





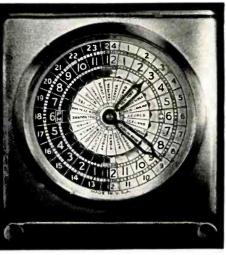
How to Hear Foreign Stations Don Ameche and the Stroud Twins Collecting Postage Stamps Important Changes in Station Data





Tells time like an ordinary clock and automatically shows authentic time in every other zone around the world.

Actual size is 5<sup>1</sup>/<sub>4</sub> inches high by 4<sup>3</sup>/<sub>4</sub> inches wide.



Modernistic Design of Brushed Brass

Has A. M. and P. M. divided dial and 24-hour dial. Indicates minutes and quarter hours.

Just plug it in and set it for the correct time. No further adjustment nor calculation is required.

For AC 110-120 volts, 60 cycles What DXers Have Always Wished For! THE ELECTRIC WORLD-TIME CLOCK

# \$5.95

Also available in same style case in springdriven model at \$4.95. We pay the postage.

# THE RADEX PRESS

14717 Detroit Ave.,

Cleveland, Ohio

# **MARCH 1, 1938**





Publisher

PAGE TAYLOR Editor

ASSOCIATE EDITORS B. FRANCIS DASHIELL, Technical CARLETON LORD, Broadcast

FOURTEENTH YEAR

NUMBER 117

DIGT

# **CONTENTS**

Cover Girls—The Bailey Sisters, Sylvia and Juen, on the "Double Everything" Program

	FAGE
Leaves From a DXer's Scrapbook, by Count De Veries	2
Scanning the Amateur Bands, by B. L. Ahman, Jr.	
The SWL Trading Post	8
A Radio Tour With Zenith, by B. Francis Dashiell.	
With the Station Hunters, by Carleton Lord	
Don Ameche	
Help for Our Puzzled Readers, by the Technical Editor	22
The International DXers Aliance	
Figyelem Magyar DX-erek	29
For the Shortwave Fans	., 30
Amateur Calls Heard	., 34
Station News	
The Stamp Corner, by David Brockton Browne	
Across the Editor's Desk	
The Month's Changes in Station Data	46
The Columbia Broadcasting System	47
When to Get the Day's News	48

\$1.75 Per Year

25c Per Copy

See Subscription Blank on Page 96 Published Monthly Excepting July and August

# THE RADEX PRESS

14717 Detroit Avenue - - Cleveland, Ohio

Entered as second-class matter April 23, 1931, at the postoffice at Cleveland, Ohio, under the act of March 3, 1879.

Printed in U. S. A.



O CCASIONALLY you hear some pretty funny things on the radio. A continuity writer may slip up on his word slinging, a speaker stammer over his script or an ad-libbing announcer talk too fast for his train of thought—and everyone will get a little chuckle over the misfortune of the offender.

Of course, there is the classic example of the time Lou Gehrig was being interviewed on a *Huskies* program. As on all such broadcasts, the announcer came to the all-important question of what breakfast food Lou liked best. Instead of the logical answer of *Huskies*, the Yankee first-baseman flabbergasted the entire studio with a cheerful endorsement of *Wheaties*.

The script writer of the December 5th Magic Key program must have had an off moment when he dished out the commercial plug for the 2:53 p.m. spot. Asked why he liked the new and complicated electric tuning device on the 1938 RCA line, a purchaser was supposed "Because it changes a to reply: mechanical apparatus into a true musical instrument." (It isn't so much the point of the story as the way he said it, smirked Esmeralda.)

A few station breaks later on the same afternoon, a Mutual announcer was broadcasting the pro football game between the New York Giants and the Washington Redskins. At a very crucial moment in the game, a Giants player was knocked cold and time was called. So, in came the announcer to bellow, "And this is the *time* to go to your dealer's to see the new money-saving American Beauty Dodge!" (While that halfback holds up the game, huh?)

But, in my opinion, the chuckle of the year was at the expense of our old friend Doctor Brinkley. Of course most of us have happened across his cheerful little talks in the early ayems, and wondered when the good doctor ever found time for a bit of shut-eye. However, John T. Crabtree, of Santa Fe, N. M., discloses the gruesome secret. It appears that those friendly chats with his neighbors are in reality transcriptions, recorded at his leisure and played back when most of us should be asleep. The proof of the pudding, mates, is that one morning the record cracked, and the doctor got stuck on one phrase, repeating it over and over again.

Can't help but wonder if it might have been the old Siamese chant, which goes: "Owah Tagoo Siam!" Start slowly, boys, and speed it up gradually! You'll get the point.

### The Memory Page

A lot can happen in a few years, particularly in the world of radio. Changes are so fast and so permanent, that few people realize that they are taking place. But look back a few years, consider what was happening then, and you'll realize that we've come quite a distance.

Just five years ago, for example, the cover of the March 1933 RADEX featured Jeannie Lang, who, at that time, was considered some punkins as a singer of pop songs. After a bit with Paul Whiteman in a picture and a short time as soloist for Jack Benny's orchestra, Jeannie had landed in the middle of a juicy commercial with Colonel Stoopnagle and Budd. But where in Jeannie now?

That issue of RADEX wrote finis to one of the earliest cases of the wolves howling about a DXer's record of reception. George Lilley of West Chester, Pa., had reported reception of TA's and TP's on a twotube set of his own construction, and how the protests did come in! One of the most vehement critics, a Mr. X, wrote in the following yein. "Preposterous claims." "I wonder if there is anyone who is ignorant enough to believe it." "These fellows are crooks and their verifications fraudulent." Never has one of these fakers brought one of these miracle stations in in the presence of other DXers." "Why not appoint several subscribers in their vicinity to call upon them any day and any time. I'm sure you'll find they have their first foreigner to get."

And that March 1933 RADEX went on to report that this same Mr. X had proceeded to call on George Lilley and, after an all-night session with the little two-tuber, acknowledged that Mr. Lilley had been able to bring in 4BH, 4QG and 2BL. At the time, 4BH was rated at but 200 watts, so it would be excellent reception even today with a powerful receiver. Five years ago, with a small set and before a skeptical witness, it was indeed remarkable.

The same issue of RADEX announced the appointment of Page Taylor, of Detroit, as Short Wave Editor, and brought the first of a

# Hear the SCOTT

Philharmonic



# FOR THE GUARANTEED FINEST IN RADIO

A scientific, precision instrument, custom built BY HAND, from the finest materials, in one of the world's foremost radio research laboratories. It represents the results of 14 years constant developing, perfecting, inventing . . years of intense specialization in producing the finest radio receivers in the world! Sold with a moneyback guarantee to outperform mass-produced radios. Yet, these amazing instruments cost no more than many production type receivers.

# **30 DAYS FREE HOME TRIAL...**

and a Budget Plan, anywhere in U. S. A. NOT SOLD THROUGH STORES. Laboratory built

on order, only. Mail the coupon for special offer during next 30 days.

E. H. SCOTT RADIO LABS. 4224 Ravenswood Ave. Dept. 1508, Chicago. Ill. Send all the facts, orderblank, and Special Offer. No obligation.



STUDIOS: NEW YORK, CHICAGO,	LOS ANGELES, LONDON
City	. State
Address	
tvame	

Th.T

series of articles on high frequency reception. Seems as if I've heard that name someplace!

March 1933 saw the continuation of an argument about a game of cricket, and on overwhelming evidence from listeners it appeared that American DXers had been successful in the first "mass reception" of a trans-Atlantic BCB station. Poste Parisien was the broadcaster heard and included among the listeners who reported it were Bill Vornkahl, Robert Hough, R. R. Rawstron, E. F. Goss, and Earl Roberts, all of whom are more or less active DXers today.

Other pertinent patter from the March 1933 RADEX included:

Confirmation by L. F. Stetson, of Chicago, and P. O. Seiser, Bridgeport, Conn., that KZRM actually will verify, as witnessed by their own cards.



Julie Gibson, warbler on Joe Penner's program, was widely known in Hollywood before coming to the Columbia network. She sang many times from Hollywood radio stations, but the Penner show is her first major radio engagement. She replaced Joy Hodges, whose stage commitments in the new musical comedy, "Pd Rather Be Right," forced her to leave radio for a time. Ridicule by the editor of the theory that two low-powered Cubans could cause a bad heterodyne on WTAM.

Advise from Richard D. Caddell, Vancouver, B. C., that a wire strung into the ocean made the best aerial he ever tried.

Richard M. Carter, Ann Arbor, Mich., reported the same EQ7 and EW7 which were mentioned in this column several issues back, and great was the conjecture about their identity.

Court battles to keep from being forced off the air by the old FRC were being fought by KFH, KGEF, KGMP, WBAK, WHP, WIBO, WJKS, WLOE, WMCA, WNJ, WNYC, WOQ, WPCH and WERE.

Reception of two outlaw stations was reported—DNTX, Denton, Tex., by Burney McClurkan, that city, and WJM, Massillon, Ohio, by Miss Lilian M. Bethel, also of Massillon.

Further reception of European BCB stations was reported by Robert Hough, New Rochelle, N. Y., who heard the German stations at Dresden and Frankfurt-am-Main, and by Earl Roberts, Cambridge, Ohio, who logged Heilsburg.

Reception of 14 Japanese stations in one night was reported by H. N. Delmonico, Vancouver, B. C., and he classified them as "nuisances."

Reception of TA's by members of the Atlantic Radio Club was reported by Henry P. Allen, Philadelphia, and schedules given for Praha, Langenburg, Stuttgart, Barcelona, Hamburg, Gleiwitz, Heilsburg, Horby, Leipzig, Trieste and Nuremburg.

Bill Vornkahl, Westport, Conn., reported a verification from the Trieste, Italy, station on 1311 kcys.

The month's changes in station data advised of the deletion of TGW, WKBS and WCMA; a change in call of WTSL to WAML; increases in power for KFDY, WEAO, WFBC and WJBK; re-instatement of WERE and WNJ; and one new station, WKEU, LaGrange, Ga.

And such was the world of radio, as reported in the March 1933 issue of RADEX. Seems only yesterday, doesn't it?

### **Reception Picking Up**

For the past couple of years, we've heard a lot about sunspots. We've been told that there is an 11-year cycle of these hickies and that reception is supposed to be hampered when the cycle approaches its maximum. According to the scientists, the next maxima is due next year and reception on the broadcast band should hit a new low.

For a time, it looked as though this theory was the real McCoy. The 1935-36 and 1936-37 seasons were nothing to brag about. Static seemed to be heavier than in previous seasons, while signals appeared to have lost carrying power. All in all, DXers were rather glum when they considered the prospects for the next few years.

But it seems to me that much of the wailing that reception isn't like the good old days, is due in part to the psychological reaction to all these predictions of DX disaster. Listeners were led to believe that they couldn't hear stations more than a thousand or so miles away, and so they lapped up this pessimistic propaganda and quit trying. A lot of them wouldn't have been able to hear a trans-oceanic catch if it had been pushed down their They simply decided that lead-in. there wasn't going to be any good reception for a few years and stopped trying.

However, experience during the past couple of months has failed to bear out the glum predictions. During November, when tests were being made on that swell Super Skyrider, a number of Europeans were

heard with fairly decent results. West Coast stations showed up in Philadelphia with really excellent strength, and even the little 100watters crossed the continent with something to spare.

December found reception picking up at a very satisfactory rate. One morning in particular, no less than 13 Europeans were logged between 2:30 and 3:15 and it was an oddson bet that others would have been heard had there been time. The French stations at Fecamp, Rennes and Bordeaux showed particularly strong signals, the best that I ever heard from across the big ditch, while the fanfare from Poste Parisien was a sound for sore ears.

During the sleet and snow storms the latter part of December, reception reached a peak which was at least the equal of any other period during the past decade. Home in Akron, Ohio, for a couple of weeks of vacation, it was possible to compare reception with that of other years. And you can bet your bottom dollar that it didn't suffer by comparison.

Exceptionally strong were the Pacific Coast stations. For the first time in three or four years, it was possible to tune in stations like KFI, KNX, KPO and KGO and really enjoy the programs. Signals were a good R7-8, fading wasn't noticed at all, and a person had reason to believe that he was tuned to semilocals a few hundred miles away.

Even the little 100-watters showed good R5 signals. KGFJ pushed its way into the clear on the 1200 channel, KERN made a monkey out of WABY on 1370, and even WJBK had a losing battle with KVOE and KDB on 1500. Little CJAT made one of its rare appearances in those parts, while CKOV showed a healthy signal on 630.

From the South, stations really did themselves proud. LS2 was heard pushing WOAI off the 1190 channel on many occasions during the early evening, and LR5 gave KOA plenty of competition. Little TIPG stuck its nose out between the domestic stations on 620 and 630, and really went to town. The usual mumble on 1120 frequently was just a background noise for YV1RF down in Venezuela. Of course, the Cubans and Mexicans could be heard all over the dial.

Plenty of good DX was heard during those two weeks in Ohio, as well as during the balance of December and January. The new CHLN, at Three Rivers, Que., showed an excellent signal on December 24th, while CJBR, Rimouski, Que., came in very well on December 30th. Among the newer United States stations to be heard were KVOX. WGRM, WOLS, WRNL and WSAL. The new KWNO, Winona, Minn., was heard several times testing on 1200 and poor, old WIL didn't have a chance. WLAW, Lawrence, Mass., showed a healthy wallop during its final test on December 18th.

Everything considered, the current season has proved to be as good as any during the past seven years. Perhaps the static is a bit heavier on occasions, but the increased power of many stations more than compensates for that. And the frequent appearance of the socalled "ideal DX mornings" finds reception good enough for the average listener to go out and log many distance catches.

In the light of my own experience during the past couple of months, it seems likely that a lot of listeners have been paying too much attention to prognostications and too little attention to actual dial twisting. If the DXer will forget about the sunspots and give his fingers a little exercise, the chances are that he'll hear a lot of new stations.

# Scanning the AMATEUR BANDS

# • • • By B. L. Ahman, Jr.

Did someone ask "What are they hearing in other countries?" In response to this question comes a very interesting letter from T. E. Plewman, who writes all the way from West China. The place is Chengtu, near the Tibetan border, and Mr. Plewman gives us the latest dope on what the DXer in West China hears, to wit:

"In the October issue of RADEX you asked if any amateurs are getting any stations in Paraguay. I am located away up on the border of Tibet, in western China, and have been surprised at the number of Chilean, Argentine and other South American stations that can be picked up. For instance, last winter I heard CE1AH, Mrs. Ida Fish. Chuquicamata, Chile, night after night talking to Australian amateurs. CE1AO was also heard frequently. LU6KE, Tucuman, Argentina, comes through about R9, fairly deafening. On Sept. 24th, at 5:15 p.m. local time, I heard ZP2AC (Pennsylvania, two, America, Canada) calling CQ twenty meter band, and located, he said, in Asuncion. Paraguay. If I can get him on the Tibetan border, surely he ought to be audible at some time in the USA. On Sept. 28th, at 5:10 p.m., I heard CX3BL, Montevideo, Uruguay, talking to an Australian. Neither of these countries had I heard before. I have written to a couple of Argentine amateurs and two in Chile. but none of them have deigned to answer my report, so do not intend to waste more postage. I thought that because of my unusual location they might reply, and I would like to have a few South American veries, but thus far have got only

HK1Z, Colombia.

"Being from Canada, I was particularly anxious to get Canadian amateurs, but have heard only three or four and have received only one card, that being from a Lethbridge ham, VE4EO.

"It seems to me as if long range is more easily attained on a diagonal across the earth's surface, for I can produce a dozen South American loggings for one Canadian.

"Owing to the fighting in Shanghai, and the hurried evacuation of many women and children to Hong Kong and Manila, hundreds of husbands, etc. tried to contact Manila through the agency of Shanghai and Manila amateurs, and we heard XU8MC. Shanghai, on the air every night for some time. But he seems to have exhausted himself, for he has not been heard lately. KA1ME KA1BH. both in Manila. and helped out in this refugee problem, and sent lots of messages from the evacuated womenfolks to their men still holding the fort in Shanghai. XU8JR is another Shanghai amateur who was on often. Once or twice I heard this latter deftly parrying some too-curious amateurs who were trying to get a scoop for American newspapers by pumping him in respect to the war news. He referred them to the regular news broadcasts from Shanghai and declined to comment further.

"A frequently-heard amateur is KA1YL, which is located on the yacht "Latitude," with headquarters at Manila. On October 10th at 5:50 a.m. EST, I heard him calling CQ, and he said he was on the China Sea, bound for Manila."

Many, many thanks, Mr. Plewman, for that very interesting report. We wish that many more foreign correspondents would write us their experiences.

"My favorite (and only) band is 20-meter 'phone. I cannot read code fast enough yet so I am in the dark as far as CW goes. but I have heard 86 countries on 'phone on my Emerson U6A," boasts John Quinterell, Jr., 445 Carmody Road. Seat Pleasant. Md. "OSL cards which I have already received are from PAOUN, SM7YA, CN8AM, G5JO. K4SA. YV5AA. PAOMQ. K6NZQ, CN8MU (only 4 watts in-IITKO, NY2AE. put!). K5AB. SV1NK, K4ENY. VP9R. F3JD. XE1LK, OQ5AA, ZK1AA, HH2LD, HR5C, VP3THE, VO6D, VO1Y and ZB1E.

"I received the ZK1AA card on January 10, and Mr. Fahey, the operator, said that it was the first report on his 'phone signals that he had received from North America. He has never worked a W- ham, although he has worked K6- and HC1FG. I prize this veri very much (no pun intended). The ZB1E card arrived the next day. He is on the LF end of the band with only 30 watts input, enough to cross the Atlantic.

"I understand that HH5PA never QSL's, neither to hams or SWL's.

"Some of the calls I have heard are given below:

1AI, 1AO, 3CO, CN: 8AJ, CE: 8MB, CT: 1AY, 1QZ, 1QP, 2AB, CX: 2AR, 2 CY, EA9AH, EI2J, ES5B, ES5D, FB8AB, FI8AC, FM8AD, FR8UX, FY8E, F300, F8QD, F8XT, GI2CC, GM5W, G: 2PU, 5ML, 6JF, HA: 4A, 8N, HH5PA, HI: 1C, 2K, 3N, HK3JA, HP1A, I1IT, J2MI, J2NG, K: 4FAY, 6BHL, 6CNC, 7PQ, LA: 1G, 5N, LU: 1QA, 4CZ, 9BV, OA4C, OQ5AE, OX2QY, PAOGN PY2AC, SP1DC, SP1HH, SU1CH, SU1SG, VO1J, VO2Z, VP: 2AT, 2DA, 6TR, VQ1AJ, VQ4CRE, VS: 2AK, 7GJ, VU2CQ, XU2HL, YL2BB, YN2LG, YR5AP, YR5DY, YT7CI, YT7VN, YU7XX, ZE1JR and ZS1B."

# A Labrador QSL

A prized QSL was received by us recently, from VO6D, "The Voice

of Six Ducks." This is our first Labrador ham, and, needless to say, we didn't write to Labrador for it. The address is Thomas C. Cunningham, VE2JK, 5528 Ponsard Ave., N. D. G., Montreal, P. Q. Mr. M. E. Smith of Cleveland tells us that verifications of this station can be received from Dorothy T. Hall, 186-18 Williamson Ave., Springfield, N. Mr. Smith also asks for infor-Y. mation on ZP2AC, so he's not the only one trying to get Paraguay; we know now that Paraguay is heard in West China so that ought to be some help to us.

We understand that Dual Diversity Communications receivers are going to be available about the first of June. Who is going to put it on the market? We'll have to wait to find that out.

Well, so long until next month. Let us have more ham data, please. And how about something from a DXer on the Sahara desert?

#### Addresses

We list below the call letters, the frequency and the address when known 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.

(The letters LF, MF and HF in parentheses following the call letters of stations mentioned in this column indicate the Low Frequency, Middle Frequency and High Frequency portions of the 20 meter amateur band. Low Frequency stations are those on frequencies between 14,000 and 14,100. Middle Frequencies are from 14,100 through 14,300. High Frequencies are from 14,300 through 14,400. No attempt is mude to show exact frequencies as they vary so greatly).

- CE1AH, Mrs. Ida Fish, Chuquicamata, Chile.
- CE1AO, Harry Brunelle, Poblacion Chile Exploration, Tocophila, Chile.
- CN8AM, Andre Peres, Casablanca, Morocco.
- CX3BL, Roberto Musso Ambroni, Cerro Largo 1344, Montevideo,

Uraguay.

- F3JD, Lucien Champonnois, Soulignonnes (Char-Inf), France.
- HK1Z, Antonio J. Restrepo, Box 200, Cali, Colombia.
- KA1BH, Mrs. Joseph Reich, 2 Escolastica, Pasay, Rizal, P. I.
- K4ENY, Lt. W. A. Smith, VO Squadron 9m, Fleet Marine Base, Charlotte Amalie, V. I.
- LU6KE, Eduardo E. Idigoras, Buenos Aires 133, Tucuman, Argentina.
- OQ5AA, Dr. G. Westcott, Tondo, via Irebu, Belgian Congo.
- SM7YA, R. Christiansson, Fredsgatan 11, Vaxjo, Sweden. (LF).
- VE2JK, Tommy Cunningham, 5228 Ponsard Ave., Montreal, P. Q.
- VE4EO, W. R. Savage, 514—12th St., C. North, Lethbridge, Alta.
- VO6D, Tommy Cunningham, address reports to VE2JK. (MF).
- XE1LK, Aurora de Franco, Av. de la Paz, 1125, Guadalajara, Jal.
- ZK1AA, J. D. S. Fahey, Radio Station ZKR, Raratonga, Cook Islands.

# The SWL Trading Post

Baker Young of Parma, Idaho, wishes to trade SWL cards and photos.

William Anderman, Jr., 5913 N. Camac St., Philadelphia, Pa. Exchange SWL cards.

Merton M. Hiatt, Box 7, Dryden, Wash. Exchange SWL cards.

John Quintrell, Jr., 445 Carmody Road, Seat Pleasant, Md. Exc. correspondence and SWL cards.

Charles Genan, 205 Barrett St., Jamestown, N. Y. Exc. correspondence.

Virgil Oliver, 620 N. 20th St., Mattoon, Ill., a radio and television student. Exc. correspondence.

# A Radio Tour with ZENITH

• • • By B. FRANCIS DASHIELL

A LARGE and popular line of radio receivers is being offered for 1938 by the Zenith Radio Corporation, one of America's oldest and best known manufacturers. Recent production and sales have pushed this concern up toward the top so that now it is one of the very few leaders in the industry. Their new receivers for 1938 are outstanding examples of the radio engineer's and cabinet maker's skill.

Zenith's radio receivers for this year are assembled in an unusually large total of 63 different models. This array provides radio sets to meet all requirements and budgets. Sixteen chassis utilize 4, 5, 6, 7, 9, 12, 15 and 25 tubes, all in superheterodyne circuits. Zenith also manufactures its own "Metaglas" tubes and these are used throughout the Zenith line. While these tubes have counterparts in glass and metal tubes, the latter are not recommended or used.

### Electric Tuning

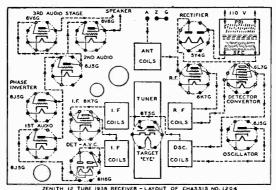
One of the outstanding features that has attracted most radio critics. to the new Zenith is its robot dial or electric automatic tuner. By simply pressing the self-starter an electric motor is made to spin the needle across the dial to any station in just a second or two. There is no sound between stations, yet instant response is obtained as soon as the motor stops at the station selected. A between station silencer eliminates objectional noise when tuning the The final, or fine tuning, addial. justment is almost instantly accomplished by a slow-motion knob as soon as the robot motor knob is released. The motor itself requires no attention except oil twice a year.

One of the most popular models of the 1938 series is known as chassis 1204. This is a twelve-tube circuit which is furnished in seven cabinet models, including console, armchair and table types. Model 12S265, illustrated and described in this article, was given a severe test over a period of three months. In every way the results were very gratifying.

### A Popular Set

Our diagram shows the layout of the chassis, as we look down from the top. The tubes shown are connected by the heavy dotted lines which indicate the direction of "flow" of the incoming radio signal during its swift passage to the loud speaker. At the rear of the chassis is the antenna connector strip. Any ordinary wire antenna, of from 30 to 60 feet in length, is connected at "A". When the Zenith special doublet is used, as recommended, the jumper strip that connects "Z" and "G" is removed, and the antenna leadin connected to "A" and "Z". During our tests a single-wire antenna as well as the Zenith doublet, with and without grounds in both cases, were used. The Zenith doublet, without ground, gave best results, and eliminated practically all static from the heavy automobile traffic about 100 feet away.

We see how the incoming signal passes from the connection "A" into the antenna tuning system. It enters the radio-frequency tube, a type 6K7G, and then flows through the radio-frequency transformer and amplifying circuit into the first-detector or converter tube, a type 6L7G. The signal mixes with a locally generated current created by the type



6J5G oscillator tube. This converted signal, now changed to the intermediate frequency of this set, or 456 kilocycles, enters the first i-f transformer. Here it is tuned and further amplified, and then passed on to the 6K7G i-f tube.

#### Three Audio Stages

After the second i-f transformer and tuning circuit is passed the signal reaches the second detector or 6H6G tube. It acts also as the automatic volume control tube. The demodulated signal, now vibrating at audio frequencies, is passed from the detector to the powerful audio amplifying circuit of three stages. The first audio tube is a type 6J5G. Similar tubes are used in the second audio stages and as a phase changer or inverter. This latter tube is quite necessary, although all receivers do not have them, in order to supply a push-pull action to the final or third audio stage, since there is no pushpull audio transformer in this circuit. The Zenith arrangement of resistance-coupled amplification gives tremendous power but always with excellent tone and absence of any distortion. Two type 6V6G tubes are used in the output stage, and provide 15 watts of smooth power. The rectifier is a type 5Y4G, and the current consumption of the receiver is 110 watts.

An electric target tuning device, a type 6T5 tube, enables one accurately and quickly to tune in on any station. When no signal is tuned in only a thin ring of green light is seen encircling the target eye. Then, as a station is tuned in, this ring widens and contracts toward the center, with the degree of movement depending upon the intensity of the signal. Greatest resonance to the signal is indicated by the greatest amount of contraction toward the center.

#### **Three Wave Bands**

Tuning is divided into three bands in this receiver. Three separate dials automatically jump into place, one at a time, when the band switch is pressed with the finger. These dials are full size and are easily read by the indirect lighting system. They are marked (1) Standard Broadcast; (2) Foreign; (3) Police. The first covers a range from 540 to 1753 kilocycles; the third from 5.5 to 18.4 megacycles; and the second from 1.8 to 5.9 megacycles. Foreign, or middle dial, the most used except the broadcast or first dial, brings in domestic and foreign short-wave stations. Police, the third band, gives police, amateur, aviation and ship calls. All bands are marked to indicate the portions of the scale where short-wave entertainment may be

heard. The intermediate portions, where International Morse (wireless) code is heard, but which we cannot avoid in the radio spectrum, are of interest only to those who can read the code.

The twelve inch speaker provides a tremendous amount of sound, all of which can seldom be used. The manual control is smooth working and absolutely noiseless. Tone is changed through five positions of a knob and indicators that point to-Voice, Normal, Hi Fidelity, Bass and Foreign. The Foreign setting is excellent on short-wave and distant reception. An interesting and valuable device is the acoustic adapter that provides personal adjustment of the speaker. This bell-like cover can be moved in or out over the speaker so as to counteract unusual acoustic conditions that may be present in different sized rooms.

### Local And Distance

There is little to be said of the operation of this set on the standard broadcast band. It does everything that can be expected, but the mellowness and faithful reproduction of tone is something that can be appreciated by music lovers. Local stations are heard without interfering noises and distant stations, tuned in by switching on the distance switch, can be heard from all parts of the country, and other American lands, with very little tube and amplification noises. Of course, when we realize that about 700 broadcast stations are operating in a band that has room for less than 100, it is normal to hear more than one station at a time on many sections of the dial. On the 20 clear channels, however, the stations came in as loud and clear as a local-often with the "local" switch turned on.

On the Foreign or short-wave band, which ranges from 15 to 50 meters, or 5.5 to 18.4 megacycles, many stations were easily and clearlv tuned in. To the south, where many Latins operate, the more or less familiar stations were heard, such as the countries of: Eucador. Colombia, Mexico, Brazil, Peru, Venezuela, Guiana, Argentina, Costa Rica and Guatemala. These were heard, together with many of their calls, as well as a number of unknown stations. Unfortunately for DXing, the Latin peoples have a bad habit of speaking very rapidly, and those of us who barely understand some Spanish fail to get many of the announcements.

#### Many From Europe

The Europeans do better-at least most of them talk slowly. The English stations of the "GS" series, at Daventry, in the 15, 11 and 9 megacycles groups, all come in with such volume that it was never turned more than half-way up. The broadcasts in the 9 megacycles portion of the band, however, is heard easily at any time it is on the air. The "RO" stations at Rome, Italy, come in almost equally as well as London, and reception of them is consistent with other foreign reception. On several occasions the League of Nations station, at Geneva, was heard with remarkable clearness. Those delightful programs and talks from Huizen. Holland,-the "PC" transmissionsfrequently delayed the search of others. Prague, in Czechoslovakia, was picked up nicely whenever it was on the air. Then came Moscow on several occasions. Paris and Pontoise, France, Budapest, Warsaw (once), and several others, but not with much volume or understandable language. Berlin and Zeesen, Germany, provided much entertainment and consistent reception at great volume. The "DJ" stations are found on a number of points on the dial.

No attempt was made at Oceanic reception—the "Aussies". Such ear-

(Please turn to page 95)

# With the Station Hunters

UCH in the manner of Rudyard Kipling's *Recessional*, the hullabaloo of the monitored verie question appears to be on the decline. The tumult and the shouting have died to mere whispers, while the critics and their followers have departed from the public eye.

Still standing is the ideal of service for listeners which was decried, but it remains just an ideal for which a few sacrificed their time and efforts. Still unsettled is the entire question, yet there remains not a single follower of either side to bear one standard or the other.

Last month it was reported in these columns that the verification of the Daventry short wave stations had been discontinued by Carroll Weyrich and Barney Ahman. In announcing this decision, they felt that their service had caused enough commotion and, rather than further antagonize DXers, they decided to drop the whole matter.

More recently, there comes word from Stanley B. LaRue that, in view of the fact that ZBW had once more commenced to verify, his monitoring of that station would be discontinued. It is reported that ZBW's decision resulted from a rapid decline of reports.

Although discontinued for entirely different reasons, the cessation of the two monitoring services brings a rather abrupt end to the criticism aimed in their direction. To the best of our knowledge, there exists no other similar service in the world of radio. Thus, the discussion must eventually come to a logical conclusion.

However, even though the monitored veries have stopped for the  $\bullet \bullet \bullet By$  CARLETON LORD

present, it must not be construed that opponents of the practice can claim a decisive victory. The Daventry cards were discontinued in order to eliminate cause for further friction, although Messrs. Weyrich and Ahman still favored the idea and were supported by many DXers throughout the country. The Beverly Hills ZBW veries ceased simply because there was no further need for them.

Judging by the letters of comment which have been received, listeners appear to be divided into three groups. At both extremes are small groups, one condemning the practice in theory, the other as actively supporting it. In between is by far the largest group, which feels that the matter is one for the individual listener to decide.

It is true that the latter group is divided in its opinion as to whether its individual members would care to collect monitored veries. Perhaps a small majority would prefer to stick to veries which come direct from the stations, but they do not attempt to condemn the practice so long as it pleases some listeners. Neither, in fact, do they see any particular harm resulting from monitoring services, so long as no dishonesty or flagrant abuses exist. And to date there has been absolutely no evidence against either of the two services in question.

Looking back over a long list of charges and counter-charges, we remember one claim to the effect that if DXers shoulder the responsibility of issuing veries, then other stations will ask to be relieved of the task of verifying. If any such result has come about to date, we haven't heard of it. We have, how-



Charlie McCarthey's girl friend, Dorothy Lamour, once ran an elevator in a Chicago department store for a living. A native of New Orleans, she caught the eye and ear of Herbie Kay, band leader. Miss Lamour is now considered one of the most glamorous of Hollywood's glamor girls.

ever, heard of one station which is supposed to have resumed verifying when reports fell off.

