, M-9:15, P-8:15 C - Boake Carter, See Monday R - Lum and Abner, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30 C — Eddie Cantor; Deanna Durbin KHJKLKAKLZKMBCKMJKMOX KFBB KFPY KGVO KLZ KNX KOH KOIN KOL KOMA KRLD KOH KOIN KOL KOY KSFO KSL

### 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 - Amos 'n' Andy, See Monday B - Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15 C - Geo. 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 WCAII WCCO WDAE WDBO WDRC WEEI 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 Youngman CFRB 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 WDBO WDOD WDRC WEEL WEOA WFBL WFBM WGAR WGR WGST WHAS WHEC WHIO WHP WIBW WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMBD WMBR WNAX WNOX WOC WOKO WORC WPRO WQAM WRVA WREC WSFA WTAQ WWL

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

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

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 WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX THURSDAY (Continued)

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

R -- MGM Program CRCT KDYL KERN KFBK KFI KEYR 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 WIRA 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 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 C - "We, The People." KFPY KIRO KLZ KNX KOIN KOY KSFO KSL KVI

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

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

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

E-0:00 p.m., C-7:00, M-6:00, P-5:00 C - Hammerstein Music Hall KDB KERN KFAB KFBK KFPY E-9:30 p.m., C-8:30, M-7:30, P-6:30 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 WWL

R — Citles Service Concert

WBAP WBEN WCAE WCSH WDAF WFAA WFIL WFLA WHAM WHK WDAY WEAF WEBC WEEI WFAA WFBR WGY WHO WIBA WIOD WJAR WKY WMAQ WOAI WOW WRC WRVA WSAI WTAG WTAM WTIC WTMJ WWJ

E-8:30 p.m., C-7:30, M-6:30, P-5:30 C - Hal 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 WIBX WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WPRO WQAM WREC WSFA WSJS WSPD WTOC WWL

B - Death Valley Days

KDKA KDYL KFI KOW KHO KOIL KOMO KPO 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 - Hollywood 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 WARC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR KDYL KFI KGW KHQ KOA KOMO WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WPG WOAM 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** — Pontlac 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 WEAR WERC WERR WFAA WFBC WFIL WFLA WHAM WHK WICC WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WOOD WOWO WPTF WREN WSB WSM WSMB E-11:30 p.m., C-10:30, M-9:30, P-8:30 WSOC WSPD WSUN WSYR WTAR WTCN WWNC WXYZ

R — True Story Court

KSD KYW WBEN WCAE WCSH WEAF WEEL WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

B — Tommy Dorsey's Orchestra KARK KDKA KECA KFSD KGA KGO KJR KLO KOIL KPRC KSO KTBS KTHS KVOD KWK WABY C - Carborundum Band CRCT CFYR KOA KPRC KSD WAVE WBAL WBZ WBZA WCKY KFAB KMBC KMOX WABC WBBM KSTP KTBS KTHS KVOO KYW WCOL WDSU WEAN WEBR WENR WBT WCAO WCAU WCCO WEEI

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-7:00 C - Frank Crumit; Kitty Carlisle KDAL KFAB KFBB KFH KFPY KGKO KGLO KGVO KRLA KLZ KMOX KNOW KNX KOH KOIN 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

R — First Nighter; Drama

WSJS WTOC WWL

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

WQAM WREC WRVAWSBT WSFA

E-10:30 p.m., C-9:30, M-8:30, P-7:30 M - Lone Ranger, see Mon.

R - Jimmy Fidler

WTIC WWJ

KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDEL WEAF WFBR WGY WIBA WIRE WJAR WLW WMAQ WNAC WOW WRC WTAG WTAM WTIC WTMJ WWJ

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

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-10:15, M-9:15, P-8:15 C — Boake Carter, See Monday B - Lum and Abner, See Monday

C - Hal 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

SATURDAY (Continued)

WFBL WGAR WGR WHAS WJAS WJR WKRC WPRO

B -- Uncle Jim's Question Bee WJZ WMAQ

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

WABC WADC WBBM WCAU WEEI WFBL WGAR WHEC WHP WJAS WJR

R - "Belleve-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 — Johnny Presents Russ Morgan 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 WHP WISN WJAS WJR WJSV WKRC WMBD WMBG WNBF WOC WOKO WPRO WSBT WWVA

R - Jack Haley; Virginia Verrill 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 WOAI WOW WPTF WRC WSB WSMB WSOC WSPD WTAG WTAM WTAR WTIC WTMJ WWJ

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

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC E-11:30 a.m., C-10:30, M-9:30, P-8:30 KMJ KMOX KOIN KOL KOMA C - Major Bowes' "Family" KRLD KRNT KSL KTRH KTSA KVI KWG WABC WBBM WBNS WDBO WDRC WEAN WFBL WFBM WJAS WJR WJSV WKRW WKRC WMBR WOKO WQAM WREC WSPD WWL

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 WDBO WDOD WEEI WFBL WFBM P-10:00 WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WLAC WMBD 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 KDKA WBZ WBZA WGY WHK 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 WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOC WORO 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 KPO KSTP KTAR WDAY WEBC WIBA WLW WTMJ

CBC — 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 KDYL KGNC KOA KPRC KSD 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 — "Belleve-St-Or-Not" Ripley KERN KFBK KFI KGW KHQ KMJ KOMO KPO KWG

### SUNDAY

CFRB KERN KFAB KFBH KFBK KFH KFPY KFRC KGB KGVO WBT WCAO WCAU WCCO WDAE 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 WHAS WHK WIBX WJAS WJR WKRC WLBZ WMBD WMBR WMMN WOC WOKO WORC WPG WQAM WSBT WSJS WSPD WTOC

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

C — Sait Lako Tabernacie Choir CFRB KFAB KFBB KFBK KFH KFPY KFRC KGB KLZ KOH KOL R - The Radio News Reel KWG WABC WACO WADC WALA WBIG WBNS WBRC WCAO WCCO WFEA WGR WHAS WICC WJAS WJR WKRC WLBC WMBR WMMN WOC WOKO WORC WQAM WSBT WSJS WSPD WTOC

WBT WCAO WCAU WCOA WDAE E-1:00 p.m., C-Noon, M-11:00 a.m.,

C — Church of the Air KFBK KFH KFPY KFRC KGB WGY WHO WIOD WIRE WJAX WMBR WMMN WNOX WOC WQAM KHJ KMOX KOH KOL KOMA KRLD WLW WMAQ WMBG WMC WNAC WREC WRVA WSFA WTOC WWL KRNT KSCJ KSL KTRH KTSA KVI WOAI WOW WRC WSB WSM WSMB KVOR KWG WABC WALA WBNS WTAM WTIC WWJ

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 WSJS WSPD WTOC WWVA

E-1:45 p.m., C-12:45, M-11:45, P-10:45 C — Hollywood; Lloyd Pantages KFAB KLZ KMBC KMOX KRNT KSL WABC WBBM WCAU WCCO WEEI WFBM WGAR WGR WHEC

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

B — Magic Key of RCA

WJAS WJR WORC

CFCF CRCT KDKA KDYL KFI KEYR KOII KOW KHO KOA KOIL KOMO KPO KPRC KSO KSTP KTBS KTHS KVOO KWK WAPI WAVE WBAL 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-2:30 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 WEEI WFBL WFBM WGAR WGST WHAS WHEC WHIO WHP WIBW WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBR WOKO WORC WPRO WQAM WREC WRVA WWL

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

CFRB CKAC KFAB KFBB KFH KGKO KGVO KLRA KLZ KMBC KMOX KNOW KOL KRLD KSCJ KSL KTRH KTSA KWKH WABC 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

KRLD KSL KTRH KTSA KVI KVOR KSD KSTP KYW WBEN WCAE WCSH WDAF WDEL WEAF WFBR WGY WHO WIRE WJAR WMAQ WDAE WDBJ WDBO WESG WFBL 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

KARK KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSTP KVOO KYW WAPI WAVE WBEN WCAE WDAF WEAF WFAA WFLA

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 - The Silver Theater

CERB CKAC KFAB KFPY KLZ KMBC KMOX KNOW KNX KOIN KOL KOMA KRLD KRNT KSFO WSL KTRH KTSA KTUL KVI WABC WADC WBBM WBNS WCAO WCAU WCCO WDAE WDRC WEEI WGAR WGR WGST WHAS WHEC WHIO WJAS WJR WJSV WKRC WMBR WOKO WPRO WQAM WWL Also on Canadian Network

R - Marion Talley

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 WOW WRC WSAI WTAG WTAM WTIC WTMJ WWJ

**B** — 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 WOW WRC WTAM WRAP WRZ 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-5:30 p.m., C-4:30, M-3:30, 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 WIBX WICC WJR WJSV WMAS WOKO WORC WSPD WWVA

B — Smiling Ed McConnell

KANS KDKA KECA KERN KEX KFBK KFSD KFYR KGA KGIR WWJ KGO KJR KLO KMJ KOIL KSO KTAR KWG KWK WAVE WBAL E-7:30 p.m., C-6:30, M-5:30, P-4:30 WBZ WBZA WCKY WCOL WDAY WDSU WEAN WEBC WEBR WENR WFIL WHAM WHK WICC WJZ WMAL WMT WREN WRTD WSM WSPD WSYR WTCN WXYZ

R-Joe Rines: Shella Barrett

CFCF CRCT KDYL KFI KOW 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 — Joe Penner; Gene Austin

KMOX KNOW KNX KOIN KOL KARK KDKA KECA KFEL KEX KOMA KRLD KRNT KSFO KSL KFSD KFYR KGA KGO KJR KLO KTRH KTSA KVI WABC WBBM KOIL KPRC KSO KSTP KTAR WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBO WDRC WEEL WFBL WFBM WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WKRC WOKO WORC WPRO WQAM WREC WRVA

M - George Jessel: Tommy Tucker WLS WMAL WMC WMT WOAI To entire MBS and Michigan Networks

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 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 WKBH WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBR Also on Canadian Network WMMN WNAX WNBF WNOX WOC WOKO WORC WPAR WPG WPRO WQAM WREC WRVA WSBT WSFA WSJS WTAQ WTOC WWL WWVA

M - Tim and Irene CKLW KWK WBAL WCAE WGN WHK WIRE WOR

R — A Tale of Today WBEN WEAF WGY WJAR WMAQ

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

C --- Jeanette MacDonald

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 WOST WHAS WHEC WHIO WAS WJR WJSV WKRC WOKO WPRO WREC WRVA WTOC WWL

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

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 KHQ KOA KOMO KPO KPRC KSD WHAS WHEC WHK WHP WIBX KSTP KTHS KVOO KYW WAPI WICC WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBR WNAC WNOX WOKO WORC WOAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL WWVA

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

KFAB KFPY KGLO KLZ KMBC B - Ozzle Nelson: Harriet Hilliard KTBS KTHS KVOO KWK WABY WAPI WAVE WBAL WBAP WBZ WBZA WCKY WCOL WDAY WEAN WEBC WEBR WFIL WFLA WHAM WHK WIBA WICC WIOD WIS WJAX WJDX WJZ WKY WLEU WDAY WEAF WEBC WEEI WFAA

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 — Columbia Workshop

KFAB KFH KFPY KLRA KLZ KMBC KMOX KNX KOIN KOL KOMA KRLD KRNT KSCJ KSFD KSL KTRH KTSA KTUL KVI 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 WQAM WREC WSBT WWI. WWVA

R — Don Ameche; Edgar Bergen CFCF CRCT KDYL KFI KFYR KGW KHO KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KVOO KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WNAC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTM.I WW.I 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 WEST, WESM WEEA WOR 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 KCHL 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 KHO KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCKY WCSH WDAF

### 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 — Album of Familiar Music

CFCF CRCT KDYL KFI KFYR KGW KHO KOA KOMO KPO KPRC WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM R - Rising Musical Stars WTAR WTMJ WWJ WWNC

B - Walter Winchell KDKA KECA KEX KFSD KGA 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 E-11:15 p.m., C-10:15, M-9:15, P-8:15 KOMA KRLD KRNT KSFO B - Walter Winchell KSD KSTP KTBS KYW WAPI KSL KTRH KTSA KTUL KVI KDYL KFI KFSD KGHL KGIR WAVE WBEN WCAE WCSH WDAF WABC WBBM WBNS WBRC WBT KGW KHQ KOA KOMO KPO KPRO WCAU WCCO WDAE WDBO WDRC WEEI WFBL WFBM WGAR WGST WIOD WIS WJAR WJAX WJDX WHAS WHEC WJAS WJR WJSV WSB WSM WSMB WKBW WKRC WMBR WNOX WOKO WORC WPRO WQAM WWI. E-11:30 p.m., C-10:30, M-9:30, P-8:30

KDYL KFI KGBX KGW KHQ KOA KPO KPRC KSD KSTP KTAR KTBS KTHS KYW WAVE WBAP WBEN KGHL KGIR KGO KJR KLO KOIL WCAE WCSH WDAF WEAF WFBR WFLA WGY WHO WIBA WIOD B - Tyrone Power; Drama WKY WMAQ WMC WNAC WOAI 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 - frene Rich, Drama

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

KTAR KTBS KTHS WAPI WAVE WBAP WJDX WKY WMC WOAT

### R — Jack Benny-Mary Livingstone KDYL KERN KFBK KFI KFSD KGHL KGIR KGU KGW KHQ KIDO KMJ KOA KOMO KPO KTAR KWG

WIRE WIS WJAR WJAX WJDX KARK KPRC KTBS WAPI WAVE WBAP WJDX WKY WMC WOAT 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 Eddie Cantor, 8:30 and 11:30 p.m. Wed., CBS Stuart Erwin, 9:30 p.m. Tues., CBS Billy Franz, 2:00 p.m. Sun., CBS Jack Haley, 8:30 p.m. Sat., Red Arlene Harris, 9 and 12 p.m. Tues., CBS George Jessel, 6:00 p.m. Sun., MBS Al Joison, 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., 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 Kostelanetz, 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. Y. Philharmonic, 3:00 p.m. Sun., CBS Philadelphia Symphony, 9:00 p.m. Sun., Blue

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 Flo 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 Hoff, 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 Ozzie Nelson, 7:30 p.m. Sun., Blue Ray Noble, 8 and 10:30 p.m. Mon., Red Raymond Palge, 9:30 p.m. Tues., Red; 9:00 p.m. Fri., Jacques Renard, 8:30 and 11:30 p.m. Wed., CBS Joe Rines, 5:30 p.m. Sun., Red B. 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., MB\$ 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

### 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

Meredith Willson, 9:00 p.m. Thurs., Red

Victor Young, 8:30 and 11:30 p.m. Tues., CBS

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

### DRAMA

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 Long Ranger, 7:30 and 10:30 p.m. Mon., Wed., Fri.,

Lux Radio Theater, 9:00 p.m. Mon., CBS Heien 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 Bicycle Party, 3:30 p.m. Sun., Red Major Bowes' Amateurs, 9:00 p.m. Thurs., CBS Major Bowes' 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. Fri., 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

Jello Program, 7:00 and 11:30 p.m. Sun., Red

It Can Be Done, 8:30 p.m. Tues., Blue

Johnny Presents-, 8:00 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 National Barn Dance, 9:00 and 11:00 p.m. Sat., Blue Northern Messenger, 11:00 p.m. Sat., CBC Jack Oakie's College, 9:30 p.m. Tues., CBS L. Pantages Covers Hollywood, 1:45 and 11:00 p.m.

Sun., CBS Poetic Melodies, 7:90 and 11:00 p.m. Mon. through Fri. CBS

Pontiae Varsity Show, 9:00 p.m. Fri., Blue Professor Quiz, 9:00 and 12:00 p.m. Sat., CBS Radio News Reel, 3:00 p.m. Sun., Red Salt Lake City Tabernacle, 12:30 p.m. Sun., CBS Saturday Night Serenade, 9:30 p.m. Sat., CBS Saturday Night Swing Club, 7:00 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., CB8 Voice of Firestone, 8:30 p.m. Mon., Red Vox Pop. 9:00 p.m. Tues.. Red Waltz Time, 9:00 p.m. Fri., Red Watch 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. Frl., CBS Richard Crooks, 8:30 p.m. Mon., Red Bing Crosby, 10:00 p.m. Thurs., Red Frank Crumit, 10:00 p.m. Fri., CBS Jean Dickenson, 9:30 p.m. Sun., Red Deanna Durbin, 8:30 and 11:30 p.m. Wed., CB8 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 Plerre Le Kreeun, 9:00 p.m. Sun., Red Nick Lucas, 9:00 and 12:00 p.m. Tues., CBS Lullaby Lady, 10:00 p.m. Mon., Red Lulu Belle, 9:00 and 11:00 p.m. Sat., Blue Jeauette 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. Frl., Red Tony Martin, 8:00 and 10:30 p.m. Mon., Red Frank Munn, 9:30 p.m. Sun., Red; 9:00 p.m. Frl., 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 Verrill, 8:30 p.m. Sat., Red Bert Whaley, 3:30 p.m. Sun., Red

### TALKS

Boake Carter, 7:45 and 11:15 p.m. Men., Wed., Fri., Jimmy Fidler, 10:30 p.m. Tues., Fri., Red Gabriel Heatter, 7:30 and 10:30 p.m. Thurs., CBS Gen. 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., CBS Lowell Thomas, 6:45 p.m. Mon. through Fri., Blue Dorothy Thompson, 10:45 p.m. Frl., Red Walter Winehell, 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.

NORTH AMERICAN BROADCAST NEW			930 1200	CFAC CKNX	Calgary, Alta., 1000 from 100 Wingham, Ont., 100 from 50
710	CMBL	Havana, Cuba. Radio Cadena Suari-	1450	CFCT	Victoria, B. C., 500 from 50
• • • •		tos, Calle 25 No. 445, Vedado			REINSTATED
1030	CJBR	Rimouski, P. Q. J. A. Brillant	1400	WARD	Brooklyn, N. Y.
2000	CMCK	Havana, Cuba. San Miguel 86		WLTH	Brooklyn, N. Y.
1200	CFGP	Grande Prairie, Alta. Northern			NETWORK
		Brdcstg. Corp., 906 McLeod Bldg.,	580	CKUA	Edmonton, Alta., new CBC
		Edmonton, Alta.	710	KIRO	Seattle, Wash., new CBS
1210		Greenfield, Mass. John W. Haigis	910	CBF	Montreal, P. Q., new NBC and CBC
1310	KPBM	Poplar Bluff, Mo. Fields McCarthy	1030	CFCN	Calgary, Alta., new CBC
1010		Co.		CJBR	Rimouski, P. Q., new CBC
1370	CFAR	Flin Flon, Man. Arctic Radio Corp.,	1050	CBM	Montreal, P. Q., new Red
10.0		120 Main St.	1180	WDGY	Minneapolis, Minn., new CBS
		Owen Sound, Ont. Owen Sound Sun-	1220	KTMS	Santa Barbara, Calif., new Blue
	• • • • • • • • • • • • • • • • • • • •	Times	1230	$\mathbf{KGBX}$	Springfield, Mo., new NBC
1420	CHLN	Three Rivers, P. Q. Three Rivers	1330	WSAI	Cincinnati, Ohio, NBC from Red
	0	Le Nouvelliste	1490	WCKY	Covington, Ky., NBC from Blue
		FREQUENCY			DELETE
930	XEFO	Mexico City, D. F., from 940	920	WRAX	
1310	XEBO	Irapuato, Guan., from 1280			OWNER
1910	ALDO		1240	CJCB	Sydney, N. S. Eastern Broadcasters,
		POWER			Ltd., Radio Bldg.
880	CFJC	Kamloops, B. C., 1000 from 100		(Ple	ase turn to Page 95)
	CMQ	Havana, Cuba, 25000 from 2500		(1 00	ado turn to 1 ago to,

### 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.

			5.825	TIGPH	(also TIXGP3), San Jose, Costa
	o 2,000	Amateur Stations.	5.023	I I GIF I I	Rica. 1100-1300; 1800-2200.
2.50 <del>0</del>	XEXP	Montorrey, N. L. (.03).	5.850	YV1RB	Maracaibo, Venez, Sun., 1145-1245.
3.500 t	o 4.000	Amateur Stations.	3.030		Weekdays 0845-0945; 1115-1215;
3.040	YDA	Tandjong Priok, Java, N.E.I. (10.).			1645-2145.
4,273	RV15	Khabarovsk, USSR (Siberla). (20.). 0100-1000.	5.855	HIIJ	San Pedro de Macoris, D. R. (.04). 1200-1400; 1830-2100.
4.600	HC2ET	Guayaquil, Ecuador. Wed., Sat., 2100-2230.	5.875	HRN	Tegucigalpa, Honduras. (.4). Sun., 2030-2130. Weekdays 2030-2200.
4.780	HJ1ABB	Barranquilla, Colombia (.3). Apart-	5.885	H19B	Santlago, D. R. 1800-2300.
		ado 715.	5.895	YV3RA	Barquisimeto, Venez. 1800-2200.
4.787	HJ2ABC	Cucuta, Colombia. (.25). "La Voz	5.905	TILS	San Jose, Costa Rica. 1800-2300.
		de Cucuta."	5.913	YVARH	Vaincia, Venez. 1700-0100.
4.810	YDE2	Solo, Java, N.E.I. (.1).	5.925	HH2S	Port-au-Prince, Haiti. 1900-2200.
4.840	<b>HJ3ABD</b>	Bogota, Colombia. 1930-2400.		YV1RL	Maracaibo, Venez. (.3). 1700-2230.
		Aptdo. 509.	5.935		
5.415	PMY	Bandoeng, Java, N.E.I. (.45). 0530- 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-		PJC1	Willemstad, Curacae, N.W.I. (.15)
		2330.	5.947	PJCI	1835-2035.
5.710	TGS	Guatemala City, Guat. (.2). Wed., Thurs., Sat., 1800-2100.	5.975	OAX4P	Huancayo, Peru. (.25).
5.735	HC1PM	Quito, Ecuador. Sat., 2100-2300.	5.980	HJ4ABD	Medellin, Colombia. 2000-2230.
5.763	YNOP	Managua, Nicaragua. 2000-2130.	5.990	HJ2ABD	Bucaramanga, Colombia. (.67).
5.765	YV2RA	San Cristobal, Venez. 1800-2330.			1900-2300.
5.800	YV5RC	Caracas, Venez. (1.). Sun., 0830-	6,080	CXA2	Montevideo, Uruguay. (.5).
		2330. Weekdays 0700-2230.		OAX5C	Ica, Peru. (.1).
5.813	TIGPH2	San Jese, Costa Rica.		XEBT	Mexico City, D. F. (1.). 1800-2400.