And so that about winds up the question of monitored veries. With the two services in question no longer in existence and no further releases from the GHQ's of the opposing forces, perhaps it would be just as well to devote further space to other matters.

#### An Extra Special Program

The first DX program ever attempted by XEDF of Nuevo Laredo has been arranged by A. J. Parfitt, president of the National Radio Club. This hundred watter on 810 kcs. will broadcast from 2 to 4 am, EST, on the morning of March 12, which happens to be a Saturday, and will dedicate the program to RADEX, the National Radio Club, the Universal DX Club and Radio News. XEDF' is owned and managed by 18-year old Ruperto Villareal, who also acts as Chief Announcer. Reports will be verified for an Internationl Reply Coupon.

#### **Reports and Tips**

With the mid-winter months already at hand, reports seem to show that DX is staging a great comeback. While there is no indication of the superlative reception of 1931-34, it appears that many listeners are reaching out farther and more often than during the past couple of seasons.

"DX is swell on the broadcast band," gloats Bernard L. Ahman, Jr., 3313 Westerwald Ave., Baltimore, Md. So far this season I have heard YV5RA. YV5RQ. YV1RF. CMCQ, CMCB. CMCK. CMBY. CMW, CMBC, CMCM, LS2, LR5 TILS, TIPG, CMBG, CMK, CMCW, TGW, XEW, XERA, XEPN, XEAW, XELO, CMCY, CMCD, and what I think is LR4. The latter fades very badly times. Several at other Spanish-speaking stations have been heard on various frequencies, but are not yet identified. My receiver is still the 1936 12-tube Zenith."

This looks like mutiny on the amateurs, Barney!

"I am a new reader of RADEX." admits Maurice Burleigh, 3525 Lyon Ave., Oakland, Calif., "and I hardly believed what I read about listeners getting foreign reception on the broadcast band. Anyhow, I decided to give it a try and was amazed to find that carriers could be heard on nearly every channel. I've heard the Australian 2NR start coming in at 1:00 a.m., PST, and get better and better until WLW pushes it off the channel at 2:45. Also have heard pretty fair signals from what I took to be a Russian station on 540 kcys, as well as what appeared to be a Hungarian transmitter on 546 kcys. Do you have any idea what stations these were?" The Russian on 540 probably is RW54 at Khabarovsk, while the one on 546 sounds as though it might be Budapest No. 1. Eastern listeners frequently report the latter, although we seldom hear of it reaching as far West as California.

"It has been a long time since I have done any DXing," admits H. H. Searles, 159 Spruce Ave., Rochester, N. Y. "It was March 1936 when I stopped activity. Just lately, however, I have gotten back into harness. Once the DX bug bites you, I guess you just have to stay bitten.

"At present my log stands at 651 heard and 542 verified. Some of my best catches are LR1, LR4, LR5, LS2, CPX, CP4, KWG, Poste Parisienne, Radio Normandie, TGW, HHK, XEFJ, VONF, CT1GL, YV1RC and YV3BC, all verified."

With a list of foreigners like that, a lot of DXers we know would be glad to feel the bite of the old bug. Nice going, Mr. Searles, glad to hear from you again!

Latest additions to the log of Martin J. Olthoff, 212 N. 16th St., Independence, Kans., include a new station on 1370 at Villa Acuna, Coah., XEDH, heard on December 13th at 3 a.m.; KRE, Berkeley, Calif.; KROY, Sacramento, Calif., on a frequency check at 6:10 on December 13th; KSRO, Santa Rosa, Calif., also on a frequency check at 6:30 the same morning; WMAS, KOOS and WCAX. These additions bring Martin's total on the broadcast band up to 682.

# **Changes and Reports**

"I have noticed a lot of changer among the Cubans," observes Clifford Drain, 617 Camden St., Parkersburg, W. Va. "CMCB is on 1230, not 640; CMK on 720, not 730; CMBL on 750, not on 710 as they were some time ago; CMCW is on 1140, not 750; CMJW (a new one?) is on 1340 and gave their address as Box 92, Camaguey, Cuba. CMKG, Santiago, Cuba, is on 1135 and request reports be sent to Box 157, that city. Have noticed that TGW is on 1240-45, not the 1210 which they still list.

Additional news from Cuba indicates that a new Havana station, CMBQ, will begin operation shortly on 680 kcys, with 5 KW power. CMBF, 770 kcys, 10 KW, is another new Havana broadcaster. CMCB, heretofore listed on 640 kcvs, is broadcasting on 1230 keys. CMCF, 810 kcys, 5 KW, is no longer relayed by COCO on short waves, and is now tied up with COCH on 9.428 megs. COCO, 6.010 megs, now relays CMCK on 1030. As the result of the recent radio conference in Havana, many new Cuban changes are expected in the near future.

"Have been hearing XEXM, Mexico City, 1280 kcys, in early mornings, despite heavy interference from KLS. A weak signal on 810 makes me wonder if I am hearing XEDF. Another unidentified Spanish-speaking station has been heard on 580 kcys. Could this be XEMU?

"On Christmas morning, I heard TIX, San Jose, Costa Rica, from 2 to 5:30 a.m., EST. This may be the mystery station about which a reader inquired in the January issue. (John T. Crabtree asking about weak station on 650 kcys.) They sure put in a strong signal and quite frequently announced in English. Another Costa Rican station heard the same morning was TILS, San Jose, on about 882. They also announced in English quite often.

"Otherwise, DXing has been none too good. The only TP's heard have been 1YA and 4YA. So far no Europeans have come in, although there is still a little time for them. KHBC, Hilo, Hawaii, has been coming in better than KGU and KGMB. Still hear LR1, LR5 and LR6 once in a while. ZNS, the Nassau, Bahamas, station, comes in here R7 with swell signals. "And now for a couple of queries of my own. Can anyone identify Spanish-speaking stations on 775 and 875 kcys? Would surely appreciate a tip on who they are!"

Another solution to John T. Crabtree's request for help in identifying his station on 650 kcys, comes from Harry Knight, 114 Ross St., Duquesne, Pa. "The station on 650 is WWSW of Pittsburgh," he writes. "I had the same trouble until I changed the alignment of my receiver. Never hear them now!"

Quite a novelty, this getting two answers for a question! Looks like you pays your money (a quarter for RADEX) and takes your choice!

# And More Changes

"Station XGZ, Nanking, China, is listed on 660 kcys, with 10 KW along with XGOA, 75 KW," advises Alan I. Breen, 68 Pine Hill Terrace, Dunedin, NE 1, N. Z., "but no schedules have been released. Perhaps they both are off the air now."

A couple of other Eastern targets for Western listeners are noted by Mr. Breen. KZIB is a 1000-watt station at Manila, P. I., on 900 kcys, and ZHL at Singapore operates on 1332 kcys, with 2000 watts. Both stations are reported to have short wave relays.

"KGHF, Pueblo, Colo., has a different schedule from the one listed in RADEX," corrects A. J. Tait, Jr., 225 Jackson St., that city. "They come on the air at 9 a.m., EST, and do not sign off until 1 a.m. the next morning."

"In your November issue," reminds Morton Raff, 245 Cedar Ave., Highland Park, Ill., "you stated that CKY had changed frequency from 910 to 760 kcys, and have so listed it ever since. On December 25th I heard them on 910, so wrote the station. They replied that they had not received authority to move from 910."

"Here are a couple of frequency

check schedules which you did not include in the January issue," offers Baker Young, Parma, Idaho. "KSRO, Santa Rosa, Calif., tests from 6:20 to 6:40 a.m., EST, on the second Monday, while KHUB, Watsonville, Calif., tests from 6:00 to 6:20 a.m., EST, the same day."

"Of the stations which are listed with a 'z' in your December indices," informs A. W. Field, Box 91, Hillcrest Sta., San Diego, Calif., "the following have verified for me for three-cents return postage: KYOS 1040. on KVCV on 1200. KSUN on 1200. KSUB on 1310. WEOA on 1370. WSAU on 1370. KRLH on 1420, and KNET on 1420. Incidentally, KIT at Yakima, Wash., which you have been listing on 1310, has been on 1250 since November 6th, according to a verie just received."

"KWKH, Shreveport, La., verifies if the report is sent to P. O. Box 17 and is accompanied by threecents return postage," postcards C. Roman, 1907 N. Kedzie Blvd., Chicago, Ill. "KOCA, Kilgore, Texas, also verified for return postage."

"Our new KELA in Centralia is now on daily on 1440," states Anthony C. Tarr, 909 W. Lee St., Seattle, Wash., "but they have not answered my report. A new Canadian, CFGP, announcing their location as Grand Prairie (presumably in Alberta), was heard on 1200 working duplex with CJCA, Edmonton, on 730. This is something I have never heard before on the broadcast band."

Our thanks again to readers who continue to send in tips and reports which enable us to keep our indices up to date. Without the assistance of listeners, it would indeed be difficult, if not impossible, to keep pace with the ever-changing broadcast spectrum.

As the season progresses, increasing reports indicate that stations to the South are being heard regular-

New flea-power transmitters lv. in Costa Rica and other Central American countries are constantly appearing. South Americans frequently break through the domestic barrage, while the Cubans and Mexicans are daily visitors. But since most listeners have difficulty in identifying Spanish-speaking stations, may we ask readers to make a point to forward all information which they may possess about call, location and frequency? It will help us do a better job keeping other readers informed of just what is what in radio land.

#### **RADEX** Dedications

Raymond W. Sahlbach, 4708 A S. Compton St., St. Louis, Mo., advises of further special and frequency check dedications which he has arranged for RADEXers:

March 1st 4:00-4:30 WPAY 1370 Portsmouth, Ohio March 3rd

1:00-2:00 WAGA 1450 Atlanta, Ga. March 5th 4:10-4:30 WTNJ 1280 Trenton, N. J.

March 8th 5:20-5:40 KFJI 1210 Klamath Falls, Ore. 5:30-5:50 KIDW 1420 Lamar, Colo. 5:50-6:10 KORE 1420 Eugene, Ore. March 10th 3:30-3:50 WSAJ 1310 Grove City, Pa. 5:10-5:30 WWAE 1200 Hammond, Ind. March 11th 4:20-4:40 WMFG 1210 Hibbing, Minn. 5:00-5:20 WEBQ 1210 Harrisburg, Ill. March 12th 3:10-3:30 KWYO 1370 Sheridan, Wyo. 3:20-3:40 WNEL 1290 San Juan, P. R. 3:40-4:00 WFOR 1370 Hattiesburg, Miss. 4:30-4:50 KUJ 1370 Walla Walla, Wash. 4:30-5:00 WGTM 1310 Wilson, N. C. 5:00-5:20 KIT 1250 Yakima, Wash. March 14th

5:00-5:20 KIT 1250 Takina, wash. March 14th 4:00-4:20 WAGF 1370 Dothan, Ala. 4:50-5:10 WLAK 1310 Lakeland, Fla. 5:40-6:00 KGMB 1320 Honolulu, T. H. March 26th 3:00 on KWSC 1220 Pullman, Wash. All times are a.m., Eastern Standard.

Too late for inclusion in the word that proper issue came WAYX, Waycross, Ga., dedicated its frequency check of January 12th to RADEXers. It is trusted that readers will make a point of listening to these dedicatory programs and sending in the customary thank-you card or letter.

### **Experimental** Calls

"One of these days," says E. M. Vickers, Box 121, Coral Gables, Fla., "I'd like to hear a special program from little WBZA when WBZ is silent. That would be a nice one to log and verify. Another would be WBOQ. Understand that WABC used to test with that call, as did KDKA with W8XAR, and would like a chance to log them."

There's a tip for you CPCers! "Thank goodness," applauds Paul Sampson, 1820 College Ave., Regina, Sask., "that the CPC's of the various clubs have come to realize that the average DXer is sick and tired of all the quantity stuff, and not enough quality. It is really too bad that this wasn't done before, so the stations would be more ready to DX. It has been said that DXers should write to the stations which dedicate programs to their club, but the way it was going a person would have to spend quite a sum on postage alone."

"Since using all the tips given in November RADEX," writes the Harold E. Pound, 418 Walnut St., Lawrenceburg, Ind., "by Arthur J. Parfitt in his article 'Verification Insurance,' my brother and I have received many veries. In fact, the German stations sent cards to both of us, as we usually listen in together. From our experience, we think the most important thing in writing for veries is to get the reports as accurate as possible."

We second that motion, Harold. If every DXer was as conscientious in making up his reports as he is in crying foul when a station doesn't verify, we are sure that his batting average would go up many, many points.

# **DXing for Two Months**

"I am 15 years old," admits Lewis Hill, 2138 S. 16th Ave., Maywood, Ill., "and have been DXing about two months. My log shows a little

over 100 BCB stations and some of the better catches are KFWB, KFVD, KVOR, KGHF, WDAE, KNX and KPO. My receiver is a 7-tube Steinite. If anyone heard a South American on 1220 on December 21st, I would like to hear from them."

"As I write this," reports Robert Handforth, 117 Emerson Ave., Toronto, Ont., "my log stands at exactly 300 stations. I have received about 50 new ones since last September. My best catches are CMBC, CBR, KFKA, KFPY, KFSD, KFWB, KHJ KMMJ, KROC, WEXL, WLAP, KVOD, WMBR, CHNS and WJBW. I have completed the District of West Virginia, Rhode Columbia, Island and Illinois, and need but one more in Ohio and two in Indiana. However, there are still six states which I haven't heard. Try as hard as I can, I can't seem to KOB, although I've heard get KEX."

"I have been DXing actively for about three years," writes Donald C. Truax, 539 Woodlawn Ave., Aurora, Ill., "and the best veries include LS2 LR1, TGW, KHBC, WPRP and WNEL. The log at present contains 526 active stations, all of which have been logged since March 1935 when I purchased my present receiver, a 9-tube Lafayette super.

"Why are there so few foreign specials nowadays? I was checking over the DX calendar of two seasons ago, and found that 50 per cent of them were real DX stuff. Also, why not get specials from stations other than those on the FCC frequency checks?"

This is another problem which must be referred to the CPC boys. In fairness to these hard-working chaps, however, it must be noted that foreign stations are exceptionally difficult to line up for special programs. The Foreign Affairs Department of the IDA spends a great deal of time trying for transoceanic specials, but uncertain reception conditions make it difficult to secure the proper co-operation.

### Wants Old Receiver

"How I long for my old radio!" bemoans C. E. Sleichter, Rt. 6, Box 6355, Sacramento, Calif. "I fell for one of the new sets, and it is a failure on DX work. My old Kolster used to bring in a new station every 10 kilocycles along the dial, but no more. The two words, *sensitivity* and *selectivity*, are not used by manufacturers any more. Instead, they stress trick names for gadgets which don't mean a thing to the DXer."

# Regusted With BCB DXing

"Up to my last report to you," writes George Nahas, 147 Seeley St., Brooklyn, N. Y., "my DXing had been confined to short wave reception. So last week I decided



Out in front of the array of talent in Horace Heidt's Brigadiers program is Lysbeth Hughes, soprano soloist. This program is broadcast over the Blue Network on Tuesdays from 9 to 9:30 pm

to give the broadcast band a whirl and prepared myself for a trip around the world, expecting to hear France, Germany, Argentina, Brazil, Hawaii, Alaska, Australia and, perhaps, Japan. Well, after about 30 hours of dial twisting, I found myself holding the bag with the following colossal, stupendous, rarely-heard catches: WQAM, KARK. KWNO, WTAW, WOLS. WDAE. WNEL, WLAK, KTEM. WFOR. WPAR, KFBK, KPAC. WOMI, KXYZ, XEFO, CMBY, KNX, KFI and KFVD.

"Holy Mackeral! If I only knew in the beginning that all I was going to hear was the above, plus twice as much static, I wouldn't have wasted all those sleepless nights. Static was so bad that turning the volume control on more than one-third would have started an Indian War, with the rest of the household coming down after my scalp.

"Yesterday afternoon I gave Mr. Grunow a chance to redeem himself. Between 1 and 3:30 p.m., EST, he proved that he had plenty of sensitivity and selectivity. Starting at the lower frequency end of the dial, I was able to log WGR, WFIL, WTAG, WICC, WIP, WHJB, WMAL, WTAR, WEEU, WGBI. WGY, WPEN, WRC, WBZ, KYW, WTIC, WTAM, WDEL, WHAM, WCAU, WNAC, WIBX, WEST, WFBR, WCAM, WDRC, WDAS, WJSV and WBRY, in addition to all the stations in and around New York.

"After I put earphones on the receiver, I expect much better results during the evening and early morning hours."

### **Completes First Year**

"I commenced DXing just after midnight on January 1, 1937," recalls Richard Wright, 5762 Harper Ave., Chicago, Ill., "and completed my first year of this hobby on December 31st last. During that time, I logged 506 stations, with five in Canada, 13 in Cuba, 5 in Mexico, three in Puerto Rico, and 24 in Canada. All of the states but Nevada have been heard, as well as all provinces but Nova Scotia, New Brunswick and Prince Edward Island. I have verified 174 stations, with 23 of these in foreign countries. I am interested in collecting a list of transmitter locations and would be glad to receive any information from other readers."

"In eight or nine years of DXing," offers Clarence Wakefield, Wiarton, Ont., "I have logged 760 stations on the broadcast band. So far this season I have added about 35 new ones, mostly on the FCC tests. There are 53 Canadian stations on my log, most of them verified. Not many stations in the United States and Canada refuse to verify, although quite a few Cubans and Mexicans fail to reply to reports.

"Incidentally, I get a lot of cards from U. S. stations which have been returned for postage or which come through with one cent due. I guess a few people don't know that the regular penny card, which goes anywhere in the United States, must have an additional cent of postage before it comes into Canada."

"Veries from KELA and KGU have brought my total of stations heard to over the thousand mark," reports Alfred Razzando, RFD 1, Fayette City, Pa. "To date I have 37 in California, six in Oregon, 14 in Washington, one in Nevada, four in British Columbia and eight in Baja California—making a total of 71 veries from the Pacific Coast. Some of my best veries are 10BI, 10AK, 10BP, 10BQ, CKCK, VAS, CJLS, KGU, LXL, KFIO, KUJ, KVI, KXA, KWSC, KERN, KPMC, KGFJ, KRKO, KYOS, KLX, KWG, KQW, KFXM, HJB, CMC, XEN and XED. Have been hearing strangers on 800 or 810 and on 1100 keys, in the early morning hours, and would appreciate information as to their

identities. Also would like tips on the best time to hear stations in Alaska and Newfoundland."

We rather imagine that a lot of listeners throughout the United States would welcome tips on how to log those stations in Alaska and Newfoundland. Perhaps RADEXers may have some ideas.

# Experimental DX Party

"I'd like to DX with a DXer from Minnesota Virginia, Texas, and Kansas from local midnight to 6 23rd." Saturday, April a.m. on states Warren E. Winkley, Hughson, Calif. "The purpose of this would be to study DX conditions in the early Spring. Next season I want to try this every three months. The first DXer from those states to write me, will be chosen to take part in the experiment."

This is something new in the way of DX parties and we are sure that it should appeal to listeners in the states mentioned. While information concerning the exact procedure to be followed was not given, interested DXers may obtain this by writing to Mr. Winkley. Listeners in other parts of the country, who may wish to listen in on the morning of April 23rd, are invited to send their reports to us.

"I have just received a verifica-KATE." tion from contributes Leonard Woodall, Route 2, Plano, Texas, 'which gives some information about their station. They use a 250-watt Western Electric transmicrophones and speech mitter, a 242-foot equipment, and have Blaw Knox vertical radiator. Their regular schedule is from 7:30 a.m., EST, until local sunset. Their FCC frequency check is scheduled between 3 and 3:20 a.m., EST, on the second Friday of each month. According to the station, all correct reports accompanied by return postage will be verified."

Word from Washington indicates that the FCC is revising its frequency check schedule and listeners may expect quite a radical change. As soon as a copy of the schedule is released, it will be published in RADEX.

### **Reception Helps**

Judging from recent reports, stations to the South continue to break through the broadcast spectrum with considerable strength, and many DXers are finding it increasingly difficult to identify the Spanish-speaking broadcasters. The following list of stations more frequently heard was compiled by Carroll Weyrich and Earl Roberts of the Newark News Radio Club, and appeared in the January 10th NNRC bulletin:

appearedIn the SahuaryNNRC bulletin:570 CMCY Havana, Cuba600 CMQ Havana, Cuba625 TIPG San Jose, Costa Rica630 CMCD Havana, Cuba650 TIX San Jose, Costa Rica720 CMK Havana, Cuba755 CMBL Havana, Cuba760 CMHX Clenfuegos, Cuba810 CMCF Havana, Cuba830 LR5 Buenos Aires, Arg.850 CMCM Havana, Cuba854 OAX4A Lima, Peru880 CMW Havana, Cuba854 OAX4A Lima, Peru880 CMW Havana, Cuba960 YV5RQ Caracas, Venezuela960 YV5RA Caracas, Venezuela960 YV5RG Caracas, Venezuela1005 YV5RG Caracas, Venezuela1005 YV5RG Caracas, Venezuela1006 CMBX Havana, Cuba1107 CMBX Havana, Cuba1108 LJ3ABD Bogota, Colombia1110 CMCJ Havana, Cuba1120 YV1RF Maracaibo, Venez.1190 LS2 Buenos Aires, Arg.1200 CMCO Havana, Cuba1220 HJ3ABE Bogota, Colombia1230 CMCB Havana, Cuba1245 TGW Guatamala, City1260 CMC Havana, Cuba1300 CMCA Havana, Cuba1410 CMCQ Havana, Cuba1410 CMCQ Havana, Cuba1440 CMOA Havana, Cuba1410 TGMCH Havana, Cuba1410 TGMCH Havana, Cuba1410 TMCY Havana, Cuba1410 TMCY Havana, Cuba1410 CMCY Havana, Cuba1410 TMCY Havana, Cuba1410 TMC

It is likely that Radexers will be able to make additions to this list. If such information is forwarded from time to time, we will keep the list up to date and run it every month.

Another way to increase a log with new stations is to get up early in the morning and catch the stations as they sign on for the day. From the Universal DX Club bulletin of January 1st, the following list of sign-on times was computed by Isaac T. Davis. The first column gives the frequency, the second column the call, and the third the sign-on time as a.m., Eastern Standard. Four stars (\*\*\*\*) indicate an all-night station.

550 WKR 560 WQA3 560 KWA3 570 WNA 580 WIBU 590 WEV 600 WICC 610 WCL 630 WMA 640 WHK 680 WPT 700 WLW 730 XEPM 760 XEOH 760 XEOH 760 XEOH 780 WEA 800 WEA 800 WEA 840 XERA		1070 WTAM 6:00 1080 WBT 6:30 1090 KMOX 6:30 1120 KRSC ***** 1130 WJJD 6:45 1140 KVOO 6:55 1150 WHAM 6:30 1160 WWVA 6:00 1170 WCAU 6:00 1170 WCAU 6:00 1170 WSAZ 6:00 1200 WJBW ***** 1230 WNAC 6:00 1250 WNEW ***** 1260 KOIL 6:00 1260 WHIO 6:00 1260 WHIO 6:00 1260 WHIC 6:	
		1290 WNEL 5:45	
		1300 KFAC ****	
850 WWL	6:30	1310 WFDF 6:00	
870 WLS	6:30	1320 KRNT 6:00 1340 WSPD 6:30	
890 KFNF 920 WWJ	F 6:30 6:00	1340 WSPD 6:30 1350 WAWZ 6:00	
920 WWJ 930 KMA	6:00	1370 WBLK 6:00	
940 WDA		1370 KRE ****	
950 WRC	6:00	1380 WSMK 6:00	
960 XEAV	V 5:45	1390 WHK 6:30	
990 WBZ	6:00	1410 WAAB **** 1410 WHIS 5:00	
1000 WHO 1010 KNOY		1410 WHIS 5.00	
1030  CKLW		1420 KXL ****	
1040 KWJJ		1430 WBNS 6:30	
1040 WTIC		1440 WCBA 6:30	
1060 WBAI		1450 WGAR 6:30	
1070 KJBS	****	1500 WJBK ****	

#### **CMHJ DX Special**

"Due to absence from this city," writes Enrique Hidalgo, Prado 210, Cienfuegos, Cuba, "I have been unable to give another winter series of DX programs from CMHJ. I am now coaching the Cuban Olympic Track and Field Team, which will participate in the Central American Games at Panama from February 4th to 24th. However, CMHJ will broadcast on 1160 kcys, from 2 to 3 a.m., EST, on February 13th, and I will try to catch the program from Panama City. I am returning to Cienfuegos on March 1st and will direct another DX program over CMHJ from 2 to 6 a.m., EST. on Thursday morning, March 10th.

# Don Ameche



The career of Dominic Felix Ameche convinces us that boredom can be a good thing once in a while. For Mr. Ameche, it appears, was bored with the study of law, and gave it up to be an actor. Today, his acting has made him a star in the movies and on the air. Currently he is a co-worker of Charlie McCarthy and others on the Chase and Sanborn Hour on NBC.

There was a long period of academic wanderlust in Don's youth, and it carried him through a whole catalogue of educational institutions. First, he went through the public schools of his native Kenosha, Wisc., and then matriculated at St. Berchman's Seminary, at Cedar Rapids, Ia., where he met Honore Prendergast, the girl he later married. Then came courses at Marquette University, Georgetown University, Wisconsin University—none of which felt called upon to confer a degree on the roving scholar. All the while he was studying law, and liking it less and less with each course and lecture. Finally, for relief from the ennui of his textbooks, he turned to campus dramatics. Turned with a vengeance, too.

#### Answers An SOS

Well, one fine summer noon, the leading actor of the Jackson stock company in Madison broke his leg in an altercation with an automobile. A new Adonis was needed to replace the battered one by 3 that afternoon, and the impresario of the stock company was frantic. He sounded an SOS, and a dozen applicants rushed to the scene, but they were uniformly hammy. The impresario was on the verge of calling the show off when he remembered about that Ameche fellow who did such a good job in the university productions.

A messenger boy was sent to get Ameche, and the law student responded by cutting classes, rushing to the rehearsal hall, rolling up his sleeves and cramming on the part. He learned the role in two hours, made his debut, clicked, and was awarded a 20-weeks contract after the first performance.

Five months of dignified poverty followed a year's tour with this company, before he joined Fisk O'Hara in a play named Jerry, For Short. Then stock in Greenwich, Conn., vaudeville with Texas Guinan, an eight weeks' run in Illegal Practice. Then unemployed again.

Jobless Don went to Chicago, heard about a radio audition for an air program called Empire Builders, entered the competition, and won. Six years of bending over microphones, during which he starred in NBC's popular Grand Hotel and First Nighter dramatic series, made him a personality on the air. And

it was during his work on the networks that Darryl F. Zanuck, production chief at 20th Century-Fox, heard him, liked him, decided to his career, watched it. watch brought him to Hollywood, gave him a featured role in Sins of Man five hours after the boy arrived in Hollywood, and told the press that he considered the Kenoshan one of the most important screen discoveries in recent years.

### Gets Lead Role

This was no mere chatter on the part of Mr. Zanuck, who demonstrated his confidence in Ameche by assigning him the lead role in Ramona, opposite Loretta Young. On the basis of his performance in this picture, Ameche was awarded important roles in subsequent pictures.

Don is in his middle twenties, he stands six feet one, weighs 190 pounds, has dark hair, large brown eyes and a wide smile that displays a handsome set of teeth. His speaking voice is a soft baritone, his singing voice a light tenor. A son of pious Italian parents, he is deeply religious himself.

Ameche preferences The and aversions are many and interesting. He prefers poker to bridge, a pipe to cigarettes and he always eats a second slab of apple pie. He distight collars likes lettuce. and chicken a la king, and although he doesn't consider a cocktail a devil's potion, he likes grapefruit and Dago red much better. When he gets up in the morning he acts bewildered and cross, but once he's awake he's affability itself. He works out every day of the year-either tennis, swimming or riding, and he is in fine trim.

It is estimated that there are more than 57,000,000 radio sets in use by English-speaking families throughout the world.

# HELP for Our Puzzled Readers ••• By the TECHNICAL EDITOR

#### DX on 6 Tubes

I purchased a RCA Victor 6 tube set in 1937 but have had very poor reception. I would like to pull in a few DX programs but am wondering whether this set is too weak for short-wave reception. Is there some attachment that will clear up the air and eliminate interference that I get from a local station? This station comes in at several places on the dial. Other set owners say they get good reception nearby. Either end of the dial is also just a blur of stations. What can be done to improve this set?

Since other set owners do not experience this same trouble it is likely that your receiver is at fault. While it is true that only 6 tubes are used, the set is modern and is capable of giving DX and shortwave reception most of the time. While DXing with this set cannot be expected consistently, it will, however, be possible at frequent intervals when all the conditions are favorable. Also, DX on short waves with a set that has so few tubes is a question of careful tuning and much patience; it is quite practicable. Just how far and how much DX is possible with this set we cannot predict, but at least European and South American stations ought to be heard.

The local interference is due to some combination of harmonics within the set. This causes the interfering local to repeat itself at two or more points on the dial. If it is caused by an unfortunate combination of the station frequency and the receiver's intermediate frequency, it is likely that a good service man can readjust the i.f. of the set a small fraction, but this operation is not always to be recommended. Perhaps a wave trap will solve the problem, and we suggest that you discuss this with your serviceman, as he can build such a trap quickly and at little expense.

However, we believe that a complete examination of the set with a view of realigning the trimmers might correct the trouble. Since you have failed to furnish us with the model of this set it is impossible for us to go into the details of adjusting these parts. Your serviceman is capable of doing this quickly.

#### **Ultra Short Waves Weak**

I have a Zenith 12U 158 which I think should do better. A nearby local station covers about 30 points to either side of its assigned frequency. But I have not been able to hear anything on the ultra short waves unless I turn the volume up as far as it will go, and then all I get is a couple of amateur stations. My service man claims it is corrected and nothing is wrong. But one man says it needed new i.f. coils and a padder condenser. Are these coils alike, and what is the rating of the padder? Are they expensive?

You are the owner of a very good receiver. It should be sensitive and selective if in a proper operating condition. The fact that it brings in a local station over a wide part of the dial indicates that your antenna may be too long; that the station is quite nearby; or that the set is in need of readjusting. It may be necessary, although it is unusual, for some adjusting and aligning of the "A" broadcast band. Your local serviceman can do this. He must set his generator to 1400 kilocycles and then 600 kcs., adjusting both times the broadcast oscillator trimmer placed in front of the chassis. Then the r.f. and detector trimmers must be adjusted. On 600 kcs. the broadcast padder must be adjusted for greatest signal output. The four i.f. trimmers are adjusted with the generator set to 456 kilocycles. The "B" and "D" bands should not be touched unless they too are not properly lined up on the dial.

Band "C" for the ultra short waves has no adjustments. Great care must be exercised to see that the leads or their positions as well as the coils for the short waves are not moved or changed in any way, as this will affect the tuning of the band. Therefore, there is no adjusting to be done on this band.

Your short-wave troubles are quite common. Read the article in the January issue of RADEX on short, short waves. Reception on this band is neither consistent nor reliable. The same thing often applies to the 20-meter and 16-meter bands on 3-band sets. Remember that this seldom is the fault of the set. But it is true that lack of sensitivity on this band may be due to an open oscillator coil, open or shorted .0012 mfd. condenser, a shorted 50 mmfd. condenser across the high frequency coil, or grounded trimmer on the detector section of the tuning gang condenser. The first detector tube, a type 6L7G, often gives trouble; also, the second detector, a type 6H6G. The first tube, or the r.f., may also be failing on the high frequency band. We suggest that you first try replacing these tubes, or make a test substitution if they should appear to test up satisfactorily.