### SHORTWAVE BROADCASTING STATIONS OF THE WORLD

	3110	KI WAVE DROADCASTING	SIA	TIONS OF THE WORLD
6.005	CFCX HP5K	Montreal, P. Q. (.075). 0700-2400. Colon, Panama. 1800-2300.	6.125	CXA4 Mentevideo, Uruguay. (1.). 1600- 2145.
	VE9DN XZ1GY	Montreal, P. Q. (6.). Rangeon, Burma.		HP5H Panama City, Panama XEPW Mexico City, D. F. 2100-2400.
6.010	CJCX	Sydney, N. S. (1.).	6.128	OAX7A Cuzco, Peru. (.1).
	coco	Havana, Cuba. (2.5) Sun., 2000-2200. Weekdays 1030-1300; 1600-2000.	<b>6.130</b>	COCD Havana, Cuba. (.35). 1700-010f VE9HX Halifax, N. S. (.5). 1700-2300.
	OLR2A	Prague, Czechoslovakia. (35.). Mon., Wed., Fri., 1600-1630.	6.132	VP3BG Georgetown, British Guiana.
		Salgen, French Indo-China.	6.137	CR7AA Lourence Marques, Port. East
6.012	НЈЗАВН	Bogota, Colombia. (1.2). 1800-2300.		Africa. Sun. 0600-0900. Weekdays 9500-0700.
6.015	HI3U	Santiago de los Caballeros, D. R.	6.138	HJ4ABD Medellin, Colombia.
		(.025). Mon. 2000-2100. Daily 0730- 0930; 1200-1430; 1700-1930.	6.140 6.145	W8XK Pittsburgh, Pa. (40.). 2200-sign off. HJ4ABE Medellin, Colombia (1.). "La Voz
6.020	DIC	Berlin, Germany. (50.). 1040-1630; 1650-2245	6.150	de Antioquia." 1800-2230. CJRO Winnipeg, Man. (2.). 1800-2400.
	XEUW	Veracruz, Ver. (.02). 1800-2400.		VPB Colombo, Ceylon. (.3). Sun. 0700- 1130; Weekdays 0630-1230.
6.025	HJ1ABJ	Santa Marta, Colombia. (.05). 1800-2230.	6.153 6.156	HISN Cludad Moca, D. R. (.1). 1900-2000. YV5RD Caracas, Venez. 1030-1330; 1530-
6.030	HP5B	Panama City, Panama. (.1), 1700-		2200.
		2200.	6.174	XEXA Mexico City, D. F. 1700-2100.
	OLR2B	Prague, Czecho. (35.).	6.190	HI1A Santiago de los Caballeros, D. R. (.05). Weekdays 2000-2200.
	VE9BJ	St. John, N. B. (.05).	6.198	HISQ Trujillo, D. R. 1700-1900.
	XEBQ	Mazatlan, Sin. (.05).	6.200	COKG Santiago, Cuba. (.05). Dally exc.
6.033		Medellin, Colombia. (2.5). 1800- 2300.		Sat. 0900-2300. XEXS Mexico City, D. F.
6.038	HJ1ABC	Barranquilla, Colombia. (.15). 1100-	6.205	YV1RI Coro. Venez. (-15). 1700-2200.
		2300.	6.215	TG2 Guatemala City, Guat.
6.040	PRA8	Pernambuco, Brazil. (3.). 1500-	6.225	YVIRG Valera, Venez. 1730-1930.
	W1XAL		6.235	HRD La Ceiba, Honduras. (.25). 2000- 2300.
		and Sun., 1908-2100.	6.243	HIN Trujillo, D. R. (.75).
	W4XB YDA	Miami, Fla. (5.). Tandjong Priok, Java, N.E.I. (10.).	6.250 6.27 <b>0</b>	YV5RJ Caracas, Venez. YV5RP Caracas, Venez. (1.2).
			6.280	YV5RP Caracas, Venez. (1.2). HIG TruJillo, D. R. (.05).
6.050	GSA HJ6ABA	Daventry, Gt. Britain. (20.). A Pereira, Colombia (6054 assigned). 1800-2200.	6.282	COHB Sancti-Spiritus, Cuba. (.15). 2100- 2300.
6.060	VQ71 O	Nairobi, Kenya. 1100-2430.	6.296	OAX4G Lima, Peru. (.4). 1900-2130.
0.000		Philadelphia, Pa. (10.). 2000-2300.	6.300	YV4RD Maracay, Venez. 1700-2300.
	W8XAL	Cincinnati, Ohio. (10.). Daily 2300-	6.310 6.312	HIZ Trujillo, D. R. (.1). ZP14 Villarrica, Paraguay (1.). 1100-1700.
		0200. Sun. 0800-2000. Weekdays	6.330	COCW Havana, Cuba. 0700-2400.
6.862	SBG	0600-2000. Motala, Gweden. (.5). 1330-1700.	6,335	OAX1A Chiclayo, Peru. (.2). Dally 2000-
6.064		Georgetown, British Gulana. 1700-	6.340	2300; Sat. 2000-2400. HI1X Trujillo, D. R. (.5). Tues., Fri.,
6.065	HPSF	2100. Colon, Panama.		2000-2200.
6.069		Johannesburg, Union of S. Africa	6.357	HRP1 San Pedro Sula, Honduras. YV1RH Maracalbo, Venez. 1980-2400.
		(5.). 2345-0030.	6.365 6.380	YV1RH Maracaibo, Venez. 1990-2400. YV5RF Caracas, Venezuela.
6.070	CFRX	Toronto, Ont. (1.). 1000-2300.	6.400	YV5RH Caracas, Venezuela.
	AA160	Bogota, Colombia. (.05). 1900-2230. Maracalbo, Venez. 1900-2400.	6.410	TIPG San Jose, Costa Rica. (1.). 1800-
6.075	XEBW	Guadalajara, Jal. (.045).	6,416	2230. YV6RC Bolivar, Venez.
	XECU	Guadalajara, Jal.	6.428	HIIS Santiage, D. R. (.02). 1800-2300.
6.077	OAX4Z	Lima, Peru. (10.) (6082 assigned). 1900-2330.	6.425	OAX4K Lima, Peru. (.2).
6.080	DJM	Berlin, Germany. • (50.).		W3XL Bound Brook, N. J. (100.). Irrreg.
	VE9CS	Vancouver, B. C. (.01). 1400-2400.	6.450	W10XDA Effle M. Morrissey (.1). HI4V San Frencisco de Macoris, D. R.
	W9XAA	Chicago, III. (20.). Daily 1900-2200.		(.025).
6.085	HISARE	Weekdays 0600-0730. Call, Colombia. 1900-2200.	6.479	HISA TrujHie, D. R.
6.090	CRCX	Terente, Ont. (1.). 1100-1900.	6.485	HIIL Santiage de los Caballeros, D. R. "Emisora Nacienal." 0630-0800;
		Ibague, Colombia. 2000-2200.		"Emisora Nacienal." 0630-0800; 1730-1998; 2000-2100.
6.095	ZGE	Kuala Lampur, F.M.S.	6,479	HISA Trujillo, D. R.
6.100	W3XAL W9XF	Bound Brook, N. J. (35.). 2100-0100. Chicago, III. (10.). 1700-2005.	6.500	HIL Trufille, D. R. (.05).
		Bolgrade, Jugoslavia. (1.). 1200-	6.508	YV1RM Maracalbo, Venez. Radio Guardia Civil, Tetuan, Sp. Morocco.
6.108	HJ4ABE	1790.   Menizales, Colombia, 1808-2480.		1960-2008.
6.118	GSL	London, Gt. Britain. (20.).	6.52 <b>0</b> 6.534	YV4RB Valencia, Venezuela. 1700-2200. EDR4 Paima, Majorca, Balearic Isl.
6.115	OLR2C	Prague, Czecho. (35.).	6.540	YNIGG Managua, Nicaragua.
6.118	XEUZ	Mexico City, D. F. (5.), 2300-0300.	6.545	YV6RB Bolivar, Venez. 2100-2300.
6.120	W2XE XEFT	New York, N. Y. (10.). Veraeruz, Ver. (.012).	6. <b>550</b>	TIRCC San Jose, Costa Rica. (.5). Tues., Thurs., Sat. 1700-1800.
	YDA5	Bandoeng, Java, M.E.I. (1.5).	6.555	HI4D Trujillo, D. R. (.025). 1780-2000.
6.122		( Bogota, Čolombia. 1730-2230. Arequipa, Peru. (.1).	6.622	Prado Rio Bamba, Ecuador. Thur. 2100- 2309.

	SHO	RIWAVE BROADCHSTING			
6.630	ніт	Trujillo, D. R. (.2). Weekdays, 1800-2100.	9.520		Armenia, Colombia. (1.). 0800-1100; 1800-2200.
6.635	HC2RL	Guayaquii, Ecuador. Sun. 1745- 1945. Tues. 2115-2315.		YSH	Copenhagen, Denmark. 1400-1815. San Salvador, E. S.
6.690	TIEP	San Jose, Costa Rica. 1600-2300.			Radle Liberte. 1900-2000.
6.700	TIVL	San Jese, Costa Rica.	9.525	ZBW3	Hong Kong. (2.5). Sat. 2100-2400. Sun. 0000-0100; 0300-0930. Other
6.720	PMH	Bandoeng, Java, N.E.I. (1.5).			Jana 0400-1000+ 2330-0100.
6.730	H13C	La Romana, D. R. 1745-2000. San Pedro de Macoris, D. R. (.15).	9.530	LKJ1	Jeloy, Norway. (1.). 0500-0800. Schenectady, N. Y. (40.). Sat. 1200-
6.78 <b>0</b>	HIH	1900-2000.	•	W2XAF	Schenectady, N. Y. (40.). Sat. 1200-
6.800	HI7P	Trufille, D. R. 1930-2100.			
0.000	PZH	Paramaribo, N. W. I.		• • • • •	Belmont, Calif. (20.). General Elec. Co. (Under construction).
6.850	TIOW	Puerto Limen, Costa Rica. (.4). Sun., 1600-1700. Daily 1200-1300.	9.535	JZ1	Nazaki, Japan. (50.). 1500-1600;
		Port Moresby, Papua. (Doubtful).	3,333		1630-1730.
6.990	VK8XI te 7.300	Ameteur stations.	9.536	VPD2	Suva, Fiji. (2.). 0530-0700.
7.100	FO8AA	Amateur stations. Papeete, Tahiti. (.2). Tues., Fri.,	9.540	DIN	Berlin, Germany. (50.). 0005-1000;
,,,,,,		2300-2400.	9.550	OLR3A	1653-2245. Prague, Czecho. (35.). 1430-1630.
		Guadalajara, Jal. "Voice of the Revolutionary Party."	3.330	XEFT	Verserter Ver (02), 1930-2400,
	YNAM	Managua, Nicaragua. 2000-2400.	9.560	DJA	Berlin, Germany. (50.). 0005-1100;
7.200 7.380	XECR	Mexice City, D. F. (20.). Sun.,			1657-2245.
7,300	ALUM	1800-2000.			Barranquilla, Colombia. (.3). Sourabaya I, Java, N.E.I. (1.).
	<b></b>	Radio Liberte. 1900-2000.		YDB	
7.540	RKI	Mescow, U. S. S.K. (Assigned 7520).	9.562	OAX4T	
7.625	· · · · •	Johannesburg, U. of S. Africa. (5.), 2345-0030.	9.565	VUB YV3RB	Bombay, India. (4.5). Barquisimeto, Venez.
7.797	НВР	Geneva, Switz. (20.). Sat., 1730-	9.570	YV3RB KZRM	Manila, P. I. 0400-1000.
1.131		1830.	3.370	WIXK	Boston, Mass. (10.). Sun. vov-
7,894	YSD	San Salvador, E. S. 2100-2230.			0100 Weekdays 0600-0100.
8.400	HC2CW	Guayaquil, Ecuador.		W8XK	Pittsburgh, Pa. (40.). (Not used).
8,586	YNPR	Managua, Nicaragua. "Radio	9.580	GSC	Daventry, Gt. Britain. (20.). 1000-
8.600	HC1FC	Quite, Ecuador.		VK3LR	2939; 2103-2300. Melbourne, Australia. (.5). 0100-
8.655	WIOXD	A Essia M. Marricshy. (.1).		VK3LK	0945.
8.665	COTK		9.590	PCJ	Hulzen, Netherlands. (20.). Sun. 1490-1530; 1980-2115; Mon. 2100-
8.950	HCJB	Oulto, Ecuador, (,15), mon., wear,			1490-1530; 1980-2115; Mon. 2100-
	COBZ	Sat., 0200-0400; 1300-1500.			2230; Tues., 1400-1530; 1900-2130; Wed., 1900-2130; Thurs., 1900-2130.
9.030 9.10 <b>0</b>	COBZ	Havana, Cuba. Havana, Cuba.		VK2ME	Sydney, Australia. (20.). Sun.,
9.125	HAT4	Rudanost, Hungary, (20.), Sun.,			0030-0230: 0430-0830; 0930-1130.
		Wed., 1900-2000, Sat., 1800-1900.		VK6ME	Perth, Australia. (5.). Weekdaye
9.195	COBX	Havana, Cuba. Lima, Peru. (.2). 1200-1500; 1700-			0600-0800. New York, N. Y.
9.340	OAX4J	0100.		W2XE	Philadelphia Pa. (10.). 1200-2000;
9.345	HBL	Geneva, Switz. (20.). Fri. 1430-		WSAAU	Thurs., 2200-2300.
0.010		1445. 1930-1945: 2800-2015.		W8XAL	Cincinnati, Ohio. (10.). (Under
9.350	COBC	Havana, Cuba. Aptdo. 132. Bangkok, Slam. Mon., Thurs.,			construction). Geneva. Switzerland. (18.). Sat.
	HS8PJ	Bangkok, Slam. Mon., Thurs., 0730-1000.	9.595	HBL	Geneva, Switzerland. (18.). Sat. 1730-1830.
9.415	PJC2	Willemstad, Curacao, N.W.I.		RAN	Moscow, USSR. 1900-2115.
******	PLV	Bandeeng, Java, N.E.I. (80.). 1000-	9.600	CB960	Santiago, Chile. 1800-1930.
		1100.	9 605	HP5J	Panama City, Panama. (1.). 1830-
9.428		Havana, Cuba. (.15). 0700-0100. Guayaquii, Ecuador. Sun. 1600-			2300. Cartagena, Colombia. (.75). 1800-
9.445		2280 Delly 2180-2280.	9.618	HITARP	2200.
9.450	HC2OD	A Guavagull, Ecuador, 2180 2200.	9,625		Jehannesburg, U. of S. Africa (5.).
9,460	XGOX	Nanking, Unina. (.3).	4.020		2345-0030.
9 470		Willemstad, Curacao, N.W.I. (.15).	9.630	HJ7ABD	Bucaramanga, Colombia. "Radio
		Sun. 1035-1235. Madrid, Spain. (20.). Mon. at 2000;			Bucaramanga." Talhoku, Talwan. 0430-1030.
9.480	EAR	Tues., Fri. at 2100.	9.635	I2RO	Rome, Italy. (25.). 1230-2100.
	XEDQ	Guadalejara, Jai. 1900-0100.	3.640		Rome, Italy. (25.). 1230-2100. Mentevideo, Uruguay. 0700-2400.
9.500	FAC	Madrid, Spain.	9.645		Port-au-Prince, Haitl. (.03). 1300-
	HJ1ABI	Cartagena, Colembia. 1700-1800;	3.043		1400; 1900-2000.
	XEWW	2090-2230. Mexico City, D. F. (10.). 0800-2400.	9.650	CS2WA	Lisben, Portugal. (2.). Tues.,
		Rie de Janeire, Brazil. (60.). 1645-	*****		Thurs., Sat., 1608-1900.
9.501	PRF5	1745.	9,660	CREAA	Lobite, Angela, Port. West Africa.
9.504	OLR3B				(.5). Wed., Sat., 1445-1645.
		Daventry, Gt. Britain. (29.). 0315-		LRX	Buenos Aires, Argentina. (5.).
9,518	GSB	0530; 1220-1545; 1609-2030; 2100-			1830-2430.
		2308.	9.670	TI4NRH	Heredia, Costa Rica. 2100-2280;
	ULH	Buenaventura, Colembia. Mon.,			2330-2400.
	HS8PJ	Wed., Fri. 2080-2300. Bangkek, Siam. Mon., Thurs.,	9.685	TGWA	Guatemala City, Guat. (10.). "Radio Nacional." Sun., 0000-0600.
		0800-1000.			Daily 2000-2408.
	VK3ME	Melbeurne, Australia. (5.). Week- ?	9.700	COCA	Havana, Cuba. Relaye CMCA.
		days 0460-0760.	3.100		

	SHO	RTWAVE BROADCASTING	STA	TIONS	OF THE WORLD
9.730		"Radio Martinique," Fort de France, Mart. 1845-1945.	11.810	12RO	Rome, Italy. (25.). 0500-1220.
9.750	cocq	Havana, Cuba. 0708-0100.	11.820	GSN	Daventry, Gt. Britain.
9.830	COCM	Havana, Cuba. (Assigned 9833),	11.830	KZRM W2XE	Manila, P. I. New York, N. Y. (10.). Daily 1830-
9.860	EAQ	Madrid, Spain. (20.).		WZAE	1900. Sun. 1900-2400.
9.925	JDY	Darien, Manchukuo. 0715-0800.		W9XAA	Chicago, III. (20.).
	CSW		11.840	CSW	Lisbon, Portugal. (5.).
9.940		Lisbon, Portugal. (5.). 1900-2000.		KZRM	Manila, P. I. 0400-1000.
10.065	CQN	Macau, Portuguese China.		OLR4A	Prague, Czecho. (35.). Mon.,
10.070	• • • • • • • • • • • • • • • • • • • •	Communistic Station.			Prague, Czecho. (35.). Mon., Thurs., 1900-2100. Dally 1400-1415.
10.26 <b>0</b>	PMN	Bandoeng, Java, N.E.I. (1.5). 0530-	11.855	DJP	Berlin, Germany. (50.).
10.330	ORK	1100. Brussels, Belgium. (11.). 1330-1500.	11.860	GSE	Daventry, Gt. Britain. (20.).
				YDB	Soerabaja I, Java, N.E.I. (1.).
10.370	EAJ43	Santa Cruz de Tenerife, Canary Isl. 2000-2100.	11.870	W8XK	Pittsburgh, Pa. (40.). 1900-2200.
		"Radio Nacional," Salamanca,	11.875	OLR4C	Prague, Czecho. (35.).
		Spain. 1700-1825; 2000-2045.	11.885	TPA3	Pontoise, France. 0200-0500; 1215-
10.430		Pirate station announcing "Radio			1800.
40		Milan."	11.895	HP5I	Aguaduice, Panama. 1930-2130.
10.530	JIB	Taihoku, Taiwan. (6.). 0900-1030.	11.900	CD1190	Valdivia, Chile. 1000-1300: 1900-
10.600	ZIK2	Belize, British Honduras.			2200.
	JVN			OLR4D	Prague, Czecho. (35.).
10.660		Nazaki, Japan. (50.).		XEWI	Mexico City, D. F. (.25). 1930-2400.
10.670	CEC	Santlago, Chile. (4.).	44 000		
10.740	JVM	Nazaki, Japan. (50.).	11.955	IUC	Addis Ababa, Ethiopia.
10.823	"Radio	Nacional," Salamanca, Spain. 1630- 1800.	11.960	HI2X	Trujillo, D. R. (.5). Tues., Fri., 2000-2200. Sun. 0740-1040.
11.000	PLP	Bandoeng, 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.,
11.402	нво	Geneva, Switz., Frl. 1400-1415;			Mon., Wed., Frl., 1600-1700.
11.401		Sat. 1845-2030.	12.120	•••••	Algiers, Algeria.
11.435	cocx	Havana, Cuba. Sun. 1800-2100. Other days 0800-2400.	12.235	TFJ	Reykjavik, Iceland. (7.5). Sun., 1345-1430.
11.500	SPD	Warsaw, Poland. (2.). Daily 1800-	12,290	GBU	Rugby, Gt. Britain.
	5. 5	1900. Sun. until 2000.	12,295	CB615	Santiago, Chile.
11.698	SRG	Motala, Sweden. (.5). 0100-0130.	12.500	HIN	Trujillo, D. R. (.75).
11.700	CB1170	Santiago, Chile. 1000-1400; 1530-	13.635	SPW	Warsaw, Poland. (10.). Mon.,
11.700	HP5A	2300. Panama City, Pan. (.5). 2000-2330.			Wed., Fri., 1230-1330. Dally 1800- 1900.
		Salgon, Fr. Indo-China. 0500-1100.	13.986	DJS	Berlin, Germany. (20.).
11.710	<b>XEWB</b>	Guadalajara, Jal.	14.000	to 14.400	
	YSM	San Salvador, E. S.	14.400	UPOL	North Pele. 1400-1605.
11.713	TPA4	Pontoise, France. 0615-1300.	14.535	HBJ	
11.718	CR7BH				Geneva, Switz. Sat. 1845-2100.
		Africa. (.2). Sun. 0530-0700. Other	14.900	LZA	Sofia, Bulgaria.
		days 0430-0630.	15.040	RKI	Moscow, USSR. 1900-2115.
11.720	CJRX	Winnipeg, Man. (2.). 1800-2400.	15.110	DJL	Berlin, Germany. (50.). 0000-0200;
11.730	PHI	Hilversum, Netherlands. (23.6).			0800-0900; 1040-1630. Sun., 0600-
	XETM	Villahermosa, Tab.			0800.
11.740	HP5L	David, Panama. (.35).	15.116	OLR5C	Prague, Czecho. (35.).
11.750	GSD	Daventry, Gt. Britain. (20.). 0315-	15.120	HVJ	Vatican City. (10.). 1000-1030.
		0530; 1045-1200; 1220-1545; 1600- 2030; 2100-2300.	15.140	GSF	Daventry, Gt. Britain. (15.). 0915-1200.
11,760	OLR4B	Prague, Czecho. (35.).	15.150	YDC	Bandoeng, Java, N.E.I. (3.).
	TGWA	Guatemala City, Guat. (10.).	15.160	JZK	Nazaki, Japan. (50.).
		Mon., Thurs., 2000-2200.		XEWW	Mexico City, D. F. (10.).
11.770	DJD	Berlin, Germany. (50.). 1040-1630; 1650-2245.	15.170	CXA14 TGWA	Montevideo, Uruguay. Guatemala City, Guat. (10.).
11.790	W1XAL	Boston, Mass. (10.). Sat. 1345-1830.	15.175	RV96	Moscow, USSR.
		Sun. 1500-1800. Other days 1645- 1830.	15.180	GSO	Daventry, Gt. Britain. 0315-0530;
11.795	DJO	Berlin, Germany. (8.).			0545-0855; 1600-1800.
11.796	OAX5A		15,200	DJB	Berlin, Germany. (8.). Sun. 1110-
11.800					1225. Daily 0005-1100; 1650-2245.
TT.800	COGF	Matanzas, Cuba. (1.). 1300-1600; 1800-2200.	15.210	W8XK	Pittsburgh, Pa. (40.). 0909-1900.
	J <b>ZJ</b>	Nazaki, Japan. (50.). 1500-1600; 1630-1730; 0800-0900; 0030-0130.	15.220	PCJ	Hulzen, Netherlands. (20.). Sun. 0330-0500. Wed. 0800-1030.
	OER2	Vienna, Austria. (1.5). Weekdays	15.230	OLR5A	Prague, Czecho. (35.). 0930-1130.
		0900-1800.	15,243	TPA2	Pontoise, France. 0600-1100.
11.805		Copenhagen, Denmark, 1830-2100.	15.250		Boston, Mass. (10.). Fri, 2100-
		2000-2000			

45.000	GSI	2200; Sun. 1015-1200; Daily exc. Sat. and Sun. 1415-1600. Daventry, Gt. Britain. 1220-1545;		W8XK W9XAA W9XF	Chicago, III. (10.).
15 <b>.260</b>	GSI	2100-2300.	17.790	GSG	Daventry, Gt. Britain. (15.). 0315- 0530; 0545-0855; 0915-1200; 1220-
15.270	HI3X	Trujillo, D. R. (.5). Sun., 0800-1100.			1545.
	W2XE	New York, N. Y. (10.). Sat., Sun. 1430-1800; 2000-2400. Mon. through Fri. 1300-1800; 2030-2400.	19.020	HS8PJ	Bangkok, Slam. (5.). Mon. 0800- 1000.
15.280	DIO	Beriin, Germany. (50.). Sun. 1110-	21.450	OLR6A	
13,200	Dog	1225. Dally 0005-0545; 0600-0800; 0815-1100; 1650-2245.	21.460	W1XAL	regulariy.
15.290	LRU	Buenos Aires, Arg. (5.). 0800-1000.	21.470	GSH	Daventry, Gt. Britain. 0545-0855; 0915-1200.
15.300	XEBM	Mazatian, Sin. 1000-2300.	21.480	W2YAD	Schenectady, N. Y. (25.).
15.310		Daventry, Gt. Britain. 1345-1545.	21,520	W2XE	New York, N. Y. (10.). Sat., Sun.,
15.320		Prague, Czecho. (35.).			0800-1300; Other days 0/30-1000.
15.330	W2XAD	Schenectady, N. Y. (25.). 1100-2100.		W3XAU	Philadelphia, Pa.
	• • • • • • • • • • • • • • • • • • • •	Belmont, Calif. (20.). (Under construction).	21,530	GZI	Daventry, Gt. Britain. 0545-0855; 0915-1030.
15.340	DJR	Berlin, Germany. (50.). 0800-0900;	21.540	W8XK	Pittsburgh, Pa. (40.). 0700-0960.
		1650-2245.	21.550	GST	Daventry, Gt. Britain.
15.370	HAS3	Budapest, Hungary. (20.). Sun. 0900-1000.	25.950	W4XH W6XKG	Spartanburg, S. C. (.05) (WSPA). Los Angeles, Calif. (.1) (KGFJ).
15,440	XEBM	Mazatlan, Sin. (.05). 1000-2300.			24 hours dally.
15.555	CO9WX	Tuinicu, Cuba. (2.).		WSXUP	
17.310	W3XL	Bound Brook, N. J. (20.).	26.100	GSK	Daventry, Gt. Britain.
17.760	DJE	Berlin, Germany. (50.). Sun. 1110-			Superior, Wis. (.08) (WEBC).  Milwaykes, Wis. (.5) (WTMJ)
		1225. Dally 0005-1000.	26.400	W9XA2	Milwaukee, Wis. (.5) (WTMJ) 1300-2400.
	W2XE	New York, N. Y. (10.). 1830-2000.			
17.770	PHI	Hilversum, Netherlands. (23.6). Sun., 0725-1025. Mon., Tues.,		W2XQ0	Flushing, N. Y. (.1) (WMCA).
		Sun., 0725-1025. Mon., Tues., Thurs., Fri., 0825-1000. Sat.,	27.100		DA Effie M. Morrissey (.1).
		0825-1040.		to 30.000	
17.780	W3XAI	Bound Brook, N. J. (35.). 0855-1745; 1800-2100.		to 60.000 0 to infin	Amatours. ilty. Amateurs.

### Time Conversion Table

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

	DJ	C11C = 1			
EST 24-hr. Clock	EST	CST	MST	PST	GMT
	Midn't	11 pm	10 pm	9 pm	0500
0000	1 am	Midn't	11 pm	10 pm	0600
0100		1 am	Midn't	11 pm	0700
0200	2 am	2 am	1 am	Midn't	0800
0300	3 am		2 am	1 am	0900
0400	4 am	3 am	3 am	2 am	1000
0500	5 am	4 am		3 am	1100
0600	6 am	5 am	4 am	4 am	1200
0700	7 am	6 am	5 am	5 am	1300
0800	8 am	7 am	6 am	6 am	1400
0900	9 am	8 am	7 am		1500
1000	10 am	9 am	8 am	7 am	1600
1100	11 am	10 am	9 am	8 am	1700
1200	Noon	11 am	10 am	9 am	
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
	5 pm	4 pm	3 pm	2 pm	2200
1700		5 pm	4 pm	3 pm	2300
1800	6 pm	6 pm	5 pm	4 pm	2400
1900	7 pm	7 pm	6 pm	5 pm	0100
2000	8 pm		7 pm	6 pm	0200
2100	9 pm	8 pm	8 pm	7 pm	0300
2200	10 pm	9 pm	9 pm	8 pm	0400
2300	11 pm	10 pm	10 pm	9 pm	0500
2400	Midn't	11 pm		consult the	
For time		out the entire	World	COMBUIL DIE	
Time Conver	ter.				

### NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

### 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.

a Verifies reception for return 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. verifies for 5c.  No inform Day time evening Canadian Mutual Br Mutual Br National "Blue" in Wational "Blue" in Wational in the stamp of the stamp of the stamp in the stamp i	only.  with occasional hours.  Brdeste, Corp.  Y Has permit to change location.  Z Has permit to change frequency.
540 kcys. (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. KFUO ak 500 2 (1) St. Louis, Mo. KFYR ak 1000 N (5) Bismarck, N. Dak. KOAC ak 1000 Corvallis, Ore. KSD ak 1000 C (5) St. Louis, Mo. KTSA ak 1000 C (5) St. Louis, Mo. WGR ak 1000 C (5) Waterbury, Vt. WGRC ak 1000 C (5) Buffalo, N. Y. WKRC ak 1000 C (5) Cincinnati, Ohio WSVA ak 500 D Marrisonburg, Va. XEFC ak 100 Merida, Yuc.	7:00 am11:00 pm 8:00 amMidnight 8:00 am1:00 am NoonMidnight 7:00 ammidnight
560 kcys. (535.4)	
KFDM	8:30 am2:00 am10:00 am4:00 am7:00 ammidnight6:00 am4:00 am7:00 ammidnight7:00 ammidnight
570 kcys. (526.0)	
CMCY         ak         5000          Havana, Cuba           KGKO         ak         250         CY (1)         Wichita Falls, Tex.           KMTR         ak         1000          Los Angeles, Calif.           KVI         ak         1000         C (5)         Tacoma, Wash.           WMCA         ak         1000          New York, N. Y.           WNAX         ak         1000         C (5)         Yankton, S. Dak.           WSYR         ak         1000         B (WS YU) Syracuse, N. Y.           WWNC         ak         1000         N         Asheville, N. C.	9:00 am3:00 am9:00 am11:00 pm7:00 am1:00 am7:30 am1:00 am
580 keys. (516.9)	
CFPR CHRC         ak         50 chrc         Prince Rupert, B. C. Quebec, P. Q.           CHRC         ak         100 chrc         Quebec, P. Q.           CKCL         ak         100 from to, Ont.         Toronto, Ont.           CKUA         ak         500 chrc         Edmonton, Alta.           KMJ         ak         1000 ln         Fresno, Calif.	8:00 am-midnight 8:00 am-midnight 8:00 am-midnight 10:00 am-3:00 am

63

760 kcys. (394.5)

. . . .

CMHX ak 200

NORTH AMERICAN B. C. STATIONS BY FREQ
KSAC ak 500 2 (1) Manhattan, Kans. —10:30 am—6:30 pm WCHS ak 500 C (1) Charleston, W. Va. WDBO ak 1000 C Orlando, Fla. —7:00 am—midnight WIBW ak 1000 D Topeka, Kans. WILL ak 1000 D WTAG ak 1000 R Worcester, Mass. —7:30 am—1:00 am XEMU z Piedras Negras, Coah.
590 keys. (508.2)
KHO         ak         1000         R (5)         Spokane, Wash.           WEEI         ak         1000         C (5)         Boston, Mass.           WKZO         ak         1000         BDX         Kalamazoo, Mich.           WOW         ak         1000         R (5)         Omaha, Nebr.         —7:90 am—3:30 am
600 kcys. (499.7)
CBW ak 500 F (1) Windsor, Ont. —4:30 pm—11:30 pm CFCF ak 500 BF Montreal, P. Q.
CJOR ak 500 Vancouver, B. C. —7:45 am—1:00 am CMW ak 1400 Havana, Cuba —7:00 am—midnight
KFSD
610 keys. (491.5)
KFRC         c         1000         M (5)         San Francisco, Cal.         —7:00 am—ss           WCLE         ak         500         DM         Cleveland, Ohio.         —7:00 am—ss           WDAF         ak         1000         R (5)         Kansas City, Mo.         —7:30 am—1:00 am           WIDD         ak         1000         N(WMBF) Miamit, Fla.         —7:00 am—1:00 am
620 keys. (483.6)
KGW ak 1000 R (5) Portland, Ore. —9:00 am—2:00 am WFLA ak 1000 Na (5) Clearwater, Fla. —9:00 am—1:15 am WHJB ak 250 CD Greensburg, Pa. WLBZ ak 500 CM (1) Bangor, Maine WSUN ak 1000 Na (5) St. Petersburg, Fla. —7:00 am—1:00 am WTMJ ak 1000 Na (5) St. Petersburg, Fla. —7:00 am—1:00 am —7:15 am—1:00 am —7:15 am—1:00 am
630 keys. (475.9)
CFCO ak 100 F Chatham, Ont. —8:00 am—10:30 pm CFCY ak 1000 F Charlottetown, P.E.I.—9:00 am—11:00 pm Charlottetown, P.E.I.—9:00 am—11:00 pm Charlottetown, P.E.I.—9:00 am—12:30 am—12:30 am—12:30 am—12:30 am—12:30 am—12:30 am—12:30 am—12:30 am—12:30 am—13:00
640 kcys. (468.5)
CMCB       ak       150        Havana, Cuba         KF1       ak 50000       R       Los Angeles, Calif.       —9:45 am—3:00 am         WGAN       z       500       D       Portland, Malne       —6:30 am—8:15 pm         WHC       ak 5000       D       Ames, Iowa       —6:30 am—8:15 pm         XEBX       z       250        Sabinas, Coah.
650 keys. (461.3)
WSM ak 50000 MN Nashville, Tenn. —7:30 am—1:00 am

-8:00 am-1:00 am

Winnipeg, Man.

Clenfuegos, Cuba

WAAF ak 1000

WPEN ak 1000

WORL ak

D

500 D

Chicago, Ill.

Boston, Mass.

Philadelphia, Pa.

KXA   ak   250   (.5)   Seattle, Wash.   -9:00 pm—1:00 am
770 kcys. (389.4)  CMBS ak 150 Havana, Cuba  KFAB ak 10000 CSy Lincoln, Nebr. —7:00 am—1:00 am  Chicago, III.
780 kcys. (384.4)  CHWK dk 100 F Chilliwack, B. C. Sudbury, Ont. Camguey, Cuba KEHE ak 1000 D Brookings, S. Dak. KFOD ck 250 Anchorage, Alaska Billings, Mont. KWLK z 250 DP Longview, Wash. WEAN ak 1000 R (5) Memphis, Tenn. WTAR ak 1000 N Norfolk, Va. Title 100 am 1:00 am 1:
790 kcys. (379.5)  CMGH ak 500 Matanzas, Cuba KGO ak 7500 B KOAM z 1000 DN WGY ak 50000 R  800 kcys. (374.8)  WBAP ak 50000 Na WFAA AR 50000 NA
810 kcys. (370.2)  CMCF ak 600 X
CMHW ak 100 Cienfuegos, Cuba Louisville, Ky. XEBG z 1000 Tijuana, B. Cfa.  830 kcys. (361.2)  CMJX ak 500 Camaguey, Cuba Ak 5000 R Denver, Colo. WEEU ak 1000 D Reading, Pa. WHDH ak 1000 Dn Boston, Mass. WRUF ak 5000 Dn Gainsville, Fla. —7:00 am—6:30 pm  840 kcys. (356.9)
CBL z 50000 P Toronto, Ont. CFQC ak 1000 F Saskatoon, Sask. CRCT ak 5000 FN Toronto, Ont. VOGY ak 400 St. John's, Nfid. XERA ck 350000 St. John's, Nfid. VIII Acuna, Coah.  850 kcys. (352.7)  CMCM z Havana, Cuba KIEV ak 250 D Glendale, Calif. WESG ak 1000 CD Elmira, N. Y. — 8:00 am—midnight —7:30 am—6:00 pm

-6:00 am-ss

WMBI ak 5000

ak 500

XEDP

Dnl

Chicago, Ill. Guzman, Jal.

Mexico Clty, D. F.

NORTH AMERICAN B. C. S	THITOTO BY TIES
WSPA ak 1000 D Spartanburg, S. C. WWJ ak 5000 R Detroit, Mich.	-6:00 am-12:30 am
930 keys. (322.4)	
CFAC ak 1000 F Calgary, Alta. CFCH ak 100 F North Bay, Ont.	—9:00 am—2:00 am
CDY C -1- 100 Deceate Ont	-7:00 am-10:00 pm
	-7:30 am-11:00 pm
KMA ak 1000 (5) Shenandoah, Iowa	5.00
KROW ak 1000 Oakland, Calif. WBRC ak 1000 C Birmingham, Ala.	—9:00 am—5:00 am —8:00 am—12:30 am
WDBJ ak 1000 C (5) Roanoke, Va.	—7:00 am—midnlght —1:00 pm—midnlght
XEBH ak 500 Hermosillo, Son. XEFO ak 5000 Mexico City, D. F.	—1:00 pin—inidinguc
940 kcys. (319.0)	
KOIN ak 1000 C (5) Portland, Ore.	
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
WAVE ak 1000 N Louisville, Ky. WCSH ak 1000 R (2.5) Portland, Maine	-8:00—1:00 am -8:00 am—midnight
WDAY ak 1000 N (5) Fargo, N. Dak.	−7:00 am−1:00 am
WHA ak 5000 D Madison, Wis. WICA z 250 DP Ashtabula, Ohio	—9:00 am—5:30 pm
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
CRCK ak 1000 F Quebec, P. Q.	110011
KFWB ak 1000 (5) Hollywood, Calif. KMBC ak 1000 C (5) Kansas City, Mo.	6:55 am-1:00 am
WHAL z 500 DP Saginaw, Mich.	
960 kcys. (312.3)	
CFRN ak 100 F Edmonton, Aita. 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.	7,00 4
970 kcys. (309.1)	
CMBY z 150 Havana, Cuba KJR ak 5000 B Seattle, Wash.	-8:55 am-11:00 pm
WCFL ak 5000 N Chicago, III.	
WIBG ak 100 D Glenside, Pa.	
980 kcys. (306.0)	
KDKA ak 50000 B Pittsburgh, Pa. XEAC ak 1000 Tijuana, B. Cfa.	
XEAC ak 1000 Tijuana, B. Cfa. XEFE z 150 Nuevo Laredo, Tam	18.
990 kcys. (302.8)	
WBZ ak 50000 BSy Boston, Mass.	6:30 am 1:00 am 6:30 am1:00 am
WBZA ak 1000 BSy Springfield, Mass. XEAF ak 750 Nogales, Son. XEK ak 100 Mexico City, D. F.	
XEK ak 100 Mexico City, D. F. XES ak 250 Tampico, Tams.	
1000 kcys. (299.8)	- 47 Jariote
CMBZ ak 500 (1) Havana, Cuba KFVD ak 1000 Dn Los Angeles, Calif.	—7:45 am—midnight —9:00 am—8:15 pm
KFVD ak 1000 Dn Los Angeles, Calif. VOCM z 200 1006 St. John's, Nfld.	
	20

1090 keys. (275.1)
KMOX ak 50000 C St. Louis, Mo. —7:00 am—1:00 am
1100 kcys. (272.6)
1100 Reys. (272.0)
CBR ak 5000 F Vancouver, B. C.
Horana Cuba
KGDM ak 1000 DM Stockton, Calif9:00 am-ss -7:30 am-1:00 am
WRII. 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)
WRVA ak 5000 CM Richmond, Va7:00 am—midnight
4400 1 (267.7)
1120 kcys. (267.7)
CHSI ak 500 F (1) St. John, N. B. —5:00 am—midnight
CKOC ak 500 F(1) Hamilton, Ont.
CKX ak 1000 F Brandon, Man.
CMGF ak 250 Matanzas, Cuba. CMKM ak 200 Manzanillo, Cuba . —8:00 am—10:00 pm
CMRM at 100 F Chicoutimi 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. —9:00 am—3:00 am
KRKD ak 500 a (2.5) Los Angeles, Calif. —9:00 am—3:00 am KRSC ak 250 Seattle, Wash.
KTBC z 1000 DP Austin, 1exas —8:00 am—4:00 pm WCOP ak 500 D Boston, Mass. —8:00 am—1:00 pm WDEL ak 250 R (.5) Wilmington, Del. —9:00 am—1:00 am WISN ak 250 C (1) Milwaukee, Wis. —8:00 am—1:00 am
WDEL ak 250 R (.5) Wilmington, Del.
WISN ak 250 C (1) Milwaukee, Wis. —8:00 am—1:00 am WJBO ak 500 B Baton Rouge, La.
WJBO ak 500 B Baton Rouge, La. WTAW ak 500 College Sta., Tex.
1130 keys. (265.3)
CMJI ak 150 Ciego de Avila, Cuba —Noon—10:00 pm KSL ak 50000 C Salt Lake City, Ut. —8:30 am—3:00 am WIID ak 20000 Dn Chicago, Ill. —6:00 am—6:45 pm
CMJI ak 150 Giego de Avila, Cuba — Noon 10, 30 am — 10, 30 am
WOV ak 1000 D New York, N. Y. XEJP z 100 Mexico City, D. F.
XEJP z 100 Mexico City, D. F.
1140 1 (262 0)
1140 kcys. (263.0)
10.00
CMBC Z 200 Havana, Casa
TALLET -1- FAMA DI RIFMINONOM. AIX.
WAPI ak 5000 RI Birmingham, Ala. WSPR ak 500 DM Springfield, Mass. —7:00 am—5:45 pm
1150 kcys. (260.7)
CMJF z 200 Camaguey, Cuba Rochester, N. Y. —7:00 am—midnight
WHAM ak 50000 B Rochester, N. 1. —7,00 am Middle
XEC ak 100 Hjuana, B. Cfa. XEDW z 20 Minatitlan, Ver.
ALDW 2 20
1160 Irong (258 5)
1160 kcys. (258.5)
Clarifornia Cuba
CMHJ ak 175 Clenfuegos, Cuba CMKG z Santiago, Cuba WOWO ak 10000 B1 Fort Wayne, Ind. WWVA ak 5000 C1 Wheeling, W. Va. XEAS ak 50 Saltillo, Coah. XEBJ z 20 Merida, Yuc.
WOWO ak 10000 B1 Fort Wayne, Ind.
WWVA ak 5000 C1 Wheeling, W. Va.
XEAS ak 50 Saltillo, Coah.
XED ak 2500 Guadanajana, Jan. XEP ak 500 Juarez, Chih. —9:00 am—2:00 am

	HOR	III AIV	ERICAN B. C. S	TATIONS BI FREQ
1170	kcys.	(256	.3)	
CMBD WCAU	ak 50000		Havana, Cuba Philadelphia, Pa.	—7:00 pm—midnight —7:30 am—1:00 am
1180	kcys.	(254	.1)	
CMJO	ak 50		Clego de Avila, Cuba	
KEX KOB WDGY	ak 5000 ak 10000	N2	Portland, Ore. Albuquerque, N. M.	-1:00 pm-11:00 pm
WINS	ak 1000 ak 1000	CDn(5	) Minneapolis, Minn. New York, N. Y.	
WMAZ XEFA	ak 1000 z 500	C C	Macon, Ga. Tacuba, D. F.	-7:00 pm-7:00 pm
1190	kcys.	(252	.0)	
CMKX KTKC	z 250	Ď	Santlago, Cuba Visalia, Calif.	
VONF	ak 500	1195	St. John's, Niid.	
WATR WOAI	ak 100 ak 50000	DXZ N	Waterbury, Conn. San Antonio, Tex.	-7:30 am-12:30 am
WSAZ	ak 1000	• • • •	Huntington, W. Va.	—7:30 am—12:30 am —7:00 am—7:00 pm
1200	kcys.		0.9)	
CFGP	z 100 ak 100	 F	Grande Prairie, Alta	n. —9:00 am—12:30 am
CHAB CKNX	dk 100		Moose Jaw, Sask. Wingham, Ont.	—11:00 am—1:00 am
CKTB CMCO	ak 100 ad 250	F	St. Catharines, Ont. Havana, Cuba	—9:30 am—11:30 pm
KADA	ak 100			
KBTM KDNC	ak 100 z 100	(,25) P	Ada, Okla. Jonesboro, Ark. Lewistown, Mont. Sioux Falls, S. Dak.	
KELO KFJB	z 100 ak 100	N (25)	Sioux Falls, S. Dak. Marshalltown, Ia.	7:00 am10:00 pm
KFXD	ak 100	(.25)	Nampa, Idaho Grand Junc., Colo.	-8:00 am-10:00 pm
KFXJ KGCI	ak 100 z 100	(.25) DP	Grand Junc., Colo. Coeur d'Alene, Idaho	
KGDE	c 100	(.25)	Fergus Falls, Minn.	—8:00 am—10:00 pm
KGEK KGFJ	ak 100 ak 100		Sterling, Colo. Los Angeles, Calif.	-24 hours daily
KGHI	ak 100	(.25)	Los Angeles, Calif. Little Rock, Ark. Greenville, Texas	—8:30 am—11:00 pm
KGVL KMLB	z 100 ak 100	(.25)	Monroe, La.	
KOOS KSUN	ak 100 c 100	(.25) (.25)	Marshfield, Ore.	-10:00 am-7:45 pm -11:00 am-midnight
KVCV KVEC KVOS	z 100		Redding, Calif. San Luis Obispo, Cal Bellingham, Wash.	110
KVEC	z 250 dk 100	v	Bellingham, Wash.	ш,
KWG	ak 100	N	Stockton, Calif.	10:00 am3:00 am
KWNO WABI	z 250 ak 100	(.25) C	Stockton, Calif. Winona, Minn. Bangor, Maine	
WAIM WAYX	ak 100 ak 100	C	Anderson, S. C. Waycross, Ga.	-6:00 am-10:00 pm
WBBZ	ak 100	M (.25	Ponca City, Okla.	-8:00 am10:00 pm
WBHP WBNO	ak 100 ak 100	2	Huntsville, Ala. New Orleans, La. Rapid City, S. Dak.	-1:00 pm to midnight
WCAT WCAX	ak 100 ak 100	D	Rapid City, S. Dak. Burlington, Vt.	-Noon-2:00 pm
WCLO	ak 100	(.25)	Burlington, Vt. Janesville, Wis. Cincinnati, Ohio	
WCPO WDSM	ak 100 z 100	(.25)	Cincinnati, Ohio Superlor, Wis.	7:00 am11:30 pm
WEST	ak 100	3 (.25)	Easton, Pa.	
WFAM WFTC	ak 100 ak 100	(.25)	Kinston, N. C.	
WHBC WHBY	ak 100 ak 100	(.25)	Canton, Ohio Green Bay, Wis.	
WIBX	ak 100	C (.25)	Superlor, Wis. Easton, Pa. South Bend, Ind. Kinston, N. C. Canton, Ohio Green Bay, Wis. Utica, N. Y. St. Louls, Mo. Bloomington, III.	—7:00 am—1:00 am
WIL WJBC	ak 100 ak 100	(.25) 5 (.25)	St. Louis, Mo. Bloomington, Ill.	-4:00 pm-8:30 pm
WJBL WJBW	ak 100 ak 100	5`	Decatur, III. New Orleans, La.	-2:00 am-9:00 pm
WJNO	ak 100	C (.25)	W Palm Beach, Fla.	-7:00 am-11:00 pm
WJRD WKBO	ak 250 ak 100	ע	THECHOOSE AIR.	
WLVA	ak 100	(.25)	Harrisburg, Pa. Lynchburg, Va. High Point, N. C.	—8:00 am—11:00 pm —7:00 am—11:00 pm
WMFR WMPC	ak 100 ak 100		Lapeer, Mich.	
				71

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WOLS z 100 DP Florence, S. C.
WRBL ak 100 (.25)
WSAL z 250 DP Salisbury, Md.
WTHT ak 100 M Hartford, Conn.
WTOL z 100 DP
WWAE ak 100 8 Hammond, Ind.

Florence, S. C.
Columbus, Ga.
Salisbury, Md.
—7:00 am—4:15 pm
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# 1210 kcys. (247.8)

				at	
CHLT	z	100		Sherbrooke, P. Q.	-8:00 am-9:00 pm
CICA	ak	50 50		Stratford, Ont. Aklavik, N.W.T.	-8:00 am-9:00 pm
CKBI	z ak	100	<b>F</b>	Prince Albert, Sask.	—9:45 am—1:00 am
CKCH	ak	100	F	Hull, P. Q.	-8:00 am-11:00 pm
CKMC	ak	50		Cobalt, Ont.	
CMHI	ak	150		Santa Clara, Cuba	
KALB	ak	100		Alexandria, La.	
KANS	ak	100	N	Wichita, Kans.	-7:30 am-midnight
KASA	c.	100	M	Elk Clty, Okla.	-7:00 am-8:00 pm
KDLR	ak	100 100	M	Devils Lake, N. D. Monterrey, Calif.	—7:30 am—9:30 pm
KDON KFJI	z ak	100	IAT	Klamath Falls, Ore.	
KFOR	ak	100	CM(.25	6) 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		Mason City, Iowa	
KGY	ak	100	M	Olympia, Wash.	
KHBG KIUL	z ak	100 100	D	Okmulgee, Okla.	-8:00 am-10:00 pm
KLAH	ak	100	· · · ·	Carlsbad, N. Mex.	0.00 am 10.00 pm
KOCA	Z	100	<b>(.25)</b>	Garden City, Kans. Carlsbad, N. Mex. Kilgore, Texas Helena, Mont.	
KPFA	ž	100	(.25)	Helena, Mont.	
KPPC	ãk	100	2	Pasadena, Cam.	—10:00 am—12:30 am
KROY	ak	100	D	Sacramento, Calif.	
KVSO	ak	100	M	Ardmore, Okla.	8:0 <del>0</del> am11:00 pm
KWTN	ak	100		Watertown, S. Dak.	-7:00 am-9:00 pm
WALR	ak	100 100		Zanesville, Ohio Wilkes-Barre, Pa.	—7:00 am—7:00 pm
WBAX WBBL	ak ak	100	Š	Richmond, Va.	
WBLY	ak	100	Ď	Lima, Ohio	-6:00 am-5:15 pm
WBRB	ak	100	3	Red Bank, N. J.	
WCOL	ak	100	N	Columbus, Ohio	—7:00 am—11:00 pm
WCRW	ak	100	4	Chicago, Ill.	—11:00 am—7:00 pm
WEBQ	ak	100		Harrisburg, Ill.	
WEDC	ak	100 100	4	Chicago, Ill. White Plains, N. Y.	
WFAS WFOY	ak ak	100	3 (.25)	St. Augustine, Fla.	
WGBB	ak	100	3	Freeport, N. Y.	
WGCM	ak	100	(.25)	Gulfport, Miss.	
WGNY	ak	100	3	Newburgh, N. Y.	—7:30 am—midnight
WGRM	ak	100	P	Grenada, Miss.	7.00 1.05
WHBF	ak	100	(.25)	Rock Island, Ill.	—7:00 am—1:05 am
WHBU	ak	100	(.25) (.25)	Anderson, Ind. Poynette, Wis.	
WIBU WJBY	ak ak	100 100	(.25) (.25)	Gadsden, Ala.	-8:00 am-10:30 pm
WJEJ	ak	50	Dn(.1)	Hagerstown, Md.	
WJIM	z	100	<b>(.25</b> )	Lansing, Mich.	—7:15 am—12:30 am
WJTN	ak	100	B (.25)	Jamestown, N. Y.	0.00 10.20
WJW	ak	100	(.25)	Akron, Ohio	—8:00 am—10:30 pm
WKOK	ak	100	D / 25	Sunbury, Pa. Middlesboro, Ky.	—6:00 am—midnight
WLMU	z ak	100 100	(.25)	Hibbing, Minn.	-7:30 am-19:00 pm
WMFG WOMT	ak	100		Manitowoc, Wis.	The man acted by
WPAX	ak	100	$\dot{\mathbf{D}}$	Thomasville, Ga.	8:00 am6:00 pm
WSAY	z	100	·D	Rochester, N. Y.	
WSBC	ak	100	4 (.25)	Chicago, Ill.	-6:00 am-midnight
WSIX	ak	100		Nashville, Tenn.	—7:00 am—1:00 am
WSNJ	Z	100	D N ( 25)	Bridgeton, N. J.	7:00 am-midnight
WSOC	ak ak	100 100		Charlotte, N. C. Springfield, Ill.	7.00 mili
WTAX XEAT	ak	250		Parral, Chih.	—11:00 am—9:00 pm
XEE	ak	50		Durango, Dgo.	•
XEFV	ak	100		Juarez, Chih.	
XETH	ak	100	ĎΡ	Puebla, Pue.	
	Z	250	DP	Greenfield, Mass.	