The two i.f. coils or transformers are slightly different in this set. They are relatively inexpensive, costing about \$1.25 each at the factory. The small padder condenser has a capacity range between 200 and 550 mmfds., and costs about fifty cents. We have our doubts whether these parts are defective, yet, of course, it is possible. This fact cannot be determined without a careful check.

# **DX** Signals Fade

A set which I now own is called the "Admiral." It has 19 tubes and two 12 inch speakers. Who makes this set? But on foreign reception the signals often come in with a wavy sound. Can you suggest the possible cause of this trouble? In addition to this, the set often cuts off suddenly and then comes in again with full volume. This trouble occurs mostly after dark between 5 and 9 in the evening. What type of antenna do you recommend?

"The Admiral" receiver is manufactured by the Continental Radio and Television Corporation. As there are over 30 models listed it is difficult to determine just which one is yours. All have an intermediate frequency of 465 kilocycles.

The wavy sound heard on the distant short waves is natural. Fading occurs in the upper atmosphere, and this causes the signals to diminish in intensity at irregular intervals. All DXers are familiar with this strange happening. It sounds as if the wind were blowing the signals along in waves. Fading is a natural thing-man cannot change it. But we do, however, control it to a great extent through the action of the automatic volume control in our receivers. As the signal begins to fade below the level of volume set for it by the hand operated volume control, the automatic volume control begins to feed it more and more current which boosts the audio amplification of the fading signal. This tends to maintain the signal at the constant level originally fixed by the volume control knob. However, as the fading signal goes down and the automatic volume control goes up, there is apt to be some distortion and increase in noise level. All this action, together with severe fading that the volume control cannot bring up to the predetermined strength, causes a wavy movement or the swishing or blowing sounds so often noticed. There is nothing that can be done about it except maintain the automatic volume control in good shape by replacing that particular tube from time to time if required.

Cutting off of signals is usually caused by some mechanical or elec-The trical defect within the set. heat created as the set warms up often expands some poorly made joint or contact and this suddenly opens the circuit and kills the set. Then, as the set cools, contraction sets in, the open circuit closes and the set commences again to operate. Such failure is perhaps more often observed in one of the resistor or condenser units as they are easily affected by heat, particularly the former. A tube can also cause similar trouble, but may not show it on formal checking. The tube must be operated for some time so it will become good and hot. Your serviceman should be able to locate the trouble, but first must run the set some time so it will heat up normally. The fact that this trouble comes on between 5 and 9 p.m. more than at any other time causes us to believe that there must be some increase or surge in the power line that creates voltage fluctuations, and these in turn throw a higher potential into the receiver and cause momentary strains on the defective parts. However, a simple thing like defective antenna wires or ground wires, worn lighting cords, etc., may also cause this cutting-off effect.

Your antenna is very good, and as long as the set tunes sharply it is not necessary to reduce its length to less than 80 feet. However, 40 feet is usually a good total length for a large and powerful set. The doublet antenna need not be used unless you are bothered with too much man-made interference, because it appears you are deriving excellent foreign reception when the set works.

### Automobile Noises

I have a very good set that utilizes twelve tubes of the most modern types. This receiver has four bands, one being for the very short waves. Automobiles bother me considerably on this one band, but they are heard correspondingly less as the wave bands progress toward the broadcast band. Can this automobile noise be eliminated entirely on all these bands?

The ignition system of an automobile consists of a number of spark plugs, at least six, and a distributor and circuit breaker contacts. All of these, when working, give off sparks and, as a result, tiny electro-magnetic waves. In the old days of wireless most transmitters were spark operated. Their signal waves carried thousands of So it is not at all surprismiles. ing that automobile spark systems should carry at least several hundred feet as they pass by our homes and antennas. Naturally all  $\cdot$  this causes interference in a radio setparticularly one that may be built into the car. In order to prevent interference with ignition-system reception in automobiles the car manufacturers have devised means of suppressing the tiny radio waves that are sent out every time the circuit-breaker contact in the distributor fires a plug. When a car that is so built, with a built-in radio set. passes your home, you will not be bothered with noise from the firing plugs in its motor. It will be a happy day for everyone when all cars are so built. But there are many

old cars and trucks on the roads, and some of them really can create a weird disturbance. There is nothing we can do about them.

What we can do, however, is to shield our radios and antennas as much as possible from this form of A noise-reducing aninterference. tenna with special twisted or shielded leadin wire is necessary. Most every make of noise-eliminating antenna system on the market today will cut out much of this motor unfortunately, auto But. noise. noises give more trouble on the very short waves, since the auto wave is quite short in itself. That is why auto interfernce is often heard on the very short waves but not on the broadcast waves when a special doublet antenna is used. Other than the use of such an antenna: the distant location of the antenna; pointing toward the street; and a long leadin, there is little else we can do to prevent auto noises on the short waves.

# Silvertone Short Waves

Please tell me what is wrong with my Silvertone 8-tube set. For the past several weeks the 9.0 to 18.0 megacycle band has been dead. I have been unable to get anything on this band, and if I can get stations on all three of the other bands I do not understand why I cannot get some stations on the fourth band, especially England and Germany which are supposed to be easy to aet.

There are a number of short-wave stations in the fourth band between 9 and 18 megacycles that you should get easily on this set. These include London and Berlin. The fact that this band is dead while the remaining three bands are normally active indicates that there is trouble on this short-wave band.

We suggest that the switch operating this band be examined carefully. It should make good con-

And all wires leading to it tact. and the associated coils must be well soldered. The coils must be perfect and not be broken or loose. The condensers in this particular band, trimming the short wave transformer, may be open or shorted. There are a number of things in the circuit that must be examined carefully by your service man. A poor tube, too, can cut out the short wave portion if it is not oscillating properly at the high frequencies. The second detector as well as the first might need replacing. Substitution of these tubes, even if they test satisfactory, sometimes is essential. Care must be taken not to move or change the position of any of the wires or parts of this circuit while making the examinations. Shortwave tuning, too, is tedious. Good reception is not always consistent; some nights are better than others. We think that a careful check will quickly locate your difficulty and renew the good qualities of this receiver which are built into it.

#### 10-Meter Band

My receiver seems to be dead on 10 meters, and not very sensitive on 20 meters. Amateurs on the Pacific Coast can be heard fairly well on the 20-meter band, but have not been able to get stations that far off on the 10-meter band. Their carrier wave is louder than the voice. This set is a Zenith 1938 with 15 tubes. The rest of the set works fine. Can I use a pre-selector to improve this set? What about the antenna?

Of course, you have a very good receiver. But radio reception on the very short waves is far from being consistent. There are times when the 10-meter band just simply closes up and the most expensive set in the world cannot penetrate it. Then, when the band opens up, almost any receiver capable of tuning to 10 meters can pick up signals. This question of short, short-wave reception is of considerable importance. In fact, it seems to us that sometimes the addition of these wave bands by standard all-wave receivers is still in the experimental stage. The most that can be said in favor of this ultra short wave band is that it is interesting and purely experimental. The builders and designers of your receiver have created the best that radio engineers can produce, but nature still has failed entirely to cooperate.

While you receive stations on the 20 meters as far as 2,000 miles distant, you might not be able to hear the same distance on 10 meters because of the skip-distance effect of the shorter waves. Also, we must not overlook that fact that 10-meter tuning is tedious and difficult-and the number of stations within range of your receiver, allowing for skip distance, might be very small. If there is an amateur radio station in your vicinity, it might prove to be an interesting experiment if you will communicate with him to find out how the two bands are working. and if good, see whether your set also is working on these bands. Your attention is invited to the short-wave article in the January RADEX, as mentioned in a previous query. As long as the remaining three bands work well, particularly the foreign 6,000 to 10,000 kilocycles band, it indicates that the set is functioning perfectly. However. trouble in the fourth or short-wave band is possible when that portion of the band switch is dirty or working poorly. In some cases the firstdetector or converter tube, a type 6L7G, may seem to be good, but cannot function well on the high frequencies. Substituting a new tube for this, as well as for the type 6J5G oscillator or the second detector 6H6, might make the fourth band more sensitive. Frequently

this experiment has proved the full answer to similar troubles. Your service and instruction booklet should also give some details for short-wave reception.

The 60-foot doublet furnished with this receiver should be used whenever possible. However, we have experienced cases when a single wire with good ground—an aerial about 30 feet long or less—has given the best short-wave reception. The doublet is recommended in every case, however, for all-round reception.

The use of a pre-selector with this or similar sets is not recommended. Your receiver is sufficiently sensitive, and more r.f. amplification will only add to the noise level and your tuning difficulties.

### **Reading DX Dial**

I have a 10 tube Silver Marshall model 726S receiver. Can you please tell me the best type of antenna to use for all bands? I now have a G. E. V doublet type, and while it seems to work well on the 49 meter band, it does not do so well on the other bands. And how do I find short-wave stations when the readings, for example, is-6.050 GSA GB 20? This set has two dials and the standard dial has to be turned below 55 kcs. or I get standard broadcasts even when I have the band switch turned to short waves. What causes this?

The doublet antenna you are using is one that has been quite satisfactory, but it might not be matched to your set. Sometimes a single wire, from 30 to 60 feet in length, with a good ground contact, is sufficient provided you do not have an excess of local noises and automobile traffic. In the latter case the doublet will reduce the static interference. You might write to the manufacturer and find out which antenna they recommend as being perfectly matched to the input impedances of their sets. In addition to your present type, there are several very efficient makes.

The listing of short-wave stations is given in all issues of RADEX. This, as given in your example, means: 6.050 indicates the dial setting or the frequency of the broadcast signals. It really means that this signal has a frequency of 6,050 kilocycles, or 6.05(0) megacycles. One megacycle is 1,000 kilocycles, or 1,000,000 cycles. It is a more convenient method of referring to the high frequencies which run into Your reading of large numbers. 6.050 mcs., represents 6,050,000 cycles or a wave length of 49.59 meters (300,000 divided by 6,050). So, when you see a reading like this in megacycles or kilocycles, it means that you should set your dial to a similar position in order to locate the station. Careful tuning is then necessary as the station may be a bit to one side of the setting.

The letters GSA, etc., after the frequency setting refer to the call letters of the station that operates on that particular frequency. Following the letters usually comes the location of the station—the city and country. The next figure, which, in your case is 20, refers to the power of the station in kilowatts. This station has a power of 20,000 watts, or 20 kilowatts. This is sufficient power, in normal times, to carry from England, where GSA is located, to most parts of America.

Now, if your dial is not subdivided into kilocycles on the shortwave band, some difficulty will be experienced in locating stations. On the standard broadcast band kilocycle readings will be given, usually ranging from 550 to about 1,500 kcs. These numbers correspond to those given in the tables in RADEX. But on the short-wave dial, reading from 1 to 100, several stations will have to be located first and their readings then indicated. Then you can estimate the spacing between these known points, by interpolation, and fix the tuning spot of any other short-wave station given in RADEX' lists.

If it is necessary to turn the standard broadcast dial down to 55. even when the short-wave switch is thrown to SW, in order to prevent broadcast stations from being heard on the short-wave band, there is something wrong with the switch. Have the parts carefully examined and replaced if found defective. Turning the broadcast dial below 55 cuts out any stations that may be heard, and leaves the short-wave dial free of interference. This trouble, too, will tend to weaken the short-wave reception. We suggest that this defect be looked into by a good serviceman, and he will be able to make correction quickly and at little expense for labor.

# Aligning Crosley 915

I have a Crosley 915 of 1936 which I have tried for long to adjust. It has 5 transformers and each has 5 set screws, and two other transformers with 2 and 3 screws each. I do not know which screws to set for the 5 different bands. Please tell me how to adjust this set and how to get at the parts to be fixed.

We do not recommend that you attempt any adjustments on this radio. To be done correctly it is a job that must be tackled by a good serviceman. First, you ought to have a signal generator or oscillator so as to tune the long wave and broadcast bands. And when you get into the short wave bands, especially the 5th band, a signal generator is an absolute necessity. There are many trimmers to be set, but there is no way of knowing when they are set properly and to proper frequency unless you have the generator and its associated output meters. In all (Please turn to page 38)

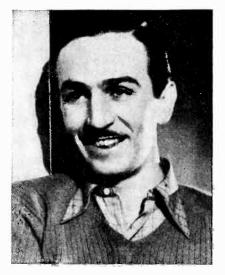
# The International DXers Alliance

HE International DXers Alliance, organized to promote and foster the hobby of DXing, is a little more than five years old, having been founded on November 1, 1932. The following January, the I.D.A. distributed to its less than 50 members the first monthly issue of the *Globe Circler*, a fourpage mimeographed bulletin.

By February of 1934, the bulletin had grown to 10 pages, about the maximum size practical for mimeograph production, so in March of that year the first 8-page printed *Globe Circler* put in an appearance. The *Globe Circler* has shown a steady growth and now includes from 16 to 20 printed pages of DX facts and photographs each month.

The growth of the I.D.A. has kept pace with that of its official organ, and today it is the world's largest honorary all-wave DX listeners organization, and numbers members and representatives in 45 states of the United States and in over 60 foreign countries. Besides the *Globe* Circler, the I.D.A. publishes monthly Ama-Touring, the only publication dealing exclusively with reception on the amateur bands. At irregular intervals, the I.D.A. also issues the Forum, an informal bulletin dealing with the activities of members.

Charles A. Morrison, Short Wave Editor of *Radio Guide* and a contributor to many radio publications, is the founder and president of the International DXers Alliance, and Editor of the *Globe Circler*. Cosharing with him in the responsibility of directing the wide-spread activities of the organization are three vice-presidents, a board of seven directors, an official secretary, and a staff of foreign representa-



Walt Disney's famous characters, Mickey and Minnie Mouse and all the rest of the gang, are heard on the new Red network show on Sunday afternoons at 5:30 pm.

tives and state managers.

The first local branch chapter of the I.D.A. was formed in Toledo, Ohio, in March, 1934. Since that date, local chapters have been organized in Phoenix, Ariz.; Los Angeles and San Francisco, Calif.; Revelstoke, B. C.; Regina, Sask.; Calgary, Alta.; Halifax, N. S.; Lansing, Kalamazoo and Detroit, Mich.; New York City, and in England, Malta and Australia. Each chapter is a focal point of I.D.A. activities and radio interest, with from 10 to The Foreign Affairs 50 members. Department of the I.D.A. is a special staff of correspondents set up for the purpose of maintaining contact with foreign countries and arranging special broadcasts from stations in those countries. During the

past five years, this department has been responsible for planning programs from every part of the world, including the first DX broadcasts ever to originate in several different countries.

The I.D.A. has sponsored three international DX contests, in each case giving valuable awards and trophies to the winners.

Special certificates of merit are available for outstanding accomplishments in the broadcast field. The hard to obtain, but eagerlysought-for, "Doctor of Short Waves" degree is conferred upon members who have achieved outstanding merit in the short wave field.

Each week special tip periods are sponsored by the I.D.A. over various radio stations. Outstanding is the weekly "Mail Bag" program broadcast over the international short wave stations W2XAF and W2XAD at Schenectady, N. Y., on Tuesdays at 6:35 p.m., EST.

The I.D.A. is essentially a nonprofit organization and is, therefore, financially dependent upon the small annual individual membership fees of \$1.25 for its continued existence.

Last but not least, the International DXers Alliance believes that, despite the apparent unrest in the world today, radio has been responsible for real progress towards a better spirit of co-operation between nations, and it is doing everything within its limited scope to aid in bringing about better conditions of friendship between nations and individuals.

The headquarters of the International DXers Alliance are at Bloomington, Ill., and full information about the club and a sample copy of the *Globe Circler* will be sent to anyone interested.

# Figyelem Magyar DX-erek!

A NEW radio club is being organized by the Hungarian DXers in America. A large fraternal and insurance organization has promised space in its weekly publication and a number of DXers have already offered their support of the plan.

The club, to be known as the "Veshovey Short Wave Club," was conceived by Albert Steinmetz of Bayonne, N. J. Some of the wellknown DXers who will support the plan are Julius Orosz of Cleveland, F. E. Bartholy of Pittsburgh, Joseph A. Markovits and Albert Farkas, Jr.

All DXers who will agree to report regularly to club headquarters will receive the official magazine, "Verhovayak Lapja" free for one year.

Hungarian radio fans from all over the world are invited to write to Albert Steinmetz, 125 West 27th St., Bayonne, N. J., for further details.

Walter Winchell prefers the role of Jergens Journal radio editor and daily newspaper columnist to that of film star. With two successful films to his credit, the NBC commentator claims he has had enough of Hollywood. His Sunday night program on NBC and his six newspaper columns a week are enough, he says, to keep him busy.

Parks Johnson, co-conductor of the NBC Vox Pop program and the new NBC Radio Newsreel program, is beginning to wonder if New York is doing things to him. Born in Alabama, a resident for many years of Texas, he speaks with a slight Southern drawl. Yet he has just received a letter from a fan who refers to his "typical Brooklyn accent."

# For the SHORTWAVE Fans

### Australia

The call sign VLR is now used by the Melbourne station formerly known as VK3LR. VLR transmits on 9580 kcs. from 1 until 9:45 a.m., EST. (RX72 I11).

#### Brazil

PSH, 10220 kcs., located in Rio de Janeiro, broadcasts daily from 7 to 9 p.m., EST. Announcements are in English and Portuguese, and they sign off with the Brazilian National Anthem. The address is Caixa Postal 709. (RX25 N. Y. RX27 N. Y., RX51 Mass., RX52 N. Y., RX76 Nebr., RX77 D. C., RX78 Minn., RX103 Conn.).

#### British Guiana

VP3THE has ceased transmitting and at this time the equipment is probably on the way to Georgetown, according to announcements from the station before it closed down. (RX34 Kans.).

### British West Indies

Station VP2LO in Saint Kitts will be on the air on 12765 kcs. from 3 to 10 p.m., EST. (RX51 Mass.).

#### Canary Islands

EAJ43 on 10370 kcs. is best received between 3 and 4 p.m., EST. (RX27 N. Y.).

#### Colombia

HJ1ABE in Cartagena is now on 4860 kcs., asking for reports, which are to be addressed to Box 31, Cartagena. This station signs off with an organ playing "Aloha Oe." (RX79 Ohio, RX90 N. Y.).

HJ2ABC in Santa Marta, 6025 kcs., is heard at 7:30 p.m. . . . HJ3ABH Bogota on 4900 kcs. have moved from 6012 kcs., and is heard near 9:30 p.m. broadcasting waltzes and announcing in English. . . . HJ1ABE in Cartagena is now on 4860 kcs. between 9:30 and 10 p.m. (RX34 Kans:). HJ6ABC on 4740 kcs., Ibague, is heard from 6 to 11 p.m. This was formerly HJ4ABC. HJ2ABJ, 4660 kcs., Santa Marta, is heard from 5:30 to 10:30 p.m. . . . HJ4ABP on 4880, Medellin, is heard near 11 p.m. (RX51 Mass., RX79 Ohio).

### Costa Rica

TI4NRH, "The Voice of Costa Rica," at Heredia, one of the oldest shortwave stations in the world, has returned to the air. This, "the most friendly station," employs 500 watts power now, and wishes reports by airmail. Schedules are maintained on Tuesdays, Thursdays and Saturdays from 9 to 10 p.m., and on Sundays from 7 to 9 a.m., EST., on 9670 kcs. The owner-operator-announcer is Amando Cespedes Marin. Apartado 40, Heredia. This station always acknowledges correct reports promptly. (RX23 Minn.).

TI4NRH was heard several times broadcasting test programs between 11:45 p.m. and 12:15 a.m. (RX25 N. Y., RX51 Mass.).

Station TIX in San Jose announces the call letters TIX in Spanish instead of the former call, TIXGP3. (RX34 Kans.).

TIPG on 6410, San Jose, was heard broadcasting the "Costa Rican Hour" and giving station announcements in Spanish and English. Verifications were promised in return for correct reports which are accompanied by the usual Reply Coupon. (RX25 N. Y.).

#### Ecuador

HCJB in Quito on 8830 kcs. transmits from 8:30 to 10:30 p.m. EST., daily except Mondays, and is heard best near 9 p.m. (RX51 Mass.).

The Ecuadorian on 9300 kcs. has been identified as HC2CW, "Ondas del Pacifico," situated at Guayaquil. Station "Radio Paris," also in Guaya-



Barbara Luddy, known to the nationwide NBC audience as the co-star of Campana's First Nighter broadcasts, is also the star of a day-time program, "Margot of Castlewood." She plays the title role in this new serial which is broadcast Mondays through Fridays at 10 am, EST, on the Blue network.

quil, HC2RA, is working on about 9480 kcs., next to HC0DA, "La Voz del Alma." (RX52 N. Y.).

#### Great Britain

Transmissions from Daventry in the Arabic language were inaugurated on January 3. This new service is broadcast daily on GSC, 9580 kcs., from 5:17 to 6:15 p.m. GMT.

#### Guatemala

Very attractive cards are sent out by TGWA in Guatemala City. The frequencies employed by this station, "The Voice of Guatemala," are 9685, 11760, 15170 and 17800 kcs. (RX30 Ky.).

#### Haiti

HH2S in Port-au-Prince, 5885 kcs., was heard on this new frequency broadcasting orchestra music at 9:45 p.m. Announcements are made on the even hour in French, Spanish and English. They sign off at 10:10 p.m. (RX34 Kans.).

#### Hong Kong

ZBW in Hong Kong is now heard well in the east. RX27 (N. Y.) heard it on 9525 kcs. between 5:30 and 6 a.m., EST.

#### Iceland

TFJ in Reykjavik, 12230 kcs., is heard with an R6 signal at 2 p.m. on Sundays. News in English is broadcast at this time. (RX23 Minn., RX27 N. Y.).

#### Italy

IRF, Rome, on 9830 kcs., broadcasts the American Hour from 7:30 to 9 p.m., EST. (RX23 Minn., RX51 Mass.).

#### Japan

JZJ on 9535 kcs. is on the air from 4:30 to 5:30 p.m., and heard at about R6. (RX51 Mass., RX72 Ill.).

JVH on 14600 kcs. is heard at 7 p.m. with talks in Japanese, and after 11 p.m. with musical programs. (RX23 Minn., RX27 N.Y.).

#### Kwang Tung

JDY at Dairen is heard on 9920 kcs. at about 6:40 a.m. (RX23 Minn.).

Note: Kwang Tung is a former Russian province in N. E. China; leased to Russia in 1898 but ceded to Japan by Treaty of Portsmouth in 1905; capital, Dairen.

Kwangtung is a province in S. E. China; capital, Canton.

(Funk and Wagnalls)

#### Martinique

"Radio Martinique" announced that they are on the air at 12:30 p.m. daily, in addition to their regular program from 6:45 to 7:45 p.m., EST. This station has also been heard several times on late night broadcasts, once near 11:55 p.m. and again at 12:50 a.m. (RX51 Mass.).

#### Mexico

A station known as "Radiodifusora del Pueblo," located at Guadalajara, Jalisco, Mexico, is on the air from 9 to 11 p.m. on 7090 kcs. No call letters are announced. It is owned by the National Revolutionary Party, and the address is Madero 210, Guadalajara. (RX51 Mass.). XETW in Tampico, on 6045 kcs., is heard through heavy interference, relaying the programs on XEFW. (RX34 Kans.).

XEWW, Mexico City, 9500 kcs., broadcasts world news near 8:30 p.m. (RX51 Mass.)

### Netherland Antilles

PJC1, Willemstad, Curacao, in the Netherland Antilles (formerly the Netherland West Indies) was heard broadcasting orchestral music at 8:15 p.m. on 5940 kcs. Announcements were exclusively in Dutch, and they signed off at 8:36 p.m. (RX34 Kans.).

### Panama

The Panama City station HP5B on 6030 kcs. is best heard at 6 p.m., although interference is heavy. (RX34 Kans.).

### Peru

"Radio Nacional del Peru" at Lima has been testing with the BBC on 15170 and 19780 kcs. between 6 and 8:45 GMT. (RX30 Ky.).

### Philippine Islands

Station KZIB, Cebu, on 900 kcs., has advised a member of the New Zealand DX Radio Association that they have a shortwave station under construction, but no frequency or other details were given.

### Spain

EAR in Madrid is broadcasting now from 7.30 to 8 p.m., EST, and again at 9:30 p.m. on Mondays, Tuesdays and Thursdays. Talks are given by various foreigners in Madrid. The signal strength varies greatly, from R1 to R8 or more.

# Straits Settlements

Alan I. Breen of Dunedin, New Zealand, reports that a shortwave transmitter is in operation relaying the programs of ZHL Singapore. At 7:55 a.m., EST. on a Saturday, a program of native music was in progress, and it was stated that this was an experimental transmission on 6085 kcs., scheduled to last until 11 a.m. The next experimental broadcast was announced for 5 a.m. the following Friday morning, on 9595 kcs. The call signs were understood to be ZHO and ZHP but it is not known which is which. The Singapore station on 6085 was heard with a much better signal than Rangoon, which has been well heard in New Zealand. Both stations should be heard in the United States.

#### Tahiti

FO8AA in Papeete, Tahiti, transmits from 11 p.m. until midnight on Tuesdays and Fridays. (RX27 N. Y.).

### Union of South Africa

The official schedule and call signs of the South African stations, as received direct from Johannesburg, are given below:

There are four stations as follows: ZRD, Durban, 10 watts, broadcasts on 6150 kcs.

ZRH, Roberts Heights, near Pretoria, employs 5000 watts power on 6007 and 9523 kcs.

ZRJ, Maraisburg, near Johannesburg, using 200 watts, transmits on 6097.5 kcs.

ZRK, Klipheuvel, near Cape Town, 5000 watts power, transmits on 6097.5 kcs. and 9606 kcs.

The best time for reception of these stations in the United States is from 11:45 p.m. until 12:45 a.m., EST. The following frequencies are employed at that time: ZRD 6150, ZRH 9523, ZRJ 6097.5, ZRK 9606. The complete schedules of all the stations are given in our s.w. index. (RX23 Minn., RX88 U. S. Africa).

The South African Broadcasting Corp. is now issuing verification cards. Instead of call letters, the initials of the company are printed in large green letters. (RX75 Kans.).

Roberts Heights and Klipheuvel are naturally the most easily received of the South Africans. Roberts Heights is slightly the better of these two. Reported by RX51 Mass., RX76 Nebr., RX80 Ont., and RX88, Union of So. Africa.

# United States

W8XK on 15210 kcs. is on the air with a new antenna and new transmitting equipment, and is now heard with a much-improved signal. Reports are requested. (RX51 Mass.).

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 February issue are shown below:

#### New

1.674	KSPH	Hillsborough, Calif. 25 w.
1.706	12.2.2	Ten Portable-Mobile sta-
1,100		
		tions in Oregon, each 10
		watts, as follows: KOHF-
		H-I-J-O-V-W-X-Y-Z.
2.382	WASP	Selma, Ala, 100 w.
2.442	WBNC	
2.442	WISINC	New Castle, Ind. 40 w.
2.442	WBPD	Bloomington, Ind. 40 w.



Oliver Wakefield, young English comedian whose sentence-twisting monologues have been heard on several major network programs and in New York's most exclusive night clubs, is the master-of-ceremonies on the new Paul Whiteman program. He is heard at 8:30 and 11:30 pm on Fridays over the CBS.

#### Uruguay

The Montivideo station CXA8 can be heard daily from 7 p.m. until midnight. (RX27 N. Y.).

#### Vatican State

HVJ, Vatican City, was heard on 11750 kcs. at 9:55 a.m., EST, with a good R8 signal. They were also on 15120 kcs. at the same time. (RX61 Ariz.).

#### Venezuela

YV3RB in Barquisimeto is now working on the announced frequency of 6465 kcs. (RX81 Tex.). This station is heard with its best signal between 10:05 and 10:30 p.m. Announcements are in Spanish, Italian, French and English. (RX25 N. Y.).

YV1RH has a very loud signal, on 6365 kcs. Its programs feature Spanish and American "swing" music, played by a studio orchestra. (RX25 N. Y.).

YV1RL Maracaibo on 5930 kcs. is best near 9 p.m.; YV3RA in Barquisimeto reaches maximum strength near 9:15 p.m. on 5895 kcs. (RX34 Kans.).

#### Phones

INB, Belgium, on 10630 kcs., phones and broadcasts to the Belgian Congo from 2 to 3:30 p.m., EST. HSP in Bangkok, Siam on 17740 kcs., works from 9 to 10 a.m. OPL in the Belgian Congo, 20040 kcs., phones Belgium from 8 to 9 a.m. (RX27 N. Y.).

SUZ in Cairo, Egypt, can be heard testing frequently near 3 a.m., EST. (RX72 Ill.).

#### Apex

W2XDR, owned by Radio Pictures, Inc., 3104 Northern Blvd., Long Island City, N. Y., transmits near 9 p.m. on about 43 megs. (RX27 N. Y.).

W8XWJ, "little brother" of WWJ, Detroit, now broadcasts regularly scheduled programs independently of any other station. It is on the air fourteen hours daily with its own programs, arranged under the direction of Wellington Granzow, former program man of WWJ. W8XWJ employs a new 500 watt Western Electric transmitter, installed on the top of the Penobscot Building. The frequency is 41 megacycles.

#### The Reporters

- RX23, Carl and Ann Eder, Pouch A, Willmar, Minn.
- RX25, George Nahas, 147 Seeley St., Brooklyn, N. Y.
- RX27, Raphael Geller, 1652 Radcliff Ave., Bronx, N. Y.
- RX30, R. J. Naber, 417 S. Western Parkway, Louisville, Ky.
- RX34, Martin Olthoff, Independence, Kans.
- RX51, G. L. Harris, 60 N. Holden St., N. Adams, Mass.
- RX52, Samuel A. Meyer, Jr., 83 Canterbury Road, Rochester, N. Y.
- RX61, Francis McDonald, 215 E. 34th St., Tuscon, Ariz.
- RX72, Gail Beyer, 3226 Sunnyside Ave., Chicago, Ill.
- RX75, Billy Richardson, Rich's Cafe, Halstead, Kans.
- RX76, Edward Danielson, Jr., Pawnee City, Nebr.
- RX77, Chas. S. Greenwood, 115 Second St., N. E., Washington, D. C.
- RX79, Theodore Johnson, 821 W. Woodland Ave., Youngstown, Ohio.
- RX80, George Wood, Komoka, Ont., Canada.
- RX81, M. W. Oliver, Houston, Texas.
- RX88, Mrs. R. S. Roche, 77 Durban St., Aliwal N., Union of So. Africa.
- RX90, Charles Genan, 205 Barrett Ave., Jamestown, N. Y.
- RX103, Edwin D. Eaton, 35 Center St., Wethersfield, Conn.

In Bulletin No. 195 of the Chicago Short Wave Radio Club, 345 shortwave stations are listed. A running head on one of the pages reads, "And to think, eight years ago there were less than 25 s.w. stations!"

# 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.

#### C-E

CE-: 1AH (i); 1AO (gi); 3AA (f); 5CM (g); CX3BL (i); EA9AH (e); EI2L (ac). **F**-G

FA3HC (k); FB8AD (k); FB8AH (k); FI8AC (k); F8KQ (h); G5ML (d).

**HC-:** 1FG (g); 2HP (f); **HH-:** 2B (a); 2G (h); 2LD (e); 5PA (ad); **HI-:** 1P (g); 2W (h); 3N (dfh); 5X (ad); 7G (a); 7I (f); **HK-:** 1JN (de); 1JO (f); 1Z (i); 3JA (ah); 4AG (e); HP1A (g); HS1BJ (k).

**KA**-: 1BH (i); 1ME (i); 1YL (i); **K4**-: EAY (f); ENT (a); ENY (a); FAY (a); GJF (f); **K6**-: BAZ (g); BHL (*j*l); CMC (j); LKN (g); MTE (j); MZK (g); NZQ (gj); OQE (e); VCK (g); K7FBE (j).

LU-: 1DA (f); 1DJ (afg); 1QA (af); 4BH (a); 4CZ (f); 4BH (f); 5CZ (agh); 6KE (i); 7AC (h); 7CA (d). N-O-P

NY2AE (l); OA-: 4AL (a); 4R (a); OX2QY (ae); PK6HR (k); PY1MK (f); PY7AI (a).