		STATIONS BY FRE
1220 kcys.		]
CMJE z 50 KFKU ak 1000 KTMS z 500 KTW ak 1000	a (5) Lawrence, Kans. B Santa Barbara, Ca	—3:30 pm—7:30 pm
KTW ak 1000 KWSC ak 1000 WCAD ak 500	S2 Seattle, Wash. 2 (5) Pullman, Wash. D Canton, N. Y.	-9:45 am-12:30 am -12:30 pm-4:00 pm
WCAE ak 1000	MR (5) Pittsburgh, Pa. C (5) Tampa, Fla.	7:00 am2:30 am
WDAE ak 1000 WREN ak 1000	Ba(5) Lawrence, Kans.	—7:30 am—?
XEBL z 50	Mazatlan Sin	-8:00 am-7:00 pm
XEDA z 200 XEG z 250	Gra. Anaya, D. F. Monterrey, N. L.	
XETF ak 30	Veracruz, Ver.	—11:00 am—1:00 am
1230 kcys.	(243.8)	
KGBX ak 500 KGGM ak 1000	N Springfield, Mo. Albuquerque, N. M	. —9:30 am—11:30 pm
KYA ak 1000		
WFBM ak 1000 WNAC ak 1000	C (5) Indianapolis, Ind. R (5) Boston, Mass.	-7:30 am-1:00 am -6:30 am-1:00 am
XEFJ ak 100	Monterrey, N. L.	—0:30 am—1:00 am —11:00 am—8:00 pm
1240 kcys.		
CJCB ak 1000 CMHB z 50	F Syndey, N. S Sancti Spiritus, Cu	—7:00 am—11:00 pm
KGCII ak 250	i mandan, N. Dak.	<b></b>
KLPM ak 250 KTAT ak 1000 KTFI ak 1000	1XZ Minot, N. Dak. M Fort Worth, Texas	
KTFI ak 1000	Twin Falls, Idaho	
WKAO ak 1000 WXYZ ak 1000	B Detroit, Mich.	-6:00 am-9:30 pm
XEAP z 50	Obregon, Son. Mexico City, D. F.	
XEAY z 100 XEBS z 200	Mexico City, D. F Mexico City, D. F.	
XEKL z 500	Mexico City, D. F. Leon, Guan. Saltillo, Coah.	
XELA z 50	Saltillo, Coah.	
1250 kcys.	(220.0)	
	(239.9)	
CMCK ak 150		
CMCK ak 150 KFOX ak 1000	Santiago, Cuba Long Beach, Calif. D. WinstSalem, N. C.	—6:00 am—es
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000	Santiago, Cuba Long Beach, Calif. D WinstSalem, N. C 2 XZ Northfield, Minn.	
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WDSU ak 1000 WHBI ak 1000	Santiago, Cuba Long Beach, Calif. D WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J.	-7:00 am-midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WGAL ah 1000 WDSU ak 1000 WHBI ak 1000 WLB ak 1000	Santiago, Cuba Long Beach, Calif. D WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J.	-7:00 am-midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WGAL ah 1000 WDSU ak 1000 WHBI ak 1000 WLB ak 1000	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C XZ Northfield, Minn. New Orleans. La. a (2.5) Newark, N. J. XZ Minneapolis, Minn a (2.5) New York, N. Y.	—7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHBI ak 1000 WNEW ak 1000 WTCN ak 1000 XEXH z 250	Santiago, Cuba Long Beach, Calif. D WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J.	—7:00 am—midnight . —7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WLB ak 1000 WTCN ak 1000 XEXH z 250	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Wewark, N. J. Minneapolis, Minn a (2.5) Wew York, N. Y. Minneapolis, Minn San Luis Pot., S.L.F	—7:00 am—midnight . —7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Wewark, N. J. Minneapolis, Minn a (2.5) Wew York, N. Y. Minneapolis, Minn San Luis Pot., S.L.F	-7:00 am-midnight -7:00 am-midnight -8:00 am-midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WDSU ak 1000 WHBI ak 1000 WNEW ak 1000 WTCN ak 1000 XEXH z 250  CMC z 150 KGVO ak 1000 KHSL 250	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn a (2.5) Swey York, N. Y. Minneapolis, Minn San Luis Pot., S.L.F  (238.0) Havana, Cuba Missoula, Mont. Chico, Calif.	—7:00 am—midnight . —7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250  1260 kcys.  CMC z 150 KGVO ak 1000 KHSL ak 250 Ak 1000 KHSL ak 250	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHB ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250  1260 kcys.  CMC z 150 KGVO ak 1000 KHGV ak 1000 KPAC ak 500 KRGV ak 1000 KRGV ak 1000 KRGV ak 1000	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250  1260 kcys.  CMC z 150 KGVO ak 1000 KHGV ak 1000 KPAC ak 500 KRGV ak 1000 KRGV ak 1000	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 WTCN ak 1000 KEGVO ak 1000 KPAC ak 5000 KRGVO ak 1000 KPAC ak 5000 KUOA ak 5000 KUOA ak 5000 KUOA ak 5000 KUOA ak 1000 KYOA ak 1000	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WDSU ak 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250  CMC z 150 KGVO ak 1000 KHSL ak 1000 KHSL ak 250 KOIL ak 1000 KPAC ak 5000 KPAC ak 5000 KPAC ak 5000 KPAC ak 1000 WHOA ak 1000	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WNEW ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250  1260 kcys.  CMC z 150 KGVO ak 1000 KHSL ak 250 KGVO ak 1000 KHSL ak 250 KOL ak 1000 KPAC ak 500 WHOO ak 1000 WHOO ak 1000 WNOO ak 5000 WHOO ak 5000 WHOO ak 5000 WHOO ak 5000	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. Port Arthur, Texas N Weslaco, Texas N Weslaco, Texas N Weslaco, Texas N Ucson, Ariz. C (5) Dayton, Ohio CM(1) Springfield, Vt. Savannah, Ga.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 KEYS.  CMC z 150 KGYO ak 1000 KHSL ak 250 KGIL ak 1000 KHSL ak 5000 KUOA ak 5000 WHIO ak 1000 WHIO ak 1000 WHIO ak 1000 WNBX ak 5000 WHIO ak 1000 WNBX ak 5000 WTOC ak 1000 T270 kcys.	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. B (2.5) Newark, N. J. 2 XZ Minneapolis, Minn a (2.5) New York, N. Y. B (5) Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. D Omaha, Nebr. Port Arthur, Texas N Weslaco, Texas Siloam Spgs., Ark. Tucson, Ariz. C (5) Dayton, Ohio C M(1) Springfield, Vt. Savannah, Ga.	—7:00 am—midnight —7:00 am—midnight —8:00 am—midnight —9:00 am—1:00 am
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH 2 250 T260 KGVO ak 1000 KUOA ak 250 KGU ak 1000 KUOA ak 5000 KUOA ak 1000 WHOX a	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. B (2.5) Newark, N. J. 2 XZ Minneapolis, Minn a (2.5) New York, N. Y. B (5) Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. D Omaha, Nebr. Port Arthur, Texas N Weslaco, Texas Siloam Spgs., Ark. Tucson, Ariz. C (5) Dayton, Ohio C M(1) Springfield, Vt. Savannah, Ga.	-7:00 am—midnight -7:00 am—midnight -8:00 am—midnight -9:00 am—1:00 am -6:00 am—5:45 pm -8:00 am—11:00 pm -6:00 am—1:00 am -7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH 2 250 T260 KGVO ak 1000 KUOA ak 250 KGU ak 1000 KUOA ak 5000 KUOA ak 1000 WHOX a	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. B (2.5) Newark, N. J. 3 (2.5) New York, N. Y. B (5) Minneapolis, Minn San Luis Pot., S.L.P  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. D Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. D Ort Arthur, Texas N Weslaco, Texas Siloam Spgs., Ark. Tucson, Ariz. Dayton, Ohio C Savannah, Ga.  (236.1)  Caibarien, Cuba Decorah, Iowa M (5) Seattle, Wash.	-7:00 am—midnight -7:00 am—midnight -8:00 am—midnight -9:00 am—1:00 am -6:00 am—5:45 pm -8:00 am—11:00 pm -6:00 am—1:00 am -7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WHBI ak 1000 WHBI ak 1000 WTCN ak 1000 WTCN ak 1000 XEXH z 250  1260 kcys.  CMC z 150 KGVO ak 1000 KHSL ak 250 KGU ak 1000 KHSL ak 5000 KUOA ak 5000 KUOA ak 5000 WHIO ak 1000 WHO ak 1000 WTOC ak 1000  1270 kcys.  CMHD kcys.	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn a (2.5) Swew York, N. Y. B (5) Minneapolis, Minn San Luis Pot., S.L.F  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. D Port Arthur, Texas Weslaco, Texas N Siloam Spgs., Ark. Tucson, Ariz. Caj Dayton, Ohio CM(1) Springfield, Vt. Savannah, Ga.  (236.1)  Caibarien, Cuba Decorah, Iowa M (5) Seattle, Wash. C Colo, Springs, Colo.	-7:00 am—midnight -7:00 am—midnight -8:00 am—midnight -9:00 am—1:00 am -6:00 am—5:45 pm -8:00 am—11:00 pm -6:00 am—1:00 am -7:00 am—midnight
CMCK ak 150 KFOX ak 1000 WAIR ak 250 WCAL ah 1000 WDSU ak 1000 WTCN ak 1000 WTCN ak 1000 WTCN ak 1000 KEYOA ak 1000 KHSL ak 250 KGL ak 1000 WHO ak 1000 Ak 1000 KCOA ak 1000 WHO Ak 1000 WHO Ak 1000 WHO Ak 1000 WHO Ak 1000 Ak 1000 KCOA AK	Santiago, Cuba Long Beach, Calif. WinstSalem, N. C 2 XZ Northfield, Minn. New Orleans, La. a (2.5) Newark, N. J. Minneapolis, Minn a (2.5) Swew York, N. Y. B (5) Minneapolis, Minn San Luis Pot., S.L.F  (238.0)  Havana, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. D Port Arthur, Texas Weslaco, Texas N Siloam Spg., Ark. Tucson, Ariz. Caj Dayton, Ohio CM(1) Springfield, Vt. C Caibarien, Cuba Decorah, Iowa M (5) Seattle, Wash. C Colo. Springs, Colo.	-7:00 am—midnight -7:00 am—midnight -8:00 am—midnight -9:00 am—1:00 am -6:00 am—5:45 pm -8:00 am—11:00 pm -6:00 am—1:00 am -7:00 am—midnight

NOR	TH AMERICAN B. C. S	STATIONS BT FREQUENCIES
WBOW ak 100	N (.25) Terre Haute, Ind.	-7:00 am-midnight
WBRE ak 100	Wilkes-Barre, Pa.	7.00 am monight
WBRK z 100	P (.25) Pittsheld, Mass.	
WCLS ak 100	i Ioliat III	-8:00 am-9:30 pm
WCMI ak 100 WDAH ak 100		-6:00 am11:30 pm -11:30 am10:30 pm (Sun. only)
WDAH ak 100 WEBR ak 100	B (.25) Buffalo, N. Y.	-7:00 am—midnight
WEMP ak 100	D Milwaukee, Wis.	—7:30 am—ss
WEXL ak 50	Royal Oak, Mich.	—8:00 am—4:00 am
WFBG ak 100	3 Altoona, ra.	-7:00 am-10:30 pm
WFDF ak 100 WGH ak 100	Flint, Mich.	—7:00 am—midnight —7:00 am—midnight
WGTM z 100		7,00 Em mismight
WHAT ak 100	4 Philadelphia, Pa.	
WJAC ak 100	3 (.25) Johnstown, Pa.	
WLAK z 100 WLBC ak 100	Lakeland, Fla. (.25) Muncie, Ind.	—7:00 am—midnight
WLNH ak 100	M Laconia, N. H.	
WMBO ak 100	Auburn, N. Y.	
WMFF ak 100		7 20 11 15
WNBH ak 100 WOL ak 100	M (.25) New Bediord, Mass	. —7:30 am—11:15 pm
WRAW ak 100	Reading. Pa.	7:00 am11:00 pm
WROL ak 100	Reading, Pa. N(.25) Knoxville, Tenn.	•
WSAJ ak 100	Grove City, Pa.	0.00
WSGN ak 100	B (.25) Birmingham, Ala. Winston-Salem, N.	-8:00 am-midnight
WSJS ak 100 WTAL ak 100	Tallahassee, Fla.	-8:00 am midnight
WTEL ak 100	Philadelphia, Pa.	-8:00 am-midnight
WTJS ak 100	(.25) Jackson, Tenn.	
WTRC ak 100	) (.25) Elkhart, Ind.	—7:00 am10:30 pm
XEAG z 10 XEBO z 2	Cordoba, Ver.	
XEBO z 25 XECW ak 16	irapuato, Guan. Mexico City, D. F. Tampico, Tams. Torreon, Coah.	
XEFW ak 250	Tampico, Tams.	—11:00 am—10:00 pm
XETB ak 129	Torreon, Coah.	
XEX ak 12	Monterrey, N. L.	
z 100	DP Poplar Blun, Mo.	
1320 kcys	. (227.1)	
1020 Reys		
CMOX ak 200		
KGHF am 500	B Pueblo, Colo.	9:30 am11:45 pm
KGMB ak 1000 KID ak 500		—1:30 am—6:00 pm
KID ak 500 KRNT ak 1000	(1) Idaho Falls, Idaho C (5) Des Moines, Iowa	-6:30 am-1:00 am
WADC ak 1000	C Akron, Ohio	—7:00 am1:00 am
WORK ak 1000	N York, Pa.	—8:00 am—10:00 pm
WSMB ak 1000	R New Orleans, La.	
1330 kcvs	. (225.4)	
1330 kcys	. (223.4)	
CMHK z 250	Cruces, Cuba	10.00
KGB ak 1000 KMO ak 1000		—10:00 am—4:00 am —9:00 am—3:00 am
KMO ak 1000 KRIS z 500	N Corpus Christi, Tex.	-7:00 am -3:00 am
KSCJ ak 1000	C (5) Sioux City, Iowa	7:00 am-1:00 am
WDRC ak 1000	C (5) Hartford, Conn.	7:00 ammidnight
		7.00 am manight
WSAI ak 1000	MN(2.5) Cincinnati, Unio	-7:00 am-1:00 am
WSAI ak 1000 WTAQ ak 1000	MN(2.5) Cincinnati, Onio	-7:00 am-1:00 am
WTAQ ak 1000	Green Bay, Wis.	-7:00 am-1:00 am
1340 kcys	Green Bay, Wis.	-7;00 am -1:00 am
1340 kcys	Green Bay, Wis.  (223.7)  Pinar del Rio, Cuba	-7:00 am -1:00 am
WTAQ ak 1000 1340 kcys CMAB z CMJL z 75	C Green Bay, Wis.  (223.7)	—7:00 am—1:00 am
WTAQ ak 1000 1340 kcys.  CMJL z 75 KDTH z 500	C Green Bay, Wis.  (223.7) Pinar del Rio, Cuba Camaguey, Cuba DP Dubuque, Iowa	—7;00 am—1:00 am
WTAQ ak 1000  1340 kcys  CMAB z  CMJL z 75  KDTH z 500  KGDY ak 250	C Green Bay, Wis.  (223.7) L. Pinar del Rio, Cuba C Camaguey, Cuba DP Dubuque, Iowa D Huron, S. Dak. N (2.5) Butte, Mont.	—7:00 am—1:00 am —10:00 am—1:00 am
WTAQ ak 1000  1340 kcys  CMAB z  CMJL z 75  KDTH z 500  KGDY ak 250  KGIR ak 1000	C Green Bay, Wis.  (223.7) L. Pinar del Rio, Cuba C Camaguey, Cuba DP Dubuque, Iowa D Huron, S. Dak. N (2.5) Butte, Mont.	—7;00 am—1:00 am
WTAQ ak 1000  1340 kcys.  CMAB z CMJL z 75 KDTH z 506 KGDY ak 256 KGIR ak 1000 KGNO ak 256 WCOA ak 500	C Green Bay, Wis.  (223.7)	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight
WTAQ ak 1000  1340 kcys  CMAB z CMJL z 750  KGDTH z 500  KGDY ak 250  KGR ak 1000  KGNO ak 250  WCOA ak 500  WFEA ak 500	C Green Bay, Wis.  (223.7) Pinar del Rio, Cuba C Gamaguey, Cuba D D Huron, S. Dak. N (2.5) Butte, Mont. Dodge City, Kans. CX Pensacola, Fla. MN(1) Manchester, N. H.	—7:00 am—1:00 am —10:00 am—1:00 am
WTAQ ak 1000  1340 kcys.  CMAB z  CMJL z 75  KGTH ak 250  KGOY ak 250  KGOA ak 500  WFEA ak 500  WFEA ak 500  WSPD ak 1000	C Green Bay, Wis.  (223.7) Pinar del Rio, Cuba C Gamaguey, Cuba D D Huron, S. Dak. N (2.5) Butte, Mont. Dodge City, Kans. CX Pensacola, Fla. MN(1) Manchester, N. H.	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight
WTAQ ak 1000  1340 kcys  CMAB z CMJL z 750  KGDTH z 500  KGDY ak 250  KGR ak 1000  KGNO ak 250  WCOA ak 500  WFEA ak 500	C Green Bay, Wis.  (223.7)  Pinar del Rio, Cuba Carnaguey, Cuba Dubuque, Iowa D Huron, S. Dak. N (2.5) Butte, Mont. CX Pensacola, Fla. MN(1) Manchester, N. H. B (5) Toledo, Ohlo	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight
WTAQ ak 1000 1340 kcys  CMAB z CMJL z 75  KDTH z 50  KGDY ak 25  KGR ak 1000  KGNO ak 25  WCOA ak 50  WFEA ak 500  WSPD ak 1000  XEXD z 350	C Green Bay, Wis.  (223.7)  Pinar del Rio, Cuba Camaguey, Cuba Dubuque, Iowa D Huron, S. Dak. N (2.5) Butte, Mont. Dodge City, Kans. CX Pensacola, Fla. MN(1) Manchester, N. H. B (5) Toledo, Ohio Jalapa, Ver.	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight
TAO ak 1000  1340 kcys  CMAB z CMJL z 750  KGDY ak 250  KGDY ak 1000  KGNO ak 250  WCOA ak 500  WFEA ak 500  WSPD ak 1000  XEXD z 350  1350 kcys	C Green Bay, Wis.  (223.7)	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight
WTAQ ak 1000  1340 kcys.  CMAB z CMJL z 750  KDTH z 550  KGDY ak 250  KGNO ak 250  WFEA ak 500  WSPD ak 1000  XEXD z 350  1350 kcys.  CMCA ak 450	MN(2.5) Cincinnati, Omo C Green Bay, Wis.  (223.7)  Pinar del Rio, Cuba Carnaguey, Cuba D Dubuque, Iowa D Huron, S. Dak.  N (2.5) Butte, Mont.  Dodge City, Kans. CX Pensacola, Fla. MN(1) Manchester, N. H. B (5) Toledo, Ohio Jalapa, Ver.  (222.1)  Hayana, Cuba	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight
WTAQ ak 1000  1340 kcys.  CMAB z CMJL z 750  KGDY ak 250  KGDR ak 1000  KGNO ak 256  WCOA ak 500  WFEA ak 500  WFEA ak 500  WSPD ak 1000  XEXD z 350  1350 kcys.  CMCA ak 450  CMKW z	MN(2.5) Cincinnati, Omo C Green Bay, Wis.  (223.7)  Pinar del Rio, Cuba Carnaguey, Cuba D Dubuque, Iowa D Huron, S. Dak.  N (2.5) Butte, Mont.  Dodge City, Kans. CX Pensacola, Fla. MN(1) Manchester, N. H. B (5) Toledo, Ohio Jalapa, Ver.  (222.1)  Hayana, Cuba	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight —6:30 am—i:00 am
WTAQ ak 1000  1340 kcys.  CMAB z CMJL z 750  KDTH z 550  KGDY ak 250  KGNO ak 250  WFEA ak 500  WSPD ak 1000  XEXD z 350  1350 kcys.  CMCA ak 450	MN(2.5) Cincinnati, Omo C Green Bay, Wis.  (223.7)  Pinar del Rio, Cuba Camaguey, Cuba Dubuque, Iowa Dubuque, Iowa Dubuque, Iowa Dodge City, Kans. CX Pensacola, Fla. MN(1) Manchester, N. H. B (5) Toledo, Ohio Jalapa, Ver.  (222.1)  Havana, Cuba Santiago, Cuba N (2.5) Boise, Idaho	—7:00 am—1:00 am —10:00 am—1:00 am —8:30 am—midnight

NORTH AMERICAN B. C. ST	ATIONS BY FREQUENCIES	N	OR TH AN	AERICAN B. C. S	STATIONS BY FREQ
WAWZ ak 500 1 (1) Zarephath, N. J. WBNX ak 1000 1 New York, N. Y. WMBG ak 500 R Richmond, Va.			125 100 -100 SyP 100	Morelia, Mich. Mexico City, D. F. Lawrence, Mass. Owen Sound, Ont.	·
1360 kcys. (220.4)		1380 kc	vs. (217	(3)	
KGER ak 1000 Long Beach, Calif. WCSC ak 500 N(1) Charleston, S. C. WFBL ak 1000 C(5) Syracuse, N. Y.	-8:00 am—11:00 pm -7:00 am—midnight -7:00 am—1:00 am -8:00 am—9:00 pm	KOH ak KOV ak WALA ak WKBH ak 1 WNBC ak	500 C 500 C1 500 C(1)	Reno, Nevada Pittsburgh, Pa. Mobile, Ala. La Crosse, Wis. New Britain, Conn. Dayton, Ohio	—11:00 am—3:00 am —7:00 am—10:00 pm —8:30 am—midnight —7:00 am—ss
1370 kcys. (218.8)		1390 kcy	ys. (215	.7)	
		CJGX ak	100 F 150	Yorkton, Sask. Camaguey, Cuba	—8:30 am—12:30 am
CKCW ak 100 F Moncton, N. B. CMGE ak 150 Cardenas, Cuba — KAST ak 100 D Astoria, Ore. — KCMO ak 100 Kansas City, Mo. — KEEN ak 100 3 Seattle, Wash. — KELD z 100 El Dorado, Ark.	-10:00 am—10:30 pm -11:00 am—8:30 pm -7:00 am—2:00 am -3:00 pm—1:00 am	KLRA ak 1 KOY ak 1 KRLC ak	000 C (5) 000 C 250 000 BM(2.5	Little Rock, Ark. Phoenix, Ariz. Lewiston, Idaho Cleveland, Ohio St. Albans, Vt.	—9:00 am—12:15 am —7:00 am—midnight
KEGO ak 100 D Boone Iowa -	–11:00 am—3:00 am –7:00 am—2:00 pm –7:30 am—midnight	1400 kcy	/s. (214	.2)	
KFRO ak 250 D Longview, Texas – KGAR ak 100 (.25) Tucson, Arizona	-7:00 am—ss	CKKR z	150 100	Matanzas, Cuba Santlago, Cuba	—8:00 am—11:00 pm
KIIIP ak 100 Durango, Colo. –	−9:00 am−11:00 pm −10:00 am−11:00 pm −9:00 am−midnight	KHBC ak KLO ak KTUL ak WARD ak	500 B 500 C(1)	Santlago, Cuba Hilo, T. H. Ogden, Utah Tulsa, Okla. Brooklyn, N. Y.	—10:00 am—1:00 am
KMAC ak 100 5 (.25) San Antonio, Tex. – KOBH ak 100 Rapid Clty, S. Dak. – KOKO z 100 La Junta, Colo.		WHDL ak WIRE ak 1 WLTH ak	000 MR (5) 500 2	Brooklyn, N. Y. Brooklyn, N. Y. Olean, N. Y. Indianapolls, Ind. Brooklyn, N. Y.	—7:30 am—1:00 am
KRE ak 100 (.25) Berkeley, Calif KRKO ak 50 3 Everett, Wash.	-24 hours daily	WVFW ak 1410 kcy		Brooklyn, N. Y.	
KSLM ak 100 M Salem, Ore KTEM ak 250 D Temple, Texas	–10:00 am.–1:00 am	CKFC ak	50 5	Vancouver, B. C. Vancouver, B. C.	
KTOK bk 100 M Oklahoma City, Ok. KUJ ak 100 Walla Walla, Wash. – KVGB z 100 Great Bend, Kans.	–9:30 am—1:00 am	CMCQ ak KFJM ak	250 500 (1)	Havana, Cuba Grand Forks, N. D.	
KVRS z 100 (.25)P Rock Springs, Wyo. KWYO ak 100 (.25) Sheridan, Wyo.	–9:00 am—midnight –7:00 am—midnight	KMED ck	000 (2.5) N 250 N	Amarillo, Texas Medford, Ore.	
WACF ok 250 D Dothan, Ala		WBCM ak WHIS ak	500 (1) 500 (i)	Boston, Mass. Bay City, Mich. Bluefield, W. Va.	—24 hours daily —9:00 am—12:30 am
WBLK ak 100 Clarksburg, W. Va. WBNY ak 100 2 (.25) Buffalo, N. Y.	–7:30 am—midnight –7:00 am—10:00 pm	WROK ak WSFA ak	500 (1)	Rockford, III. Montgomery, Ala.	—7:30 am—mldnight —7:30 am—midnight
WCBM ak 100 (.25) Baltimore, Md.	-7:00 gm-19:00 pm -8:00 am-midnight	1420 kcy	s. (211.	.1)	
WEOA z 100 C(.25) Evansville, Ind. WFOR ak 100 Hattlesburg, Miss	-8:00 am-9:00 pm	CKGB ak KABC ak	100 F 100 (.25)	Three Rivers, P. Q. North Bay, Ont. San Antonio, Texas	—11:00 am—11:30 pm —7:00 am—12:15 am
WHBO ak 100 Memphis, Tenn.	8:00 am11:30 pm 10:30 am6:30 pm	KATE z	250 D 100 4	Aberdeen, S. D. Albert Lea, Minn. Portland, Ore.	—2:00 pm—8:00 pm
WHLB ak 100 (.25) Virginia, Minn. WIBM ak 100 (.25) Jackson, Mich.	–6:30 am−12:30 am	KEUB ak	100 (.25) 100 100 P	Texarkana, Tex. Price, Utah St. Cloud, Minn.	—9:30 am—midnight
WMBR ak 100 C (.25) Jacksonville, Fla	–7:30 am—midnight –7:30 am—midnight	KFIZ ak 1 KGFF ak	100 (.25) M	Fond du Lac, Wis. Shawnee, Okla.	8:00 am10:00 pm
WMFO ak 100 D Decatur, Ala.	−8:00 am−6:30 pm −7:00 am−1:00 am −7:00 am−1:00 am	KGIW ak 1	100 100 1	San Francisco, Cal.	—9:30 am—10:30 pm —9:00 am—8:00 pm
WPAY ak 100 Portsmouth, Ohio - WPRA z 100 (.25) Mayaguez, P. R.	_7:00 am—10:15 pm	KIUN ak 1 KLBM z	100 100 (.25) P	Pecos, Texas La Grande, Ore. Palestine, Texas	-8:00 am-10:00 pm
WRDO ak 100 M Augusta, Maine - WRJN ak 100 (.25) Racine, Wis WSAII ak 100 Wausau. Wis	–8:00 am—11:15 pm –8:25 am—midnight –7:00 am—11:15 pm	KORE ak 1 KRBC ak 1 KRLH z 1	100 M 1 100 (.25) 1 100 D 1	Eugene, Öre. Abilene, Texas Midiand, Texas	—8:00 am—10:00 pm
WSVS ak 50 2D Buffalo, N. Y. XECZ z 100 San L. Pot., S.L.P.			100 (.25) P	Sioux City, Iowa Yuma, Ariz.	

NORTH AMERICA	N B. C. STATIONS BT FREQ
KWBG ak 100 Hutchn	ison, Kans.
KXL ak 100 4 (.25) Portlan	d, Ore.
WACO ak 100 C Waco,	exas
WAGM ak 100 Presque WAPO ak 100 (.25) Chattar	Isle, Me11:00 am7:00 pm 100ga, Tenn7:00 am7:00 pm
TULTE AL 100 7 Hazieto	n Pa —9:00 am—10:00 pm
WCBS ak 100 (.25) Springf WCHV ak 100 3 (.25) Charlot WEED ak 100 3 (.25) Rocky M	leld, III. —8:00 am—11:00 pm
WCHV ak 100 3 (.25) Charlot	tesville, Va. —7:00 am—midnight
WEED ak 100 3 (.25) Rocky M	reek, Mich. —7:30 am—midnight
WELL ak 100 Battle C WGPC ak 100 Albany,	Ga.
WHRC ak 100 (.25) Cicero.	III. —7:00 am—1:00 am
WILM aj 100 2 Wilmin WJMS ak 100 Ironwoo	gton, Del. od, Mich.
WJMS ak 100 Ironwood	od, Mich.
WLAP ak 100 (.25) Lexingt WLEU ak 100 (.25) B Erle, Pa WMAS ak 100 (.25) Springfi WMBC ak 100 (.25) Springfi WMBH ak 100 (.25) Joplin,	on, k.y.
WMAS ak 100 C (.25) Springfi	eld, Mass. —7:00 am—midnight
WMBC ak 100 (.25) Detroit	Mich. —7:30 am—midnight
WMBH ak 100 (.25) Joplin, WMBS ak 250 D Unionto	Mo. own, Pa. —6:00 am—6:00 pm
WMEI AL 100 DAVION	a Bch., Fla.
WMSD ak 100 Sheffiel	d, Ala. —8:00 am—11:00 pm wn, N. Y. h, Ky. —7:00 am—midnight burg, W. V.
WNNY z 100 (.25) P Waterto WPAD ak 100 (.25) Paducal	wn, N. Y.
WPAD ak 100 (.25) Paducal WPAR ak 100 C Parkers	h, Ky. —7:00 am—midnight
WPAR ak 100 C Parkers WPRP z 100 (.25) Ponce,	Puerto Rico
WFRF 2 100 (:25) Tollee,	
(200 7)	
1430 kcys. (209.7)	
	Cuba
CMJP ak 75 Moron, KECA ak 1000 (5) B Los Ang	eles, Cal. —10:00 am—3:00 am
TONE OF 1000 I) NORTH	latte Neh —8:00 am—6:15 pm
KSO ak 500 BM(2.5) Des M	oines, Iowa
WBNS ak 500 C(1)X Columb WHEC ak 500 C(1) Roches	ter, N. Y. —7:00 am—midnight
WHEC ak 500 C(1) Roches	urg. Pa. —6:30 am—midnight
WHP ak 500 C(1) Harrish	ure, Pa. —0:30 am—munight
KSO ak 500 BM(2.5) Des M WBNS ak 500 C(1) X Columb WHEC ak 500 C(1) Roches WHP ak 500 C(1) Harrisb WMPS ak 500 (1) B Memph	ds, Tenn.
WHP ak 500 C (1) Harrish WMPS ak 500 (1) B Memph WOKO ak 500 C (1) Albany	urg, Pa. —6:30 am—midnight ils, Tenn. N. Y. —8:00 am—1:00 am
WOKO ak 500 C(1) Albany	urg, Fa. — 5:30 am—munigit ils, Tenn. N. Y. — 8:00 am—1:00 am
WOKO ak 500 C(1) Albany	urg, Pa. —0:30 am—intungnt ils, Tenn. N. Y. —8:00 am—1:00 am
WOKO ak 500 C (1) Albany.	8:00 am—1:00 am
1440 kcys. (208.2)	-8:00 am-1:00 am
1440 kcys. (208.2)	-8:00 am-1:00 am
WOKO ak 500 C (1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KYV2 ak 1000 R	, Cuba Wyo. la-Chehalis, Wn.
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper. KELA z 500 MP KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi	, Cuba Wyo. la-Chehalis, Wn.
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper. KELA z 500 MP KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi	, Cuba Wyo. ia-Chehalis, Wn. n, Texas boro, N. C. —6:30 am—11:30 pm wn, Pa. —7:30 am—11:30 pm
WMPS ak 500 C (1) Mempher 1440 kcys. (208.2) C CMOA z 150 Havana KDFN ak 500 MP Casper. KELA z 500 MP Casper. KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA aj 500 a Allento WMBD ak 1000 C (5) Peorla, Peorl	, Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C.  wn, Pa.  -7:30 am—11:30 pm  -7:30 am—11:30 pm  -7:00 am—midnight wn, Pa.  -7:00 pm—11:30 pm
WMPS ak 500 C (1) Melning Woko ak 500 C (1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA aj 500 a Allento WMBD ak 1000 C (5) Peoria, WSAN at 500 Na Allento	, Cuba , Cuba , Wyo. la-Chehalis, Wn. n, Texas boro, N. C. —6:30 am—11:30 pm wn, Pa. —7:30 am—11:30 pm III. —7:00 am—midnight
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper. KELA z 500 MP KXYZ ak 1000 B Housto WBIG ak 1000 C WGBA aj 500 a Allento WMBD ak 1000 C C WGBA aj 500 Na XEFI ak 250 Allento Chihua	, Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C.  wn, Pa.  -7:30 am—11:30 pm  -7:30 am—11:30 pm  -7:00 am—midnight wn, Pa.  -7:00 pm—11:30 pm
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper. KELA z 500 MP KXYZ ak 1000 B Housto WBIG ak 1000 C WGBA aj 500 a Allento WMBD ak 1000 C C WGBA aj 500 Na XEFI ak 250 Allento Chihua	, Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C.  wn, Pa.  -7:30 am—11:30 pm  -7:30 am—11:30 pm  -7:00 am—midnight wn, Pa.  -7:00 pm—11:30 pm
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA al 500 a Allento WMBD ak 1000 C(5) Peorla, WSAN al 500 Na Allento Chihua 1450 kcys. (206.8)	-8:00 am—1:00 am  , Cuba Wyo. Ia-Chehalis, Wn. n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight wn, Pa1:00 pm—11:30 pm hua, Chih.
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA al 500 a Allento WMBD ak 1000 C(5) Peorla, WSAN al 500 Na Allento Chihua 1450 kcys. (206.8)	-8:00 am—1:00 am  , Cuba Wyo. Ia-Chehalis, Wn. n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight wn, Pa1:00 pm—11:30 pm hua, Chih.
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA al 500 a Allento WMBD ak 1000 C(5) Peorla, WSAN al 500 Na Allento Chihua 1450 kcys. (206.8)	-8:00 am—1:00 am  , Cuba Wyo. Ia-Chehalis, Wn. n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight wn, Pa1:00 pm—11:30 pm hua, Chih.
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA al 500 a Allento WMBD ak 1000 C(5) Peorla, WSAN al 500 Na Allento Chihua 1450 kcys. (206.8)	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1b. 1c. 1c. 1c. 1c. 1c. 1c. 1c. 1c. 1c. 1c
WMFS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi WGBA aj 500 a Allento WMBD ak 1000 C(5) WGBA aj 500 Na Allento XEFI ak 250 Chihual 1450 kcys. (206.8)   GFCT ak 50 Victoria CHGS ak 50 F Summe CHGS ak 50 F Summe CHGS ak 1000 Victoria CHGS ak 50 F Summe CHGS ak 1000 Victoria CHGS ak 50 F Summe CHGS ak 1000 Victoria CHGS ak 1000 Victoria CHGS ak 50 F Summe CHGS ak 50 F Summe CHGS ak 1000 Victoria CHGS ak 10000 Victoria CHGS ak 1000 Victoria CHGS ak 1000 Victoria CHGS ak 1000 Victoria CHGS ak 1000 Victoria CHGS	8:00 am—1:00 am  , Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C.  -6:30 am—11:30 pm  -7:30 am—11:30 pm  -7:00 am—midnight  -1:00 pm—11:30 pm  a, B. C.  -10:45 am—12:15 am  -6:30 am—10:00 pm  sint, Mont.  -10:00 am—1:00 am
WMFS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi WSAN aj 500 Na Allento XEFI ak 250 Chihual 1450 kcys. (206.8)   GFCT ak 50 Victoria CHGS ak 50 F Summe CMHM Z 1000 KGCX ak 1000 KTBS ak 1000 N(1) Eureka KTBS ak 1000 N(1) Eureka KTBS ak 1000 N(1) Shrever	-8:00 am—1:00 am  , Cuba , Cub
WMFS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi WSAN aj 500 Na Allento XEFI ak 250 Chihual 1450 kcys. (206.8)   GFCT ak 50 Victoria CHGS ak 50 F Summe CMHM Z 1000 KGCX ak 1000 KTBS ak 1000 N(1) Eureka KTBS ak 1000 N(1) Eureka KTBS ak 1000 N(1) Shrever	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1b. 1c. 1c. 1c. 1c. 1c. 1c. 1c. 1c. 1c. 1c
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP KKYZ ak 1000 B Housto WBIG ak 1000 C Greens WGBA aj 500 a Allento WMBD ak 1000 C(5) Peoria, WSAN aj 500 Na Allento Chihual  1450 kcys. (206.8)   CFCT ak 50 Victoria CHGS ak 50 F Summa CHhual  CFCT ak 50 Victoria CHGS ak 50 F Summa CHhual  CFCT ak 50 Wictoria CHHual  KIEM ak 500 M(1) KGCX ak 1000 N Shreve; WAGA ak 500 B (1) Atlants WGAB ak 500 C (1) Clevela	8:00 am—1:00 am  , Cuba Wyo.  In. Texas boro, N. C.  -7:30 am—11:30 pm -7:00 am—11:30 pm III.  -7:00 am—midnight -1:00 pm—11:30 pm hua, Chih.  -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 pm -1:00 am—1:00 am -7:30 am—1:00 am
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP KKYZ ak 1000 B Housto WBIG ak 1000 C Greens WGBA aj 500 a Allento WMBD ak 1000 C(5) Peoria, WSAN aj 500 Na Allento Chihual  1450 kcys. (206.8)   CFCT ak 50 Victoria CHGS ak 50 F Summa CHhual  CFCT ak 50 Victoria CHGS ak 50 F Summa CHhual  CFCT ak 50 Wictoria CHHual  KIEM ak 500 M(1) KGCX ak 1000 N Shreve; WAGA ak 500 B (1) Atlants WGAB ak 500 C (1) Clevela	8:00 am—1:00 am  , Cuba Wyo.  In. Texas boro, N. C.  -7:30 am—11:30 pm -7:00 am—11:30 pm III.  -7:00 am—midnight -1:00 pm—11:30 pm hua, Chih.  -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 pm -1:00 am—1:00 am -7:30 am—1:00 am
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA al 500 a Allento WMBD ak 1000 C(5) Peoria, WSAN al 500 Na Allento XEFI ak 250 Chihua  1450 kcys. (206.8)   CFCT ak 50 Victoria Chihua  1450 kcys. (206.8)   CFCT ak 50 Victoria Chihua  CHIEM ak 500 M(1) Eureka KTBS ak 1000 M(1) Cievela Jersey WAGA ak 500 C (1) Cievela VICTORIA Ak 500 C (1) Cievela VICTORIA Ak 500 M(1) Fall Riv	-8:00 am—1:00 am  , Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -7:00 am—1:00 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight
Woko ak 500 C (1)   Meliphi Woko ak 500 C (1)   Albany	-8:00 am—1:00 am  , Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -7:00 am—1:00 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi WGBA al 500 a Allento WMBD ak 1000 C Greensi WSAN al 500 Na Allento Chihua 1450 kcys. (206.8)   CFCT ak 50 Victoris CHGS ak 50 F Summe CHGS ak 50 F Summe CHGS ak 50 F Summe CHGS ak 1000 N Shreve, WAGA ak 500 B(1) Atlanti WGAR ak 500 M Fall Riv WSAR ak 1000 M Fall Riv XEF ak 100 M Fall Riv XEF	-8:00 am—1:00 am  , Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -7:00 am—1:00 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight
WMPS ak 500 C(1) Melning Woko ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA al 500 a Allento WMBD ak 1000 C(5) Peoria, WSAN al 500 Na Allento XEFI ak 250 Chihua  1450 kcys. (206.8)   CFCT ak 50 Victoria Chihua  1450 kcys. (206.8)   CFCT ak 50 Victoria Chihua  CHIEM ak 500 M(1) Eureka KTBS ak 1000 M(1) Cievela Jersey WAGA ak 500 C (1) Cievela VICTORIA Ak 500 C (1) Cievela VICTORIA Ak 500 M(1) Fall Riv	-8:00 am—1:00 am  , Cuba Wyo.  Ia-Chehalis, Wn.  n, Texas boro, N. C. wn, Pa7:30 am—11:30 pm -7:00 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -7:00 am—1:00 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2)   CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greens WCBA aj 500 a Allento WSAN aj 500 Na Allento XEFI ak 250 Chihua 1450 kcys. (206.8)   CFCT ak 50 F Summe CMHM z 1000 C Clenfus KGCX ak 1000 M Shrevej WAGA ak 500 M(1) Eureka KTBS ak 1000 M Shrevej WAGA ak 500 B (1) Atlanta WHOM ak 250 WSAR ak 1000 M Fall Riv XEF ak 100	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a-Creas boro, N. C. wn, Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -7:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight
WMPS ak 500 C(1) Albany.  1440 kcys. (208.2) [  CMOA z 150 Havana Casper, KELA z 500 MP Central KXYZ ak 1000 B Housto WBIG ak 1000 C Greensi WGBA al 500 A Allento WMBD ak 1000 C(5) Na Allento XEFI ak 250 Chihua 1450 kcys. (206.8) [  CFCT ak 50 Vlctoriis CHGS ak 50 F Summe CMHM z 100 Clenfud KGCX ak 1000 N Shreve, WGGA ak 500 B(1) Atlanti WGAR ak 1000 M Fall Riv XEF ak 100  Juärez.	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a, Texas boro, N. C. wn. Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight
Woko ak 500 C(1) Albany   Woko ak 500 C(1) Albany   1440 kcys. (208.2)	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a-Creas boro, N. C. wn, Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -7:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight -7:00 am—midnight
WOKO ak   Sou   C(1)   Memphi	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a, Texas boro, N. C. wn. Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight
WOKO ak   Sou   C(1)   Memphi	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a, Texas boro, N. C. wn. Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight
WOKO ak   Sou   C (1)   Meliphi	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a-Creas boro, N. C. wn, Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 am -1:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—midnight -7:00 am—midnight
WOKO ak   Soo   C(1)   Meliphi	-8:00 am—1:00 am  , Cuba Wyo. 1a-Chehalis, Wn. 1a, Texas boro, N. C. wn. Pa7:30 am—11:30 pm -7:90 am—midnight -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 pm—11:30 pm -1:00 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:30 am—1:00 am -7:00 am—midnight

11011	111 1111	DICIONE D. C. C	111110110 21 1100
1480 kcys.	(202.	.6)	
KOMA ak 5000	C	Oklahoma City, Ok.	-7:30 am-1:00 am -7:30 am-5:30 pm
WHIP z 5000 WKBW ak 5000	DP C	Hammond, Ind. Buffalo, N. Y.	—7:30 am—5:30 pm —8:00 am—1:00 am
1 100 1	(201	2) [	
1490 kcys.			
KFBK ak 5000 WCKY ak 10000	N X N	Sacramento, Calif. Covington, Ky.	—7:00 am—midnight
1500 1	(100	0)	
1500 kcys.	•		
CJIC ak 100 KAWM z 100		S. S. Marle, Ont. Gallup, N. Mex.	-10:00 am-10:00 pm
KBIX ak 100 KBST z 100	M	Muskogee, Okia,	—8:00 am—11:00 pm
KDAL ak 100 KDB ak 100	C M(.25)	Big Spring, Texas Duluth, Minn. Santa Barbara, Cal.	
KGFI ak 100	(.25)	Santa Barbara, Cal. Brownsville, Tex. Tyler, Texas Scottsbluff, Neb.	
KGKB ak 100 KGKY ak 100	(.25) (.25)	Tyler, Texas Scottsbluff, Neb. Brady, Texas	-8:30 am-11:00 pm
KNEL ak 250 KNOW ak 100	D C	Brady, Texas Austin, Texas	-8:00 am-6:00 pm
KOTN ak 100	n	Pina Bluff Ark	—8:00 am—ss —8:00 am—10:00 pm
KOVC ak 100 KPLC ak 100 KPLT z 250	(.25)	Vailey City, N. D. Lake Charles, La. Paris, Texas	-0:00 atti-10:00 pm
KPLT z 250 KPQ ak 100	M(.25)	wenatchee, wash.	
KRNR ak 100	M ( 25)	Roseburo, Ore.	
KROD ak 100 KSAL ak 100	/ 3E\	Calles Vons	
KUTA z 100 KVOE ak 100	P M	Salt Lake City, Ut. Santa Ana, Calif.	Noon to 2:00 am
KXO ak 100	1 (.25)	El Centro, Calif.	11:00 ammidnight 9:00 ammidnight
WDNC ak 100	C .25)	Saina, Kans. Sait Lake City, Ut. Santa Ana, Calif. El Centro, Calif. Brooklyn, N. Y. Durham, N. C. Lancaster, Pa	-7:30 am-12:30 am
WGAL ak 100 WHBB ak 100	(.20)		-7:30 am-ss
WHEF ak 100 WJBK ak 100	(.25)	Selma, Ala. Kosciusko, Miss. Detroit Mich	—7:30 am—10:00 pm —24 hours daily
WKAT z 100	(.25) (.25) P	Detroit, Mich. Miami Beach, Fla. E. Dubuque, Ill.	21 110010 01119
WKBB ak 100 WKBV ak 100	(.25) (.25)	Richmond, Ind.	
WKBZ ak 100 WKEU ak 100	(.25)	Muskegon, Mich.	—7:00 am—10:00 pm
WMBO ak 100	1	Brooklyn, N. Y. Boston, Mass.	
WNBF ak 100	(.25) C(.25)	Binghamton, N. Y. New London, Conn.	
WNLC ak 100 WOMI z 100	DM	New London, Conn. Owensboro, Kv.	
WOPI ak 100		Owensboro, Ky. Bristol, Tenn.	7:00 am10:30 pm 7:00 am9:00 pm
WRGA ak 100	(.25)	Augusta, Ga. Rome, Ga.	-8:00 am-11:00 pm
WRTD z 100 WSYB ak 100	В	Richmond, Va. Rutland, Vt.	—10:00 am—9:00 pm
WTMV ak 100	(.25) 1 (.25) (.25)	E. St. Louis, Ill. Woodside, N. Y.	-8:00 am-midnight
WWRL ak 100 WWSW ak 100	(.25)	Pittsburgh, Pa.	-0,00 ani-midnight
1510 kcys.	(198	.6)	
CFRC ak 100	•	Kingston, Ont. Waterloo, Ont.	Noon11:00 pm 8:00 am11:00 pm
CKCR ak 100	• • • • •	Waterloo, Ont.	8:00 am11:00 pm
1530 kcys.	(196	.0)	•
KXBY ak 1000 WBRY ak 1000	<u>й</u>	Kansas City, Mo. Waterbury, Conn.	8:00 am3:30 am 8:00 ammidnight
1550 kcys.	(193	.4)	
KPMC ak 1000	M	Bakersfield, Calif.	-10:00 am-2:00 am
WQXR ak 1000		New York, N. Y.	10:00 am9:15 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.

jourin column. C Column	na, K National Kea, B Nati M M	utual.	and Blue. F Canadian
ALABAMA	CALIFORNIA	Santa Barbara KDB 1500 100M	FLORIDA
Birmingham WAPI 1140 5000 R	Bakersfield KERN 1370 100 N	KTMS 1220 500 B	Clearwater WFLA 620 1000 N
WBRC 930 1000 C WSGN 1310 100 B	KPMC 1550 1000M Berkeley	Santa Rosa KSRO 1310 250	Daytona Beach WMFJ 1420 100
Decatur WMFO 1370 100	KRE 1370 100 Beverly Hilis	Stockton KGDM 1100 1000M	Gainesville
Dothan	KMPC 710 500 Chico	KWG 1200 100 N Visalia	WRUF 830 5000 Jacksonville
WAGF 1370 250 Gadsden	KHSL 1260 250 El Centro	KTKC 1190 250 Watsonville	WJAX 900 1000 N WMBR 1370 100 C
WJBY 1210 100 Huntsville	KXO 1500 100 Eureka KIEM 1450 500M	KHUB 1310 250	Lakeland WLAK 1310 100
WBHP 1200 100 Mobile	KIEM 1450 500M Fresno* KARM 1310 100	COLORADO	Miami WIOD 610 1000 N
WALA 1380 500 C Montgomery	KMJ 580 1000 N Glendale	Alamosa KGIW 1420 100	WMBF 610 1000 WQAM 560 1000 C
WSFA 1410 500 C Selema	KIEV 850 250 Hollywood	Colorado Springs KVOR 1270 1000 C	Miami Beach WKAT 1500 100
WHBB 1500 100 Sheffield	KFWB 950 1000 Long Beach	Denver 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 KPOF 880 500	Pensacola WCOA 1340 500 C
Tuscaloosa WJRD 1200 250	Los Angeles   KECA 1430 1000 B   KEHE 780 1000	KVOD 920 500 B Durango	St. Augustine WFOY 1210 100
ALASKA	KFAC 1300 1000 KFI 640 50000 R	KIUP 1370 100 Grand Junction	St. Petersburg WSUN 620 1000 N
Anchorage KFQD 780 250	KFSG 1120 500 KFVD 1000 1000	KFXJ 1200 100 Greeley KFKA 880 500M	Tallahassee WTAL 1310 100
Juneau KINY 1310 100	KGFJ 1200 100 KHJ 900 1000M	La Junta KOKO 1370 100	Tampa WDAE 1220 1000 C West Palm Beach
Ketchlkan KGBU 900 500	KMTR 570 1000 KNX 1050 50000 C KRKD 1120 500	Lamar KIDW 1420 100	WJNO 1200 100 C
ARIZONA	Merced KYOS 1040 250	Pueblo KGHF 1320 500 B	GEORGIA
Jerome KCRJ 1310 100	Modesto KTRB 740 250	Sterling KGEK 1200 100	Albany WGPC 1420 100
Lowell KSUN 1200 100	Monterey KDON 1210 100M	CONNECTICUT	Atlanta WAGA 1450 500 WATL 1370 100
Phoenix	Oakland KLS 1280 250 KLX 880 1000	Bridgeport WICC 600 500M	WGST 890 1000 C WSB 740 50000 R
KTAR 620 1000 N	KROW 930 1000 Pasadena	Hartford WDRC 1330 1000 C	Augusta WRDW 1500 100 C
Tucson KGAR 1370 100 KVOA 1260 1000	KPPC 1210 100 Redding	WTIC 1040 50000 R WTHT 1200 100M	Columbus WRBL 1200 100
Yuma KUMA 1420 100	KVCV 1200 100 Sacramento	New Britain WNBC 1380 250	Griffin WKEU 1500 100
ARKANSAS	KFBK 1490 5000 N KROY 1210 100	New Haven WELI 900 500	Macon WMAZ 1180 1000 C Rome
Bivtheville	San Bernardino KFXM 1210 100M	New London WNLC 1500 100M	WRGA 1500 100 Savannah
KLCN 1290 100 El Dorado	San Diego KFSD 600 1000 B KGB 1330 1002M	Waterbury WATR 1190 100	WTOC 1260 1000 C Thomasville
KELD 1370 100 Fort Smith	San Francisco	WBRY 1530 1000M	WPAX 1210 100 Waycross WAYX 1200 100
KFPW 1210 100 Hot Springs	KFRC 610 1000M KGGC 1420 100 KGO 790 7500 B	DELAWARE Wilmington	HAWAII
KTHS 1060 10000 N Jonesboro	KJBS 1070 500 KPO 680 50000 R	WDEL 1120 250 R WILM 1420 100	Hilo
KBTM 1200 100 Little Rock	KSFO 560 1000 C KYA 1230 1000	DISTRICT OF	KHBC 1400 250M Honolulu
KARK 890 500 N KGHI 1200 100 KLRA 1390 1000 C	San Jose KOW 1010 1000M	COLUMBIA	KGMB 1320 1000 C KGU 750 2500 N
Pine Bluff	San Luis Obispo KVEC 1200 250	WashIngton WJSV 1460 10000 C WMAL 630 250 B	IDAHO
KOTN 1500 100 Siloam Springs KUOA 1260 5000	Santa Ana KVOE 1500 100M	WOL 1310 100M WRC 950 500 R	Boise KIDO 1350 1000 N

NORTH	AM
Coeur d'Alene KGCI 1200 100	!
Idaho Falls	WO
KID 1320 500 Lewiston	wi
Lewiston KRLC 1390 250	wi
Nampa KFXD 1200 100	W
Pocatello KSEI 900 250	wi wo
Twin Falls KTFI 1240 1000	Wi
ILLINOIS	wi
Bloomington WJBC 1200 100	w
Carthage	wi
WCAZ 1070 100 Champaign	wi
WDWS 1370 100	wŝ
Chicago WAAF 920 1000 WBBM 770 50000 C	WI
WCBD 1080 5000	-wi
WCFL 970 5000 N WCRW 1210 100	_
WEDC 1210 100 WEDR 870 50000 B	l —
	w
WGN 720 50000M WJJD 1130 20000 WLS 870 50000 B WMAQ 670 50000 R WMBI 1080 5000	V E
WLS 870 50000 B WMAQ 670 50000 R	KF
WMBI 1080 5000 WSBC 1210 100	W
Clcero WHFC 1420 100	w
Decatur	KC KV
Fact Dubuque	Ιī
WKBB 1500 100	KŘ KS WI
East St. Louis WTMV 1500 100.	
Harrisburg WEBQ 1210 100	KD
Joliet WCLS 1310 100	ws
Peoria WMBD 1440 1000 C	KF
Quincy WTAD 900 1000	K C
Rockford WROK 1410 500	K.F
Rock Island WHBF 1210 100	KF KM KS KT
Springfield WCBS 1420 100 WTAX 1210 100	KT
Tuscola	
Urbana	Į.
INDIANA	KF (
Anderson	KG I KG
WHBU 1210 100	KG (KI
Elkhart WTRC 1310 100	FV
Evansville WEOA 1370 100 C WGBF 630 500 N	KV KV
WGDF 030 500 N	I A V