TG1AX (f); **TI-:** 2AV (j); 2FG (a); 2FI (f); 2RC (ag).

**v-w v-w v-v intervelows intervelows** 

**XE-:** 1F (a); 1KY (g); 1LF (f); 2CY (g); 2EC (d); 2HB (g); 2HD (a); 2IY (g); 2JK (g); 2KM (l); XU8JR (i); XU8MC (i). **Y** 

YI2BC (k); YV-: 1AP (e); 4AA (h); 4AB (eh); 4AF (c); 4AO (e); 5AA (ade); 5ABA (e); 5ABF (ae); 5ABG (a); 5ABG (e); 5ABY (a); 5AD (e); 5AE (de); 5AK (ae); 5AM (e); 5AZ (e). Z

ZL3BI (g); ZP2AC (ik); ZS3F (a); ZU6P (e); Z6AF (f).

#### The Reporters

- Gail Beyer, 3226 Sunnyside Ave., Chicago, III. Carl and Ann Eder, Pouch A, Will-mar, Minn. (a)
- (b)
- Charles Genan, 205 Barrett Ave., Jamestown, N. Y. Francis Gmeiner, 661 E. 109th, (C) (*d*)
- Cleveland, Ohio. Ralph Hanford, Jr., 1433 Addison (e)
- St., Chicago, Ill. Gilbert Harris, 60 N. Holden St., (f)N. Adams, Mass.
- Francis McDonald, 215 E. 34th St., (g)Tueson, Ariz.
- (h)
- Tucson, Ariz.
  Geo. Nahas, 147 Seeley St., Brook-lyn, N. Y.
  T. E. Plewman, Canadian Mission Press, Chengtu, West China.
  Dale Smith, Eugene, Oregon.
  M. E. Smith, 2974 E. 67th St., Claude and Object (*i*)
- (j) (k)
- Cleveland, Ohio. Hadley Wilcox, 623 Los Angeles, Calif. . 623 W. 40th Place. (l)

Richard W. Fales of the Globe Circlers DX Club, Roslyn Heights, N. Y., informs us that the membership fee in this club has been reduced from \$1.50 to \$1.25 per year. As before, this includes full contest and other privileges, as well as their bi-weekly ten-page bulletin.



"Hello, Stranger," hilarious trade-mark of Sam "Schlepperman" Hearn, comes over the NBC-Red Network on the Jack Benny show on Sunday nights.

## Station News

C TATION CMBD has moved from ightarrow 1170 to 1260 kcs, and now shares time with CMC, on the following schedule:

CMBD, Monday, Wednesday and Friday from noon to 6 pm; Tuesday, Thursday and Saturday, 6 am to noon and 6 pm, to 6 am.

CMC, Monday, Wednesday and Friday, 6 am, to noon and 6 pm, to Tuesday, Thursday and 6 am: Saturday, noon to 6 pm.

The Magic Key of RCA, popular program broadcast at 2 o'clock on Sunday afternoons, is now radiated over four Cuban stations. CMQ on 600 and CMBZ on 1000 kcs, carry the program, as well as shortwave stations COCO on 9770 and COBZ on 9030 kcs.

A construction permit for the erection of a new station, held by the Telegraph Herald Co. of Dubuque, Iowa, has been suspended. in accordance with a mandate of the U. S. Court of Appeals, as the result of a Stay Order obtained by Sanders Brothers Radio Station. The permit for station construction KDTH, 1340 kcs, 500 watts daytime, was granted on July 2, 1937. It will be held in abevance pending determination of the appeal.

CMO, which recently moved from 880 to 600 kcs, is expected to change frequency again soon. Our Cuban informant suspects the change will be to 1010 kcs.

Cuba became the first nation to ratify the Pan-American radio treaty, when President Bru signed it on December 22. The signatures of the United States and Canada are required, and Mexico must signify its willingness to sign, before the treaty becomes effective.

The application of WRVA Wheeling for permission to use 50 kw, power has been favorably considered by an FCC examiner.

Two stations whose issues have been in the D. C. Court of Appeals have been granted permission by the court to proceed with construction. KUTA Salt Lake City and KXOK St. Louis are the stations which have been reinstated.

#### **Examiners' Recommendations**

Examiners have recommended that construction permits for new stations be granted the following applicants:

Petersburg Newspaper Corp., Petersburg, Va., to operate on 1210 kcs, 100 watts nights, 250 watts to LS, unlimited time except Sundays. Examiner recommended denial of the same facilities to Havens & Martin, Inc., and John Stewart Bryan of the same city.

Burl Vance Hedrick, Salisbury, N. C., to work on 1340 kcs, 1000 watts days.

Gerald A. Travis, La Porte, Ind., to operate on 1420 kcs, 250 watts daytime.

Sims Broadcasting Co., Globe, Ariz., to transmit on 1210 kcs, 100 watts nights, 250 to LS, unlimited time.

Gila Broadcasting Co., Safford, Ariz., to operate on 1420 kcs, 100 watts nights, 250 watts days.

Harwell V. Shepard, Denton, Texas, to work on 1420 kcs, with 100 watts days.

Frequency Changes Recommended

Grant of CP was recommended conditionally to KSLM, Salem, Ore., to change freq. to 1360 and power to 500 watts, unlimited time.

WELI, New Haven, Conn., authority to change freq. to 930 kcs, power to 500 watts days, 250 watts nights.

WMFJ, Daytona Beach, Fla., to change freq. to 1240 kcs, and power from 100 to 1000 watts.

WGRC, New Albany, Ind., to change freq. to 880 kcs, and hours of operation from daytime to unlimited.

# The Stamp Corner

### • • • By David Brockton Browne

The House of Representatives has passed a bill which will permit the reproduction of pictures of United States stamps. The bill requires only the President's signature.

"W HY collect postage stamps anyway?" Perhaps some of RADEX' large family of readers have been asking themselves that very question. If so, we shall attempt to answer it.

Practically every man, woman, and child collects something—either as a vocation or an avocation. The love to acquire is inborn and is a strong human urge. Stamp collecting helps fulfill that urge.

Many people long for something in which they can express their own individuality without the hampering bonds of conventionality, and the many other "thou shalt nots" that each one of us meets—consciously or unconsciously — every day of our lives.

In stamp collecting, the individual is his own master—he can collect what he chooses and when he chooses. If he wants to collect nothing but stamps with pictures of ships or castles—he may. And many wonderful collections have been built along specialized lines. If he wants a general collection with a little bit of everything—that again is his choice. He may do whatever fancy dictates—within reason.

Likewise, stamp collecting provides a means of traveling in foreign countries that may be enjoyed not once but many times. In these days of crowded events—when the names of many foreign places new to your acquaintance appear almost daily in your newspaper—or in short-wave broadcasts from foreign countries stamp collecting comes to the rescue like a trusted friend.

When we read-or hear over the radio—that the mighty Alcazar has been stormed, the splendid Madrid post office damaged by bombs, or that the Japanese are advancing on the Great Wall of China-we need but glimpse at the stamps which portray these fine examples of architecture-to visualize the events more clearly. Stamp collecting is a great aid in keeping up with the geography of these changing times; just as radio is a great aid in keeping accurately posted on the everchanging currents of human thoughts and emotions the world around.

#### Cover Collecting

Closely allied with postage stamps is cover collecting. There are many types of covers: First day of issue, first flight airmail, naval, merchant marine, historical cachets, etc. But first, what is a cover?

A cover is an envelope on which appears the correct amount of stamps, and postal markings to coincide with the event for which it was given postal service. For example, a first day cover of—let us say—the 3c Virgin Island stamp, would *not* be a first day of issue cover unless it had that particular stamp used for postage and was cancelled at Charlotte Amalie, Virgin Islands—the official first day city on December 15th, 1937—the official day of issuance.

Likewise, airmail first flights must have the proper cancellations and inscriptions, and except in cases of certain emergency flights, must bear postage amounting to the current airmail rate. Naval covers are another case in point where the cancellation is all-important. These covers must be cancelled aboard a United States or foreign warship or authentic naval shore station—to be naval covers.

Merchant marine covers are those envelopes which have been carried by commercial passenger or freight vessels on their various cruises and bear ship markings to attest that fact.

Many of these covers will have cachets—an illustration placed on an envelope to record or commemorate an important or significant event—past or present. The cover may have a cachet that is a work of art—but remember this—if the cancellation is not accurate—the cover has little value except as a curiosity.

Covers bearing the cancellation of the U.S.S. S. Panay, recently sunk in the Yangtze river, near Nanking, China, by Japanese airplanes, are now eagerly sought after by collectors. Until this event focused attention on American naval ships in the Orient, it is doubtful if a large percentage of citizens realized that the United States has an Asiatic Fleet of more than twenty naval vessels constantly guarding American lives and property in the Far East. Likewise, our navy's European Squadron of three vessels patrols the coasts of Spain and nearby shores in the interests of peace. Covers from naval ships abroad are of true historical worth—they are living reminders of the prominent events in the life of our era.

Stamp and cover collecting also affords one an opportunity to correspond with other collectors having kindred interests. The short wave amateur band and correspondence with foreign collectors are two of the greatest safeguards for better international understanding.

The question naturally arises how can reliable correspondence be contacted? One way to contact them is through an international hobby club. One of the most outstanding is the Guiana Hobby Club of British Guiana. With over 2000 members in 100 different countries —interested in nearly fifty different hobbies—it is not difficult to find a member in the country of your choice who is interested in the same things you are—whether it be radio, stamps, or china elephants.

For accurate information on naval and merchant marine covers, the most reliable source is the Universal Ship Cancellation Society, an organization of more than 1000 collectors, principally in the United States. A long-established society, it has done much to accurately publicize the excellence and fine character of the navies of the world, particularly the American fleet, both at home and abroad.

Each of these organizations publishes interesting magazines. Should any of our readers desire further information, we shall be glad to forward complete details on both societies—without charge or obligation—if you will write to The Stamp Editor in care of RADEX. Please enclose a large-sized stamped, addressed envelope for reply. Your courtesy in this regard will be sincerely appreciated.

#### Stamp Digest

During 1937 the United States issued eighteen different stamps. They are: Army—2c, 3c, 4c, 5c; Navy—2c, 3c, 4c, 5c; Northwest Territory—3c; Virginia Dare—5c; Souvenir sheet for the Society of Philatelic Americans convention—10c; Constitution Sesquicentennial — 3c; Hawaii—3c; Alaska—3c; Puerto Rico 3c; Virgin Islands—3c; and Trans-Pacific air mail—20c and 50c. Many of these stamps are still on sale at most U. S. post offices. How many of them do you have?

No definite announcement of the *United States* stamp program for 1938 has been made at this writing. However, we know that the present regular issue is due for replacement, and at least three more Constitution commemoratives, a Delaware Tercentenary, and probably another Northwest Territory stamp are planned. It is also possible that a ten value "Heroes of Peace" series

will appear during the early fall of 1938 as well.

*Siam* will shortly issue a new set of twelve stamps for regular postage. Designs will feature the young King Ananda, landscapes, and ruins and monuments of the kingdom.

*Greece* commemorated the marriage of Crown Price Paul with a special series of three stamps; 1, 2, and 80 leptas.

1938 will see the replacement of the King George V regular series throughout the *British Empire* by the King George VI stamps. Some of George V stamps have not had a particularly long life—so should become good property for the future.

Your Stamp Editor appreciates the fine messages of encouragement and the suggestions that RADEX' readers have kindly sent in during the past month. They are all very welcome. Have *you* written yet? Cheerio!

## Help for Readers

(Continued from page 27)

cases like this we strongly suggest that a serviceman be called. Complete alignment can be accomplished quickly and at very little cost since no new parts are involved unless one or more tubes are weak or inoperative.

#### 23-Tube Scott

Nearly two years ago I purchased a 23-tube Scott receiver. Of late it changes its calibration. On the broadcast band it is off 10 kcs. On the red and green band it also is off. The set was sent to the factory, but it is again off and will not stay put. What causes this set to act so, and can it really be fixed so it will retain its adjustment?

The Scott receivers are as well made as it is humanly possible to assemble and adjust any radio receiver. Even after careful examination and specification of parts, resistors or by-pass condensers will become defective because of the high voltage strains placed upon them. Heat also has its detrimental effects.

Drifting-off of dial readings may be due to some defect as mentioned above, a weak tube, or moisture in some of the coils. Since you have returned the set to the factory it is safe to assume it was carefully realigned and appeared to be as good as new when sent back to you. It is likely, however, that a weakness in some resistor or condenser has changed the calibration again after the set operated for a certain length of time. These defects are difficult to locate, and perhaps the Scott Laboratories should have held the set for a longer time so as to watch its actions over a longer period. There is little to be done except to carefully check these parts, and realign the set by again adjusting the trimmers. Your local man can do this and save the cost of shipment to the factory, but we suggest that before doing so, you write the Scott people, mentioning RADEX. We know these sets can be fixed, and they will remain that way indefinitely.

TIME CONVERTERThe RADEX Map of the World<br/>the most useful accessory any<br/>the most useful accessory any<br/>the dial shows<br/>the dial shows<br/>the dial shows<br/>the dial does<br/>to is necessary; the dial does<br/>to is necessary; the dial does<br/>to is necessary; the dial does<br/>tho the world.Wou Carle Get Along<br/>Without It.The price is only25cc<br/>(26e in Ohio)



Walter O'Keefe, the "Broadway Hillbilly," is now on the Mardi Gras program with Lanny Ross, Charles Butterworth, Jane Rhodes and Raymoni Paige's Orchestra. Hollywood Mardi Gras is broadcast on Tuesdays from 9:30 to 10:30 on the Red network.

Sidelights on the career of Walter O'Keefe, who on January 4 joined the Hollywood Mardi Gras program starring Lanny Ross and Charles Butterworth: Attended school in his native Hartford, Conn. . . . Went to Notre Dame where he lived at home of the late Knute Rockne . . . Classmate was Charles Butterworth. . . . After graduation worked for Fort Wayne, Ind., Sentinel . . . First seen on Broadway in "Third Little Show" starring Beatrice Lillie and Ernest Truex. . . Starred later on radio, his latest assignment being master of during Fred Allen's absence.

All the shortwave stations of the world will be listed in the April issue of RADEX. This will be the most comprehensive list of shortwave stations ever published.

# Across the EDITOR'S Desk

NE of the many things that makes an editor's job a pleasant one is the correspondence that he receives from his readers. From many different lands these letters come from people in every walk of life . . . sailors, housewives, executives, rachmen. ambassadors, missionaries and movie stars, and each of them has something important to tell us, covevery conceivable subject ering from abalones to Zulus. We enjoy so much this daily pastime of reading the mail that this month we are passing some of the pleasure along to our readers. Glance over our shoulder as we open the morning's mail.

The most bulky package this morning comes from the Federal Communications Commission. It is an alphabetical list of all the broadcasting stations of the United States, 92 mimeographed pages giving the call letters, locations, frequencies, day and night power and time designation of the stations. All this data will be checked against our indices before this day is over, so readers can be assured that all the information given on the back pages of this book is accurate down to the smallest detail.

From Arthur La Motte of 1105 Nottingham Road, Wilmington, Del., we find a letter requesting information about station NAA. This station, situated at Arlington, Va., used to broadcast time signals on 690 kcs, but this transmission was discontinued in 1936. Several long and short wavelengths are used now, but the best way to get the time signals is from the NBC Red Network stations at 12 o'clock noon.

#### The Nassau Station

The Secretary of the Nassau station ZNS, Mr. K. P. Brown, informs



Tyrone Power, NBC dramatic star, owes his present success as a movie and radio star, in some measure, to radio. Long before the young Hollywood star entered movies, he had a featured role in Grand Hotel, where he struck up a friendship with Don Ameche. Power is heard in Hollywood Playhouse every Sunday at 9 pm on the Blue.

us that they are pleased to verify reports of reception from their listeners, and that there is no need for return postage to be included as all their correspondence is officially ZNS is occupying temporary paid. studios at the present time, but expects to move into new studios located in the new telephone building, when construction of the building is completed. Their verification form gives the following information: Call sign pronounced "Zed En Ess;" position of station, Nassau, Island of New Providence; Power, -400watts; frequency, 540 kcs; present hours of working, 1:30 to 1:45 pm and 8 to 9 pm, EST. The following items may be used for identification purposes: opening signal, St. Margaret's Chimes, London; relay of Big Ben and Westminster Chimes, London, when available, at 8 and 9 o'clock; signature tune, "God Save the King." Programs from Daventry are frequently relayed. The address is Office of the Superintendent of Telegraphs, Central Bay St. (P. O. Box 48), Nassau, Bahamas.

Gilbert L. Harris of North Adams, Mass., informs us that SPW on 13635 and SPD on 11530 kcs, at Warsaw, Poland, are using a new identification tune. It consists of a few bars from a song entitled "The Haunted Castle."

A note from Dr. Staads of Los Angeles gives the name of a German stamp collector, Herr H. Holst, Ulzener Strasse 22, Luneburg, Germany. Mr. Holst wishes to exchange cancelled United States and Canadian stamps, and those of Central and South America, for stamps of equal value from European countries.

From Georgetown, British Guiana, Mr. Bert Humphrey, founder of the Guiana Hobby Club, sends the schedule of his local station VP3MR. This station, known as "The Voice of Guiana," transmitting on 6070 kcs, broadcasts from 5 to 8:30 pm local time, or 3:45 to 7:15 pm, EST. The "Weekly Mail Bag" program is featured on Saturdays at 7:15 pm EST.

#### About Aerials

There are two letters about aerials, both of them rather long, but the ideas may be helpful and we'll pass them along in condensed form, so our readers may benefit from the experiences of these DXers.

George Nahas, "The Demon DXer" of Brooklyn, N. Y., says that radio reception in his locality is extremely difficult, and that reception of even the local stations is nearly impossible, with the exception of WOR. To overcome this difficulty, he erected an aerial consisting only of a three-foot piece of wire and with it has brought in amateur stations on the 20 meter band from many foreign countries. With his three-foot antenna he gave most of the stations an R8-9 report, while with any other type of areial the best he could give them was R5-6. "So, don't rush out and buy the same set your fellow DXers are using just because they are pulling in lots of stations," he advises. "Instead, consider your location, and if the location is bad, the best receiver cannot better it. Just get up on the roof and do a little experimenting with different antennas, and put in a good ground. It seems to me that nearly every location requires a different type aerial, so it is a good idea to try many different installations until the right combination is found."

The other aerial experimenter is Edwin Worthington of 7203 Short St., Vancouver, B. C. "After reading about vertical aerials in RA-DEX, I decided to see what I could do with one," his letter reads. "A search through a junk box in the basement revealed a piece of No. 10 copper wire, weather proof insulation, about 5 feet long. I hammered the end of this out flat, drilled a No. 8 hole and filed it out to make a spade tip suitable to fit on the antenna binding post of the The doublet aerial and the set. short inverted L aerial were disconnected and this single wire attached, straight up at the back of the set. The results were perfect; signal strength as good as with the inverted L; quality and selectivity equally as good; distance reached—well, that's a story in itself!

"I tried out the broadcast band first, from 8:30 until 11 pm PST, and, among others, got the following stations, all over 2200 miles away: WSB, WWL, WBT; over 1500 miles, WENR, XEP, and a host of other stations over 1000 miles away. Considering the fact that Pacific coast stations are in full swing at this time, I think this long distance reception was quite remarkable.

"After giving the shortwaves a whirl, I decided my new aerial was just as good as the ones I had formerly used. Then I decided to try to increase its length. Since the wire in use reached to within three inches of the ceiling it was not possible to add to that end, but I attached another length of No. 10 wire to the antenna post and pointed it toward the floor. A definite increase in volume was noted, and VK3LR (now VLR) was heard much louder than ever before."

#### **Oceanic Changes**

From A. I. Breen, on vacation in Wellington, New Zealand, comes a "letter card" informing us that 2ZB, Wellington, changed frequency on January 9th from 1120 to 1130 kcs. The move was made to avoid interference from 4BC in Brisbane, which is particularly well heard in New Zealand.

Mr. Breen's not also states that 4 PM at Port Moresby, Papua, is broadcasting simultaneously on its broadcast frequency of 1360 kcs, and a shortwave frequency of 7300 kcs. He believes the latter transmitter is that of VIG. The regular schedule of 4 PM is weekdays only, 10 to 11 pm and 3 to 5 am, EST.

#### Around Europe

The Italian shortwave stations inform us that the popular "American Hour" is now being broadcast over IRF on 9830 kcs, as well as 2RO-3 on 9630, thus giving the shortwave listener a chance to tune to the other station should one be received badly. IRF has already been reported by many listeners.

The shortwave stations at Belgrade, Jugoslavia, send fortnightly program sheets printed in Serbian, French, German, Turkish, Albanian and Hungarian. We believe they will be sent post free to anyone who requests them. The current program folio includes ten pages of articles about Jugoslavian people, places and industries, and the words and music of a popular Jugoslavian song, in addition to broadcast details. The Belgrade station is YUA, "Radio Beograd," on 6100 kcs.



Anne Seymour and Bob Griffin, stars of the popular NBC serial, the Story of Mary Marlin, pose for the first picture ever taken of them together.

Digging deeper into the mail, we find a five-page letter from D. H. Dussek, Morland Hall, Alton, Hants, Gt. Britain. It is long enough, and interesting enough, to merit a column by itself . . . in fact, we believe we *will* give it a head and byline.

> Radio in England By D. H. Dussek

The greatest excitement here this month has been the inauguration of Arabic transmissions from GSC, Daventry. Western music has been practically eliminated from the broadcasts, and from all accounts, reception in the Near East is better than that from Romc. Since GSC and Rome operate on neighboring frequencies with Arabic programs at the same time, the stations are often confused; GSC should announce its identity more frequently.

All the broadcasting organizations in South America have been asked to publicize the coming news transmissions in Spanish and Portuguese from Daventry.

The Vatician City has a second active frequency of 5969 kcs, and power of 15 kilowatts, according to *World Radio*. Programs start at 2 pm on weekdays and 5 am on Sundays, and conclude when they have said all they want to say.

Motala, Sweden on 6062 kcs employs the call letters SBO, and on 11698 the call sign SBP is used.

Vienna, Austria transmits regularly on 6072 kcs with a power of 1.5 kilowatts. This station, call letters OER2, broadcasts on weekdays only, from 9 am to 5 pm EST.

The Norwegian station at Jeloy works on two frequencies, LKJ on 6130 and LKC on 9530 kcs. LKC transmits on the schedule shown in RADEX, and LKJ broadcasts from 11:30 am to 5:30 pm EST.

No further details on the station in the Channel Islands are available, but it has been reported that Radio Luxembourg is supplying the necessary capital.

It has been reported in the press that Italy has decided to close the station at Bologna, and to strengthen the stations at Rome, Bari and Trieste. Bologna operates on 986 kcs with a power of 50000 watts.

The new Hilversum station (Lopikerkapel) on 722 kcs with 17 kilowatts, now operates on a full schedule from 2:40 am to 6:40 pm, EST, relaying the programs of Hilversum No. 1.

It has been reported that the British Government has requested the French Government to put a ban on advertising in English from French stations. This will concern stations Poste-Parisien on 959, Lyons on 1393, Toulouse on 913 and Radio Normandie on 1113 kcs. A law may be introduced which will reduce the power of these stations.

### South African Reception

"I have been doing very well with Cuban stations lately," writes Mrs. R. S. Roche of 77 Durban St., Aliwal North, Union of South Africa. "I do no night DXing, but usually rise at 5 am and get the American I have heard COBZ and stations. fourteen others from Cuba, 41 broadcast band stations in the United States and 34 shortwave stations there; one Canadian BCB and 3 shortwavers; five broadcast and three shortwave stations from Mexico; fourteen broadcast and seven shortwaves from the Argentine, and nineteen stations from the rest of South America. Iceland comes in nicely, and Europe well.

"Laurenco Marques on 6137 kcs, CR7AA, and CR7BH on 11718, are our best local stations. They are on the air daily except Sundays from midnight to 1 am, and from 4:30 to 6:30 am, EST.

"I thoroughly enjoy the Magic Key programs on Sundays, and I hope the stations keep up their present strength so I can continue to hear them."

Mrs. Roche also sent complete information on the shortwave and broadcasting stations of South Africa, which information is included in another part of this issue.

#### Visitors Too

While perusing a letter from Warren Winkley of Hughson, Calif., in which he tells us, among other things, that nothing can beat a 150,foot inverted L for broadcast band. and a 60-foot inverted L for shortwaves, we are interrupted by a visit from a Lakewood lad (whose name we do not know) who wants to know if it is *really* possible to hear Guatemala on the broadcast band. Well, what could we do but tell him to try for TG1 on 1510, the best Guatemalan station in these parts, and we also told him that while he was at it, he might as well tune for LR1, Buenos Aires. on 1070. Both of them are pretty good stations. Before we had a chance to finish Warren's letter, though, Jack Siringer dropped in and gave us the latest dope on LR1. He is hearing it from R7 to R9 between 2 and 3 in the mornings, testing for Brussels and Washington. Jack also told us that TG1 has only 250 watts, but it is better than TGW; and he said that TGW is really on 1230 kcs, despite the fact they still show 1210 on their cards.

The morning is now fairly well spent, and we have to hurry through the rest of the letters. Mr. Winkley's letter included a note for Kenneth Pierce of Worcester, Mass., answering a question asked in RA-DEX. He says, "Regarding CFAC on 1-22-38 at 4:05 am EST they signed off 930 kcs with 1 kw and announced they would return at 9:30 EST that morning."

A card from CMQ 600 kcs, Havana, indicates that their programs are relayed by COCQ on 9740 kcs, and their slogan seems to be "Del Jabon Candado." The owners are Cambo y Gabriel, S. A.

Sr. Barbarrosa of *Radiomania*, Havana, announces that Cuba became the first nation to sign the treaty drawn up by the Telecommunications Conference in Havana last December, when the President of Cuba affixed his signature on December 22, seven days after the conference closed.

## The Stroud Twins

Coming into radio when listeners were just about fed up with overemphasis of comedy punch-lines, the almost lackadaisical comedy attack of the Stroud Twins has caught on—but definitely.

Clarence and Claude are their names, and they are regularly heard on the Chase and Sanborn Hour with Nelson Eddy, Edgar Bergen and Charlie McCarthy, and Dorothy Lamour.

The Strouds were born in Kaufman, Texas, which is near Dallas. Identical twins they were the cause of much confusion from the very start.

When they were boys in Texas, a friend of the family used to take Clarence out driving in a buggy. This woman, who was rather elderly, didn't like Claude at all, thought he was a very stupid boy. She was one of the few townspeople who claimed she could always tell them apart.

### Mistaken Identity

One day the twins' mother reversed the ribbons they had been wearing around their wrists, one pink and one blue. Claude went for the next buggy ride. Afterwards the elderly lady told Claude's mother how much smarter Clarence was getting every day.

"Growing up in the show-business" is a well-worn phrase but it fits the Stroud boys to perfection. When they were just youngsters, their uncle took them to a vaudeville show in Dallas which featured acrobats. The pair practiced what they had seen in the back yard of their home for months.

Satisfied that they had perfected an act, they tried it out before an agent for John Robinson's Circus. That was in 1922 and they were 12 years old. They stayed with the outfit for two years during which time they saved practically nothing.

When the Strouds decided to part company with the big top, they returned to their original idea of in vaudeville. appearing Thev hopped a freight-train for St. Louis which was a big booking center in the then prosperous days of They started out in vaudeville. small-time vaudeville where they met up with "a hard-shoe family" a dancing act. The two acts traded lessons, the Stroud Twins adding a new phase to their pantomime.

### **Become Articulate**

They finally reached the mecca of vaudeville artists—the Palace Theater, New York—in 1927. Oddly enough, it was here they first added talk to their act. The audience was so enthused, they kept calling them back for more and more. Finally, in desperation, they resorted to an old vaudeville trick to get off-stage. They made a curtain speech.

Clarence, in, his nervousness, talked on and on. Claude looked bored. Claude finally got an unenthusiastic word in and the audience roared. It was the birth of their comic style, for they continued to talk some in all their skits.

The bottom fell out of the vaudeville market a little sooner than the stock-market. The Strouds did the same as Edgar Bergen when this happened and left the country. They toured for a year in Australia in 1928.

Returning to the United States, they managed to work in vaudeville with night-clubs filling in when the going was thin. For three years, from 1933 to 1936, the team was split up while Claude was writing for one of the picture companies in Hollywood.

#### Never Thought of Radio

Last year, they returned to activity in the night-clubs, but never



Opal Craven, known to millions of radio listeners from coast to coast as the Lullaby Lady on the Contented program, has been busy every minute of her life. At the time when other little girls her age were busy with their dolls, she was spending long hours studying the clarinet, saxophone, trumpet, piano, and playing in Chatauqua auditorium from Nome to New Orleans.

even thought of radio. Their act was still two-thirds "silent." Until they were on Rudy Vallee's Royal Variety Hour, they had never seen the inside of a broadcasting studio.

Now that radio looks like their big chance for fame, they have decided that it's pretty interesting work but they do regret the fact that all those acrobatic stunts they've worked on for years must wait for television. Some of their tricks are "exclusives," too. That is, they can't be done by any other act.

A scout for Rudy Vallee's program caught their act in the Rainbow Room, made a note to audition them. They got a hurry call one day to report for the audition as there was an open spot in the next broadcast.

The pair turned in two smash appearances on the Vallee stanza and were rushed to Hollywood for regular appearances on the Chase and Sanborn Hour. As they left New York one turned to the other and said, "Say, Stroud, if we're going to be on there with Bergen, we've got to be funny." And they have been.

We are advised by Stanley B. La-Rue, president of the Before Breakfast DX Club, that dues in his organization are \$1.50 per year, which entitles members to bi-weekly bulletins and free membership in the Quixote Radio Club. A sample bulletin will be sent for five cents on request to Mr. La Rue at 309 S. Bedford Drive, Beverly Hills, Calif.