Fort Wayne VGL 1370 100 N VOWO 1160 10000 B Gary VIND 560 1000 Hammond VHIP 1480 5000 VWAE 1200 100 Indianapolls VFBM 1230 1000 C VGVA 1050 1000	Kansas City KCKN 1310 100 Lawrence KFKU 1220 1000 WREN 1220 1000 Manhattan KSAC 580 500 Pittsburg KOAM 790 1000 Salina
VIRE 1400 1000 R Muncle VLBC 1310 100 New Albany	KSAL 1500 100 Topeka WIBW 580 1000 Wichita KANS 1210 100
VGRC 1370 250 Richmond VKBV 1500 100	KANS 1210 100 KFH 1300 1000 KENTUCK Y
South Bend VFAM 1200 100 VSBT 1360 500 Terre Haute VBOW 1310 100 N	Ashland WCMI 1310 100 Covington WCKY 1490 10000
West Lafayette VBAA 890 500 IOWA	Lexington WLAP 1420 100  Louisville WAVE 940 1000
Ames VOI 640 5000 Boone KFGQ 1370 100	Middlesboro WLMU 1210 100
Cedar Rapids VMT 600 1000 B Davenport	Owensboro WOMI 1500 100 Paducah WPAD 1420 100
	LOUISIANA
Decorah GCA 1270 100 WLC 1270 100 Des Moines	Alexandria KALB 1210 100
KRNT 1320 1000 C SSO 1430 500 B VHO 1000 50000 R Dubuque	Baton Rouge WJBO 1120 500 Lafayette KVOL 1310 100
IDTH 1340 500 Iowa City VSUI 880 500	Lake Charles KPLC 1500 100 Monroe
Marshalltown KFJB 1200 100 Mason City KGLO 1210 100 C	KMLB 1200 100   New Orleans   WBNO 1200 100
Shenandoah LFNF 890 500 (MA 930 1000	WJBW 1200 100 WSMB 1320 1000 WWL 850 10000
Sioux City ISCJ 1330 1000 C ITRI 1420 100 KANSAS	Shreveport KRMD 1310 100 KTBS 1450 1000 KWKH 1100 10000
Abliene	MAINE
FBI 1050 5000 Coffeyville GGF 1010 1000M Dodge City GNO 1340 250 Garden City IUL 1210 100	Augusta WRDO 1370 100 Bangor WABI 1200 100 WLBZ 620 500 Portland WCSH 940 1000
Great Bend IVGB 1370 100 Hutchinson IWBG 1420 100	WCSH 940 1000 WGAN 640 500 Presque Isle WAGM 1420 100

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ty	MAR YLAND
100	
	Baltimore
1000	WBAL 760 2500 B WBAL 1060 10000 B
1000 B	WCAO 600 500 C
1	WCAO 600 500 C WCBM 1370 100
500	WFBR 1270 500 R
1000 N	College Park W3XJ 1060 100
100	Cumberland
1000 C	Frederick
	WFMD 900 500 Hagerstown WJEJ 1210 50
100 B 1000 C	Salisbury
1 T X	WSAL 1200 250
ZK Y	MASSACHUSETTS
100	
100	Boston WAAB 1410 500M
10000 31	WAAB 1410 500M WBZ 990 50000 B
10000 N	WCOP 1120 500
100	WEET 500 1000 C
100	WHDH 830 1000
1000 37	WHDH 830 1000 WMEX 1500 100 WNAC 1230 1000 R WORL 920 500
1000 N 50000 C	WNAC 1230 1000 R   WORL 920 500
o 100	Fall River WSAR 1450 1000M
100	Greenfield
100	1210 250
100	Lawrence
100	WLAW 680 1000
100	1370 10-100
NA	Lowell WLLH 1370 100M
	New Bedford
	WNBH 1310 100M
100	Pittsfield
ige	WBRK 1310 100
500 B	Springfield WBZA 990 1000 B
	WMAS 1420 100 C
100	WSPR 1140 500M
les	Worcester WORC 1280 500 C WTAG 580 1000 R
100	WORC 1280 500 C
	WTAG 580 1000 R
100	MICHIGAN
ns	
100 D	Battle Creek
1000 B	WELL 1420 100
100 1000 R	Bay City
1000 R 10000 C	WBCM 1410 500 Calumet
100	WHDF 1370 100 Detroit
1000 N 10000 C	WJBK 1500 100
10000 C	I W.IR 750 50000 C
	WMBC 1420 100
E	WWJ 920 5000 R
	WX YZ 1240 1000 B East Lansing
100M	East Lansing WKAR 850 1000
- 30	Flint
100	WFDF 1310 100
500 C	Grand Rapids
	WASH 1270 500 N
1000 R	
500	Ironwood WJMS 1420 100
1e	Jackson
100	WIBM · 1370 100

NORTH	AMERICAN B. C.
Kalamazoo WKZO 590 1000 B	Kansas City KCMO 1370 100 KMBC 950 1000 C
Lansing WJIM 1210 100	KXBY 1530 1000 WDAF 610 1000 R
Lapeer WMPC 1200 100	WHB 860 1000M Poplar Bluff
Marquette WBEO 1310 100	1310 100 St. Joseph
Muskegon WKBZ 1500 100	KFEQ 680 2500 St. Louis
Royal Oak	KMOX 1090 50000 C
Saginaw	KSD 550 1000 R KWK 1350 1000 B
WHAL 950 500	WEW 760 1000
MINNESOTA  Albert Lea	Springfield KGBX 1230 500 N KWTO 560 5000
KATE 1420 250	MONTANA
Duluth KDAL 1500 100 C	Billings
WEBC 1290 1000 N Fergus Falis KGDE 1200 100	KGHL 780 1000 N Butte
Hibbing	KGIR 1340 1000 N Great Falls
WMFG 1210 100 Minneapolis	KFBB 1280 1000 C
WCCO 810 50000 C WDGY 1180 1000 C	Helena KPFA 1210 100
WLB 1250 1000 WTCN 1250 1000 B	Kalispell KGEZ 1310 100
Moorhead KVOX 1310 100	Lewistown KDNC 1200 100
Northfield WCAL 1250 1000	Missoula KGVO 1260 1000 C Wolf Point
Rochester KROC 1310 100	Wolf Point KGCX 1450 1000
St. Cloud KFAM 1420 100	NEBRASKA
St. Paul KSTP 1460 10000 R	Clay Center KMMJ 740 1000
Virginia	Kearney
WHLB 1370 100 Winona	Lincoln
KWNO 1200 250	KFAB 770 10000 C KFOR 1210 100 C
MISSISSIPPI	Norfolk WJAG 1060 1000
Grenada WGRM 1210 100	North Platte KGNF 1430 1000
Gulfport WGCM 1210 100	Omaha KOIL 1260 1000 B
Hattlesburg WFOR 1370 100	WAAW 660 500 WOW 590 1000 R
Jackson WJDX 1270 1000 R	Scottsbluff KGKY 1500 100
Kosciusko WHEF 1500 100	NEVADA
Laurel WAML 1310 100	Reno KOH 1380 500 C
Meridian WCOC 880 500 C	NEW HAMPSHIRE
Vicksburg WQBC 1360 1000	Laconia
MISSOURI	WLNH 1310 100M Manchester
Cape Girardeau KFVS 1210 100	WFEA 1340 500 N Portsmouth
Columbia	WHEB 740 250
Jefferson City	NEW JERSEY
KWOS 1310 100 Joplin WMBH 1420 100	Asbury Park
WMBH 1420 100	WCAP 1280 500

STATIONS BY LOC	CATIONS
Atlantic City	WBOQ 860 50000
WPG 1100 5000 C	WEAF 660 50000 R
Bridgeton	WEVD 1300 1000 WFAB 1300 1000
WSNJ 1210 100	WHN 1010 1000
Camden	WINS 1180 1000
WCAM 1280 500	WJZ 760 50000 B
Jersey City WAAT 940 500	WMCA 570 1000 WNEW 1250 1000
WHOM 1450 250	WNYC 810 1000
Newark	WOV 1130 1000
WHBI 1250 1000	WQXR 1550 1000
WOR 710 50000M	Olean WHDL 1400 250
Red Bank WBRB 1210 100	Plattsburg
Trenton	WMFF 1310 100
WTNJ 1280 500	Rochester
Whippany W3XDD 50000	I WHAM 1150 50000 B
	WHEC 1430 500 C WSAY 1210 100
Zarephath WAWZ 1350 500	Saranac Lake
	WNBZ 1290 100
NEW MEXICO	Schenectady
Albuquerque	WGY 790 50000 R
KGGM 1230 1000	Syracuse WFBL 1360 1000 C
KOB 1180 10000 N	WFBL 1360 1000 C WSYR 570 1000 B
Carlsbad	
KLAH 1210 100	Troy WHAZ 1300 1000
Clovls KICA 1370 100	Utica
Gallup	WIBX 1200 100 C
KAWM 1500 100	Watertown
Roswell	WNNY 1420 100
KGFL 1370 100 Santa Fe	White Plains WFAS 1210 100
KRQA 1310 100	Woodslde
. — — —	WWRL 1500 100
NEW YORK	NORTH CAROLINA
Albany	
I WABY 1370 100	Asheville WWNC 570 1000 N
WOKO 1430 500 C Auburn	Charlotte
WMBO 1310 100	WBT 1080 50000 C
Binghamton WNBF 1500 100 C	WSOC 1210 100 N
WNBF 1500 100 C Brooklyn	Durham   WDNC 1500 100 C
WARD 1400 500	Greensboro
WBBC 1400 500	WBIG 1440 1000 C
WBBR 1300 1000 WCNW 1500 100	High Point WMFR 1200 100
WLTH 1400 500	Kinston
WMBQ 1500 100	WFTC 1200 100
WVFW 1400 500 Buffalo	Raleigh WPTF 680 1000 N
WBEN 900 1000 R	Rocky Mount
WBNY 1370 100	WEED 1420 100
WEBR 1310 100 B WGR 550 1000 C	Wilmington WMFD 1370 100
WKBW 1480 5000 C	Wilson
WSVS 1370 50	I WGTM 1310 100
Canton WCAD 1220 500	Winston-Salem WAIR 1250 250
l Elmira	WSJS 1310 100 C
WESG 850 1000 C	NORTH DAKOTA
Freeport WGBB 1210 100	NORTH DAKOTA
Jamestown	Blsmarck
WITN 1210 100 B	KFYR 550 1000 N
Newburgh	Devils Lake KDLR 1210 100
WGNY 1210 100 New York	KDLR 1210 100 Fargo
WABC 860 50000 C	Fargo WDAY 940 1000 N
WBIL 1100 5000	Grand Forks KFJM 1410 500
WBNX 1350 1000	KFJM 1410 500

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

NORTH	AMERICAN B. C. C
	100 P
Palestine	WRTD 1500 100 B
KNET 1420 100	WRVA 1110 5000 C
Pampa	Roanoke WDBJ 930 1000 C
KPDN 1310 100	17220
Paris KPLT 1500 250	WASHINGTON
Pecos	
KIUN 1420 100	Aberdeen KXRO 1310 100M
Port Arthur KPAC 1260 500	Bellingham
	KVOS 1200 100M
San Angelo KGKL 1370 100	Centralia-Chehalis
San Antonio	KELA 1440 500M
KARC 1420 100	Everett
KMAC 1370 100	KRKO 1370 50
KONO 1370 100	Longview KWLK 780 250
KTSA 550 1000 G	
	Olympia KGY 1210 100M
Sherman KRRV 1310 250	KGÝ 1210 100M
Temple	Pullman
KTEM 1370 250	KWSC 1220 1000
Texarkana	Seattle
KCMC 1420 100	KEEN 1370 100
Tyler KGKB 1500 100	KIRO 710 1000 C KJR 970 5000 B
KGKB 1500 100	
Waco WACO 1420 100 C	KOL 1270 1000M KOMO 920 1000 R
Weslaco	KRSC 1120 250
KRGV 1260 1000 N	KTW 1220 1000
Wichita Falls	KXA 760 250
KGKO 570 250 C	Spokane
V WIT A TI	Spokane KFIO 1120 100
UTAH	KFPY 890 1000 C
Cedar City	KGA 1470 5000 B KHQ 590 1000 R
KSUB 1310 100	
Ogden	Tacoma
KLO 1400 500 B	KMO 1330 1000M KVI 570 1000 C
Price	1272 070
KEUB 1420 100 Salt Lake City	Walla Walla
Salt Lake City KDYL 1290 1000 R	Wenatchee
KSI. 1130 50000 C	KPO 1500 100M
KDYL 1290 1000 R KSL 1130 50000 C KUTA 1500 100	Yakima
	KIT 1310 100M
VERMONT	
Rurlington	WEST VIRGINIA
Burlington WCAX 1200 100	Bluefield
Rutland	WHIS 1410 500
WSYB 1500 100	***************************************
St. Albans WODM 1390 1000	Charleston WCHS 580 500 C
	WOILD 000 001 -
Springfield WNBX 1260 500 C	Clarksburg WBLK 1370 100
Waterbury	I **
Waterbury WDEV 550 500	Fairmont WMMN 890 500 C
THE CHANGE	
VIRGINIA	Huntington WSAZ 1190 1000
Charlottesville	Parkersburg
WCHV 1420 100	WPAR 1420 100 C
Danville	Wheeling
WBTM 1370 100	WWVA 1160 5000 C
Harrisonburg	
WSVA 550 500	WISCONSIN
Lynchburg	- Cl-1
	Eau Claire WEAU 1050 1000
Newport News	***************************************
WGH 1310 100	Fond du Lac KFIZ 1420 100
Norfolk	111111
WTAR 780 1000 N	Green Bay WHBY 1200 100
Richmond	WHBY 1200 100 WTAO 1330 1000 C
WBBL 1210 100_	
WMBG 1350 500 K	Janesville WCLO 1200 100
WRNL 880 500	1 11000 100

AMERICAN B. C. S	TATIONS BY LOCA	
WRTD 1500 100 B WRVA 1110 5000 C	LaCrosse WKBH 1380 1000 C	C.
Roanoke WDBJ 930 1000 C	Madison WHA 940 5000	-
WASHINGTON	WIBA 1280 1000 N Manitowoc	_
	WOMT 1210 100 Milwaukee	C
Aberdeen KXRO 1310 100M	WEMP 1310 100 WISN 1120 250 G	C
Bellingham KVOS 1200 100M	WTMJ 620 1000 N	C
Centralia-Chehalis KELA 1440 500M	Poynette WIBU 1210 100	-
Everett KRKO 1370 50	Racine WRJN 1370 100	_
Longview KWLK 780 250	Sheboygan WHBL 1300 250	C
Olympia	Stevens Point WLBL 900 5000	Ξ
KGY 1210 100M Pullman	Superior WDSM 1200 100	_
KWSC 1220 1000	Wausau WSAU 1370 100	V
Seattle KEEN 1370 100	WYOMING	C
KIRO 710 1000 C KJR 970 5000 B		C
KOL 1270 1000M KOMO 920 1000 R	Casper KDFN 1440 500 Rock Springs	C
KRSC 1120 250 KTW 1220 1000 KXA 760 250	KVRS 1370 100	C
KXA 760 250	Sheridan KWYO 1370 100	
Spokane KFIO 1120 100	CANADA	_
KGA 1470 5000 B	ALBERTA	C
KHQ 590 1000 R Tacoma		C
KMO 1330 1000M KVI 570 1000 C	Calgary CFAC 930 1000 F CFCN 1030 10000	C
Walla Walla	CJCJ 690 100 F	C
KUJ 1370 100 Wenatchee	Edmonton CFRN 960 100 F	8
KPQ 1500 100M	CJCA 730 1000 F CKUA 580 500	[
Yakima KIT 1310 100M	Grande Prairie	١,
	CFGP 1200 100	۱,
WEST VIRGINIA	Lethbridge	9
Bluefield	Lethbridge CJOC 950 100 F	8
Bluefield WHIS 1410 500	Lethbridge CJOC 950 100 F BRIT, COLUMBIA	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F	8
Bluefield WHIS 1410 500 Charleston	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington	Lethbridge CJOC 950 100 F  BRIT, COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50 Trail CIAT 910 1000 F	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg WPAR 1420 100 C	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50 Trail CJAT 910 1000 F Vancouver	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50 Trail 910 1000 F Vancouver CBR 1100 500 F CIOR 600 500	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg WPAR 1420 100 C Wheeling	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50 Trail CJAT 910 1000 F Vancouver CBR 1100 5000 F CJOR 600 500 CKCD 1010 100	
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Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg WPAR 1420 100 C Wheeling WWVA 1160 5000 C  WISCONSIN  Eau Claire WEAU 1050 1000	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilliwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50 Trail CJAT 910 1000 F Vancouver CBR 1100 5000 F CJOR 600 500 CKCD 1010 100 CKFC 1410 50 CKMO 1410 100	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg WPAR 1420 100 C Wheeling WWVA 1160 5000 C WISCONSIN Eau Claire WEAU 1050 1000 Fond du Lac KFIZ 1420 100	Lethbridge CJOC 950 100 F  BRIT. COLUMBIA  Chilllwack CHWK 780 100 F Kamloops CFJC 880 100 F Kelowna CKOV 630 100 F Prince Rupert CFPR 580 50 Trail CJAT 910 1000 F Vancouver CBR 1100 5000 F CJOR 600 500 CKCD 1010 100 CKFC 1410 50 CKMO 1410 100 CKWX 1010 100 F Victoria	
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Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg WPAR 1420 100 C Wheeling WWVA 1160 5000 C WISCONSIN Eau Claire WEAU 1050 1000 Fond du Lac KFIZ 1420 100 Green Bay WHBY 1200 100 C	Lethbridge CJOC 950 100 F	
Bluefield WHIS 1410 500 Charleston WCHS 580 500 C Clarksburg WBLK 1370 100 Fairmont WMMN 890 500 C Huntington WSAZ 1190 1000 Parkersburg WPAR 1420 100 C Wheeling WWVA 1160 5000 C  WISCONSIN  Eau Claire WEAU 1050 1000 Fond du Lac KFIZ 1420 100 Green Bay WHBY 1200 100	Lethbridge CJOC 950 100 F	

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١,	Wol: CKIC	fville 1010	50
١.	Yar: CJLS	mouth 1310	100
'		ONTAR	RIO
1	Bran	ntford	
	CKPC Cha	ntford 930 tham	
	CFCO Cob CKM	034	
1	For	1210 t Willis 730	am
1	Har	niiton	
	CKOC	L 1010 1120 gston 1510	500 F
	CFRC	1510	100 F
1	Lon CFPL Nor	730 th Bay	100 F
1	Nor CFCH CJKL	th Bay I 930	100 F
	CKG	1310 B 1420 awa	
	CKC	880 1010	0 1000 F 0 100 F
١	Ow	en Sou	nd 1100
1	Pre CFLC	scott	0 100
	CKTI	Catha B 120	rines 0 100 F Marie
1	CJIC	ılt Ste. 150	Marie 0 100
1	CJCS	atford 121	0 50
	CKSC	dbury 78	0 1000 F
.	CBL	ronto 84 B 69	0 50000 0 10000 C
	CBL CFRI CKC CRC CRC	L 58 T 84	0 100 F
- [	CRC	Y 96	0 100 F
<u>,</u> [	CKC		0 100
1	Wi CBW CKL	ndsor 60	
-1	CKL	W 103	30 5000M

NORTH	AMERICAN B. C.	STATIONS BY LOC	CATIONS
Wingham	XELO 670 50000	MICHOACAN	Camaguey
CKNX 1200 100	XEMO 860 5000		CMJA 1010 300
	XEOK 760 2500	Morelia	CMJC 1390 150
PRINCE EDWARD		XEI 1370 125	CMJE 1220 50
1SLAND	CHIHUAHUA	NUEVO LEON	CMJF 1150 200 CMJK 780 250
Charlottetown	Chihuahua	MOEVO LEON	CMJK 780 250 CMJL 1340 75
CFCY 630 1000 F	XEF1 1440 250	Monterrey	CMJX 830 500
CHCK 1310 50	Juarez	XEFB 870 200	Cardenas
Summerside	XEFV 1210 100	XEFJ 1230 100	CMGE 1370 150
CHGS 1450 50 F	XEF 1450 100	XEG 1220 250 XEH 720 250	Clego de Avila
QUEBEC	XEJ 1020 1000	XEH 720 250   XET 690 5000	CMJH 1360 50
	XEP 1160 500 Parral	XEX 1310 125	CMJI 1130 150
Chicoutimi	XEAT 1210 250		CMJO 1180 50
CRCS 1120 100 F	1210 200	PUEBLA	Clenfuegos
Hull CKCH 1210 100 F	COAHUILA	Puebla	CMHJ 1160 175
CKCH 1210 100 F Montreal		XETH 1210 100	CMHM 1450 100 CMHW 820 100
CBF 910 50000 N	Piedras Negras XEMU 580	ABIN 1210 100	CMHX 760 200
CBM 1050 5000 F	XEPN 730 100000	SAN LUIS POTOSI	Cruces
CFCF 600 500 B	Sabinas		CMHK 1330 250
CHLP 1120 100 F	XEBX 640 250	San Luis Potosi XECZ 1370 100	Havana
CKAC 730 5000 C New Carlisle	Saltillo	XECZ 1370 100 XEXH 1250 250	CMBC 630
CHNC 960 1000 F	XEAS 1160 50 XELA 1240 50		CMBD 1170 500
Ouebec	XELA 1240 50 Torreon	SINALOA	CMBG 1140 200
CHRC 580 100	XETB 1310 125	1	CMBL 710 CMBS 770 150
CKCV 1310 100 F	Vilia Acuna	Mazatlan XEBL 1220 50	CMBX 1070 500
CRCK 950 1000 F Rimouski	XERA 840 350000	XEBL 1220 50	CMBY 970 150
CJBR 1030 1000 F	D. F.	SONORA	CMBZ 1000 500
Sherbrooke	D. F.		CMC 1260 150
CHLT 1210 100	Atzcapotzalco	Hermosillo	CMCA 1350 450 CMCB 640 150
Three Rivers	XEMG 1060 100	XEBH 930 500	CMCD 950 250
CHLN 1420 100	Gra. Anaya	Nogales XEAF 990 750	CMCF 810 600
SASKATCHEWAN	XEDA 1220 200 Mexico City	Obregon	CMCG 680 1000
	XEAL 660 1000	XEAP 1240 50	CMCJ 1100 500
Moose Jaw	XEAY 1240 100		CMCK 1030 CMCM 850
CHAB 1200 100 F	XEB 1030 10000	TAMAULIPAS	CMCO 1200 250
Prince Albert CKBI 1210 100 F	XEBS 1240 200	Matamoros	CMCQ 1410 250
Regina	XEBZ 1160 100 XECW 1310 10	XEAM 750 25	CMCŬ 1280 500
CJRM 540 1000	XEDP 1080 500	Nuevo Laredo XEBK 1000 60	CMCW 750 150 CMCX 1030 150
CKCK 1010 1000 F	XEFO 930 5000	XEBK 1000 60   XEDF 810 75	CMCX 1030 150 CMCY 570 5000
Saskatoon CFOC 840 1000 F	XEJP 1130 100	XEFE 980 150	CMK 730 3000
· · · · · · · · · · · · · · · · ·	XEJW 870   XEK 990 100	XENT 910 150000	CMOA 1440 150
Yorkton CJGX 1390 100 F	XEK 990 100 XEL 780 1000	Reynosa XEAW 960 50000	CMOX 1320 200
GJGA 1370 100 F	XELZ 1370 100	XEAW 960 50000 Tampico	CMO 880 25000 CMW 600 1400
NEWFOUNDLAND	XEMX 1280 100	XEFW 1310 250	CMX 920 1000
	XENC 860 50	XES 990 250	Holguin
St. John's VOAC 1065 40	XEW 890 50000 XEXE 1270 17		CMFK 1460 250
VOAS 940 100	XEYO 940 500	VERACRUZ	CMKO 1280
VOCM 1006 200	Tacuba	Cordoba	Manzanillo CMKM 1120 200
VOGY 840 400	XEFA 1180 500	XEAG 1310 10	Matanzas 200
VONF 1195 500 VOWR 681 500	l —————	Jalapa XEXB 1270 50	CMGC 1400 150
VOWR 681 500	DURANGO	XEXB 1270 50 XEXD 1340 350	CMGF 1120 250
MEXICO	Durango	Minatitlan	CMGH, 790 500 Moron
	XEE 1210 50	XEDW 1150 20	CMJP 1430 75
AGUASCALIENTES	AEE 1210 U	Veracruz	Pinar del Rio
_ Aguascalientes	GUANAJUATO	XETF 1220 30 XEU 1010 250	CMAB 1340
XEBI 1000 25	T	XEU 1010 250	Sagua la Grande CMHA 1070 50
XEXC 810 350	Irapuato XEBO 1310 25	YUCATAN	
BAJA CALIFORNIA	Leon 25		Sancti Spiritus CMHB 1240 50
	XEKL 1240 500	Merida	Santa Clara
Mexicali	l ———	XEBJ 1160 20 XEFC 550 100	I CMHI 1210 150
XEAA 750 200	JALISCO	XEZ 630 500	Santiago
XEAO 660 250 XECL 1100 1700	Guadalajara		CMKC 1250 150 CMKD 1050 250
Tijuana	XEAD 1060 125	CUBA	CMKG 1160
XEAC 980 1000	XED 1160 2500		CMKR 1400 100
XEBG 820 1000	Guzman	Calbarien	I CMKW 1350
XEC 1150 100	XEBA 1080 20	CMHD 1270 250	CMKX 1190
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$\Box$	CBF 910 50000		CJAT 910 1000		CKSO 780 1000 Sudbury, Ont.
$\vdash$	Montreal, P. Q. CBL 840 50000		Trail, B. C.  CJBR 1030 1000	$\vdash$	CKTB 1200 100
	Toronto, Ont.	- 1	Rimouski, P. Q.		St. Catharines, Ont.
$\vdash$	CBM 1050 5000	$\neg$	CJCA 730 1000		CKUA 580 500
	Montreal, P. Q.		Edmonton, Alta.	<u> </u>	Edmonton, Alta. CKWX 1010 100
	CBO 880 1000		CJCB 1240 1000	l l	Vancouver, B. C.
	Ottawa, Ont.		Sydney, N. S. CJCJ 690 100	<b>—</b>	CKX 1120 1000
	CBR 1100 5000 Vancouver, B. C.		Calgary, Alta.		Brandon, Man.
	CBW 600 500		CJCS 1210 50		CKY 760 15000
	Windsor, Ont.		Stratford, Ont.		Winnipeg, Man. CMAB 1340
	CFAC 930 1000		CJCU 1210 50		Pinar del Rio, Cuba
	Calgary, Alta. CFAR 1370 160		Akiavik, N. W. T. CJGX 1390 100	_	CMBC 630
	CFAR 1370 100 Flin Flon, Man.		CJGX 1390 100 Yorkton, Sask.	L	Havana, Cuba
<b>—</b> —	CFCF 600 500		CJIC 1500 100		CMBD 1170 500
1	Montreal, Que.		S. Ste. Marle, Ont.		Havana, Cuba CMRG 1140 200
	CFCH 930 100		CJKL 1310 100		CMBG 1140 200 Hayana, Cuba
	North Bay, Ont. CFCN 1030 10000		North Bay, Ont. CJLS 1310 100	<b>—</b>	CMBL 710
1	CFCN 1030 10000 Calgary, Alta.		Yarmouth, N. S.	1	Havana, Cuba
<u> </u>	CFCO 630 100		CJOC 950 100		CMBS 770 150
	Chatham, Ont.		Lethbridge, Alta.		Havana, Cuba
	CFCT 1450 50		CJOR 600 500		CMBX 1070 500 Havana, Cuba
	Victoria, B. C.		Vancouver, B. C.		CMBY 970 150
1	CFCY 630 1000 Cbarlottetown, P.E.I.		CJRC 630 500 Winnipeg, Man.	` <u>]</u>	Hayana, Cuba
	CFGP 1200 100		CJRM 540 1000		CMBZ 1000 500
	Grande Prairie, Alta.		Regina, Sask.		Havana, Cuba
	CFJC 880 100		CKAC 730 5000	·	CMC 1260 150 Hayana, Cuba
	Kamloops, B. C.		Montreal, Que.		CMCA 1350 450
	CFLC 930 100		CKBI 1210 100 Prince Albert, Sask.	'	Havana, Cuba
	Prescott, Ont. CFNB 550 500		CKCD 1010 100	,	CMCB 640 150
	Fredericton, N. B.		Vancouver, B. C.		Havana, Cuba
	CFPL 730 100		CKCH 1210 100	)	CMCD 950 250 Hayana, Cuba
	London, Ont.		Huil, Que.	. ⊢—	CMCF 810 600
1	CFPR 580 50		CKCK 1010 1000 Regina, Sask.	' [	Hayana, Cuba
<u> </u>	Prince Rupert, B. C. CFQC 840 1000	<del></del>	CKCL 580 100	, — –	CMCG 680 1000
	Saskatoon, Sask.		Toronto, Ont.		Havana, Cuba
	CFRB 690 10000		CKCO 1010 100	)	CMCJ 1100 500
	Toronto, Ont.	ļ	Ottawa, Ont.		Havana, Cuba CMCK 1030
	CFRC 1510 100		CKCR 1510 100 Waterloo, Ont.	'	Havana, Cuba
I	Kingston, Ont.		CKCV 1310 10	, <del>                                    </del>	CMCM 850
	Edmonton, Alta.		Quebec, Que.	· L	Havana, Cuba
<b>—</b>	CHAB 1200 100		CKCW 1370 10	0	CMCO 1200 250 Havana, Cuba
	Moose Jaw, Sask.		Moncton, N. B.	. —	CMCQ 1410 250
	CHCK 1310 50		CKFC 1410 5 Vancouver, B. C.	٠	Havana, Cubu
	Charlottetown, P.E.I. CHGS 1450 50		CKGB 1420 10	。 <del>  </del>	CMCU 1280 500
	Summerside, P.E.I.		North Bay, Ont.		Havana, Cuba
	CHLN 1420 100		CKIC 1010 5	0	CMCW 750 150 Havana, Cuba
L	Three Rivers, P. Q.		Wolfville, N. S.	. —	CMCX 1030 150
	CHLP 1120 100		CKLW 1030 500 Windsor, Ont.	~	Havana, Cuba
	Montreal, Que.	<b>—</b> —			CMCY 570 5000
	Sherbrooke, P. Q.		Cobalt, Ont.		Havana, Cuba
	CHML 1010 100		CKMO 1410 10	10	CMGC 1400 150 Matanzas, Cuba
	Hamilton, Ont.		Vancouver, B. C.	տ ├──	CMGE 1370 150
	CHNC 960 1000		CKNX 1200 10 Wingham, Ont.	~	Cardenas, Cuba
	New Carlisle, Que.	1	CKOC 1120 50	ю 🗀	CMGF 1120 250
	Halifax, N. S.	1	Hamilton, Ont.		Matanzas, Cuba
<del>-</del>	CHRC 580 100		CKOV 630 10	00	CMGH 790 500 Matanzas, Cuba
	Quebec, Que.		Kelowna, B. C.		CMHA 1070 50
	CHSJ 1120 500		CKPC 930 , 10 Brantford, Ont.	~	Sagua la Grande, Cuba
<u> </u>	St. John, N. B. CHWK 780 100	<b>—</b>	CKPR 730 10	00	CMHB 1240 50
	CHWK 780 100 Chilliwack, B. C.		Fort William, Ont.		Sancti Spiritus, Cuba
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NORTH INDICE	B. C. STATIONS BY	il EE
CMHD 1270 250 Calbarien, Cuba	CRCY 960 100 Toronto, Ont.	KELD 1370 100 El Dorado, Ark.
CMHI 1210 150 Santa Clara, Cuba	KABC 1420 100 San Antonio, Texas	KELO 1200 100 Sioux Falls, S. Dak.
CMHJ 1160 175	KABR 1420 100	KERN 1370 100
Clenfuegos, Cuba CMHK 1330 250	Aberdeen, S. Dak.  KADA 1200 100	Bakersfield, Calif. KEUB 1420 100
Cruces, Cuba CMHM 1450 100	Ada, Okia.	Price, Utah KEX 1180 5000
Cienfuegos, Cuba CMHW 820 100	Alexandria, La.	Portiand, Ore. KFAB 770 10000
Clenfuegos, Cuba	Portland, Ore.	Lincoln, Neb.
CMHX 760 200 Clentuegos, Cuba	KAND 1310 100 Corsicana, Texas	KFAC 1300 1000 Los Angeles, Calif.
CMJA 1010 300 Camaguey, Cuba	KANS 1210 100 Wichita, Kans	KFAM 1420 100 St. Cloud, Minn.
CMJC 1390 150	KARK 890 500	KFBB 1280 1000 Great Falls, Mont.
Camaguey, Cuba CMJE 1220 50	Little Rock, Ark. KARM 1310 100	KFBI 1058 5000
Camaguey, Cuba CMJF 1150 200	Fresno, Calif.	Abilene, Kans.  KFBK 1490 5000
Camaguey, Cuba	Elk City, Okla.	Sacramento, Calif.  KFDM 560 500
Clego de Avila, Cuba	Astoria, Ore.	Beaumont, Texas
CMJI 1130 150 Ciego de Avila, Cuba	Albert Lea, Minn.	KFDY 780 1000 Brookings, S. D.
CMJK 780 250 Camaguey, Cuba	KAWM 1500 100 Gallup, N. Mex.	KFEL 920 500 Denver, Colo.
CMJL 1340 75	KBIX 1500 100	KFEQ 680 2500 St. Joseph, Mo.
Camaguey, Cuba CMJO 1180 50	Muskogee, Okla. KBPS 1420 100	KFGQ 1370 100
Ciego de Avila, Cuba CMJP 1430 75	Portland, Ore.  KBST 1500 100	Boone, Iowa KFH 1300 1000
Camaguey, Cuba	Big Spring, Texas KBTM 1200 100	Wichita, Kans. KF1 640 50000
Camaguey, Cuba	Jonesboro, Ark	Los Angeles, Calif.
CMK 730 3000 Havana, Cuba	KCKN 1310 100 Kansas City, Kans.	KFIO 1120 100 Spokane, Wash.
CMKC 1250 150	KCMC 1420 100 Texarkana, Texas	Fond du Lac, Wis.
Santiago, Cuba CMKD 1050 250	KCMO 1370 100	KFJB 1200 100
Santiago, Cuba CMKF 1460 250	Kansas City, Mo. KCRC 1360 250	Marshalltown, Iowa KFJI 1210 190
Holguin, Cuba CMKG 1160	Enid, Okla. KCRJ 1310 100	Klamath Falls, Ore. KFJM 1410 590
Santiago, Cuba	Jerome, Ariz.	Grand Forks, N. D.
CMKM 1120 200 Manzanillo, Cuba	Duluth, Minn.	Fort Worth, Texas
CMKO 1280 Holguin, Cuba	KDB 1500 100 Santa Barbara, Calif.	KFKA 880 500 Greeley, Colo.
CMKR 1400 100	KDFN 1440 500 Casper, Wyo.	KFKU 1226 1909 Lawrence, Kans.
Santiago, Cuba CMKW 1350	KDKA 980 50000	KFNF 890 500
Santiago, Cuba CMKX 1190	Pittsburgh, Pa. KDLR 1210 100	Shenandoah, Iowa KFOR 1210 100
Santiago, Cuba CMOA 1440 150	Devils Lake, N. D.  KDNC 1200 100	Lincoln, Neb. KFOX 1250 1000
Havana, Cuba	Lewistown, Mont. KDON 1210 100	Long Beach, Calif.
CMOX 1320 200 Havana, Cuba	Monterrey, Calif.	Dublin, Texas
CMQ 880 25000 Havana, Cuba	Dubuque, Iowa	Fort Smith, Ark.
CMW 600 1400	KDYL 1290 1000 Salt Lake City, Utah	KFPY 890 1000
Havana, Cuba CMX 920 1000	KECA 1430 1000	Spokane, Wash. KFQD 788 250
Havana, Cuba CRCK 950 1090	Los Angeles, Calif. KEEN 1370 100	Anchorage, Alaska KFRC 610 1900
Quebec, Que.	Seattle, Wash.	San Francisco, Calif.
CRCS 1120 100 Chicoutimi, Que.	Los Angeles, Calif.	KFRO 1370 250 Longview, Texas
CRCT 840 5000 Toronto, Ont.	KELA 1440 500 Centralia-Chehalis, Wn.	KFRU 630 500 Columbia, Mo.
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$\neg$	KFSD 600 1000	KGGM 1230 1000	KIT 1310 100
	San Diego, Calif.	Albuquerque, N. M.	Yakima, Wash.
$\neg$	KFSG 1120 500 Los Angeles, Calif.	KGHF 1320 500 Pueblo, Colo.	Garden City, Kans.
$\dashv$	KFUO 550 500	KGHI 1200 100	KIUN 1420 100
I	St. Louis, Mo	Little Rock, Ark.	Pecos, Texas KIUP 1370 100
	KFVD 1000 1000	KGHL 780 1000 Billings, Mont.	Durango, Colo.
$ \rightarrow$	Los Angeles, Calif.	KGIR 1340 1000	KJBS 1070 500
	Cape Girardeau, Mo	Butte, Mont.	San Francisco, Calif.
-	KFWB 95 1000	KGIW 1420 100	KJR 970 5000 Seattle, Wash.
	Hollywood, Calif.	Alamosa, Colo. KGKB 1500 100	KLAH 1210 10
	KFXD 1200 100 Nampa, Idaho	Tyler, Texas	Carlsbad, N. Mex.
	KFXJ 1200 100	KGKL 1370 100	KLBM 1420 100
1	Grand Junction, Colo.	San Angelo, Texas	La Grande, Ore. KLCN 1290 100
	KFXM 1210 100	KGKO 570 250 Wichita Falls, Texas	Blytheville, Ark.
$\overline{}$	San Bernardino, Calif.	Wichita Falls, Texas KGKY 1500 100	KLO 1400 50
	Oklahoma City, Okla.	Scottsbluff, Neb.	Ogden, Utah
	KFYO 1310 100	KGLO 1210 100	Minot, N. D. 25
	Lubbock, Texas	Mason City, Iowa KGMB 1320 1000	KLRA 1390 100
	KFYR 550 1000 Bismarck, N. D.	Honolulu, T. H.	Little Rock, Ark.
	KGA 1470 5000	KGNC 1410 1000	KLS 1280 25
	Spokane, Wash.	Amarillo, Texas	Oakland, Calif. KLUF 1370 10
	KGAR 1370 100	KGNF 1430 1000 North Platte, Neb.	Galveston, Texas
	Tueson, Ariz. KGB 1330 1000	KGNO 1340 250	KLX 880 100
	San Diego, Calif.	Dodge City, Kans.	Oakland, Calif.
	KGBU 900 500	KGO 790 7500 San Francisco, Calif.	Denver, Colo.
	Ketchikan, Alaska KGBX 1230 500	KGU 750 2500	KMA 930 100
	Springfield, Mo.	Honolulu, T. H.	Shenandoah, Iowa
	KGCA 1270 100	KGVL 1200 100	KMAC 1370 10 San Antonio, Texas
	Decorah, Iowa	Greenville, Texas	KMBC 950 100
	KGCI 1200 100 Coeur d'Alene, Idaho	Missoula, Mont.	Kansas City, Mo.
	KGCU 1240 250	KGW 620 1000	KMED 1410 25 Medford Ore.
	Mandan, N. D.	Portland, Ore.	Medford, Ore.  KMJ 580 100
	Wolf Point, Mont.	Olympia, Wash.	Fresno, Calif.
	KGDE 1200 100	KHBC 1400 250	KMLB 1200 10
	Fergus Falls, Minn.	Hilo, T. H.	Monroe, La.  KMMJ 740 100
	KGDM 1100 1000	Okmulgee, Okla.	Clay Center, Neb.
	Stockton, Calif. KGDY 1340 250	KHJ 900 1000	KMO 1330 100
	Huron, S. D.	Los Angeles, Calif.	Tacoma, Wash.
	KGEK 1200 100	KHQ 590 1000	KMOX 1090 5000 St. Louis, Mo.
	Sterling, Colo.	Spokane, Wash.  KHSL 1260 250	KMPC 710 5
	Long Beach, Calif.	Chico, Calif.	Beverly Hills, Calif.
	KGEZ 1310 100	KHUB 1310 250	KMTR 570 10 Los Angeles, Calif.
	Kalispell, Mont.	Watsonville, Calif.	Los Angeles, Calli.
	KGFF 1420 100 Shawnee, Okla	Clovis, N. M.	Brady, Texas
	Shawnee, Okla KGFI 1500 100	KID 1320 500	KNET 1420 1
	Brownsville, Tex.	Idaho Falls, Idaho	Palestine, Texas
	KGFJ 1200 100	KIDO 1350 1000 Boise Idaho	KNOW 1500 1 Austin, Texas
	Los Angeles, Callf.	Boise, Idaho	KNX 1050 500
	Roswell, N. M.	Lamar, Colo.	Los Angeles, Calif.
	KGFW 1310 100	KIEM 1450 500	KOA 830 500
	Kearney, Neb.	Eureka, Calif.	Denver, Colo.
	KGFX 630 200	KIEV 850 250 Glendale, Calif.	Corvallis, Ore.
	Pierre, S. D. KGGC 1420 100	Glendale, Calif.	KOAM 790 10
	San Francisco, Calif.	Juneau, Alaska	Pittsburg, Kans.
	KGGF 1010 1000 [	KIRO 710 1000	KOB 1180 100 Albuquerque, N. M.
	Coffeyville, Kans.	Seattle, Wash.	I MILLIANT IN THE STATE OF THE

	Rapid City, S. Dak.	KRLC 1390 250 Lewiston, Idaho	KTMS 1220 50 Santa Barbara, Calif.
	KOCA 1210 100 Kilgore, Texas	KRLD 1040 10000 Dallas, Texas	KTOK 1370 10 Oklahoma City, Okla.
	KOH 1380 500	KRLH 1420 100	KTRB 740 25
	Reno, Nev. KOIL 1260 1000	Midland, Texas KRMC 1370 100	Modesto, Calif. KTRH 1290 100
	Omaha, Neb.	Jamestown, N. Dak.	Houston, Texas KTRI 1420 16
	Portland, Ore.	Shrevcport, La.	Sioux City, Iowa
	KOKO 1370 100 La Junta, Colo.	KRNR 1500 100 Roseburg, Ore.	San Antonio, Texas
	KOL 1270 1000	KRNT 1320 1000	KTSM 1310 1 El Paso, Texas
	Seattle, Wash.	Des Moines, Iowa KROC 1310 100	KTUL 1400 5
	Oklahoma City, Okla.  KOMO 920 1000	Rochester, Minn.	Tulsa, Okla.  KTW 1220 10
	Seattle, Wash.	El Paso, Texas	Seattle, Wash.
	San Antonio, Texas	KROW 930 1000 Oakland, Calif.	Walla Walla, Wash.
	KOOS 1200 100 Marshfield, Ore.	KROY 1210 100 Sacramento, Calif.	KUMA 1420 1 Yuma, Ariz.
	KORE 1420 100	KRQA 1310 100	KUOA 1260 50
	Eugene, Ore. KOTN 1500 100	Santa Fe, N. Mcx.  KRRV 1310 250	Siloam Springs, Ark. KUSD 890 5
	Pine Bluff, Ark.	Sherman, Texas	Vermillion, S. Dak.
	Valley City, N. Dak.	KRSC 1120 250 Seattle, Wash.	Salt Lake City, Utah
	KOY 1390 1000 Phoenix, Ariz.	KSAC 580 500 Manhattan, Kans.	Redding, Calif.
	KPAC 1260 500	KSAL 1500 100	KVEC 1200 2
	Port Arthur, Texas KPDN 1310 100	Salina, Kans. KSCJ 1330 1000	San Luis Obispo, Cal.  KVGB 1370 1
-	Pampa, Texas KPFA 1210 100	Sioux City, Iowa KSD 550 1000	Great Bend, Kans.
_	Helena, Mont.	St. Louis, Mo.	Tacoma, Wash.
	KPLC 1500 100 Lake Charles, La.	KSEI 900 250 Pocatello, Idaho	KVOA 1260 10 Tucson, Ariz.
	KPLT 1500 100	KSFO 560 1000	KVOD 920 5
	Paris, Texas KPMC 1550 1000	San Francisco, Calif. KSL 1130 50000	Denver, Colo.  KVOE 1500 1
	Bakersfield, Calif.	Salt Lake City, Utah KSLM 1370 100	Santa Ana, Calif.  KVOL 1310 1
	San Francisco, Calif.	Salem, Ore.	Lafayette, La.
	KPOF 880 500 Denver, Colo.	NSO 1430 500 Des Moines, Iowa	KVOO 1140 250 Tulsa, Okla.
	KPPC 1210 100 Pasadena, Calif.	KSOO 1110 2500 Sioux Falls, S. Dak.	KVOR 1270 10 Colorado Springs, Col
	KPQ 1500 100	KSRO 1310 250	KVOS 1200 1
· -	Wenatchee, Wash.	Santa Rosa, Calif.  KSTP 1460 10000	Bellingham, Wash, KVOX 1310 1
	Houston, Texas	St. Paul, Minn.	Moorhead, Minn.
	KQV 1380 500 Pittsburgh, Pa.	KSUB 1310 100 Cedar City, Utah	KVRS 1370 1 Rock Springs, Wyo.
	KQW 1010 1000 San Jose, Calif.	KSUN 1200 100	KVSO 1210 1 Ardmore, Okla.
	KRBA 1310 100	KTAR 620 1000	KWBG 1420 1
	Lufkin, Texas KRBC 1420 100	Phoenix, Ariz.	Hutchinson, Kans.
	Abilene, Texas KRE 1370 100	Fort Worth, Texas	Stockton, Calif.
	Berkeley, Calif.	Austin, Texas	Portland, Ore.
	KRGV 1260 1000 Wesiaco, Texas	KTBS 1450 1000 Shreveport, La.	KWK 1350 10 St. Louis, Mo.
	KRIS 1330 500	KTEM 1370 250	KWKH 1100 100
	Corpus Christi, Tex.	Temple, Texas	Shreveport, La. KWLC 1270 1
	Los Angeles, Calif.	Twin Falls, Idaho	Decorah, Iowa KWLK 780 2
	KRKO 1370 50 Everett, Wash.	Hot Springs, Ark.	Longview, Wash.
		KTKC 1190 250 Visalia, Calif.	Winona, Minn.

		WALES 4000 050	WBOQ 860 50000
Jefferson City,	100 Mo.	WAIR 1250 250 Winston-Salem, N. C.	New York, N. Y.
KWSC 1220	1000	WALA 1380 500 Mobile, Ala.	WBOW 1310 100 Terre Haute, Ind.
Pullman, Wash KWTN 1210	100	WALR 1210 100	WBRB 1210 100
Watertown, S.	Dak.	Zanesville, Ohio	Red Bank, N. J. WBRC 930 1000
KWTO 560 Springfield, Mo	5000	WAML 1310 100 Laurel, Miss.	WBRC 930 1000 Birmingham, Ala.
KWYO 1370	100	WAPI 1140 5000	WBRE 1310 100
Sheridan, Wyo.	250	Birmingham, Ala.	Wilkes-Barre, Pa. WBRK 1310 100
Seattle, Wash.		Chattanooga, Tenn.	Pittsfield, Mass.
KXBY 1530	1000	WARD 1400 500	WBRY 1536 1000 Waterbury, Conn.
Kansas City, M	100	Brooklyn, N. Y. WASH 1270 500	WBT 1080 50000
Portland, Ore.	100	Grand Rapids, Mich.	Charlotte, N. C. WBTM 1379 100
KXO 1500 El Centro, Cal		WATL 1370 100 Atlanta, Ga.	Danville, Va.
KXRO 1310	100	WATR 1190 100	WBZ 990 50000 Boston, Mass.
Aberdeen, Was		Waterbury, Conn. WAVE 940 1000	WBZA 990 1000
Houston, Texa	в	Louisville, Ky.	Springfield, Mass.
KYA 1230 San Francisco,		WAWZ 1350 500 Zarephath, N. J.	WCAD 1220 500 Canton, N. Y.
KYOS. 1040	250	WAYX 1200 100	WCAE 1220 1000
Merced, Calif.	10000	Waycross, Ga. WAZL 1426 100	Pittsburgh, Pa. WCAL 1250 1000
Philadelphia, F	Pa	Hazleton, Pa.	Northfield, Minn.
VAS 685 Glace Bay, N. S	2000	WBAA 890 500 West Lafayette, Ind.	WCAM 1280 500 Camden, N. J.
VOAC 1065	40	WBAL 760 2500	WCAO 600 500
St. John's, Nflo	d. 100	Baltimore, Md. WBAL 1060 10000	Baltimore, Md. WCAP 1280 500
VOAS 940 St. John's, Nf	м	Baltimore, Md.	Asbury Park, N. J.
VOCM 1006		WBAP 800 50000 Fort Worth, Texas	WCAT 1200 100 Rapid City, S. Dak.
St. John's, Nflo	400	WBAX 1210 100	WCAU 1170 50000
St. John's, Nfl		Wilkes-Barre, Pa. WBBC 1400 500	Philadelphia, Pa. WCAX 1200 100
VONF 1195 St. John's, Nfi		Brooklyn, N. Y.	Burlington, Vt.
VOWR 681	500	WBBL 1219 100	WCAZ 1070 100 Carthage, Ill.
St. John's, Nfi		Richmond, Va	WCBA 1440 500
Boston, Mass.		Chicago, Ill.	Allentown, Pa. WCBD 1080 5000
WAAF 920 Chicago, Ill.	1006	WBBR 1300 1000 Brooklyn, N. Y.	Chicago, Ill.
WAAT 940		WBBZ 1200 100	WCBM 1370 100 Baltimore, Md.
Jersey City, N WAAW 660		Ponca City, Okla. WBCM 1410 500	WCBS 1420 100
Omaha, Neb.		Bay City, Mich.	Springfield, Ill.
WABC 860 New York, N.		WBEN 900 1000 Buffalo, N. Y.	WCCO 810 50000 Minneapolis, Minn.
WABI 1200	100	WBEO 1310 100	WCFL 970 5000
Bangor, Maine WABY 1370	e 100	Marquette, Mich.	Chicago, Ili. WCHS 580 500
Albany, N. Y.		Huntsville, Ala.	Charleston, W. Va.
WACO 1420 Waco, Texas	100	WBIG 1440 1000 Greensboro, N. C.	Charlottesville, Va.
WADC 1320	1000	WBIL 1100 5000	WCKY 1490 10000
Akron, Ohio WAGA 1450	500	New York, N. Y. WBLK 1370 100	Covington, Ky. WCLE 610 500
Atlanta, Ga.		Clarksburg, W. Va.	Cleveland, Ohlo
WAGF 1370 Dothan, Ala.	250	WBLY 1210 100 Lima, Ohio	Janesville, Wis.
WAGM 1420		WBNO 1200 100	WCLS 1310 100
Presque Isle, I		New Orleans, La.  WBNS 1430 500	Joliet, Ill. WCMI 1310 100
Anderson, S.		Columbus, Ohio	Ashland, Ky.
		WBNX 1350 1000 New York, N. Y.	WCNW 1500 100 Brooklyn, N. Y.
		WBNY 1370 100	
	L	Buffalo, N. Y.	