# 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

		NEW
960	CMKS	Guantanamo, Cuba
1280	XEXM	Mexico City, D. F.
1310	WGAU	Athens, Ga. J. K. Patrick & Co.
1500	KWEW	Hobbs, N. Mex. W. E. Whitmore
		REINSTATED
780	XEN	Mexico City, D. F.
1250	KXOK	St. Louis, Mo. Star-Times Pub. Co.
1380	CMCR	Havana, Cuba
1500	KUTA	Salt Lake City, Utah
		FREQUENCY
630	CMCD	Havana, Cuba, from 950
950	CMBC	Havana, Cuba, from 630
1100	XEL	Mexico City, D. F., from 780
1120	XEJP	Mexico City, D. F., from 780 Mexico City, D. F., from 1130
1170	CMBS	Havana, Cuba, from 770
1260	CMBD	Havana, Cuba, from 1170
1290	CMCU	Havana, Cuba, from 1280
		POWER
810	XEDF	Nuevo Laredo, Tams., 100 from 75
1410	CMCQ	Havana, Cuba, 5000 from 250
		NETWORK
840	CBL	Toronto, Ont., new CBC
1210	KROY	Sacramento, Calif., new CBS
1310	KARM	Fresno, Calif., new CBS
1310	KTSM	El Paso, Texas, new NBC
1310	WBRE	Wilkes-Barre, Pa., new NBC
1310	WBRK	Pittsfield, Mass., new CBS
1370	KGAR	Tucson, Ariz., new CBS
		DELETE
840	CRCT	Toronto, Ont.
1110	CMCH	Havana, Cuba
		OWNER
1210	CJCS	Stratford, Ont., Frank M. Squires
	PERMIT	TO CHANGE FREQUENCY
1190	WATR	Waterbury, Conn., to 1290
1240	KLPM	Minot, N. Dak., to 1360
1250	WCAL	Northfield, Minn., to 760
1250	WLB	Minneapolis, Minn., to 760
1310	KINY	Juneau, Alaska, to 1430
1310	WOL	Washington, D. C., to 1230
1420	KABR	Aberdeen, S. Dak., to 1390
	PERM	IT TO CHANGE POWER
570	CMCY	Havana, Cuba, to 10 kw.
570	KGKO	Wichita Fails, Tex., to 1000 (5)
590	WKZO	Kalamazoo, Mich., to 250 (1)

810	CMCF	Havana, Cuba, to 5000
850	WWL	New Orleans, La., to 50000
880	CMW	Havana, Cuba, to 5000
880	WCOC	Meridian, Miss., to 1000
900	KGBU	Ketchikan, Alaska, to 1000
920	CMX	Havana, Cuba, to 10000
950	WRC	Washington, D. C., to 1000 (5)
1000	CMBZ	Havana, Cuba, to 5000
1110	CMCJ	Havana, Cuba, to 5000
1170	CMBS	Havana, Cuba, to 5000
1190	WATR	Waterbury, Conn., to 250
1240	KLPM	Minot, N. Dak., to 500 (1)
1250	WCAL	Northfield, Minn., to 5000
1250	WLB	Minneapolis, Minn., to 5000
1260	CMBD	Havana, Cuba, to 5000
1300	KALE	Portland, Ore., to 1000
1310	KINY	Juneau, Alaska, to 250
1310	WOL	
1340		Washington, D. C., to 1000
	WCOA	Pensacola, Fla., to 1000
1350	CMCA	Havana, Cuba, to 5000
1420	KABR	Aberdeen, S. Dak., to 500 (1)
1430	WBNS	Columbus, Ohio, to 1000 (5)
1490	KFBK	Sacramento, Calif., to 10000
	PERM	T TO CHANGE LOCATION
<b>57</b> 0	KGKO	Wichita Falls, Tex., to Fort Worth
		OREIGN BROADCAST
		OREIGN BROADCAST New
601		Athens, Greece, 15000 w.
660	XGZ	Nanking, China. 10000 w.
1333		Thessalonica, Greece.
1000		Thessalomea, Greece.
		FREQUENCY
560	хннк	Shanghai, China, from 620
620	XLHB	Shanghai, China, from 560
720	XHHB	Shanghai, China, from 740
760	XMHD	Shanghai, China, from 840
800	XLHA	Shanghai, China, from 780
860	XLHG	Shanghai, China, from 640
860	2BH	Broken Hill, NSW, from 1060
880	4WK	Warwick, Qsld., from 1340
890	XHHV	Shanghai, China, from 880
970	XMHB	Shanghai, China, from 980
1000	4CA	Cairns, Qsld., from 1390
1080	XHHG	Shanghai, China, from 1020
1470	3MB	Birchip, Vic., from 1490
	0	
		OWNER
1050	2CA	Canberra, FCT, Canberra Broad-
		casters, Ltd.

# The Columbia Broadcasting System

Los Angeles, Calif.

Mason City, Iowa

Memphis, Tenn. Meridian, Miss.

Milwaukee, Wis.

Missoula, Mont.

Minneapolis, Minn.

Louisville, Ky.

Macon, Ga.

Miami, Fla.

Mobile, Ala.

(PN)

(D) (NW)

(D) (D)

(D)

(NW)

(NW)

(PN)

(D)

KNX

WHAS

KGLO

WREC

WCOC

WQAM

WISN

WCCO

KGVO

WALA

WMAZ

The Columbia Broadcasting System is divided into the following groups:

North Round Robin (NRR); Dixie (D); Northwest (NW); Southwest (SW): Midwest (MW); Midwest and West (MWW); Southwest and West (SWW); and the Pacific Net-

and West (MWW	(); Southw	est and	Mobile, Ala.	(D)	WALA
West (SWW); an			Montgomery, Ala.	(D)	WSFA
	iu the rac	me neu	Montreal, P. Q.	(NRR)	CKAC
work (PN).			Nashville, Tenn.	(D)	WLAC
			New Orleans, La.	(D)	WWL
			New York, N. Y.		WABC
Akron, Ohio	(NRR)	WADC	New York, N. Y.	(Shortwave)	W2XE
Albany, N. Y.	(NRR)	WOKO	Oklahoma City, Okla.	(S₩)	KOMA
Anderson, S. C.	(D)	WAIM	Orlando, Fla.	(D)	WDBO
Atlanta, Ga.	(D)	WGST	Parkersburg, W. Va.		WPAR
Atlantic City, N. J.		WPG	Pensacola, Fla.	(D)	WCOA
Augusta, Ga.	(D)	WRDW	Peoria, Ill.	(NW)	WMBD
Austin, Texas	(SW)	KNOW	Philadelphia, Pa.		WCAU
Baltimore, Md.		WCAO	Philadelphia, Pa.	(Shortwave)	W3XAU
Bangor, Maine	(NRR)	WLBZ	Phoenix, Ariz.	(PN)	KOY
Binghamton, N. Y.	(NRR)	WNBF	Pittsburgh, Pa.		WJAS
Birmingham, Ala.	(D)	WAPI	Pittsfield, Mass.	(NRR)	WBRK
Boston, Mass.	(NRR)	WEEI	Portland, Ore.	(PN)	KOIN
Buffalo, N. Y.	(NRR)	WGR	Providence, R. I.	(NRR)	WPRO
Buffalo, N. Y.	(NRR)	WKBW	Reno, Nev.	(PN)	ROH
Charleston, W. Va.		WCHS	Richmond, Va.	(D)	WRVA
Charlotte, N. C.	(D)	WBT	Roanoke, Va.	(D)	WDBJ
Chattanooga, Tenn.	(D)	WDOD	Rochester, N. Y.	(NRR)	WHEC
Chicago, Ill.	(NRR)	WBBM	Sacramento, Calif.	(PN)	KROY
Cincinnati, Ohio	. ,	WKRC	St. Louis, Mo.		KMOX
Cleveland, Ohio	(NRR)	WGAR	Salt Lake City, Utah	(MWW)	KSL
Colorado Springs, Colo.	(MWW)	KVOR	San Antonio, Texas	(SW)	KTSA
Columbus, Ohio		WBNS	San Francisco, Calif.	(PN)	KSFO
Dallas, Texas	(SW)	KRLD	Savannah, Ga.	(D)	WTOC
Davenport, Iowa	(NW)	WOC	Scranton, Pa.	(NRR)	WGBI
Dayton, Ohio	(	WHIO	Seattle, Wash.	( <b>P</b> N)	KIRO
Des Moines, Iowa	(NW)	KRNT	Shreveport, La.	(SW)	KWKH
Detroit, Mich.	(NRR)	WJR	Sioux City, Iowa	(NW)	KSCJ
Denver, Colo.	(MWW)	KLZ	South Bend, Ind.	(NRR)	WSBT
Dubuque, Iowa	(NW)	WKBB	Spokane, Wash.	(PN)	KFPY
Duluth, Minn.	(NW)	KDAL	Springfield, Mass.	(NRR)	WMAS
Durham, N. C.	(D)	WDNC	Springfield, Vt.	(NRR)	WNBX
Elmira, N. Y.	(NRR)	WESG	Syracuse, N. Y.	(NRR)	WFBL
Evansville, Ind.	(11111)	WEOA	Tacoma, Wash.	(PN)	KVI
Fairmont, W. Va.		WMMN	Tampa, Fla.	(D)	WDAE
Fresno, Callf.	(PN)	KARM	Topeka, Kans.	(SW)	WIBW
Great Falls, Mont.	(PN)	KFBB	Toronto, Ont.	(NRR)	CFRB
Green Bay, Wis.	(NW)	WTAQ	Tucson, Ariz.	(PN)	KGAR
Greenboro, N. C.	(D)	WBIG	Tulsa, Okla.	(SW)	KTUL
Harrisburg, Pa.	(12)	WHP	Utica, N. Y.	(NRR)	WIBX
Hartford, Conn.	(NRR)	WDRC	Virginia, Minn.	(NW)	WHLB
Hibbing, Minn.	(NW)	WMFG	Waco, Texas	(SW)	WACO
Honolulu, Hawaii	(,	KGMB	Washington, D. C.		WJSV
	(SW)	KTRH	West Palm Beach, Fla.	(D)	WJNO
Houston, Texas	(011)	WFBM	Wheeling, W. Va.	<b>v</b> - <b>r</b>	WWVA
Indianapolis, Ind.	(D)	WMBR	Wichita, Kans.	(SW)	KFH
Jacksonville, Fla.	(NW)	KMBC	Wichita Falls, Tex.	(SW)	KGKO
Kansas City, Mo.	(D)	WNOX	Winston-Salem, N. C	(D)	WSJS
Knoxville, Tenn.	(D) (NW)	WKBH	Worcester, Mass.	(NRR)	WORC
La Crosse, Wis. Lincoln, Nebr.	(NW)	KFAB	Yankton, S. Dak.	(NW)	WNAX
	(D)	KLRA	Youngstown, Ohio	(NRR)	WKBN
Little Rock, Ark.	(1)	IL LILLIA	, oungetonin, onto	()	

In response to demands of our readers, we will resume publication of the complete shortwave lists, in our April issue. Like our lists of four years ago, this new compilation will include frequencies, call letters, locations, power, addresses, indication signals and all other available information.

# When to Get the DAY'S NEWS

P-9:00

Don Lee System, Daily

KDB KDON KFRC KFXM KGB KGDM KHJ KPMC KQW KVOE **KX**O

E-1:60a.m.,C-Midn't., M-11:00 p.m., P-10:00

Don Lee System, Sunday only

Same stations as at Midnight. E-1:15 a.m., C-12:15, M-11:15 p.m.,

P-10:15 7 CBC-Daily

To CBC Pacific Network.

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

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

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, 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 WOAM WREC WSVA WSFA WSJS WTOC

Blue-Daily except Sunday To stations available

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-

9.00

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

E-12:15 p.m., C-11:15 a.m., M-10:15, P-9:15

CBS-Edwin Hill. C. Monday through Friday

KFAB KFH KGKO KLRA KMBC KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABE 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

E-Midn't., C-11:00 p.m., M-10:00, WMBD WMBR WMMN WNAX WNBF WNOX WOC WOKO WORC WPG WPRO WQAM WREC WRVA WSFA WSJS WTOC WWL WWVA

> E-2:00 p.m., C-1:00, M-12:00, P-11:00 CBS-Monday, Wednesday, Friday KFAB KFH KLRA KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO 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, Daily WASH WBCM WELL WFDM WIBM WJIM WKZO WOOD WXYZ

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

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

E-6:25 p.m., C-5:25, M-4:25, P-3:25 CBS-Press Radio, Saturday

Available to entire Network E-6:30 p.m., C-5:30, M-4:30, P-3:30

CBS-Press Radio, Mon., Tues Thurs., Fri.

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 WQAM WREC WSFA WSJS WTAQ WTOC WWVA

NBC-Red, Press Radio, Weekdays To all stations available

Biue-Saturday only To all stations available

E-6:40 p.m., C-5:40, M-4:40, P-3:40 CBS-Wednesday only 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. Same stations as at Midnight

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

### • • • Network News Flashes

Blue—Tuesday only WBAL WBZ WBZA WENR WHAM WJZ WSYR

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 WWL

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 CBS-Tuesday only KNX KSFO

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-10:00 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-Daily except Saturday

To National and French Networks Red-Friday only

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

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

To National and French Networks

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, Mon., Wed., Fri. KFPY KLZ KNX KOIN KOL KSFO KSL KVI WFBM

E-11:30 p.m., C-10:30, M-9:30, P-8:30 Red-Sunday only To all stations available CBC—Saturday To National and French Networks

### WHAT'S ON THE AIR TONIGHT

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

Network	Stations
Canadian (CBC)	production of the second se
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 WEEI WFBL WGR WHEC WHK WJAS WJR WJSV WKRC WOKO WSPD WTOC WWVA

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

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

**R** — Uncle Ezra's Radio Station KARK KFYR KGBX KGNC KPRC KTBS KTHS KVOO KYW KSTP WBAP WBEN WCAE WCKY WCOL WCSH WDAF WDAY WEAF WEBC WFAA WFBR WGBF WGY WHO WIBA WIRE WJAR WKY WMAQ WNAC WOAI WOOD WOW WRC WTAG WTAM WTIC WTMJ

#### E-7:30 p.m., C-6:30, M-5:30, P-4:30 B — Lum and Abner

WBZ WBZA WENR WJZ WLW WMC WSM WSYR

#### M — The Lone Ranger

WFIL WNBF WSYR WOR WXYZ

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

KMBC KMOXKOMA KRLD WABC WRRM WRT 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 P. - Burns and Aflen

CRCT KYW WBEN WCAE WCSC WCSH WEAF WFBR WFLA WGY WHO WIOD WIRE W1S WJAR WJAX WLW WMAQ WNAC WPTF WRC WRVA WSOC WTAG WTAM WTAR WTIC WWJ

#### Melody Puzzles; Harry Salter

KANS KDKA KECA KERN KFBK KFDM KFEL KFSD KGA KGHF KGHL KGIR KGO KGW KIDO KJR KLO KMJ KOB KOIL KRGV KRIS KSO KTAR KTMS KTSM KWG KWK KXYZ WABY WAGA WBAL WBOW WBRE WBZ WBZA WCKY WCOL WDSU WEAN WEBR WFEA WFIL WGL WHAM WHK WICC WJBO WJTN WJZ WLEU WLS WMAL WMPS WMT WORK WREN WROL WRTD WSAN WSGN WSPD WSYR 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 WHO WIAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

#### B - Campana's Grand Hotel

KDKA KFEL KFI KFSD KGA KGO KGW KJR KLO KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WLS 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

KLRA KLZ 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 WEEI WFBL WFBM WGAR WGST WHAS WHEC WHIO WIBX WISN WJAS WJR WJSV WKBW WKRC WLAC WMAS WMBD WNAX WOKO WORC WPRO WQAM WREC WRVA WWL Also on Canadian Network Fibber McGee and Molly

#### KFYR KPRC KSD KSTP KTBS

KVOO KYW WAVE WBEN WCAE WCOL WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WIBA WIOD WHO 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-8:30, M-7:30, P-6:30 R-Phil Spitalny's Girl Orchestra CFCF 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 WRC WRVA WSB WSM WSMB WTAG WTAM WTAR WTIC WTMJ WWJ

#### E-10:00 p.m., C-9:00, MI-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 Also on Canadian Network

#### - 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 WJZ WMAL WMT WICC 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 WKBW WKRC WOKO WSPD WWL

#### E-10:30 p.m., C-9:30, M-8:30, P-7:30 C - Brave New World

Available to entire network

#### R - Burns and Allen

KARK KDYL KFBK KFI KFYR KFBX KGHL KGIR KGNC KGO KGW KHQ KMJ KOA KOMO KPO

#### MONDAY (Continued)

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 WCO 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 — Amos '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. McCoil, Hollywood Talk KFAB KFH KLRA KMOX KNOW KOMA KRLD KRNT KTRH KTSA KWEH WABC WADC WIBM WBNS WIT WCAO WCAU WCCO WCHS WIDAE WDBO WDOD WDRC WEEI WFBL WCAR WGBI WGST WHAS WHEC WHIO WIBW WISN WJAS WJR WJSV WKRC WLAC WMAS WMBR WOC WOKO WORC WPRO WQAM WEEC WRVA WWL

#### E-7:30 p.m., C-6:30, M-5:30, P-4:30 C — Helen Menken, Drama

KFAB KFPY KIKO KLZ KMBC KMOX KNX KOIN KRNT KSFO KSL KVI WABC WBBM WCAO WCAU WDRC WEEI WFBL WGAR WGR WHAS WHEC WHIO WJAS WJR WJSV WKRC WOKO WORC WPBO

B — Dorothy Thompson; News WBAL WBZ WBZA WENR WHAM WJZ WSYR

#### E-8:00 p.m., C-7:08, M-6:00, P-5:00 R — Johnny with Russ Morgan

KFYR KPRC KSD KSTP KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCSH WDAY WBAY WEAF WEBC WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WNAC WOW WPTF WIC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

C — Edward Robinson; Claire Trevor CBM CFRB KFAB KFH KFPY KIRO KLRA KLZ KMBC KMOX KNOW KNX KOIN KOMA KRDD KRNT KSFO KSL KTRH KTSA KTUL KVI WABC WADC WBBM WBNS WBRC WBT WAOA WCAU WCCO WDAE WDBJ WDRC WEEI WFBL WFBM WGAR WGR WGST WHAS WHEC WHIO WIBX WISN WJAS WJAC WHIO WIBX WISN WJAS WJAC WHIO WIBX WISN WJAS WMBD WNAX WOKO WORC WPARO WQAM WREC WRVA WWL Also on Canadian Network

#### 3 — Those We Love

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

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

C — AI Joison; Parkyskarkus 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 WEAI WFBL WFBM WGAR WCR WCST WHAS WHEC WHIO WIBX WISN WJAS WJR WJSV WKRC WLAC WMAS WMBD WNAX WOKO WORC WPRO WQAM WREC WRVA WWL

Also on Canadian Network

#### 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 Done KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

#### E-9:00 p.m., C-8:00, M-7:00, P-6:00 C — Al Pearce and Gang

C — AI PEACE AND GANG CFRB CKAC KFAB KFH KGKO KLRA KNBC 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 WFRL WFBM WFEA WGST WHAS WHEC WHS WJAS WJR WJSV WKBH WKBN WJAS WJR WJSV WKBH WKBN WAS WMBD WMBG WMBR WMMN WAAC WNAX WNBF WNOX WOC WOKO WORC WOFA WSJS WSPD WTOC WWL

#### 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 WWJ

#### **B** — Horace Heidt Orchestra

KANS KDKA KFI KFSD KGA KGO KGW KJR KLO KOIL KPRC KSO KTHS KVOD KWK WAVE WBAL WBAP WBZ WBZA WEAN WEBA WFIL WFLA WHAM WHK WICC WIOD WIS WJAX WJZ WKY WLS WLW WMAL WMC WMT WOAI WFTF WREN WSB WSM WSMB WSOC WSPD WSUN WSYR WTAR WTCN WXYZ

#### E-9:30 p.m., C-8:30, M-7:30, P-6:38 R — Hollywood Mardi Gras

GFCF CHCT KDVL KFI KGHL KGW KHQ KOA KOMO KPO EPRC KSD KSTP KTAR KTBS KVOO KYW WAVE WBAP WBEN WCAE WCOL WCSC WCSH WDAF WDEL WEAF WEBC WFBR WFLA WGY WHO WIBA WIDD WIRE WIS WJAR WJAX WKY WMAQ WMBG WMC WNAC WOAI WOOD WOW WRC WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ

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

C — Benny Goodman's Orchestra KFAB KFH KFPY KGKO KIRO KLRA KLZ KMBC KMOX KNOW KNX KOIN KOMA KOY KRLD KRNT KSCJ KSPO KSL KTRH KTSA KTUL KVI KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WPRC WALA WBBM WBIG WBNS WPRC WALA WBBM WCAU WCCO WCHS WDAE WDBJ WDBO WDC WDOD WDAE WDBJ WDBO WDC WDOD WDAE WDBJ WHSD WJSN WJSW WISX WHSD WJSW WJSW WISX WMSD WJSW WKBW WKRC WLAC WLBZ WNBF WNOX WOC WOKO WORC WPG WPRO WQAM WREC WIXI WSBT WSFA WSJS WTOC WWL

#### 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

#### M — Eddie Duchin Orchestra

CKLW KALE KDB KDON KELA KFRC KFXM KGA KGB KGY KHJ KIEM KIT KMO KOL KORE KFMC KPQ KQW KRNR KSLM KVOE KVOS KXO KXRO WGN WIP WLW WNAC WOL WOR WRR

E-10:30 p.m., C-9:30, M-8:30, P-7:30  $\mathbf{R}$  — 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-10:45 p.m., C-9:45, M-8:45, P-7:45  $\mathbf{R} \longrightarrow Dale Carnegie; Winning Friends$ KDyL KFI KGW KHQ KOA KOMOKPO KSD KSTP KYW WBEN WCAEWCSH WDAF WDEL WEAF WFBRWGY WHO WIRE WJAR WLWWMAQ WNAC WOW WRC WTAGWTAM WTIC WWJ TUESDAY (Continued) 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-11:30 p.m., C-10:30, M-9:30, P-8:30 C — Al Joison; Parkyakarkus KFPY KLZ KNX KOIN KOL KSFO KSL KVI

Also on Canadian Network

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

#### WEDNESDAY

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

E-7:00 p.m., C-6:00, M-5:00, P-4:00 C — 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 WEEL WFBL WCAR WGBI WGR WHEC WHIO WIBX WJAS WJR WJSV WKBN WKRC WLBZ WMAS WMBR WOKO WORC WPRO WQAM WRVA WWVA R - Uncle Erra, 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

R — "Cheer Up"; Henry Burbig KYW WEAF WENR WTAM

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 WEBM WBNS WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WMBG WNAC WOKO WTOC WWL

#### R - One Man's Family

KDYL KFI KFYR KGW KHQ 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 WTAR WTIC WTMJ WWJ WWNC

Also on Canadian Network

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

C — Eddle Cantor; Deanna Durbin CFRB CKAC KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WERC 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 WWL

#### B — Harriet Parsons

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

R — Tommy Dorsey Orchestra

KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KYW WAVE WBEN WBRC WCAE WCSH WDAF WDEL WEAF WFAA WFBR WIA WYEL WGY WHO WIOD WIRE WIS WJAR WJAX WKY WLW WMAQ WMBG WMC WNAC WOOD WOW WPTF WRC WSB WSM WSMB WSUN WTAG WTAM WTAR WTIC WWJ WWNC

#### 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 KHJ KLKA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBG WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKBW WKRC WLAC WLBZ WMBD WMBG WMBR WMAS WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSIS WSPD WTOC WWI.

#### 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-9:30 p.m., C-8:30, M-7:30, P-6:30 C - Ben Bernie: Lew Lehr

KDAL KFAB KFBB KFH KFPY KGAR KGKO KGLO KIRO KLRA KLZ KMBC KMOX KNOW KNX KOH KOIN KOMA KOY KRLD KRNT KSCJ KSFO KSL KTRH KTSA KTUL KVI KVOR KWKH WABC WACO WALA WBBM WBIG WBNS WBT WCAO WCAU WCCO WCHS WCOA WCOC WDAE WDBJ WDBO WDNC WDOD WDRC WEEI WEOA WFBL WFBM WGAR WGBI WGST WHAS WHEC WHIO WHIB WHP WIBW WIBX WISN WJAS WJNO WJR WJSV WKBB WKBH WKBW WKRC WLAC WLBZ WMAS WMFG WMMN WMBR WMBD WNAX WNBF WNBX WNOX WOC WOKO WORC WPG WPRO WQAM WREC WRVA WSBT WSFA WSJS WTAQ WTOC WWL

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

KDB KERN KFAB KFBK KFII KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRI KTSA KTUL KVI KWG KWKH WABC WACO WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WCST WHAS 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 KCBX KGIIL KGIR KGNC KGU KCW KIQ KIDO KMJ KOA KOB KOMO KPO KPRC KSD KSTP KTAR KTBS KTIS KWG KYW WAPI WAVE WBEN WCAE WCSC WCSH WDAF WDEL WEAF WEBC WFAA WFBC WFBR WFEA WFLA WGL WGY WHO WIBA WIOD WIRE WIS WJAR WIAX 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 Saiter KDAL KFAB KFH KFPY KGKO KIRO KLZ KMOX KNOW KNX KOH KOIN KOMA KRLD KOY KRNT KSFO KSL KTRH KTSA KTUL KVI KWKH WALA WBBN 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 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 — Boake Carter, See Monday B — Lum and Abner, See Monday

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

#### THURSDAY

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

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C Poetic Melodies, See Monday
R — 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 WCAU WCCO WDAE WDBO WDRC WEEI WFBL WCAR WGR WHAS WHEC WHIO WHP WIBX WISN WJAS WJR WJSV WKRC WMBD WMBR WOC WOKO WPAN

E-8:00 p.m., C-7:00, M-6:00, P-5:00 C — Kate Smith; Jack Miller

CFRB CRCM KDAL KFAB KFH KGKO KLRA KMBC KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WBBM WBNS WBRC WHT

#### THURSDAY (Continued)

WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WEEI 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 CFCF CRCI KD11 KF1 KF1 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 Also on Canadian Network

B --- The March of Time KDKA KECA KERN KFBK KFEL KFSD KGA KGO KJR KLO KMJ KOIL KSO KWG KWK KXYZ WABY WAGA WBAL WBZ WBZA KXYZ WCKY WCOL WCSC WDSU WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMPS WREN WSPD WSYR WXYZ WMT

E-9:00 p.m., C-8:00, M-7:00, P-6:00 - Major Bowes' Amateurs

C — Major Bowes' Amateurs CFRB CKAC KDB KERN KFAB KFBK KFH KFPY KFRC KGB KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WACC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX 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 KFYR KGHL KGIR KGNC KGW KMJ KOA KOMO KPO KPRC KSD KSTP KTBS KWG KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEBC WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMBG WMC WNAC WOAI WOOD WOW WPTF WRC WSB WSM 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 CFCF 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 WIDW WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

Also on Canadian Network

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

C - Kate Smith; Jack Miller 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 - Lowell Thomas, See Monday в-

E-7:00 p.m., C-6:00, M-5:00, P-4:00 C --- Poetic Melodies, See Monday - Amos 'n' Andy, See Monday R

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 R - 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 — Hammerstein Music Hall KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRNT KSL KVI KWG WABC WBBM WENS WERC WET WCAO WCAU WCCO WDRC WEAN WFBL WFBM WFBR WGST WHAS WHK WJAS WJR WJSV WKRC WMAS WMBG WNAC WOKO WWL

#### - Cities Service Concert

CRCT CFYR KOA KPRC KSD KSTP KTBS KTHS KVOO KYW WBAP WBEN WCAE WCSH WDAF 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 - Paul Whiteman; Deems Taylor 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 WCST 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 KGW KHQ 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 WABC 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

E-11:15 p.m., C-10:15, M-9:15, P-8:15 WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WPG WOAM WREC WSPD WWL Also on Canadian Network

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

#### E-9:30 p.m., C-8:30, M-7:30, P-6:30 R - True Story Court

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

E-10:00 p.m., C-9:00, M-8:00, P-7:00 C - Frank Crumit; Reed Kennedy 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 WQAM WREC WRVAWSBT WSFA WSJS WTOC WWL

#### CBC --- Canada 1938

CBF CBL CBM CBO CBR CBW CFAC CFCF CFCH CFCN CFCO CFCY CFJC CFNB CFPL CFQC CHAB CHNS CHRC CHSJ CHWK CJAT CJCA CJCB CJIC CJKL CJOC CKBI CKCK CKCW CKGB CKOV CKOC CKPR CKSO CKX CKY

#### R - First Nighter; Drama

KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEL 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

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

#### R — Jimmy Fidler

KDYL KFI KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDEL WEAF WEAR WORT WDAT 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 WTIC WWJ

١

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

FRIDAY (Continued)

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

E-11:30 p.m., C-10:30, M-9:30, P-8:38 C — Paul Whiteman; Deems Taylor KFBB KFPY KGAR KGMB KGVO KIRO KLZ KNX KOH KOIN KOY KSFO KSL KVI KVOR

E-12:00p.m., C-11:00, M-10:00, P-9:00 CBC — Northern Messenger To Mideast and Western Networks

#### SATURDAY

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

E-7:30 p.m., C-6:30, M-5:30, P-4:30 C — Carborundum Band KFAB KMBC KMOX WABC WBBM WBT WCAO WCAU WCCO WEEI WFBL WGAR WGR WHAS WJAS WJR WKRC WPRO

B — Uncle Jime's Question Bee KDKA WBZ WBZA WGY WHK WJZ WMAQ

E-3:00 p.m., C-7:00, M-6:00, P-5:00 R — "Believe-it-or-not." Ripley KANS KDYL KFYR KGNC KOA KPRC KSD KSTP KVW 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 WFHL WFBM WGR WGST WHAS WHEC WHIO WHE WHP WISN WJAS WJR WJSV WKRC WMBD WMBG WNBF WOC WOKO WPRO WSBT WWVA

**R** — Jack Haley: Virginia Verrill KDYL KGNC KOA KPRC KSD KSTP KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDEL WEAF WEBC 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 KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI KWG WABC WBBN WBNS WBT WCAO WCAU WCCO WDAE WDBO WDRC WEAN WFBL WFBM WJAS WJR WJSV WKBW 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

C — Saturaay night Serenaue KFAB KFH KFFY KGKO KLRA KLZ KMBC KMOX KNOW KNX KOIN KOL KOMA KRLD KSFO KTRII KTSA KTUL KVI KWKII WALA WBBM WBIG WBNS WBRC WBT WGAO WCAU WCOA WDAE WDBO WDOD WEEI WFBL WFBM WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WLAC WMBD WMBR WMMN WNOX WOC WQAM WREC WRVA WSFA WTOC WUL WWVA

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

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

R --- NBC Symphony Orchestra Available to entire Red and Blue Network and to Canadian Network

E-11:00 p.m., C-10:00, M-9:00, P-8:00 B — National Barn Dance KDYL KFI KFSD KFYR KGHL

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

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

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

R — "Believe-It-Or-Not" Ripley KERN KFBK KFI KGW KHQ KMJ KOMO KPO KWG

#### SUNDAY

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

CFRB KERN KFAB KFBH KFBK KFH KFPY KFRC KCB KCVO KMBC KOH KOI. 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 Lake Tabernacle Choir CFRB KFAB KFBB KFBK KFH KFPY KFRC KGB KLZ KOH KOL KRLD KSL KTRH KTSA KVI KVOR WBG WABC WACO WADA WBIG WBNS WBRC WCAO WCCO WDAE WDBJ WDBO WESG WFBL WFEA WGR WHAS WICC WJAS WJR WKRC WLBC WMBR WMMN WOC WOKO WORC WQAM WSBT WSJS WSPD WTOC

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

#### C --- Church of the Air

KFBK KFH KFPY KFRC KGB KHJ KMOX KOH KOL KOMA KRLD KRNT KSCJ KSL KTRI KTSA KVI KVOR KWG WABC WALA WBNS WBT WCAO WCCO WDAE WDBJ WDBO WDRC WESG WFBL WFBM WGR WHAS WHP WINX WJAS WJSV WKBN WKRC WLAC WLBZ WMBR WNBF WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSPD WTOC WWA

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

#### B — Magic Key of RCA

CFCF ČRCT KDKA KDYL KFI KFYR KGU KGW KHQ 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

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

E-3:80 p.m., C-2:00, M-1:80, 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 WJK WJAS WHK WHP WIBX WJAS WHK WHP WIBW WIBX WJAS WHK WLP WIBY WHBY WMBD WMBG WABR WMMN WNBF WOC WOKO WORC WPAR WPRO WQAM WBT WSJS WTAQ WTOC WWL

#### Also on Canadian Network

R --- The Radio News Reel KSD KSTP KYW WBEN WCAE

#### SUNDAY (Continued)

WCSH WDAF WDEL WEAF WFBR WGY WHO WIRE WJAR WMAQ WNAC WOW WRC WSAI WTAG WTAM WTIC WWJ

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 Magazine of the Air

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

#### 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 WTAG WTAM WOW WRC WSAI WTIC WTMJ WWJ

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

E-5:30 p.m., C-4:30, M-3:30, P-2:30 C — Guy Lombardo and Orchestra KFR 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

#### - Smiling Ed McConnell

KANS KDKA KECA KERN KEX KFBK KFSD KFYR KGA KGIR KGO KJR KLO KMJ KOIL KSO WDSU WEAN WEBC WEBR WENR WFIL WHAM WHK WICC WJZ WMAL WMT WREN WRTD WSM WSPD WSYR WTCN WXYZ

R — Mickey Mouse Theater KANS KDYL KFI KGNC KGW KHQ KOA KOMO KPO KPRC KSD KSTP KVOO KYW WAVE WBAP WBEN WBRC WCAE WCSH WDAF WDEL WEAF WFBC WFBR WFLA WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WKY WLW WMAQ WMBG WMC WNAC WOAI WOOD WOW WPTF WRC WSB WSM WSMB WSUN WTAG WTAM WTAR WTIC WTMJ WWJ