WCOA 1340 500 Pensacola, Fla.	WEEU 830 1000 Reading, Pa.	Gulfport, Miss.
WCOC 880 500 Meridian, Miss.	WELI 900 500 New Haven, Conn.	WGES 1360 500 Chicago, Ill.
WCOL 1210 100	WELL 1420 100	WGH 1310 10
Columbus, Ohio	Battle Creck, Mich.	Newport News, Va.
WCOP 1120 500 Boston, Mass.	WEMP 1310 100 Milwaukee, Wis.	WGL 1370 100 Fort Wayne, Ind.
WCPO 1200 100 Cincinnati, Ohio	WENR 870 50000 Chicago, Ill.	WGN 720 50000 Chicago, Ill.
WCRW 1210 100	WEOA 1370 100	WGNY 1210 10
Chicago, Ill.	Evansville, Ind.	Newburgh, N. Y. WGPC 1420 10
Charleston, S. C.	Elmira, N. Y.	WGPC 1420 100 Albany, Ga.
WCSH 940 1000 Portland, Me.	WEST 1200 100 Easton, Pa.	WGR 550 1000 Buffalo, N. Y.
WDAE 1220 1000	WEVD 1300 1000	WGRC 1370 25
Tampa, Fla.	New York, N. Y. WEW 760 1000	New Albany, Ind. WGRM 1210 10
WDAF 610 1000 Kansas City, Mo.	St. Louis, Mo.	WGRM 1210 100 Grenada, Miss.
WDAH 1310 100	WEXL 1310 50	WGST 890 100
El Paso, Texas WDAS 1370 100	Royal Oak, Mich. WFAA 800 50000	Atlanta, Ga. WGTM 1310 10
WDAS 1370 100 Philadelphia, Pa.	Dallas, Texas	Wilson, N. C.
WDAY 940 1000	WFAB 1300 1000 New York, N. Y.	WGVA 1050 1000
Fargo, N. Dak.  WDBJ 930 1000	WFAM 1200 100	Indianapolis, Ind. WGY 790 5000
Roanoke, Va.	South Bend, Ind.	Schenectady, N. Y.
WDBO 580 1000 Orlando, Fla.	WFAS 1210 100 White Piains, N. Y.	WHA 940 5000 Madison, Wis.
WDEL 1120 250	WFBC 1300 1000	WHAL 950 500
Wilmington, Del.	Greenville, S. C. WFBG 1310 100	Saginaw, Mich. WHAM 1150 5000
WDEV 550 500 Waterbury, Vt.	WFBG 1310 100 Altoona, Pa.	Rochester, N. Y.
WDGY 1180 1000	WFBL 1360 1000	WHAS 820 5000
Minneapolis, Minn. WDNC 1500 100	Syracuse, N. Y. WFBM 1230 1000	Louisville, Ky. WHAT 1310 100
Durham, N. C.	Indianapolis, Ind.	Philadelphia, Pa.
WDOD 1280 1000 Chattanooga, Tenn.	WFBR 1270 500 Baltimore, Md.	WHAZ 1300 1000 Troy, N. Y.
WDRC 1330 1000	WFDF 1310 100	WHB 860 1000
Hartford, Conn.	Flint, Mich.	Kansas City, Mo.
WDSM 1200 100 Superior, Wis.	WFEA 1340 500 Manchester, N. H.	WHBB 1500 103 Selma, Ala.
WDSU 1250 1000	WFIL 560 1000	WHBC 1200 100
New Orleans, La.	Philadelphia, Pa. WFLA 620 1000	Canton, Ohio
WDWS 1370 100 Champaign, Ili.	Clearwater, Fla.	Rock Island, Ill.
WDZ 1020 250	WFMD 900 500 Frederick, Md.	WHB! 1250 1000 Newark, N. J.
Tuscola, Ill. WEAF 660 50000	WFOR 1370 100	WHBL 1300 25
New York, N. Y.	Hattlesburg, Miss.	Sheboygan, Wis.
WEAN 780 1000 Providence, R. I.	St. Augustine, Fla.	WHBQ 1370 100 Memphis, Tenn.
WEAU 1050 1000	WFTC 1200 100	WHBU 1210 10
Eau Claire, Wis.	Kinston, N. C.	Anderson, Ind. WHBY 1200 100
WEBC 1290 1000 Duluth, Minn.	Lancaster, Pa.	Green Bay, Wis.
WEBQ 1210 100	WGAN 640 500	WHDF 1370 100
Harrisburg, Ill.	Portland, Me. WGAR 1450 500	Calumet, Mich. WHDH 830 100
Buffalo, N. Y.	Cleveland, Ohio	Boston, Mass.
WEDC 1210 100	WGBB 1210 100 Freeport, N. Y.	WHDL 1400 250 Olean, N. Y.
Chicago, Ill. WEED 1420 100	WGBF 630 500	WHEB 740 25
Rocky Mount, N. C.	Evansville, Ind.	Portsmouth, N. H.
WEEL 590 1000	WGBI 880 500 Scranton, Pa.	WHEC 1430 500 Rochester, N. Y.
Boston, Mass.	Stranton, ra.	WHEF 1500 100
1	1	Kosciusko, Miss.

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WHFC 1420	100	WJBC 1200 100 Bloomington, Ill.	WLAP 1420 100 Lexington, Ky.
Cicero, Ill. WHIO 1260	1000	WJBK 1500 100	WLAW 680 1000
Dayton, Ohio	5000	Detroit, Mich.  WJBL 1200 100	Lawrence, Mass. WLB 1250 1000
WHIP 1480 Hammond, Ind.		Decatur, Ill.	Minneapolls, Minn.
WHIS 1410 Bluefield, W. Va.	500	WJBO 1120 500 Baton Rouge, La.	Muncle, Ind.
WHJB 620	250	WJBW 1200 100	WLBL 900 5000 Stevens Point, Wis.
Greensburg, Pa. WHK 1390	1000	New Orleans, La. WJBY 1210 100	WLBZ 620 500
Cleveland, Ohio	L	Gadsden, Ala.  WJDX 1270 1000	Bangor, Me. WLEU 1420 100
WHKC 640 Columbus, Ohio	500	Jackson, Miss.	Erie, Pa.
WHLB 1370	100	WJEJ 1210 50 Hagerstown, Md.	WLLH 1370 100 Lowell, Mass.
WHN 1010	1000	WJIM 1210 100	WLMU 1210 100
New York, N. Y. WHO 1000	50000	Lansing, Mich.  WJJD 1130 20000	Middlesboro, Ky. WLNH 1310 100
Des Moines, Iowa		Chicago, Ill.	Laconia, N. H. WLS 870 50000
WHOM 1450 Jersey City, N. J.	250	Ironwood, Mich.	Chicago, Ill.
WHP 1430	500	WJNO 1200 100 W. Palm Beach, Fla.	WLTH 1400 500 Brooklyn, N. Y.
WIBA 1280	1000	WJR 750 50000	WLVA 1200 100 Lynchburg, Va.
Madison, Wis.	100	Detroit, Mich.  WJRD 1200 250	WLW 700 500000
Glenside, Pa.		Tuscaloosa, Ala.	Cincinnati, Ohlo WMAL 630 250
WIBM 1370 Jackson, Mich.	100	Washington, D. C.	Washington, D. C.
WIBU 1210	100	WJTN 1210 100	WMAQ 670 50000 Chicago, Ill.
Poynette, Wis. WIBW 580	1000	WJW 1210 100	WMAS 1420 100
Topeka, Kans.	100	Akron, Ohio WJZ 760 50000	Springfield, Mass.  WMAZ 1180 1000
WIBX 1200 Utica, N. Y.		New York, N. Y.	Macon, Ga.
WICA 940 Ashtabula, Ohio	250	WKAQ 1240 1000 San Juan, P. R.	Detroit, Mich.
WICC 600	500	WKAR 850 1000	WMBD 1440 1000 Peoria, Ill.
Bridgeport, Conn. WIL 1200	100	WKAT 1500 100	WMBF 610 1000
St. Louis, Mo.		Miami Beach, Fla.  WKBB 1500 100	Miami, Fla. WMBG 1350 500
WILL 580 Urbana, Ill.		East Dubuque, Ill.	Richmond, Va.
WILM 1420	100	WKBH 1380 1000 LaCrosse, Wis.	WMBH 1420 100 Joplin, Mo.
WIND 560	1000	WKBN 570 500	WMBI 1080 5000 Chicago, Ill.
Gary, Ind. WINS 1180	1000	WKBO 1200 100	WMBO 1310 100
New York, N. Y.		Harrisburg, Pa.  WKBV 1500 100	Auburn, N. Y. WMBQ 1500 100
Miami, Fla.		Richmond, Ind.	Brooklyn, N. Y.
WIP 610 Philadelphia, Pa.	1000	WKBW 1480 5000 Buffalo, N. Y.	Jacksonville, Fla.
WIRE 1400	1000	WKBZ 1500 100	WMBS 1420 250 Uniontown, Pa.
Indianapolis, Ind. WIS 568	1000	WKEU 1500 100	WMC 780 1000
Columbia, S. C.	250	Griffin, Ga.	Memphis, Tenn. WMCA 570 1000
Milwaukee, Wis.		Sunbury, Pa.	New York, N. Y.  WMEX 1500 100
WJAC 1310 Johnstown, Pa.	100	WKRC 550 1000 Cincinnati, Ohio	Boston, Mass.
WJAG 1060	1000	WKY 900 1000	WMFD 1370 100 Wilmington, N. C.
Norfolk, Neb. WJAR 890	1000	WKZO 590 1000	WMFF 1310 100
Providence, R. I. WJAS 1290		Kalamazoo, Micb. WLAC 1470 5000	Plattsburg, N. Y. WMFG 1210 100
WJAS 1290 Pittsburgh, Pa.		Nashville, Tenn.	Hibbing, Minn.
	1000	WLAK 1310 100	
Jacksonville, Fla.		Lakeland, Fla.	Daytona Beach, Fla. WMFO 1370 10
	WHFC 1420 Cicero, III. WHIO 1260 Dayton, Ohio WHIP 1480 Hammond, Ind. WHIS 1410 Biuefield, W. Va. WHJB 620 Greensburg, Pa. WHK 1390 Cleveland, Ohio WHKC 640 Columbus, Ohio WHKE 1370 Virginia, Minn. WHN 1010 New York, N. Y. WHO 1000 Des Moines, Iowa WHOM 1450 Jersey City, N. J. WHP 1430 Harrisburg, Pa. WHBA 1280 Madison, Wis. WHBG 970 Glenside, Pa. WHBM 1370 Jackson, Mich. WHBU 1210 VIEW 580 Topeka, Kans. WHSW 580 Topeka, Kans. WHSW 1200 Utica, N. Y. WHCA 940 Ashtabula, Ohio WICC 600 Bridgeport, Conn. WIL 1200 St. Louis, Mo. WILL 580 Urbana, III. WHLM 1420 Wilmington, Del. WHND 560 Gary, Ind. WHOM 610 Miami, Fla. WHOM 610 Miami, Fla. WHOM 610 Miami, Fla. WHOM 610 Mimmi, Fla. WHOM 610 Mimmin,	WHFC 1420 100 Cicero, III.  WHIO 1260 1000 Dayton, Ohio WHIP 1480 5000 Hammond, Ind. WHIS 1410 500 Bluefield, W. Va. WHJB 620 250 Greensburg, Pa. WHK 1390 1000 Cleveland, Ohio WHKC 640 500 Columbus, Ohio WHKE 1370 Virginia, Minn. WHN 1010 1000 New York, N. Y. WHO 1000 5000 Des Molnes, Iowa WHOM 1450 250 Jersey City, N. J. WHP 1430 Harrisburg, Pa. WHBA 1280 1000 Madison, Wis. WHBG 970 100 Glenside, Pa. WHBM 1370 100 Jackson, Mich. WHBU 1210 100 Poynette, Wis. WHBW 580 1000 Topeka, Kans. WHEX 1200 100 St. Louis, Mo. WILL 580 1000 St. Louis, Mo. WILL 580 1000 WICC 600 500 Bridgeport, Conn. WIL 1200 100 St. Louis, Mo. WILL 580 1000 WICL 580 1000 WICL 580 1000 Gary, Ind. WHN 1420 100 Mimington, Del. WHN 1580 1000 Mimington, Del. WHO 610 1000 Mimington, Pa. WHO 610 1000 Mimington, Pa. WHO 1120 250 Milwaukee, Wis. WJAG 1060 1000 Norfolk, Neb. WJAG 1290 1000 WJAR 890 1000 Providence, R. L. WJAS 1290 1000	Cicero, III.   WHIO   1260   1000   Dayton, Ohio   WHIP   1480   5000   Hammond, Ind.   WHIS   1200   100   Decatur, III.   WHIS   1410   Strong   Streensburg, Pa.   WHIS   1200   100   Decatur, III.   WHIS   1410   Strong   Streensburg, Pa.   WHIS   1200   100   Decatur, III.   WHIS   1200   100   Gadsden, Ala.   WHIS   1270   1000   Jackson, Miss.   WHIS   1270   1000   Jackson, Miss.   WHIS   1210   100   Lansing, Mich.   WHIS   1210   100   Lansing, Mich.   WHIS   1220   100   W. Palm Beach, Fla.   WISA   1280   1000   W. Palm Beach, Fla.   WISA   1280   1000   W. Palm Beach, Fla.   WISA   1200   Utlea, N. Y.   WICA   940   Akron, Ohio   WIS   1200   Utlea, N. Y.   WICA   940   Akron, Ohio   WIS   1200   Utlea, N. Y.   WICA   940   Akron, Ohio   WIL   1200   St. Louis, Mo.   WIL   1200   100   Will   1200   St. Louis, Mo.   WIL   1200   St. Louis, Mo.   WIL   1200   St. Louis, Mo.   WIL   1200   Utlea, N. Y.   WICA   940   Akron, Ohio   Will   1200   Utlea, N. Y.   WICA   1400   Carry, Ind.   WIS   1380   1000   Miami Beach, Fla.   WKRB   1380   1000   LaCrosse, Wis.   WIRD   1200   Toloon   Miami, Fla.   WIF   1300   Miami, Fla.   WIRD   1300   WKRD   1300   Milamapolis, Ind. WIS   1300   Milamapolis, Ind. WIS   1300   Milamapolis, Ind. WIS   1300   Milamapolis, Ind. WIS   1310   Milamapolis, Ind. W

	WMFR 1200 100 High Point, N. C.	WOV 1130 1000 New York, N. Y.	WSAI 1330 1000 Cincinnati, Ohio
	WMIN 1370 100 St. Paul, Minn.	WOW 590 1000 Omaha, Neb.	WSAJ 1310 100 Grove City, Pa.
	WMMN 890 500 Fairmont, W. Va.	WOWO 1160 10000 Fort Wayne, Ind.	WSAL 1200 250
	WMPC 1200 100	WPAD 1420 100	Salisbury, Md. WSAN 1440 500
	Lapeer, Mich. WMPS 1430 500	Paducah, Ky.  WPAR 1420 100	Allentown, Pa. WSAR 1450 1000
	Memphis, Tenn.	Parkersburg, W. Va.	Fall River, Mass.
	Sheffield, Ala.	WPAX 1210 100 Thomasville, Ga.	Wausau, Wis.
	WMT 600 1000 Cedar Rapids, Iowa	WPAY 1370 100 Portsmouth, Ohio	WSAY 1210 100 Rochester, N. Y.
	WNAC 1230 1000 Boston, Mass.	WPEN 920 1000 Philadelphia, Pa.	WSAZ 1190 1000 Huntington, W. Va.
_	WNAD 1010 1000	WPG 1100 5000	WSB 740 50000
	Norman, Okla.	Atlantic City, N. J. WPRA 1370 100	Atlanta, Ga. WSBC 1210 100
	Yankton, S. D.	Mayaguez, P. R. WPRO 630 500	Chicago, Ili.
	WNBC 1380 250 New Britain, Conn.	Providence, R. I.	South Bend, Ind.
	WNBF 1500 100 Binghamton, N. Y.	WPRP 1420 100 Ponce, P. R.	WSFA 1410 500 Montgomery, Ala.
	WNBH 1310 100 New Bedford, Mass.	WPTF 680 1000	WSGN 1310 100
	WNBX 1260 500	Raleigh, N. C.  WQAM 560 1000	Birmingham, Ala. WSIX 1210 100
	Springfield, Vt. WNBZ 1290 100	Miami, Fla. WQAN 880 500	Nashville, Tenn. WSJS 1310 100
	Saranac Lake, N. Y.	Scranton, Pa.	Winston-Salem, N. C.
	WNEL 1290 1000 San Juan, P. R.	WQBC 1360 1000 Vicksburg, Miss.	Nashville, Tenn.
	WNEW 1250 1000 New York, N. Y.	WQDM 1390 1000 St. Albans, Vt.	WSMB 1320 1000 New Orleans, La.
	WNLC 1500 100 '	WQXR 1550 1000	WSMK 1380 200 Dayton, Ohio
	New London, Conn. WNNY 1420 100	New York, N. Y. WRAK 1370 100	WSNJ 1210 100
	Watertown, N. Y.	Williamsport, Pa. WRAW 1310 100	Bridgeton, N. J. WSOC 1210 100
	Knoxville, Tenn.	Reading, Pa.	Charlotte, N. C.
	WNYC 810 1000 New York, N. Y.	WRBL 1200 100 Columbus, Ga.	Spartanburg, S. C.
	WOAI 1190 50000 San Antonio, Texas	WRC 950 500 Washington, D. C.	WSPD 1340 1000 Toledo, Ohio
	WOC 1370 100	WRDO 1370 100	WSPR 1140 500
	Davenport, Iowa WOI 640 5000	Augusta, Me. WRDW 1500 100	Springfield, Mass. WSUI 880 500
	Ames, Iowa WOKO 1430 500	Augusta, Ga. WREC 600 1000	Iowa City, Iowa WSUN 620 1000
	Albany, N. Y.	Memphis, Tenn.	St. Petersburg, Fla.
	WOL 1310 100 Washington, D. C.	WREN 1220 1000 Lawrence, Kans.	WSVA 550 500 Harrisonburg, Va.
	WOLS 1200 100 Florence, S. C.	WRGA 1500 100 Rome, Ga.	WSVS 1370 50 Buffalo, N. Y.
	WOM! 1500 100 Owensboro, Ky.	WRJN 1370 100	WSYB 1500 100 Rutland, Vt.
	WOMT 1210 100	Racine, Wis.	WSYR 570 1000
	Manitowoc, Wis.	Richmond, Va. WROK 1410 500	Syracuse, N. Y. WTAD 900 1000
	Grand Rapids, Mich.	Rockford, Ill.	Quincy, Ill.
	WOPI 1500 100 Bristol, Tenn.	WROL 1310 100 Knoxville, Tenn.	WTAG 580 1006 Worcester, Mass.
	WOR 710 50000 Newark, N. J.	WRR 1280 500 Dallas, Texas	WTAL 1310 100 Tallahassee, Fla.
	WORC 1280 500	WRTD 1500 100	WTAM 1070 50000
	Worcester, Mass. WORK 1320 1000	Richmond, Va. WRUF 830 5000	Cleveland, Ohlo WTAQ 1330 1000
	York, Pa. WORL 920 500	Gainesville, Fla. WRVA 1110 5000	Green Bay, Wis. WTAR 780 1000
	Boston, Mass.	Richmond, Va.	Norfolk, Va.
	WOSU 570 750 Columbus, Ohio		WTAW 1120 500 College Station, Tex.

NORTH AME	RICAN B. C. STATIONS BI	
WTAX 1210 100 Springfield, Ili.	XEAW 960 50000 Reynosa, Tams.	XEI 1370 125 Morelia, Mich.
WTBO 800 250 Cumberland, Md.	XEAY 1240 100 Mexico City, D. F.	XEJ 1020 1000 Juarez, Chih.
WTCN 1250 1000	XEB 1030 10000	XEJP 1130 100 Mexico City, D. F.
Minneapolis, Minn. WTEL 1310 100	Mexico City, D. F.  XEBA 1080 20	XEIW 870
Philadelphia, Pa.	Guzman, Jal.	Mexico City, D. F.
WTHT 1200 100 Hartford, Conn.	XEBG 820 1000 Tijuana, B. Cfa.	XEK 990 100 Mexico City, D. F.
WTIC 1040 50000	XEBH 930 500	XEKL 1240 500
Hartford, Conn. WTJS 1310 100	Hermosillo, Sonora XEBI 1000 25	Leon, Guan. XEL 780 1000
Jackson, Tenn.	Aguascalientes, Ags.	Mexico City, D. F
WTMJ 620 1000 Milwaukee, Wis.	XEBJ 1160 20 Merida, Yuc.	Saltillo, Coah.
WTMV 1500 100	XEBK 1000 60	XELO 670 50000 Tijuana, B. Cfa.
East St. Louis, III. WTNJ 1280 500	Neuvo Laredo, Tams. XEBL 1220 50	XELZ 1370 100
Trenton, N. J.	Mazatian, Sin.	Mexico City, D.F. XEMG 1060 100
WTOC 1260 1000 Savannah, Ga.	XEBO 1310 25 Irapuato, Guan.	XEMG 1060 100 Atzcapotzalco, D. F.
WTOL 1200 100	XEBS 1240 200	XEMO 860 5000
Toledo, Ohio WTRC 1310 100	Mexico City, D. F. XEBX 640 250	Tijuana, L. C. XEMU 580
Eikhart, Ind.	Sabinas, Coah.	Piedras Negras, Coah.
WVFW 1400 500 Brooklyn, N. Y.	XEBZ 1160 100 Mexico City, D. F.	XEMX 1280 100 Mexico City, D. F.
WWAE 1200 100	XEC 1150 100	XENC 860 50
Hammond, Ind.	Tijuana, L. C. XECL 1100 1700	Mexico City, D. F. XENT 910 150000
Detroit, Mich.	Mexicali, B. Cia.	Nuevo Laredo, Tams.
WWL 850 10000 New Orleans, La.	Mexico City, D. F.	XEOK 760 2500 Tijuana, L. C.
WWNC 570 1000	XECZ 1370 100'	XEP 1160 500
Asheville, N. C.  WWRL 1500 100	San Luis Potosi, S.L.P. XED 1160 2500	Juarez, Chih. XEPN 730 100000
Woodside, N. Y.	Guadalajara, Jal.	Picdras Negras, Coah.
wwsw 1500 100 Pittsburgb, Pa.	XEDA 1220 200 Gra. Anaya, D. F.	XERA 840 350000 Villa Acuna, Coah.
WWVA 1160 5000	XEDF 810 75	XES 990 250
Wheeling, W. Va. WXYZ 1240 1000	Nuevo Laredo, Tams. XEDP 1080 500	Tampico, Tams. XET 690 5000
Detroit, Mich.	Mexico City, D. F.	Monterrey, N. L.
W3XDD 50000 Whippany, N. J.	XEDW 1150 20 Minatitlan, Ver.	XETB 1310 125 Torreon, Coah.
W3XJ 1060 100	XEE 1210 50	XETF 1220 30
College Park, Md. w8XO 700 500000	Durango, Dgo. XEF 1450 100	Veracruz, Ver. XETH 1210 100
W8XO 700 500000 Cincinnati, Ohio	Juarez, Chih.	Puebla, Pue.
XEAA 750 200 Mexicali, B. C.	XEFA 1180 500 Tacuba, D. F.	XEU 1010 250 Veracruz, Ver.
XEAC 980 1000	XEFB 870 200	XEW 890 50000
Tijuana, L. C. XEAD 1060 125	Monterrey, N. L. XEFC 550 100	Mexico City, D. F XEX 1310 125
Guadalajara, Jal.	Merida, Yuc.	Monterrey, N. L.
XEAF 990 750 Nogales, Son.	XEFE 980 150 Laredo, Tams.	XEXB 1270 50 Jalapa, Ver.
XEAG 1310 10	XEFI 1440 250	XEXC 810 350
Cordoba, Ver. XEAL 660 1000	Chihuahua, Chih.	Aguascalientes, Ags. XEXD 1340 350
Mexico City, D. F.	Monterrey, N. L.	Jalapa, Ver.
XEAM 750 25 Matamoros, Tams.	XEFO 930 5000 Mexico City, D. F.	Mexico City, D. F.
XEAO 660 250	XEFV 1210 100	XEXH 1250 . 250 San Luis Potosi, S.L.P.
Mexicali, B. C. XEAP 1240 50	Juarez, Cbih. XEFW 1310 250	XEXS 1000 100
Obregon, Son.	Tampico, Tams.	Portable in Mexico
XEAS 1160 50 Saltillo, Coah.	XEG 1220 250 Monterrey, N. L.	Mexico City, D. F.
XEAT 1210 250	XEH 720 250	XEZ 630 500 Merida, Yuc.
Parral, Chih.	Monterrey, N. L.	Melius, 1uc.

# Special DX Calendar

THE time given in the DX Calendar following is in EST by the twentyfour 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 kes.

# 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 (UDXC).

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.

1200	WINDA	Springment, v. I will seaves brue
		Corp., 39 Main St.
	PERMI	T TO CHANGE FREQUENCY
1190	WATR	Waterpury, Conn., to 1290
1240	KLPM	Minot, N. Dak., to 1360
1250	WCAL	
	WLB	Minneapolis, Minn., to 760
1310	KINY	Juneau, Alaska, to 1430
	KIT	Yakima, Wash., to 1250
	WOL	Washington, D. C., to 1230
1420	KABR	
		MIT TO CHANGE POWER
590	WKZO	Kalamazoo, Mich. 250 (1)
810	CMCF	Havana, Cuba. 5000
880	WCOC	Meridian, Miss. 1000
900	KGBU	Ketchikan, Alaska. 1000
950	WRC	Washington, D. C. 1000 (5)
1190	WATR	Waterbury, Conn. 250
1240		Minot, N. Dak. 500 (1)
1250	WCAL	Northfield, Minn. 5000
1200	WLB	Minneapolis, Minn. 5000
1310	KINY	Juneau, Alaska. 250
1010	KIT	Yakima, Wash. 250 (.5)
	WOL	Washington, D. C. 1000
1340	WCOA	Pensacola Fia 1000

KABR Aberdeen, S. Dak. 500 (1)

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

PERMIT TO CHANGE LOCATION
570 KGKO Wichita Falls, Tex., to Fort Worth

# FOREIGN BROADCAST (Excluding Oceania, which is listed complete in this issue)

1122 Stagshaw, Gt. Britain. 60000 w. 1357 Genoa No. 2, Italy. 5000 Rome No. 3, Italy. 1000

Rome No. 3, Italy. 1000 FREQUENCY Pornambuco, Brazil, from 730 PRA4 San Salvador, Brazil, from 1090 PRA6 Sao Paulo, Brazil, from 800 PRA2 Rio de Janeiro, Brazil, from 780 1060 Rio de Janeiro, Brazil, from 1240 PRD2 1080 Joso Pessoa, Brazil, from 640 1120 PRH8 Rio de Janeiro, Brazil, from 1080 1220 PRA9 Rio de Janeiro, Brazii, from 1120 Curityba, Brazil, from 1480 1420 PRB2 1470 PRE6 Nictheroy, Brazil, from 1170

POWER

850 ..... Sofia, Bulgaria, 100,000 from 1000

1220 PRA9 Rio de Janeiro, Brazil, 25000 from 1000

# At DEADLINE . . .

Merlin Almstead of Washington, D. C. reports ZNS, Nassau, Bahamas, on 540 kcs, daily from 8:30 to 9:30 pm, EST.

WICA, 940 Ashtabula, Ohio is now on the air.

CMQ, Havana, has moved to 600 kcs.

On December 29 the Irish Free State became the Irish Republic.

CMCX Havana has moved to 1380 kcs.

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City and State .....

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