E-6:00 p.m., C-5:00, M-4:00, P-3:00 C — Joe Penner; Gene Austin KFAB KFPY KGLO KLZ KMBC KMOX KNOW KNX KOIN KOL KOMA KRLD KRNT KSFO KSL E-8:00 p.m., C-7:00, M-6:00, P-5:00 WENN KTSA KVI WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBO WDRC WEEI WFBL WFBM WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WKRC WOKO WORC WPRO WQAM WREC WRVA

M — George Jessel; Tommy Tucker To entire MBS and Michigan Networks

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

CFRB CKAC KDAL KFAB KFH KFPY KGAR KGMB KIRO KLRA KLZ KMBC KMOX KNOW KNX KOH KOMA KOY KRID KRNT KSCJ KSFO KSL KTRH KTSA KTUL KVI WABC WADC WBBM WBT WCAO WCAU WCCO WDAE WDBO WDRC WEEI WFBL WFBM WGAR WGST WHAS WHEC WHIO WHLB WJAS WJNO WJR WJSV WKBW WKRC WLAC WMBR WMFG WNAX WNOX WOKO WPRO WQAM WREC WRVA WTOC WWL WWVA

#### A Tale of Today

WBEN WEAF WGY WJAR WMAQ WOW WRC WTAM

#### E-7:00 p.m., C-6:00, M-5:00, P-4:00 C - Jeanette 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 WGST WHAS WHEC WHIO WJAS 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 WWJ

Also on Canadian Network

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

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

#### B -- Ozzie Nelson: Harriet Hilliard

KARK KDKA KECA KFEL KEX KFSD KFYR KGA KGO KJR KLO KOIL KPRC KSO KSTP KTAR KTBS KTHS KVOO KWK WABY WAPI WAVE WBAL WBAP WBZ WBZA WCKY WCOL WDAY WEAN WEBC WEBR WFIL WFLA WHAM WHAK WIBA WICC WIOD WIS WJAX WJDX WJZ WKY WLEU WLS WMAL WMC WMT WOAI WPTF WREN WRTD WSB WSM WSMB WSOC WSUN WSYR WTAR WTMJ WWMC WXYZ

R - Don Ameche; Edgar Bergen CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KVOO KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFAA 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 WBUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

Also on Canadian Network

#### 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 KMON KOH KOIN KOL KOMA KNIJ KMOA KOH KOH KOH KOH KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WIBZ WMAS WMBD WMBR WNAC WNAX WOC WOKO WORC WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL WWVA

#### B - Tyrone Power; Drama

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

R — Manhattan Merry-Go-Round CFCF KDYL KFI KFYR KGW KHO KOA KOMO KPO KPRC KSD

KSTP KTBS KTHS KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFAA 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 KHQ KOA KOMO KPO KPRC KGW KHQ KOA KOMO KPO KPPC KSD KSTP KTBS KYW WAPI WAAYE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTMJ WWJ WWNC

#### B - Walter Winchell

KDKA KECA KEX KFSD KGA KGHL KGIR KGO KJR KLO KOIL KSO KTAR KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

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

B — Irene Rich, Drama KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR

SUNDAY (Continued)

WENR WFIL WHAM WHK WICC WJZ WMAL WMT WREN WSPD WSYR WTCN WXYZ

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

KFAB KFPY ELRA KLZ KMBC KMOX KNOW KNX KOIN KOL KRNT KRLD KSFO KOMA KSL KTRH KTSA KTUL KVI WABC WBBM WBNS WBRC WBT WCAU WCCO WDAE WDBO WDRC WEEI WEBL WEBM WGAR WGST WHAS WHEC WJAS WJR WJSV WKBW WKRC WMBR WNOX WOKO WORC WPRO WQAM WWL R - Rising Musical Stars

KPO KPRC KSD KSTP KTAR KTBS KTHS KYW WAVE WBAP WBEN WCAE WCSH WDAF WEAF WFBR WFLA WGY WHO WIBA WIDA WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WNAC WOAI WOOD 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 B --- Tyrone Power; Drama

KARK KPRC KTBS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

E-11:00 p.m., C-10:00, M-9:00, P-8:00 B - Irene Rich, Drama KDYL KFI KGBX KGW KHQ KOA KECA KERN KEX KFBK KFSD

KGA KGO KJR KLO KMJ KVOD KWG WAPI WAVE WJDX WMC WSB WSM WSMB

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

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

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

### **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., Red

Edgar Bergen-Charlie McCarthy, 8 p.m. Sun., Red Fannie Brice, 9 p.m. Thurs., Red Henry Burbig, 7:45 p.m. Wed., Red Bob Burns, 10:00 p.m. Thurs., Red Burns and Allen, 8 and 10:30 p.m., Mon., Red Charles Butterworth, 9:30 p.m. Tues., Red Eddle Cantor, 8:30 and 11:30 p.m. Wed., CBS 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 Jolson, 8:30 and 11:30 p.m. Tues., CBS Lew Lehr, 9:30 p.m. Wed., 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 Oliver Wakefield, 8:30 and 11:30 p.m., Fri., CBS

#### CONCERTS

Frank Black, 2:00 p.m. Sun., Blue Ford Sunday Evening Hour, 9:00 p.m. Sun., CBS Andre Kostelanetz, 9:00 p.m. Wed., CBS 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

#### DANCE BANDS

Robert Armbruster, 8:00 p.m. Sun., Red Ben Bernie, 9:30 p.m. Wed., CBS Oscar Bradley, 7:30 p.m. Sun., CBS Don Donnie, 9 p.m. Sun., Red Tommy Dorsey, 8:30 p.m. Wed., Red Eddie Duchin, 10 p.m. Tues., MBS Ted Fio Rito, 8:30 p.m. Sat., Red Al Goodman, 10:00 p.m. Sat., CBS; 10 p.m. Wed., Red

Benny Goodman, 10:00 p.m. Tues., CBS Jimmy Grier, 6:00 and 11:00 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 Horace Heidt, 9:00 p.m. Tues., Blue Carl Hoff, 9 and 12 p.m. Tues., CBS Wayne King, 8:30 p.m. Tues., 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 Frankje Masters, 8:30 p.m. Tues., Blue Jack Miller, S and 11:15 p.m. Thurs., CBS Billy Mills, 9 p.m. Mon., Red Russ Morgan, 8:30 and 11:30 p.m. Sat., CBS; 8:00 p.m. Tues., Red Ozzie Neison, 7:30 p.m. Sun., Blue Ray Noble, 8 and 10:30 p.m. Mon., Red Raymond\_Paige, 9:30 p.m. Tues., Red; 9:00 p.m. Fri., CBS Jacques Renard, 8:30 and 11:30 p.m. Wed., CBS B. A. Rolfe, 8:00 and 12:00 p.m. Sat., Red Harry Salter, 7:15 and 10:30 p.m. Wed., CBS; 8 p.m. Mon., Blue Seymour Simons, 6:30 p.m. Sun., CBS Harry Sosnik, 9 and 10:30 p.m. Sun., Blue Phil Spitalny, 9:30 p.m. Mon., Red Georgie Stoll, 9:30 p.m. Tues., CBS Johnny Trotter, 10:00 p.m. Thurs., Red Tommy Tucker, 6:00 p.m. Sun., MBS Rudy Vallee, 8:00 p.m. Thurs., Red Peter Van Steeden, 9:00 p.m. Andrs., Red Don Voorhees, 8:00 p.m. Mon., Red Dan Voorhees, 8:00 p.m. Wed., CBS Mark Warnow, 7:30 and 10:30 p.m. Thurs., CBS; 5 p.m. Sun. CBS Paul Whiteman, 8:30 and 11:30 Fri., CBS Meredith Willson, 9:00 p.m. Thurs., Red Victor Young, 8:30 and 11:30 p.m. Tues., CBS

#### DIALOG

Amos 'n' Andy, 7:00 and 11:00 p.m. Mon. through Fri., Red Easy Aces, 7:00 p.m. Tues., Wed., Thurs., Blue Fibber McGee and Molly, 9:00 p.m. Mon., Red Luin 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 Stroud Twins, 8:00 p.m. Sun., Red

55

#### DRAMA

- Campana's First Nighter, 10:00 p.m. Fri., Red
- Campana's Grand Hotel, 8:30 p.m. Mon., Blue Death Valley Days, 8:30 p.m. Fri., Blue
- Gang Busters, 10:00 p.m. Wed., CBS
- Eddie Guest, 8:30 p.m. Tues., Blue
- Jean Hersholt, 2:30 p.m. Sun., CBS
- Hollywood Hotel, 9:00 p.m. Fri., CBS
- Hollywood Playhouse, 9:00 and 11:30 p.m. Sun., Blue Lone Ranger, 7:30 and 10:30 p.m. Mon., Wed., Fri., MBS
- Lux Radio Theater, 9:00 p.m. Mon., CBS Helen Menken, 7:30 p.m. Tues., CBS
- One Man's Family, 8:00 p.m. Wed., Red
- Tyrone Power, 9:00 and 10:00 p.m. Sun., Blue
- Irene Rich, 9:45 and I1:00 p.m. Sun., Blue Edward G. Robinson, 8:00 p.m. Tues., 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

#### **POPULAR PROGRAMS**

- American Album of Familiar Music, 9:30 p.m. Sun., Red
- Believe It Or Not, 8:00 and 12:00 p.m. Sat., 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
- Cheer Up, America, 7:45 p.m. Wed., Red
- Cities Service Concert, 8:00 p.m. Fri , Red
- Contented Program, 10:00 p.m. Mou., Red
- Death Valley Days, 8:30 p.m. Fri., Blue
- Double Everything, 6:30 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
- How To Win Friends and Influence People, 10:45 p.m. Tues. Red

- It Can Be Done, 8:30 p.m. Tues., Blue Jello Program, 7:00 and 11:30 p.m. Sun., Red 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
- Magazine of the Air, 5 p.m. Sun., CBS
- Magic Key of RCA, 2:00 p.m. Sun., Blue
- Manhattan Merry-Go-Round, 9:00 p.m., Sun., Red
- March of Time, 8:00 p.m. Thurs., Blue
- Melody Puzzles, 8 p.m. Mon., Blue MGM Program, 9:00 p.m. Thurs., Red
- Mickey Mouse Theater, 5:30 p.m. Sun., Red 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
- Poetic Melodies, 7:00 and 11:00 p.m. Mon. through Frl., CBS
- 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., Frl., Red Swing School, 10:00 p.m. Tues., CBS
- Texaco Town, 8:30 and 11:30 p.m. Wed., CBS Town Hall Tonight, 9:00 p.m. Wed., Red
- True Story Court, 9:30 p.m. Fri., Red
- Uncle Jim's Question Bee, 7:30 p.m. Sat., Blue
- Vick's Open House, 7:00 p.m. Sun., CBS Voice of Firestone, 8:30 p.m. Mon., Red
- Vox Pop, 9:00 p.m. Tues., Red

- Waltz Time, 9:00 p.m. Frl., Red Watch the Fun go By, 9:00 and 12:00 p.m. Tues., CBS
- We, The People, 7:30 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
- Morton Bowe, 5 p.m. Sun., CBS Henry Burr, 9:00 and 11:00 p.m. Sat., Blue
- Rachel Carlay, 9:00 p.m. Sun., Red John Carter, 8 p.m. Sun., Red
- Buddy Clark, 8 p.m. Mon., Blue; 9:30 p.m. Wed., CBS
- Jerry Cooper, 9:00 p.m. Fri., CBS
- Alice Cornett, 10:00 p.m. Fri., CBS
- Richard Crooks, 8:30 p.m. Mon., Red
- Bing Crosby, 10:00 p.m. Thurs., Red
- Frank Crumit, 10:00 p.m. Fri., CBS
- Jean Dickenson, 9:30 p.m. Sun., Red
- Deanna Durbin, 8:30 and 11:30 p.m. Wed., CBS
- Mary Eastman, 9:30 p.m. Sat., CBS Wilbur Evans, 7:00 p.m. Sun., CBS
- Jack Fulton, 7:00 and 11:00 p.m. Mon. through Fri., CBS
- Freddie Gibson, 10:00 p.m. Sat., CBS; 8 p.m. Mon., Biue

Frank Munn, 9:30 p.m. Sun., Red; 9:00 p.m. Frl., Red

TALKS

Boake Carter, 7:45 and 11:15 p.m. Mon., Wed., Fri.,

Gabriel Heatter, 7:30 and 10:30 p.m. Thurs., CBS

Gen. Hugh Johnson, 10:00 p.m. Tues., Wed., Blue

Julie Gibson, 5:30 and 11 p.m. Sun., CBS

Reed Kennedy, 10:00 p.m. Fri., CBS

Rosemary Lane, 10:00 p.m. Wed., Red Frances Langford, 9:00 p.m. Fri., CBS

Pierre Le Kreeun, 9:00 p.m. Sun., Red

Jeanette MacDonald, 7:00 p.m. Sun., CBS Smiling Ed McConnell, 5:30 p.m. Sun., Blue

Kate Smith, 8:00 and 11:15 p.m. Thurs., CBS

Lullaby Lady, 10:00 p.m. Mon., Red Lulu Belle, 9:00 and 11:00 p.m. Sat., Blue

Lucille Manners, 8:00 p.m. Fri., Red Tony Martin, 8:00 and 10:30 p.m. Mon., Red

Jane Pickens, 9:30 p.m. Wed., CBS 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

Margaret Speaks, 8:30 p.m. Mon., Red

Lawrence Tibbett, 9:00 p.m. Wed., CBS

Marion Talley, 5:00 p.m. Sun., Red

Virginia Verrill, 8:30 p.m. Sat., Red

Dale Carnegie, 10:45 p.m. Tues., Red

Jimmy Fidler, 10:30 p.m. Tues., Fri., Red

John B. Kennedy, 8:00 p.m. Sun., Blue

Harriet Parsons, 8:30 p.m. Wed., Blue

Geo. McCall, 7:15 p.m. Tues., Thurs., CBS

Robert L. Ripley, 8:00 and 12:00 p.m. Sat., Red Deems Taylor, 9:00 p.m. Wed., CBS; 8:30 and 11:30

Lowell Thomas, 6:45 p.m. Mon. through Fri., Blue

Walter Winchell, 9:30 and 11:15 p.m. Sun., Blue

Dorothy Thompson, 10:45 p.m. Fri., Red; 7:30 p.m.

CBS

p.m. Fri., CBS

Tues., Blue

56

- Harriet Hilliard, 7:30 p.m. Sun., Blue
- Al Jolson, 8:30 and 11:30 p.m. Tues., CBS Alan Jones, 9 p.m. Thurs., Red Dorothy Lamour, 8:00 p.m. Sun., Red

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

1.715	to 2.000	Amateur Stations.	5.975	OAX4P	Huancayo, Peru. (.25).
2.500	XEXP	Monterrey, N. L. (.03).	5.980	HJ4ABD	Medellin, Colombia. 2000-2230.
	to 4.000	Amateur Stations.	5.990	HJ2ABD	Bucaramanga, Colombia. (.67).
	YDA	Tandjong Priok, Java, N.E.I. (10.).			1900-2300.
3.040			6.000	CXA2	Montevideo, Uruguay. (.5).
4.107	НСЈВ	Quito, Ecuador (1.). "Broadcasting Provincial." 0700-0815; 1130-1430; 1645-2215.		OAX5C XEBT RV59	Ica, Peru. (.1). Mexico City, D. F. (1.). 1800-2400. Moscow, USSR. 1900-2115.
4.273	RV15	Khabarovsk, USSR (Siberia). (20.). 0100-1000.			Alderney, Channel Islands.
4.600	HC2ET	Guayaquil, Ecuador. Wed., Sat., 2100-2230.	6.005	CFCX HP5K	Montreal, P. Q. (.075). 0700-2400. Colon, Panama. 1800-2300.
4.770	HJ2ABJ	Santa Marta, Colombia. (.05). 1800-2230.		VE9DN XZ1GY	Montreal, P. Q. (6.). Rangoon, Burma.
4.780	HJ1ABB	Barranquilla, Colombia (.3). Apart- ado 715.	6.007	ZRH	Pretoria, U. S. Africa. (5.). Sat. 1000-1645; Sun. 0800-1200; 1215- 1515. Weekdays 1000-1600.
4.787	H J2ABC	Cucuta, Colombia. (.25). "La Voz de Cucuta."	6.010	хэгэ	Sydney, N. S. (1.).
4.810	YDE2	Solo, Java, N.E.I. (.1).		<b>COCO</b>	Havana, Cuba. (2.5) Sun., 2000-2200. Weekdays 1030-1300; 1600-2000.
4.840	HJ3ABD	Bogota, Colombia. 1930-2400. Aptdo. 509.		OLR2A	Prague, Czechoslovakia. (35.). Mon., Wed., Fri., 1600-1630.
4.860	HJ1ABE	Cartagena, Colombia.		10000	Saigon, French Indo-China.
4.900	HJ3ABH	Bogota, Colombia. (1.2). 1800-2300.	6.015	HI3U	Santiago de los Caballeros, D. R.
5.003	нст	Guayaquil, Ecuador. "Radio Tele- tonica."		_	(.025). Mon. 2000-2100. Daily 0730- 0930; 1200-1430; 1700-1930.
5.415	РМҮ	Bandoeng, Java, N.E.I. (.45). 9530- 1000.	6.020	DIC	Berlin, Germany. (59.). 1040-1630; 1650-2245
				XEUW	Veracruz, Ver. (.02). 1800-2400.
5.500	тібни	San Ramon, Costa Rica. (.2). 2000- 2330.	6.030	HP58	Panama City, Panama. (.1). 1700- 2200.
5.710	TGS	Guatemala City, Guat. (.2). Wed., Thurs., Sat., 1800-2100.		OLR2B	Prague, Czecho. (35.).
				VE9BJ	St. John, N. B. (.05).
5.735		Quito, Ecuador. Sat., 2100-2300.		XEBQ	Mazatlan, Sin. (.05).
5.740	YV2RA	San Cristobal, Venez. Weekdays 1830-2130.	6.033`	НЈ4АВР	Medellin, Colombia. (2.5). 1800- 2300.
5.763 5.800		Managua, Nicaragua. 2000-2130. Caracas, Venez. (1.). Sun., 0830-	6.038	HJ1ABG	Barranquilla, Colombia. (.15). 1100- 2300.
		2130. Weekdays 0700-2200.	6.040	PRA8	Pernambuco, Brazil. (3.). 1500- 2000.
5.813		San Jose, Costa Rica. (also TIXGF3), San Jose, Costa		W1XAL	Boston, Mass. (20.). Daily exc. Sat.
5.825	TIGPH	Rica. 1100-1300; 1800-2200.			and Sun., 1900-2100.
5.850	YV1RB	Maracaibo, Venez. Sun., 1145-1245.		W4XB	Miami, Fla. (5.).
		Weekdays 0845-0945; 1115-1215; 1645-2145.		YDA	TandJong Priok, Java, N.E.I. (10.).
5.855	HIIJ	San Pedro de Macoris, D. R. (.04).	6.044	ZP14	Villarica, Paraguay. 1700-1800.
5.875	HRN	1200-1400; 1830-2100. Tegucigalpa, Honduras, (.4). Sun.,	6.045 6.050	XETW GSA	Tampico, Tams. Daventry, Gt. Britain. (20.).
		2030-2130. Weekdays 2030-2200. Santiago, D. R. 1800-2300.	0.030		Pereira, Colombia (6054 assigned).
5.885 5.895		Barquisimeto, Venez. 1800-2200.			1800-2200.
5.905		San Jose, Costa Rica. 1800-2300.	6.060		Nairobi, Kenya. 1100-2430.
5.913					Philadelphia, Pa. (10.), 2000-2300.
5.925		Port-au-Prince, Haiti. 1900-2200.		W8XAL	Cincinnati, Ohio. (10.). Daily 2300- 0200. Sun, 0800-2009. Weekdays
5.935		Maracaibo, Venez. (.3). 1700-2230.			0200. Sun. 0800-2009. Weekdays 0600-2000.
5.945		Guatemala City, Guat. (.2). Sun., 1300-1400; Mon., Thurs., Sat., 1600-	6.062	SBG	Motala, Sweden. (.5). 1330-1700.
5.947	PJC1	1800; 2200-2490. Willemstad, Curacao, N.W.I. (.15) 1835-2035.	6.064	VP3MR	Georgetown, British Gulana. (.15) (assigned 6010). 0745-1015; 1645- 2045.

	-	
6.065	HP5F	Colon, Panama.
6.070	CFRX	Toronto, Ont. (1.). 1000-2300. F Bogota, Colombia. (.05). 1900-2230. Maracaibo, Venez. 1900-2400.
	HJ3AB	F Bogota, Colombia. (.05). 1900-2230.
6.075	XEBW	Maracaibo, Venez. 1900-2400.
6.075	XECU	
6.077	OAX4Z	Guadalajara, Jal. Lima, Peru. (10.) (6082 assigned).
	0444	1900-2330.
6.080	DJM	Berlin, Germany, (50.).
	VE9CS	Berlin, Germany. (50.). Vancouver, B. C. (.01). 1400-2400. Chicago, III. (20.). Daily 1900-2200.
	W9XAA	Chicago, III. (20.). Daily 1900-2200.
6.000	LICAD	Weekdays 0600-0730
6.085	CPCY	D Cali, Colombia. 1900-2200. Toronto, Ont. (1.). 0745-1700. C Ibague, Colombia. 2000-2200.
0.050	HIAAR	C Ibaque Colombia 2000-2200
6.095	ZGE	Kuala Lampur, F. M.S. Johannesburg, U. S. Africa. (.2). Sat. 2345-0045; 0315-0730; 0830- 1130. Sun. 0330-0430 or 0400-0500;
6.097		Johannesburg, U. S. Africa. (.2).
		Sat. 2345-0045; 0315-0730; 0830-
		1130. Sun. 0330-0430 or 0400-0500; 0800-1130. Other days 2345-0045;
		0800-1130. Other days 2345-0045;
	ZRK	0315-0730; 0900-1130.
	200	Cape Town, U. S. Africa. (5.).
		Sun. 1200-1500; Other days 1200- 1600; 2345-0045.
6.100	W3XAL	Bound Brook, N. J. (35.). 2100-0100.
	W9XF	Bound Brook, N. J. (35.). 2100-0100. Chicago, III. (10.). 1700-2005.
		Belgrade, jugoslavia. (1.). 1200-
		1700.
6.108	HJ4ABI	<sup>3</sup> Manizales, Colombia. 1800-2400. London, Gt. Britain. (20.). 1800- 2030; 2120-2320.
6.110	GSL	2030, 2120-2220
	VUC	
6.115	OLR2C	Praque, Czecho, (35.).
6.118	XEUZ	Mexico City, D. F. (5.). 2300-0300.
6.120	W2XE	New York, N. Y. (10.).
	XEFT	Calcutta, India. Prague, Czecho. (35.). Mexico City, D. F. (5.). 2300-0300. New York, N. Y. (10.). Veracruz, Ver. (012). Bandoeng, Java, N.E.I. (1.5).
6.122	YDA5	Bandoeng, Java, N.E.I. (1.5).
0.122	OAX6A	( Bogota, Colombia. 1730-2230. Arequipa, Peru. (.1).
6.125	CXA4	Montevideo, Uruguay. (1.). 1600-
	•	2145.
	HP5H	Panama City, Panama Mexico City, D. F. 2100-2400.
	XEPW	Mexico City, D. F. 2100-2400.
6.128	OAX7A	Cuzco, Peru. (.1).
6.130	COCD	Havana, Cuba. (.35). 1700-0108 Halifax, N. S. (.5). 1700-2300.
C 430	VE9HX	Halifax, N. S. (.5). 1700-2300.
6.132 6.137	VP3BG CR7AA	Georgetown, British Guiana. Lourenco Marques, Port. East
0.437		Africa Cum 0000 0000 Weakdows
		9500-0700. Medellin, Colombia.
6.138	HJ4ABD	Medellin, Colombia.
6.140	MOAN	Fittsburgh, Fa. (40.). 2200-Sign off.
6.145	HJ4ABE	Medellin, Colombia (1.). "La Voz
6.150	CJRO	de Antioquia." 1800-2230.
0.130	CSL	Winnipeg, Man. (2.). 1800-2400. Lisbon, Portugal. 0700-0830; 1400-
		1900.
	VPB	Colombo, Ceylon. (.3). Sun. 0700-
		1130; Weekdays 0630-1230.
6.150	ZRD	Durban, U. S. Africa. (.01). Daily 2345-0045.
6.153	HISN	2345-0045. Ciudad Moca, D. R. (.1). 1900-2000.
6.155	YV5RD	Caracas, Venez. 1030-1330; 1530-
0.100		2200.
6.174	XEXA	Mexico City D E 1700-2100
6.180	TG2	Guatemala City, Guatemala. Santiago de los Caballeros, D. R. (.05). Weekdays 2000-2200.
6.190	HI1A	Santiago de los Caballeros, D. R.
~ ~ ~ ~		(.05). Weekdays 2000-2200.
6.198	COKG	Trujillo, D. R. 1700-1900.
6.200	CONG	Santiago, Cuba. (.05). Daily exc. Sat. 0900-2300.
	XEXS	Mexico City, D. F.
6.205	YV1RI	Coro, Venez. (.15). 1700-2200.
	YV1RG	Mexico City, D. F. Coro, Venez. (.15). 1700-2200. Valera, Venez. 1730-1930.
6.235	HRD	La Ceiba, Honduras. (.25). 2000-
c 2/2		2300.
6.243 6.250	HIN YV5RJ	Trujillo, D. R. (.75).
6.270	YV5RP	Caracas, Venez. Caracas, Venez. (1.2).
	HIG	Trujillo, D. R. (.05).

7	SIA	TIONS	OF THE WORLD
	6.282		Sancti-Spiritus, Cuba. (.15). 2100- 2300.
	6.296		Lima, Peru. (.4). 1900-2130.
	6.300	YV4RD	Maracay, Venez. 1700-2300.
	6.310	HIZ	Truiillo, D. R. (.1).
	6.312	ZP14	Villarrica, Paraguay (1.). 1100-1700.
	6.330	COCW	Villarrica, Paraguay (1:). 1100-1700. Havana, Cuba. 0700-2400. Chickeya Boru (2) Della 2000
	6.335	OAX1A	
	6.340	HIIX	2300; Sat. 2000-2400. Trujillo, D. R. (.5). Tues., Fri.,
	6.357	HRP1	2000-2200.
	6.365	YV1RH	San Pedro Sula, Honduras.
	6.380	YV5RF	Maracaibo, Venez. 1900-2400. Caracas, Venezuela.
	6,383	VP2LO	Caracas, venezuera.
	6.400	YV5RH	St. Kitts, Brt. West Indies. (.5). Caracas, Venezuela.
	6.410	TIPG	San Jose, Costa Rica. (1.). 1800-
	6.416	YVERC	2230. Bolivar, Venez.
	6.420	HIIS	Santiano D D (02) 1800 2200
	6.425	OAX4K	Santiago, D. R. (.02). 1800-2300. Lima, Peru. (.2).
		W3XL	Bound Brook, N. J. (100.) Irree
	e	WIOXD	A Effie M. Morrissey (.1).
	6.450	Hł4V	San Francisco de Macoris, D. R. (.025).
	6.460	COCA	Havana, Cuba.
	6.465	YV3RB	Lara."
	6.479	HI8A	Trujillo, D. R.
	6.485	HIIL	Trujillo, D. R. Santiago de los Caballeros, D. R.
			"Emisora Nacional." 0630-0800;
	-		
	6.479	HI8A	Trujillo, D. R.
	6.500	HIL.	Trujillo, D. R. (.05).
		YV1RM	Maracaibo, Venez.
	6.508	Radio G	Trujillo, D. R. Trujillo, D. R. Trujillo, D. R. (.05). Maracaibo. Venez. Avardia Civil, Tetuan, Sp. Morocco. 1900.2000
	6.520	YV4RB	Valencia, Venezuela. 1700-2200.
	6.534	EDR4	Valencia, Venezuela. 1700-2200. Palma, Majorca, Balearic Isl.
	6.540	YN1GG	Managua, Nicaragua.
	6.545	YV6RB	Managua, Nicaragua. Bolivar, Venez. 2100-2300.
	6.550	TIRCC	San Jose, Costa Rica. (.5). Tues., Thurs., Sat. 1700-1800.
	6.555	HI4D	
	6.575	HC1VT	Ambato, Ecuador.
	6,590	COCU	Havana, Cuba. Sun. 1900-2400; Weekdays 1900-0100.
	6.622	Prado	Rio Bamba, Ecuador. Thur. 2100- 2300.
	6.630	ніт	Z300. Trujillo, D. R. (.2). Weekdays, 1800-2100.
	6.635	HC2RL	Gilavanuil Ecuador Sun 1745
	6.690	TIEP	San Jose, Costa Rica. 1600-2300. San Jose, Costa Rica.
	6.700	TIVL	San Jose, Costa Rica. 1600-2300.
	6.720	PMH	Bandoeng, Java N.F.I. (1.5)
	6.730	HIJC	Bandoeng, Java, N.E.I. (1.5). La Romana, D. R. 1745-2000.
	6.780	нн	San Pedro de Macoris, D. R. (.15). 1900-2000.
	6.800	HI7P PZH	Trujillo, D. R. 1930-2100. Paramaribo Surinam
•	5.850	TIOW	Puerto Limon, Costa Rica. (.4), Sun., 1600-1700. Daily 1200-1300. Port Moresby, Papua. (Doubtful).
	5.990	VK8XI	Port Moresby, Papua, (Doubtful)
		0 7.300	Amateur stations.
	7.100	F08AA	Amateur stations. Papeete, Tahiti. (.2). Tues., Frl.,
			2300-2400.
			Revolutionary Party."
7	.208	YNAM	Managua, Nicaragua. 2000-2400.
	.380		Mexico City, D. F. (20.). Sun.,
	-		1800-2000
			Radio Liberte. 1900-2000.
7	.500		Salamanca, Spain. "Radio
			Nacional".
	.540	RKI	Moscow, U. S. S.R. (Assigned 7520).
7	.797	HBP	Geneva, Switz. (20.). Sat., 1730-
			1830.
7	.894	YSD	San Salvador, E. S. 2100-2230.

8.580		Managua, Nicaragua. (.5). "Radio Pilot". 1330-1430; 2000-2200.
8.600	HC1EC	Quito, Ecuador.
8.655		
	MIUADA	Citie (1, (101113); (1, (1, ))
8.665	COLK	Camaguey, Cuba. (2.4). 1800-0100. Quito, Ecuador (1.). "La Voz de
8.830	HCIB	Quito, Ecuador (1.). "La Voz de
		los Andes." 0700-0815; 1130-1430;
		1645-2215.
9.030	COBZ	Havana, Cuba.
9.125	HAT4	Budapest, Hungary. (20.). Sun., Wed., 1900-2000. Sat., 1800-1900.
3.123	11414	Wed 1900-2000 Sat. 1800-1900.
		Mean, 1900-2000 Such 2000 Street
9.200	COCA COBX	Havana, Cuba. P. O. Box 3488. Havana, Cuba. (assigned 9200).
9.210	CORX	Havana, Cuba. (assigned 5200).
9.300	HC2CW	Guayaquil, Ecuador. "Ondas del
		Pacifico."
9.340	OAX4J	Lima, Peru. (.2). 1200-1500; 1700-
		0100.
9.345	HBL	Geneva, Switz. (20.). Fri. 1430- 1445; 1930-1945; 2080-2015.
0.040		1445, 1930-1945, 2000-2015.
		1443; 1530-1543; 2000-2013;
9.350		Havana, Cuba. Aptdo. 132.
		Bangkok, Siam. Mon., Thurs.,
		0730-1000.
9.415	PJC2	Willemstad, Curacao, N.W.I.
	PLV	Bandoeng, Java, N.E.I. (80.). 1000-
		1100.
	000	
9.428	COCH	Havana, Cuba. (.15). 0700-0100.
9.445	HC2RA	Guayaquil, Ecuador. Sun. 1600-
		Guayaquil, Ecuador. Sun. 1600- 2200. Daily 2100-2200. Guayaquil, Ecuador. 2100-2200.
9.450	HC20DA	Guayaguil, Ecuador. 2100-2200.
9.460	XGOX	Nanking, China. (.5).
	PJC1	Willemstad, Curacao, N.W.I. (.15).
9-470	PJCI	winemstau, Curacao, in.w.n. (13).
-		Sun. 1035-1235. Madrid, Spain. (20.). Mon. at 2000; Tues., Fri. at 2100.
9,480	EAR	Madrid, Spain. (20.). Mon. at 2000;
		Tues., Fri. at 2100.
	XEDQ	Guadalajara, Jal. 1900-0100.
9.500	EAC	Madrid, Spain.
	HJIABE	Cartagena, Colombia. 1700-1800;
	INJIADE	2000-2230
	XEWW	Mexico City, D. F. (10.). 0800-2400.
9.501	PRF5	Rio de Janeiro, Brazil. (60.). 1645-
		1745.
9.504	OLR3B	Prague, Czecho. (35.).
9.510		Daventry, Gt. Britain. (20.). 0315-
0.020		Daventry, Gt. Britain. (20.). 0315- 0530; 1220-1600; 1615-2030; 2120-
		2320.
	ULH	Buenaventura, Colombia. Mon.,
		Wed., Fri. 2000-2300.
	HS8PJ	Bangkok, Siam. Mon., Thurs.,
	11301 2	0800-1000.
		Mathematica (E) Wooks
	VK3ME	Melbourne, Australia. (5.). Week-
		days 0400-0700.
9.520	HJ4ABH	Armenia, Colombia. (1.). 0800-1100;
		1800-2200.
	OZF	Copenhagen, Denmark. (6.). 1400-
		1840.
	YSH	San Salvador E S
	1 214	San Salvador, E. S. Paris, France. "Radio Liberte."
		Paris, France. "Radio Liberte."
9.523	ZRH	Pretoria, U. of S. Africa. (5.). Add:
		Box 4559, Johannesburg.
9.525	ZBW3	Hong Kong. (2.5). Sat. 2100-2400.
		Sun. 0000-0100; 0300-0930. Other days 0400-1000; 2330-0100.
		days 0400-1000: 2330-0100.
9.530	LKJ1	Leloy Norway (1.), 0500-0800
3.220	W2XAF	Schonostady N. V. (40.) Sat 1200-
	WZAAF	
	W6XBE	Belmont, Calif. (20.). General Elec. Co. (Under construction).
		Elec, Co. (Under construction).
9.535	JZ1	Nazaki, Japan. (50.). 1500-1600;
		1630-1730.
9.536	VPD2	Suya, Fiji. (2.). 0530-0700.
		Berlin, Germany. (50.). 0005-1000;
9.540	DJN	Bernin, Germany. (30.). 0003-2000;
		1650-2245. Duite 1255
9,550	OLR3A	Prague, Czecho. (35.). Daily 1255- 1640. Weekdays 0925-1010; Mon.,
		1640. Weekdays 0925-1010; Mon.,
		Wed., Fri., 2000-2235. Veracruz, Ver. (.02). 1930-2400.
	XEFT	Veracruz, Ver. (.02). 1930-2400.
9,560		Berlin, Germany. (50.). 0005-1100;
3.300	0.74	1650-2245.
		Barranguilla, Colombia. (.3).
	HJIABB	Barranguilla, Colombia. (.3).
	YDB	Sourabaya I, Java, N.E.I. (1.).

STAT	TIONS	OF THE WORLD
9.562	OAX4T	Lima, Peru. (10.). 1130-1330.
9.565	VUB	Bombay, India. (4.5).
9.570	KZRM	Bombay, India. (4.5). Manila, P. I. Mon. through Fri. 0500-0900; 1630-1800. Sat., 0500-
		1000-1630-1800. Sun. 0500-1000.
	W1XK	1000; 1630-1800. Sun. 0500-1000. Boston, Mass. (10.). Sun. 0800- 0100. Weekdays 0600-0100.
	W8XK	Pittsburgh, Pa. (40.), (Not used).
9.580	GSC	Pittsburgh, Pa. (40.). (Not used). Daventry, Gt. Britain. (20.). 1615-
		2030; 2120-2320.
	VK3LR	Melbourne, Australia. (.5). 0100-0945.
9.590	PCJ	Huizen, Netherlands. (20.). Sun.
		2230; Tues., 1400-1530; 1900-2130; Wed., 1900-2130; Thurs., 1900-2130.
	VK2ME	Sydney, Australia, (20.), Sun.,
		0100-0300; 0430-0830; 0900-1100. Perth. Australia. (5.). Weekdays
	VK6ME	Perth, Australia. (5.). Weekdays 0600-0800.
	W2XE	New York, N. Y.
	W3XAU	Philadelphia, Pa. (10.). 1200-2000;
	W8XAL	Thurs., 2200-2300. Cincinnati, Ohio. (10.). (Under
		construction).
9.595	HBL	Geneva, Switzerland. (18.). Sat. 1730-1830.
	RAN	Moscow, USSR, 1900-2115,
	ZHO or 2	ZHP Singapore, St. Settlements.
9.600	CB960	Santiago, Chile. 1800-1930.
9.605	HP5J	Panama City, Panama. (1.). 1830-2300.
9.606	ZRK	Johannesburg, U. of S. Africa. 2345- 0045. Add: P. O. Box 4559.
9.618	HJ1ABP	Cartagena, Colombia. (.75). 1800- 2200.
9.630	HJ7ABD	) Bucaramanga, Colombia. "Radio Bucaramanga." Taihoku, Taiwan. 0430-1030.
	1000	Rome, Italy. (25.). 1230-2100.
9.635 9.640	I2RO Cxa8	Montevideo, Uruguay. 0700-2400.
9.645	HH3W	Port-au-Prince, Haiti. (.03). 1300-
		1400; 1900-2000.
9.650	CS2WA	Thurs., Sat., 1600-1900.
9.660	CR5AA	Lobito, Angola, Port. West Africa. (.5). Wed., Sat., 1445-1645.
	LRX	Buenos Aires, Argentina. (5.). 1030-2430.
9.670	TI4NRH	Heredia, Costa Rica. Tues., Thurs., Sat., 2100-2200. Sun., 0700-0800.
9.685	TGWA	Guatemala City, Guat. (10.) "Radio Nacional." Sun. 2000-2200
		"Radio Nacional." Sun. 2000-2200. Mon., Thur., 2100-2300. Wed.
		Mon., Thur., 2100-2300. Wed. Sat. 2200-2400.
9.700	cocq	Havana, Cuba. (assigned 9750).
500		0700-0100.
		Fort de France, Martinique. "Radio Martinique." (.2). Box 136. 1845- 1945.
9.790	сосм	Havana, Cuba. (assigned 9833).
9.830	IRF	Rome, Italy.
9.860	EAQ	Madrid, Spain. (20.).
9.925	JDY	Darien, Manchukuo. 0715-0800.
9.940	CSW	Lisbon, Portugal. (5.). 1300-2000.
10.000	COBC	Havana, Cuba.
10.065	CQN	Macau. Portuguese China.
10.070		Communistic Station.
10.220	PSH	Rio de Janeiro, Brazil. (12.). 1900-
		2100.
10.260	PMN	Bandoeng, Java, N.E.I. (1.5). 0530 1100.

10.330	ORK	Brussels, Belgium. (11.). 1330-1500.
10.370	EAJ43	Santa Cruz de Tenerife, Canary Isl. 2000-2100.
	••••	"Radio Nacional," Salamanca, Spain. 1700-1825; 2000-2045.
10.530	JIB	Taihoku, Taiwan. (6.). 0900-1030.
10.600	ZIK2	Beilze, British Honduras. Tues., Thurs., Sat., 1930-1945.
10.660	JVN	Nazaki, Japan. (50.).
10.670	CEC	Santiago, Chile. (4.).
10.700		Paris, France. "Radlo Milan."
10.740	JVM	Nazaki, Japan. (50.).
10.823	"Radlo	Nacional," Salamanca, Spain. 1630- 1800.
11.000	PLP	Bandoeng, Java, N.E.I. (1.5).
11.040	CSW	Lisbon, Portugai. (5.), 1800-2000.
11.402	нво	Geneva, Switz., Fri. 1400-1415; Sat. 1845-2030.
11.435	COCX	Havana, Cuba. Sun. 1800-2100. Other days 0800-2400.
11.535	SPD	Warsaw, Poland. (2.). Daily 1800- 1900. Sun. until 2000.
11.698	SBG	Motala, Sweden. (.5). 0100-0130.
11.700	CB1170	Santiago, Chile. 1000-1400; 1530- 2300.
11.710	HP5A XEWB	Panama City, Pan. (.5). 2000-2330. Saigon, Fr. Indo-China. 0500-1100. Guadalajara, Jal.
11.710	YSM	San Salvador, E. S.
11.713	TPA4	Pontoise, France. 0615-1300.
11.718	CR7BH	Lourenco Marques, Port. East
		Africa. (.2). Sun. 0530-0700. Other days 0430-0630.
11.720	CJRX	Winnipeg, Man. (2.). 1800-2400.
11.730	PHI XETM	Hilversum, Netherlands. (23.6). Villahermosa, Tab.
11.740	HP5L	David, Panama. (.35).
11 750	GSD	Daventry, Gt. Britain. (20.). 0315- 0530; 0855-1200; 1220-1600; 2120- 2320.
	HVJ	Vatican City.
11.760	OLR4B TGWA	Prague, Czecho. (35.). Guatemala City, Guat. (10.). Mon., Thurs., 2000-2200.
11.770	DID	Berlin, Germany. (50.). 1040-1630; 1650-2245.
11.790	W1XAL	Boston, Mass. (20.). Sat. 1345-1830. Sun. 1500-1800. Other days 1645- 1830.
11.795	DIO	Berlin, Germany. (8.).
11.796	OAX5A	Ica, Peru. (.1). 1200-1600; 1900-2330.
11.800	COGF	Matanzas, Cuba. (1.). 1300-1600; 1800-2200.
	JZJ	Nazaki, Japan. (50.). 1500-1600; 1630-1730; 0800-0900; 0030-0130.
	OER2	Vienna, Austria. (1.5). Weekdays 0900-1800.
11.805		Copenhagen, Denmark. 1830-2100.
11.810	12R0	Rome, Italy. (25.). 0500-1220.
11.820	GSN	Daventry, Gt. Britain.
11.830	KZRM	Manila, P. I.
	W2XE W9XAA	New Yerk, N. Y. (10.). Daily 1830- 1900. Sun. 1990-2400.
11.840	CSW	Chicago, III. (20.). Lisbon, Portugal. (5.). 1300-2000.
41.04U	KZRM	Manila, P. I. Mon. through Fri. 0500-0990; 1630-1800. Sat. 0500-
	OLR4A	1000; 1630-1800. Sun. 0500-1000. Prague, Czecho. (35.). 1915-2155.

11.855	<b>ALD</b>	Berlin, Germany. (50.).
11.860	GSE	Daventry, Gt. Britain. (20.).
	YDB	Soerabaja I, Java, N.E.I. (1.).
11.870	W8XK	Pittsburgh, Pa. (40.). 1900-2200.
11.875	OLR4C	Prague, Czecho. (35.).
11.885	TPA3	Pontoise, France. 0200-0500; 1215-
		1800.
11.895	HP5	Aguadulce, Panama. 1930-2130.
11.900	CD1190	Valdivia, Chile. 1000-1300; 1900- 2200.
	OLR4D	Prague, Czecho. (35.).
	XEWI	Mexico City, D. F. (.25). 1930-2400.
11.955	IUC	Addis Ababa, Ethiopia.
11.960	HI2X	Trujilio, D. R. (.5). Tues., Fri., 2000-2200. Sun. 0740-1040.
12.000	RNE	Moscow, USSR. (20.). Sun. 1000- 1100. Sun., Wed., 0600-0700. Sun., Mon., Wed., Fri., 1600-1700.
12.120		Algiers, Algeria.
12.235	TFJ	Reykjavik, Iceland. (7.5). Sun., 1345-1430.
12.290	GBU	Rugby, Gt. Britain.
12.295	CB615	Santiago, Chile.
12.500	HIN	Trujillo, D. R. (.75).
12.675		Guayaquil, Ecuador. "Radio Paris."
12.765	VP2LO	St. Kitts, Brt. West Indies. (.5).
13.635	SPW	Warsaw, Poland. (10.). Mon.,
		Wed., Fri., 1230-1330. Daily 1800- 1900.
13.986	DJS	Berlin, Germany. (20.).
14.000	to 14.400	Amateur Stations.
14.050	EA9AH	Tetuan, Sp. Morocco. (.5). Aptdo. 124. At 1645 and 1900.
14.400	UPOL	North Pole. 1400-1605.
14.420	HC1JB	Quito, Ecuador. "Radio Rodante."
14.535	HBJ	Geneva, Switz. Sat. 1845-2100.
14.900	LZA	Sofia, Bulgaria.
15.040	RKI	Moscow, USSR. 1900-2115.
15.110	DJL	Berlin, Germany. (50.). 0000-0200; 0800-0900; 1040-1630.
15.116	OLR5C	Prague, Czecho. (35.).
15.120	нуј	Vatican City. (10.). 1000-1030.
15.140	GSF	Daventry, Gt. Britain. (15.). 0315- 0530; 0545-1200.
15.150	YDC	Bandoeng, Java, N.E.I. (3.).
15.160	JZK	Nazaki, Japan. (50.).
	XEWW	Mexico City, D. F. (10.).
15.170	CXA14	Montevideo, Uruguay.
	TGWA	Guatemala City, Guat. (10.). 1200- 1400.
15.175	<b>RV</b> 96	"Radio Nacional," Lima, Peru. Moscow, USSR.
15.180	GS0	Daventry, Gt. Britain. 0315-0530; 0545-1000; 1615-1800.
15.200	DJB	Berlin, Germany. (8.). Sun. 1110- 1225. Daily 0005-1100; 1650-2245.
15.210	W8XK	Pittsburgh, Pa. (40.). 0900-1900
15.220	PCJ	Huizen, Netherlands. (20.). Sun. 0330-0500. Wed. 0800-1030.
15.230	OLR5A	Prague, Czecho. (35.). Sun. 0600- 0730. Weekdays 0620-0730.
15.243	TPA2	Pontoise, France. 0600-1100.
15.250	W1XAL	Boston, Mass. (20.). Fri. 2100-
n		

		2200; Sun. 1015-1200; Daily exc. Sat. and Sun. 1415-1600.		W8XK W9XAA	
15.260	GSI	Daventry, Gt. Britain.	17 70-	W9XF	Chicago, III. (10.).
15.270	HI3X W2XE	Trujillo, D. R. (.5). Sun., 0800-1100. New York, N. Y. (10.). Sat., Sun.	17.785 17.790	JZL GSG	Tokyo, Japan. Daventry, Gt. Britain. (15.). 0315- 0530; 0545-1200; 1220-1600.
		1430-1800; 2000-2400. Mon. through Fri. 1300-1800; 2030-2400.	17.800 19.020	TGWA HS8PJ	Guatemala City, Guat. (10.). Bangkok, Siam. (5.). Mon. 0800-
15.280	DIQ	Berlin, Germany. (50.). Sun. 1110- 1225. Daily 0005-0545; 0600-0800; 0815-1100; 1650-2245.	21.450	OLR6A	1000. Prague, Czecho. (35.).
15.290	LRU	Buenos Aires, Arg. (5.). 0800-1000.	21.460	W1XAL	Boston, Mass. (10.). Tests ir- regularly.
15.300	XEBM	Mazatlan, Sin. 1000-2300.	21.470	GSH	Daventry, Gt. Britain. 0545-0855:
15.310	GSP	Daventry, Gt. Britain, 1345-1600.	22.470	asin	0855-1200.
15.320	OLR5B	Prague, Czecho. (35.).	21.480	W2XAD	Schenectady, N. Y. (25.).
15.330	W2XAD	Schenectady, N. Y. (25.). 1100-2100.	21.520	W2XE	New York, N. Y. (10.). Sat., Sun.,
	W6XBE	Belmont, Calif. (20.). (Under construction).		W3XAU	0800-1300; Other days 0730-1000. Philadelphia, Pa.
15.340	DJR	Berlin, Germany. (50.). 0800-0900; 1650-2245.	21.530	GSJ	Daventry, Gt. Britain. 0545-0855; 0915-1030.
15.370	HAS3	Budapest, Hungary. (20.). Sun.	21.540	W8XK	Pittsburgh, Pa. (40.). 0700-0900.
		0900-1000.	21.550	GST	Daventry, Gt. Britain.
15.440	XEBM	Mazatlan, Sin. (.05). 1000-2300.	25.950	W4XH	Spartanburg, S. C. (.05) (WSPA).
15.555	CO9WX	Tuinicu, Cuba. (2.).		W6XKG	Los Angeles, Calif. (.1) (KGFJ).
17.310	W3XL	Bound Brook, N. J. (20.).		W9XUP	24 hours daily. St. Paul, Minn. (1.) (KSTP).
17.375	LSY	Buenos Aires, Arg. Fri. 1600-1700.	26.100	GSK	Daventry, Gt. Britain.
17.760	DJE	Berlin, Germany. (50.). Sun. 1110-		W9XJL	Superior, Wis. (.08) (WEBC).
	W2XE	1225. Daily 0005-1000. New York, N. Y. (10.). 1830-2000.	26.400	W9XAZ	Milwaukee, Wis. (.5) (WTMJ). 1300-2400.
17.770	PH1	Hilversum, Netherlands. (23.6).	26.550	W2X00	Flushing, N. Y. (.1) (WMCA).
		Sun., 0725-1025. Mon., Tues., Thurs., Fri., 0825-1000. Sat., 0825-1040.	27.100		A Effle M. Morrissev (.1).
					Amateurs.
17 780	W3XAL	0525-1040. Bound Brook, N. J. (35.). 0900-1740; 1800-2100.			Amateurs.
11.100			110.000 to infinity. Amateurs.		

## Time Conversion Table

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

EST 24-hr.					
Clock	EST	CST	MST	PST	GMT
0000	Midn't	11 pm	10 pm	9 pm	0500
0100	1 am	Midn't	11 pm		0600
0200	2 am	1 am	Midn't		0700
0300	3 am	2 am	1 am	Midn't	0800
0400	4 am	3 am	2 am	1 am	0900
0500	5 am	4 am	3 am	2 am	1000
0600	6 am	5 am	4 am	3 am	1100
0700	7 am	6 am	5 am	4 am	1200
0800	8 am	7 am	6 am	.5 am	1300
0900	9 am	8 am	7 am	6 am	1400
1000	10 am	9 am	8 am		1500
1100	11 am	<b>1</b> 0 a <b>m</b>	9 am	8 am	1600
1200	Noon	11 am	10 am		1700
1300	1 pm	Noon	11 am	10 am	1800
1400	2 pm	1 pm	Noon	11 am	1900
1500	3 pm	2 pm	1 pm		<b>20</b> 00
1600	4 pm	3 pm	2 pm		2100
1700	5 pm	4 pm	3 pm	2 pm	2200
1800	6 pm	5 pm	4 pm	3 pm	2300
1900	7 pm	6 pm	5 pm	4 pm	2400
2000	8 pm	7 pm	6 pm	5 pm	0100
2100	9 pm	8 pm	7 pm	6 pm	0200
2200	10 pm	9 pm	8 pm	7 pm	0300
2300	11 pm	10 pm	9 pm	8 pm	0400
2400	Midn't	11 pm	10 pm	9 pm	0500
	s throughout	the entire	world	consult the	RADEX
Time Convert	er				

Time Converter.

As shown in the Index by Frequencies and Dial Numbers

## **KEY TO SYMBOLS**

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.

<ul> <li>postage.</li> <li>postage.&lt;</li></ul>	ation available. S Sunday only. <b>mm Symbols</b> Sy Synchronized. *Blue" network. X Has permit to increase network. power. only. Y Has permit to change lo- with occasional hours. Z Has permit to change fre- guency.
540 kcys. (555.2)	
CJRM ak 1000 F Regina, Sask. ZNS ak 400 Nassau, Bahamas	—9:30 am—1:30 am —1:30 pm—9:30 pm
550 kcys. (545.1)	
CFNB ak 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 $\dots$ Corvalis, Ore. KSD ak 1000 2R (5) St. Louis, Mo. KTSA ak 1000 C (5) San Antonio, Tex.	7:00 am11:00 pm 8:00 amMidnight 8:00 am1:00 am NoonMidnight
WDEV ak 500 D Waterbury, Vt. WGR ak 1000 C (5) Buffalo, N. Y. WKRC ak 1000 C (5) Cincinnati, Ohio WSVA ak 500 D Harrisonburg, Va. XEFC ak 100 Merida, Yuc.	—7:00 am—midnight —6:30 am—
560 kcys. (535.4)	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	8:30 am2:00 am 10:00 am4:00 am 6:00 am 7:00 am 6:00 am 7:00 am
570 kcys. (526.0)	
CMCYak5000XHavana, CubaKGKOak250CXY(1)Wichita Falls, Tex.KMTRak1000C(5)Tacoma, Wash.WKINak500C1Youngstown, OhioWKAXak1000C(5)Yankton, S. Dak.WOSUak1000C(5)Yankton, S. Dak.WOSUak1000C(5)Yankton, S. Dak.WOSUak1000B (WSYU) Syracuse, N. Y.WWNCak1000NAsheville, N. C.	9:00 am3:00 am 6:45 am
580 kcys. (516.9)	
CFPRak50Prince Rupert, B. C.CHRCak100Quebec, P. Q.CKCLak00 FToronto, Ont.GKUAak500 FEdmonton, Alta.KMJak1000 NFresno, Calif.	8:00 ammidnight 8:00 ammidnight 8:00 ammidnight 10:00 am3:00 am
	62

	11010			THING DI TRE		
KSAC	ak 500	2 (1)	Manhattan, Kans,	-10:30 am-6:30 pm		
WCHS	ak 500	$\mathbf{C}(1)$	Manhattan, Kans. Charleston, W. Va.	totoo and totoo pin		
WDBO	ak 1000	G	Orlando, Fla. Topeka, Kans. Urbana, Iil.	—7:00 am—midnight		
WIBW	ak 1000	2C (5)	Topeka, Kans.	-6:00 am		
WILL WTAG	ak 1000 ak 1000	D R	Worcester, Mass.	—9:00 am—ss —7:30 am—1:00 am		
XEMU	Z	ĸ	Piedras Negras, Coal	-/:30 am-1:00 am		
			1 1001 10 1 10g. 100, 0001			
<b>590</b> 1	kcys. (	(508.)	2)			
кно	ak 1000	R (5)	Spokane, Wash,			
WEĚI WKZO	ak 1000	C (5) BDX	Boston, Mass.	-6:45 am		
WKZO	ak 1000	BDX	Kalamazoo, Mich.	7.00 am 2.30 am		
wuw	ak 1000	<b>R</b> (5)	Omaha, Nebr.	7:00 am3:30 am		
<b>600</b> 1	kcys. (	(499.)	7)			
CBW	ak 500	F (1)	Windsor, Ont.	-4:30 pm-11:30 pm		
CFCF	ak 500	₿ <b>F</b> ´	Windsor, Ont. Montreal, P. Q.			
CJOR	ak 500		vancouver, B. C.	7:45 am1:00 am		
CMO KFSD WCAO	ak 25000 ak 1000	<b>B</b>	Havana, Cuba San Dioto, Calif			
WCAO	ak 500	B C (1)	San Diego, Calif. Baltimore, Md.			
WICC	ak 500	BM (1	) Bridgeport, Conn. ) Cedar Rapids, Iowa Memphis, Tenn	-6:00 am-1:00 am		
WMT	ak 1000	BM (5	) Cedar Rapids, Iowa			
WREC	ak 1000	C (5)	Memphis, Tenn.			
			•			
<b>610</b> 1	kcys. (	(491.)	5)			
KFRC	c 1000	M (5)	San Francisco, Cal.			
WCLE	ak 590	DM	Cleveland, Ohio.	6:45 amss 7:30 am1:00 am		
WDAF WIOD	ak 1000 ak 1000	R (5)	Kansas City, Mo. IBF) Miami, Fla.			
WIOD	ak 1000 ak 1000	N(WM	Philadelphia, Pa			
W11	ak 1000		rinadeipina, ra	-/:00 ani-1:00 ani		
<b>620</b> ]	kcys. (	(483.)	6)			
KGW	ak 1000	R (5)	Portland, Ore.	—9:00 am—2:00 am —9:00 am—1:15 am		
KGW Ktar	ak 1000	N	Phoenix, Ariz. San Jose, Costa Rice	9:00 am1:15 am		
TIPG WFLA	z 2000 ak 1000	625	San Jose, Costa Rica	a —7:00 am—1:00 am		
WHJB	ak 1000 ak 250	Na (5) CD	Clearwater, Fla. Greensburg, Pa.	-8:00 am-5:00 pm		
WLBZ	ak 500	ČM (1	) Bangor, Maine			
WSUN	ak 1000	Na (5)	) Bangor, Maine St. Petersburg, Fla. Milwaukee, Wis.	7:00 am-1:00 am		
WTMJ	ak 1000	N (5)	Milwaukee, Wis.	7:15 am-1:00 am		
630	kcys. (	(475.)	9)			
CFCO	ak 100	F		8.00 am 10.20 am		
CFCY	ak 100 ak 1000	F	Charlottetown PE	—8:00 am—10:30 pm I.—9:00 am—11:00 pm		
CJRC	ak 500	F(1)	Winnipeg, Man.	—8:30 am—2:00 am		
CJRC CKOV	ak 100	F	Winnipeg, Man. Kelowna, B. C.	-11:00 am-1:30 am		
CMCD	ak 250	1 1 1 1	Havana, Cuba	-10:00 am-11:30 pm		
KFRU KGFX	ak 500 ak 200	1 (1) D	Columbia, Mo. Pierre, S. Dak.	-7:00 am-9:30 pm		
WGBF	ak 500	N1 (1)	Evansville, Ind.			
WMAL	ak 250	Ñ1 (1) B (.5) C (1)	Washington, D. C.	6:30 am2:00 am		
WPRO	ak 500	C (1)	Providence, R. I.	-7:00 am-1:00 am		
XEZ	z 500 z 10000	P	Merida, Yuc. Havana, Cuba			
	2 10000	r	navana, Cuba			
640 kcys. (468.5)						
KFI .	ak 50000	R	,	—9:45 am—3:00 am		
WGAN	ak 50000 z 500	DP	Los Angeles, Calif. Portland, Maine	7,45 am - 3;00 am		
WHKC	ak 500		Columbus, Ohio	6:30 am8:15 pm		
wor	ak 5000	D	Ames, Iowa	-		
XEBX	z 250	$(a \cdots )$	Sabinas, Coah.			
YSS	ak		San Salvador, E. S.			
650	lanza	161	3)			
	kcys. (	401.				
TIX WSM	z ak 50000	MN	San Jose, C. R. Nashville, Tenn.	—7:30 am—1:00 am		
				63		

660 kcys. (454.3) 500 Omaha, Nebr. New York, N. Y. Mexico City, D. F. Mexicali, B. Cfa. -7:00 am-ss WAAW ak D ak 50000 WEAF R -7:30 am-1:00 am XEAL z 1000 XEAO ãk 250 670 kcys. (447.5) WMAQ ak 50000 Chicago, 111. Tijuana, B, Cfa, R -7:00 am-1:00 am XELO XERO ak 50000 Chapultepec, D. F. 7 680 kcys. (440.9) Havana, Cuba Havana, Cuba St. Joseph, Mo. San Francisco, Cal. Glace Bay, N. S. St. John's, Nfld. Lawrence, Mass. Raleigh, N. C. 5000 Р CMBQ z -7:00 am-midnight CMCĠ ak 1000 **KFEO** ak 2500 D -7:00 am--ss KPO ak 50000 R -11:00 am—3:00 am 685 VAS akn 2000 VOWR ck 500 681 WLAW 1000 D 7. āk N (5) WPTF 1000 -6:30 am-11:00 pm 690 kcys. (434.5) Toronto, Ont. Calgary, Alta. Monterrey, N. L. CFRB ak 10000 C -8:00 am-midnight CJCJ XET 100 -9:30 am-1:00 am ak F -8:30 am-10:00 pm ak 5000 700 kcys. (428.3) WLW ak 500000 MN (W8XO) Cincinnati, O. -5:45 am-1:30 am 710 kcys. (422.3) Seattle, Wash. Beverly Hills, Calif. Newark, N. J. ak 1000 -9:00 am-5:00 am KIRO C -9:00 am-4:00 am KMPC ak 500 ak 50000 WOR M 720 kcys. (416.4) CMK WGN XEH ak 3000 Havana, Cuba Chicago, Ill. ak 50000 M Monterrey, N. L. яk 250 -19:00 am-9:00 pm 730 kcys. (410.7) -9:00 am--3:00 am -9:00 am--2:00 am CFPL ak 100 F London, Ont. CJCA CKAC CKPR Edmonton, Alta. Montreal, P. Q. ak 1000 F ak 5000 Ĉ F 7:30 am-1:00 am Fort William, Ont. ak 100 -9:00 am—11:00 pm Havana, Cuba Piedras Negras, Coah.—5:45 am—.... Rosarito Bch., B. Cfa. **Č**MCL 10000 Р 7. ak 100000 **XEPN** XERB z 100000 740 kcys. (405.2) ak 1000 D -6:00 amкммј Clay Center, Nebr. Modesto, Calif. Portsmouth, N. H. --9:00 am-8:30 pm KTRB ak 250 250 D WHEB ak D ak 50000 WSB R Atlanta, Ga. -6:55 am-1:00 am 750 kcys. (399.8) 25 00 CMBL Havana, Cuba -8:09 am-12:15 am z Ń Honolulu, Hawaii Detroit, Mich. Mexicali, B. Cfa. Matamoros, Tams. -11:30 am-4:30 am -5:45 am-2:00 am aj 2500 ak 50000 ŘGU WJR ĉ XEAA ak 200 . . . . 25 XEAM 7. (394.5)760 kcys. CMHX ak 200 . . . . Cienfuegos, Cuba

64

	ibitionit b. c. c	MITONO DI TRE
KXA ak 250 (.5) WBAL ak 2500 BMSy WEW ak 1000 D WJZ ak 50000 BSy XEOK ak 2500	Seattle, Wash. Baltimore, Md. St. Louis, Mo. New York, N. Y. Tijuana, B. Cfa.	
770 kcys. (389.	4)	
CMBF z 10000 KFAB ak 10000 CSy WBBM ak 50000 CSy	Havana, Cuba Lincoln, Nebr. Chicago, Ill.	—7:00 am—1:00 am
780 kcys. (384.	4)	
CHWK dk 100 F CKSO ak 1000 F CMJK ak 250 KEHE ak 1000 (5)	Chilliwack, B. C. Sudbury, Ont. Camaguey, Cuba Los Angeles, Calif.	—11:00 am—1:15 am —9:00 am—midnight —11:00 am—I0:00 pm
KFDY ak 1000 D KFQD ck 250 KGHL ak 1000 N (5)	Los Angeles, Calif. Brookings, S. Dak. Anchorage, Alaska Billings, Mont. Longview, Wash.	1:30 pm3 pm 11:00 pm5:00 am 10:00 am1:00 am
WEAN ak 1000 BM (5 WMC ak 1000 R (5) WTAR ak 1000 N XEN z 1000	Providence, R. I. Memphis, Tenn. Norfolk, Va. Mexico City, D. F.	6:00 am 7:45 am1:00 am
790 kcys. (379.		
CMGH ak 500 KGO ak 7500 B KOAM z 1000 DN WGY ak 50000 R	Matanzas, Cuba San Francisco, Cal. Pittsburg, Kans. Schenectady, N. Y.	—10:00 am—3:00 am —7:00 am—1:00 am —7:00 am—1:00 am
800 kcys. (374.		
HIX ak 800	Truiillo, D. R.	
WBAP ak 50000 Na WFAA ak 50000 Na WTBO ak 250 D	Fort Worth, Texas Dallas, Texas Cumberland, Md.	6:45 ammidnight 9:00 am12:30 am 8:30 amss
810 kcys. (370.)	2)	
CMCF         ak         600         X           WCCO         ak         50000         C           WNYC         ak         1000         D           XEDF         z         100            XEXC         z         350	Havana, Cuba Minneapolis, Minn. New York, N. Y. Nuevo Laredo, Tams Aguascalientes, Ags.	—7:30 am—1:00 am —7:00 am—7:00 pm . —11:00 am—8:15 pm
820 kcys. (365.)	6)	
CMHW ak 100 WHAS ak 50000 C XEBG z 1000	Santa Clara, Cuba Louisville, Ky. Tijuana, B. Cfa.	6:45 am
830 kcys. (361.)	2)	
CMJX ak 500 KOA ak 50000 R WEEU ak 1000 D WHDH ak 1000 Dn WRUF ak 5000 Dn	Camaguey, Cuba Denver, Colo. Reading, Pa. Boston, Mass. Gainsville, Fla.	9:00 am11:30 pm 9:00 am2:00 am 8:00 am5:00 pm 7:00 am6:30 pm
840 kcys. (356.)	9)	
CBL ak 50000 F CFQC ak 1000 F VOGY ak 400 XERA ck 350000	Toronto, Ont. Saskatoon, Sask. St. John's, Nfid. Villa Acuna, Coah.	—All night station
850 kcys. (352.	7)	
CMCM ak KIEV ak 250 D WESG ak 1000 CD	Havana, Cuba Glendale, Calif, Elmira, N. Y.	—8:00 am—midnight —7:30 am—6:00 pm
		0 <b>m</b>

NORT	H AMERICAN D. C. O	TATIONS DT TRE
	D E. Lansing, Mich. CX New Orleans, La.	—7:00 am—5:00 pm —6:30 am—1:00 am
860 kcys. (	348.6)	
WABC ak 50000 WHB ak 1000 XEMO ak 5000 XENC z 50	C (WBOQ) New York, N. Y. DM Kansas City, Mo. Tijuana, B. Cfa. Mexico City, D. F.	—7:30 am—1:00 am —9:45 am—3:00 am
870 kcys. (3	344.6)	
WENR ak 50000 WLS ak 50000 XEFB ak 200 XEJW z	Ba Chicago, Ill. Ba Chicago, Ill. Monterrey, N. L. Mexico City, D. F.	—Noon—midnight —6:30 am—3:00 pm
880 kcys. (	340.7)	
CBO ak 1000 CFJC ak 1000 CMW ak 1400 KFKA ak 500 KLX ak 1000 KPOF ak 500 TIEP ak 1000 WCOC ak 500	F Ottawa, Ont. F Kamloops, B. C. X Havana, Cuba 2M (1) Greeley, Colo. Oakland, Calif. Denver, Colo. San Jose, Costa Rica QX (1) Meridian, Miss.	
WGBI ak 500 WQAN ak 500 WRNL ak 500 WSUI ak 500	CI (1) Scranton, Pa. 1 (1) Scranton, Pa. D Richmond, Va. (1) Iowa City, Iowa	—12:30 pm—10:30 pm —12:30 pm—10:00 pm —7:30 am—ss —10:00 am—11:00 pm
890 kcys. (	336.9)	
KARK ak 500 KFNF ak 500 KFPY ak 1000 KUSD ak 500 WBAA ak 500 WGST ak 1000 WJAR ak 1000 WMMN ak 500 XEW ak 50000	N (1) Little Rock, Ark. 2 (1) Shenandoah, Iowa C (5) Spokane, Wash. 2 Vermillion, S. Dak. (1) W. Lafayette, Ind. C (5) Atlanta, Ga. R (5) Providence, R. I. C (1) Fairmont, W. Va. Mexico Citv. D. F.	7:00 am1:00 am 6:30 am1:00 am 9:50 am3:00 am Noon6:00 pm 7:30 am1:00 am 7:00 am1:00 am
900 kcys. (	(333.1)	
KGBU ak 500 KHJ ak 1000 KSEI ak 250 WBEN ak 1000 WELI ak 500 WFMD ak 500 WJAX ak 1000 WKY ak 1000 WLBL ak 500 WTAD ak 1000	X Ketchikan, Alaska M (5) Los Angeles, Calif. (1) Pocatello, Idaho R (5) Buffalo, N. Y. D New Haven, Conn. Frederick, Md. N (5) Jacksonville, Fla. N (5) Oklahoma City, Ok. D Stevens Point, Wis. D Quincy, Ill.	4:00 am 9:30 am1:00 am 7:00 am
910 kcys. (	(329.6)	
CBF z 50000 CKY ak 15000 CJAT ak 1000 XENT ak 150000	FN Montreal, P. Q. F Winnipeg, Man. F Trail, B. C. Nuevo Laredo, Tams	——1:00 am —8:30 am—1:00 am —10:00 am—2:00 am s.
920 kcys. (	(325.9)	
CMX ak 1000 KFEL ak 500 KOMO ak 1000	X Havana, Cuba Ma Denver, Colo. R (5) Seattle Wash	8:00 am1:00 am 8:00 am2:30 am
KPRC ak 1000 KVOD ak 500 WAAF ak 1000 WORL ak 500 WPRN ak 1000	R (5) Houston, Texas Ba Denver, Colo. D Chicago, Ill. D Boston, Mass. Philadelphia, Pa.	—6:00 am—ss
WILL AR 1000		<u></u>

66

WSPA WWJ	ak 1000 ak 5000	D R	Spartanburg, S. C. Detroit, Mich.	6:00 am12:30 am 6:00 am			
<b>930</b> 1	930 kcys. (322.4)						
CFAC CFCH CFLC	ak 1000 ak 100 ak 100	F F	Calgary, Alta. North Bay, Ont. Prescott, Ont.	9:00 am2:00 am 7:00 am10:00 pm			
CHNS CKPC KMA	ak 1000 ak 100 ak 1000	F F (5)	Prescott, Ont. Halifax, N. S. Brantford, Ont. Shenandoah, Iowa	7:30 am11:00 pm 6:00 am			
KROW WBRC WDBJ XEBH	ak 1000 ak 1000 ak 1000 ak 500	R C (5)	Oakland, Calif. Birmingham, Ala. Roanoke, Va. Hermosillo, Son.	9:00 am5:00 am 8:00 am12:30 am 7:00 ammidnight 1:00 pmmidnight			
<b>940</b> 1	kcys.						
KOIN VOAS WAAT WAVE WCSH WDAY WHA WICA XEFO XEYO	ak 1000 ak 100 ak 500 ak 1000 ak 1000 ak 5000 ak 5000 ak 5000 z 500	C (5) D N R (2.5 N (5) D D	Portland, Ore. St. John's, Nfld. Jersey City, N. J. Louisville, Ky. Portland, Maine Fargo, N. Dak. Madison, Wis. Ashtabula, Ohio Mexico City, D. F. Mexico City, D. F.	6:30 am6:00 pm 8:001:00 am 8:00 ammidnight 6:00 am1:00 am 9:00 am5:30 pm			
	kcys.	(315.	•				
CJOC CMBC CRCK	ak 100 z 10000 ak 1000	F F	Lethbridge, Alta. Havana, Cuba Quebec, P. Q.	9:00 am1:00 am 6:55 ammidnight			
KFWB KMBC WHAL	ak 1000 ak 1000 z 500	(5) C (5) DP	Hollywood, Čalif. Kansas City, Mo. Saginaw, Mich.	—9:30 am—4:00 am —6:55 am—1:00 am			
WRC	ak 500	RX (1)	Washington, D. C.	-6:00 am			
960 1	kcys.		3)				
CFRN CHNC CMKS	ak 100 ak 1000 z	F F	Edmonton, Alta. New Carlisle, P. Q. Guantanamo, Cuba	9:30 am2:00 am 7:30 am11:00 pm			
CRCY XEAW	ck 100 c 50000	F	Toronto, Ont. Reynosa, Tams.	5:45 am			
970 1	kcys.	(309.	-				
CMBY KJR WCFL WIBG	z 150 ak 5000 ak 5000 ak 100	B N D	Havana, Cuba Seattle, Wash. Chicago, Ill. Glenside, Pa.	8:55 am11:00 pm			
980 1	kcys.	(306.)	0) (0				
KDKA Xeac Xefe	bk 50000 ak 5000 z 150	<b>В</b>	Pittsburgh, Pa. Tijuana, B. Cfa. Nuevo Laredo, Tams	3.			
990 1	kcys.		8)				
WBZ WBZA XEAF XEK XES	ak 50000 ak 1000 ak 750 ak 100 ak 250	BSy BSy	Boston, Mass. Springfield, Mass. Nogales, Son. Mexico City, D. F. Tampico, Tams.	—6:00 am— 1:00 am —6:00 am—1:00 am			
	kcys.	(299					
CMBZ KFVD VOCM	ak 500 ak 1000 z 200	(1) X Dn 1006	Havana, Cuba Los Angeles, Calif. St. John's, Nfld.	7:45 ammidnight 9:00 am8:15 pm			

ŗ

#### WHO ak 50000 R Des Moines, Iowa -8:00 am-2:00 am Aguascalientes, Ags. XEBI 25 $\mathbf{ak}$ Nuevo Laredo, Tams. -10:00 ani-8:30 pm XEBK $\mathbf{a}\mathbf{k}$ 60 Portable in Mexico XEXS z 100 (296.9)1010 kcys. CHML ak 100 F Hamilton, Ont -8:00 am-midnight CKCD CKCK CKCO CKIC ak Vancouver, B. C. 100 -9:30 am-2:00 am Ē Regina, Sask. ak 1000 Noon-11:30 pm ak 100 F Ottawa, Ont. Wolfville, N. S. Vancouver, B. C. Camaguey, Cuba Coffeyville, Kans. San Jose, Calif. New York, N. Y. **50** ak i ... CKWX 100 -Noon-4:00 am ak **CMJA** ak 300 2M KGGF KQW ak 1060 -9:30 am-3:00 am ak 1000 M WHN $(5)_{2}$ ak 1000 Norman, Okla. -3:00 pm—10:15 pm WNAD WNOX 1000 ak -6:30 am-2:00 am C (5) Knoxville, Tenn Veracruz, Ver. 1000 ak -8:00 am-1:00 am XEU ak 250 1020 kcys. (293.9)ak 10000 R D Philadelphia, Pa. -7:05 am—10:00 pm K Y W WDZ -7:00 am-6:00 pm Tuscola, Ill. Juarez, Chih. ak 250 XEJ ak 1000 (291.1)1030 kcys. ak 10000 -9:00 am-1:30 am F Calgary, Alta. CFCN CJBR 1000 F Rimouski, P. Q. 7. Windsor, Ont. Havana, Cuba Mexico City, D. F. CKLW -6:00 am-4:00 am 5000 M ak CMCK . . . ak 10000 -10:00 am-12:15 am XEB 1040 kcys. (288.3)-7:00 am-1:00 am ak 10000 Dallas, Texas KRLD $\mathbf{C}$ KWJJ KYOS -All night station ak 500 Portland, Ore. 250 D Merced, Calif. bk WTIC ah 50000 Hartford, Conn. -6:00 am-.... R (285.5)1050 kcys. F Montreal, P. Q. CBM ak 5000 Santiago, Cuba Abilene, Kans. CMKD ak 250 ---7:00 am---7:45 pm KFBI KNX 5000 Dn ak -9:30 am--3:15 am Los Angeles, Calif. Eau Claire, Wis. ak 50000 С WEAU 1000 Đ z ĎΡ Indianapolis, Ind. WGVĂ 1000 z 1060 kcys. (282.8)ak 10000 Hot Springs, Ark. St. John's, Nfld. Baltimore, Md. KTHS -9:00 am-ss N 1065 VOAC z 40 WBAL ak 10000 -6:00 am-9:00 pm ₿M Norfolk, Nebr. College Park, Md. -7:30 am-ss WJAG W3XJ ak 1000 D -Midnight to 6:00 am р z 100 Guadalajara, Jal. XEAD āk 125 . . . . Atzcapotzalco, D. F. XEMG 100 z (280.2)1070 kcys. CMBX ak 500 Havana, Cuba . . . . CMHA 50 Sagua la Grande, Cuba 7. . . . . San Francisco, Calif. - All night station KJBS ak 500 100 Carthage, Ill. Cleveland, Ohio WCAZ D ak -6:00 am-midnight ak 50000 R WTAM 1080 kcys. (277.6)Charlotte, N. C. -6:30 am-midnight WBT ak 50000 С Chicago, Ill. Chicago, Ill. WČBD WMBI ak 5000 Dnl 5000 Dnl ak XEBA XEDP 20 Guzman, Jal z Mexico City, D. F. ak 500 . . . .

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

		III millitation b. c.	OTHIONO DI THE
1090	kcys.	(275.1)	
кмох	ak 50000	C St. Louis, Mo.	6:30 am-1:00 am
1100	kcys.	(272.6)	
CBR KGDM KWKH WBIL WPG XECL XEL	ak 5000 ak 1000 ak 5000 ak 5000 z 1700 z 1000	F Vancouver, B. C. DM Stockton, Calif. C Shreveport, La. 1 New York, N. Y. C1 Atlantic City, N. J Mexicali, B. Cfa. Mexico City, D. F.	— 9:00 am— ss —7:30 am—1:00 am
1110	kcys.	(270.1)	
CMCJ KSOO WRVA	ak 500 ak 2500 ak 5000	X Havana, Cuba DnN Sioux Fails, S. Dak CM Richmond, Va.	
1120	kcys.	(267.7)	
CHLP CHSJ CKOC CKX	ak 100 ak 500 ak 500 ak 1000	F Montreal, P. Q. F (1) St. John, N. B. F (1) Hamilton, Ont. F Brandon, Man.	—9:00 am—11:00 pm —5:00 am—midnight
CMGF CMKM CRCS KFIO	ak 250 ak 200 ak 100 ak 100	Matanzas, Cuba. Manzanillo, Cuba F Chicoutimi, P. Q. D Snokana Wash	—8:00 am—10:00 pm
KFSG KRKD KRSC KTBC WCOP	ak 500 ak 500 ak 250 z 1000 ak 500	a (2.5) Los Angeles, Calif. a (2.5) Los Angeles, Calif. Seattle, Wash. DP Austin, Texas D Boston, Mass. B (5) Willmindton Dat	—9:00 am—3:00 am —All night station —8:00 am—4:00 pm
WDEL WISN WJBO WTAW XEJP	ak 250 ak 250 ak 500 ak 500 z 100	<ul> <li>R (.5) Wilmington, Del.</li> <li>C (1) Milwaukee, Wis.</li> <li>B Baton Rouge, La.</li> <li>College Sta., Tex.</li> <li>Mexico City, D. F.</li> </ul>	9:00 am11:00 pm 8:00 am1:00 am 7:45 pm1:00 am
1130	kcys.	(265.3)	
CMJI KSL WJJD WOV	ak 150 ak 50000 ak 20000 ak 1000	Ciego de Avila, Cub C Salt Lake City, Ut Dn Chicago, III, D New York, N. Y.	a —Noon—10:00 pm . —8:30 am—3:00 am —6:45 am—6:45 pm
1140	kcys.	(263.0)	
CMCW KVOO WAPI WSPR	dk 500 ak 25000 ak 5000 ak 500	<ul> <li>Havana, Cuba</li> <li>N1 Tulsa, Okla.</li> <li>C1 Birmingham, Ala.</li> <li>DM Springfield, Mass.</li> </ul>	6:55 am 7:00 am5:45 pm
1150	kcys.	(260.7)	
CMJF WHAM XEC XEDW	z 200 ak 50000 ak 100 z 20	Camaguey, Cuba B Rochester, N. Y. Tijuana, B. Cfa. Minatitlan, Ver.	6:30 ammidnlght
1160	kcys.	(258.5)	
CMHJ CMKG WOWO WWVA XEAS XEBJ XEBJ	ak 175 z ak 10000 ak 5000 ak 50 z 20 ad 100	Cienfuegos, Cuba     Santiago, Cuba B1 Fort Wayne, Ind. C1 Wheeling, W. Va.     Saltillo, Coah.     Merida, Yuc. Mexico City, D. F.     Curdabaira, Ial	6:00 am
XEBZ XED XEP	ak 2500 ak 500	Guadalajara, Jal. Juarez, Chih.	9:00 am-2:00 am

69

	_			
1170	kcys.	(256	3)	
				8.00 and milduidht
CMBS WCAU	ak 150 ak 50000	X C		
			-	
1180	kcys.	(254	.1)	
CMJO	ak 50		Ciego de Avila, Cuba	
KEX KOB	ak 5000 ak 10000	B2 N2	Portland, Ore.	
WDGY	ak 10000	CDn(5	Albuquerque, N. M. Minneapolis, Minn.	-1.00 pm -11.00 pm
WINS	ak 1000	C C	) Minneapolis, Minn. New York, N. Y.	( 45 mm - 7 00 mm
WMAZ XEFA	ak 1000 z 500	с 	Macon, Ga. Tacuba, D. F.	6:45 pm7:00 pm
	-			
1190	kcys.	(252		
CMKX KTKC	z ak 250	D.	Santiago, Cuba	
VONF	ak 500	1195	Visalia, Calif. St. John's, Nfld.	
WATR	ak 100	DXZ	Waterbury, Conn.	
WOAI WSAZ	ak 50000 ak 1000	N	Waterbury, Conn. San Antonio, Tex. Huntington, W. Va.	—7:30 am—12:30 am —6:00 am—7:00 pm
				0.00 um 7.00 pm
1200	kcys.	(249	.9)	
CFGP	z 100	<u>.</u>	Grande Prairie, Alta.	
CHAB CKNX	ak 100 dk 100	F.	Moose Jaw, Sask. Wingham, Ont.	—9:00 am—12:30 am —11:00 am—1:00 am
CKTB	dk 100 ak 100	F	St. Catharines, Ont.	-9:30 am-11:30 pm
CMCO	ad 250		Havana, Cuba	-
KADA KBTM	ak 100 ak 100	DM D	Ada, Okla. Jonesboro, Ark.	
KDNC	z 100	D (.25) P N	Lewistown, Mont.	
KELO KFJB	z 100 ak 100	N (.25)	Sioux Falls, S. Dak.	7.00
KFXD	ak 100	(.25)	Marshalltown, Ia. Nampa, Idaho	
KFXJ	ak 100	(.43)	Grand Junc., Colo.	•••••
KGCI KGDE	z 100 c 100	DP (.25)	Coeur d'Alene, Idaho Fergus Falls, Minn.	
KGEK	ak 100	(	Sterling, Colo.	
KGFJ	ak 100	(.25)	Los Angeles, Calif.	-24 hours daily
KGHI KGVL	ak 100 z 100	DP .	Little Rock, Ark. Greenville, Texas	—8:30 am—11:00 pm
KMLB	ak 100	(.25) (.25)	Monroe, La.	
KOOS KSUN	ak 100 ak 100	(.25) (.25)	Marshfield, Ore. Lowell, Ariz.	—10:00 am—7:45 pm —11:00 am—midnight
KVCV	ak 100		Redding, Calif. San Luis Obispo, Cali	-11.00 and intelligit
KVEC	z 250 dk 100	D M	San Luis Obispo, Cali	if.
KVOS KWG	ak 100	N	Bellingham, Wash. Stockton, Calif.	-10:00 am-3:00 am
KWNO	z 250	D	Stockton, Calif. Winona, Minn. Bangor, Maine	
WABI WAIM	ak 100 ak 100	(.25) C	Anderson S C	
WAYX	ak 100	(.25)	Waycross, Ga.	-
WBBZ WBHP	ak 100 ak 100	M (.25)	Ponca City, Okla. Huntsville, Ala.	-8:00 am-10:00 pm
WBNO	ak 100	2	New Orleans, La.	-1:00 pm to midnight
WCAT	ak 100	12	Rapid City, S. Dak.	Noon2:00 pm
WCAX WCLO	ak 100 ak 100	(.25) (.25) (.25)	Rapid City, S. Dak. Burlington, Vt. Janesville, Wis.	
WCPO	ak 100	(.25) P	Cincinnati, Ohio Superior, Wis.	7:00 am11:30 pm
WDSM WEST	z 100 ak 100	P 3 (.25)	Easton, Pa.	
WFAM	ak 100	4	South Bend, Ind.	
WFTC WHBC	ak 100 ak 100	(.25) (.25)	Kinston, N. C. Canton, Ohio	
WHBY	ak 100	(.20)	Green Bay, Wis.	
WIBX	ak 100	C (.25)	Utica, N. Y. St. Louis Mo	—5:30 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 2	Decatur, Ill. New Orleans, La.	-All night station
WJNO	ak 100	C (.25)	W Palm Reach Fla	-7:00 am-11:00 pm
WJRD	ak 250	D	Tuscaloosa, Ala.	-
WKBO WLVA	ak 100 ak 100	3 (.25) (.25)	Harrisburg, Pa. Lynchburg, Va	
WMFR	ak 100	Ď	Lynchburg, Va. High Point, N. C.	
WMPC	ak 100	(.25)	Lapeer, Mich.	

#### NORTH AMERICAN B. C. STATIONS BY FREQUENCIES WOLS 100 D 7. Florence, S. C. WRBL ãk (.25) D 100 Columbus, Ga. -8:00 am-10:30 pm WSAL z 250 Salisbury, Md. Hartford, Conn. WTHT WTOL ak 100 M -7:00 am-4:15 pm 100 DP Toledo, Ohio 7 WWAE ak 100 8 Hammond, Ind. 1210 kcvs. (247.8) CHLT z 100 Sherbrooke, P. O. Stratford, Ont. Aklavik, N.W.T. Prince Albert, Sask. Hull, P. Q. Cobalt, Ont. CJCS ak 50 -8:00 am-9:00 pm ČĴČŪ 50 7. CKBI CKCH CKMC CMHI F ak 100 -9:45 am-1:00 am 100 50 150 ak F -8:00 am--11:00 pm ak Santa Clara, Cuba ak Santa Chara, Cuba Alexandria, La. Wichita, Kans. Elk City, Okla. Devils Lake, N. D. Monterey, Calif. Klamath Falls, Ore. KALB ak 100 Ň KANS ak 100 -7:30 am-midnight KASA 100 M C -7:00 am--8:00 pm KDLR āk 190 -7:30 am-9:30 pm KDON 100 M z KFJI āk 100 KFOR KFPW KFVS CM(.25) Lincoln, Nebr ak 100 ak 100 Fort Smith, Ark ak 100 5 (.25) Cape Girardeau, Mo. KFXM San Bernardino, Cal. -9:00 am-3:00 am ak 100 M2 M2 San Bernardino, (Ja) C (.25) Mason City, Jowa M Olympia, Wash. D Okmulgee, Okla. Garden City, Kans. (Ja) Helena, Mont. Carlsbad, N. Mex. (Ja) Helena, Mont. KGLO KGY KHBG 100 7. ãk 100 100 7 KIUL ak 100 -8:00 am-10:00 pm KLÄH 100 ak (.25) (.25) (.25) 2 KOCA 100 ak KPFA KPPC 100 7. Pasadena, Calif. ãk 100 -10:00 am-12:30 am KROY KVSO 100 ĈD ak Sacramento, Calif. 100 ak M Ardmore, Okla. -8:00 am-11:00 pm 100 KWTN Watertown, S. Dak. ak WALR ak 100 Zanesville, Ohio -7:00 am-9:00 pm s WBAX WBBL Wilkes-Barre, Pa. Richmond, Va. ak 100 ak 100 WBLY ak 100 Ď Lima, Ohio -6:00 am-5:15 pm WBRB ak 100 3 N Red Bank, N. J. Columbus, Ohio WCOL 100 ak -7:00 am-11:00 pm WCRW ak 100 4 Chicago, Ill. 5 (.25) Harrisburg, Ill. -11:00 am-7:00 pm WEBO ak 100 Chicago, Ill. White Plains, N. Y. WEDČ ak 100 4 WFAS ak 100 3 (.25) WFO Y 100 St. Augustine, Fla. Freeport, N. Y. Gulfport, Miss. ak WGBB ak 100 ŝ. WGCM WGNY WGRM (.25) ak 100 Newburgh, N. Y. Grenada, Miss. ak 100 Ì. -7:30 am-midnight ak 100 WHAI WHBF 250 DP Greenfield, Mass. z (.25) (.25) (.25) (.25) ak 100 Rock Island, 111, -7:00 am-1:05 am WHBU ak 100 Anderson, Ind. Poynette, Wis. WIBU 100 ak WJBY ak 100 Gadsden, Ala. Hagerstown, Md. -8:00 am-10:30 pm WJEJ ak 50 Dn(.1) (.25) Lansing, Mich. B (.25) Jamestown, N. Y. WJIM 100 -7:15 am-12:30 am 7. WJTN ak 100 WJW 100 Akron, Ohio ak (,25)-8:00 am-10:30 pm WJW WKOK WLMU WMFG WOMT WPAX WSAY 100 ak Sunbury, Pa. -6:00 am-midnight 100 P (.25) Middlesboro, Ky. z ak (.25)100 Hibbing, Minn. -7:30 am-10:00 pm ak 100 Manitowoc, Wis. ak 100 D Thomasville, Ga. Rochester, N. Y. -8:00 am-6:00 pm z 100 D -7:00 am-4:30 pm 4 (.25) (.25) D WSBC Chicago, Ill. ak 100 -6:09 am-midnight Nashville, Tenn. Bridgeton, N. J. Charlotte, N. C. WSIX WSNJ ak 100 -7:00 am-1:00 am z 100 WSOC ak 100 N (.25) -7:00 am-midnight Springfield, Ill. Parral, Chih. WTAX ak 100 ak XEAT 250 -11:00 am-9:00 pm XEE ak 50 Durango, Dgo. Juarez, Chih.

71

. . . .

Puebla, Pue.

100 ak

100

ak

XEFV

ХЕТН

-	-	-				
1220	kc	ys.	(245.	8)		
CMJE KFKU	z ak	50 1000	a (5)	Cam: Lawr	aguey, Cuba ence, Kans.	—3:30 pm—7:30 pm
KTMS KTW	z ak	500 1000		Sant: Seatt	a Barbara, Cal. tle, Wash.	0.45 12.30
K WSC WCAD	ak ak	1000 500	2 (5) D	Puilr	tle, Wash. man, Wash. con, N. Y. sburgh, Pa. pa, Fla.	—9:45 am—12:30 am —12:30 pm—4:00 pm —7:00 am—2:30 am
WCAE WDAE	ak ak	$\begin{array}{c} 1000\\ 1000 \end{array}$	MR (5) C (5)	Pitts Tam	pa, Fla.	7:30 am?
WREN XEBL	ak z	1000 50	$\mathbf{Da}(5)$	Lawr Moze	atlan Sin	-8:00 am-7:00 pm
XEDA XEG	z z	200 250		Gra. Mon	Anaya, D. F. terrey, N. L. cruz, Ver.	
XETF	ak 1- o	30			cruz. ver.	
1230 смсв	KC z	ys. 150	(243)	•	ina, Cuba	-8:00 am-11:00 pm
KGBX KGGM	ak ak	500 1000	Ν.,	Snrii	ngfield, Mo. Iquerque, N. M.	
K YA TGW	ak ak	1000	(5)	San	Francisco, Cal. temala City, G	t.
WFBM WNAC	ak ak	1000	C (5) R (5)	India	anapolis, Ind. on, Mass.	
XEFJ	ak	100	• • • •	Mon	terrey, N. L.	-11:00 am-8:00 pm
1240	kc	ys.	(241			
CJCB CMHB	ak z	1000 50	F	Sync Sanc	ley, N. S. ti Spiritus, Cu	—7:00 am—11:00 pm ba
KGCU KLPM	ak ak	250 250	1 1XZ	Man Mine	dan, N. Dak. ot, N. Dak.	
KTAT KTFI	ak ak	1000 1000	M	Fort Twii	idan, N. Dak. ot, N. Dak. Worth. Texas n Falls, Idaho Juan, P. R.	
WKAO WXYZ	ak ak	$1000 \\ 1000$	 В	Dett	one, when,	6:00 am9:30 pm
XEAP XEAY	z z	50 100		Mexi	egon, Son. ico City, D. F.	
XEBS XEKL	z z	200 500		Mex	ico City, D. F. 3. Guan.	
XELA	z	50			illo, Coah.	
1250		eys.	(239		L. Cuba	
CMCK KFOX KIT	ak ak	150 1000		Long	tiago, Cuba g Beach, Calif.	
KXOK	ak z	250 1000	M (.5) P	- St. 1	ima, Wash. Louis, Mo.	6:00 amss
WAIR WCAL	ak ah	250 1000	$\frac{D}{2}XZ$	Nori	stSalem, N. C thfield, Minn.	
WDSU WHBI	ak ak	1000 1000	B a (2.5) 2XZ	Nou	Orleans, La. ark, N. J.	_
WLB WNEW	ak ak	1000 1000	a (2.5)	New	neapolis, Minr York, N. Y. neapolis, Minr	
WTCN XEXH	ak z	1009 250	<b>B</b> (5)	San	Luis Pot., S.L.	P.
1260	k	cys.	(238	5.0)		]
CMBD CMC		500 150	$2\mathbf{X}$	Hav	ana, Cuba ana, Cuba	-7:00 am-midnight -8:00 am-midnight
KGVO KHSL	ak ak	1000 250	2 C	Mis	soula, Mont.	-9:00 am-1:00 am
KOIL KPAC	ak ak	1000 500	BM(5) D	On	co, Calif. naha, Nebr. t Arthur, Texas	-6:00 am-5:45 pm
KRGV KUOA	ak ak		N D	Wes	t Arthur, Texas slaco, Texas sam Spgs., Arl	-8:00 am-11:00 pm
KVOA	ak ak	1000	C (5)	Tuc	son, Ariz. ton, Ohio	6:00 am1:00 am
WHIO WNBX WTOC	ak	500 1000	СМ(1) С	Spr	ingfield, Vt. annah, Ga.	-7:00 am-midnight
1270			(236			1
CMHD		cys.	(230	Cail	barien. Cuba	1
KGCA KOL	ak	100	2D M (5)	Dec Sea	orah, Iowa ttle, Wash.	—9:30 am—3:30 pm
KVOR KWLC	ak ak		C 2D	Cole	o. Springs, Cold orah, Iowa	o. —9:00 am—1:00 am
100		100				

	-	_			
TUACTI	- 1-	500	D-N	Cod Body Mish	( 20
WASH	ak	500	DaN	Grd. Rpds., Mich.	-6:30 am-midnight
WFBR	ak	500	R (1) R (5)	Baltimore, Md.	-7:00 am-midnight
WJDX	ak	1000	K (5)	Jackson, Miss.	7.00
WOOD	ak	500	Na	Gd. Rapids, Mich. Jalapa, Ver. Mexico City, D. F.	—7:00 am—midnight
XEXB	ak	50		Jalapa, ver.	
XEXE	z	17		Mexico City, D. F.	
1280	1		1721	2)	
1200	ĸc	ys.	(234		
СМКО	z	-		Holguin, Cuba	
KFBB	ak	1000	C (5)	Great Falls, Mont.	
KLS	ak	250		Oakland, Calif.	
WCAM	ak	500	1	Camden, N. J.	
WCAR	ak		i	Ashury Bost N. I	
WCAP WDOD	ak	500		Asbury Park, N. J. Chattanooga, Tenn.	7.20
		1000	C (5) N (5)	Madicon Wie	-7:30 am-12:30 am
WIBA WORC	ak	1000 500	<b>N</b> (5)	Madison, Wis.	8.00 am midulate
WDD	ak	500	C M	Worcester, Mass. Dallas, Texas	-8:00 am-midnight
WRR	ak	500		Dallas, lexas	—8:00 am—midnight
WTNJ	ak	500	1	Trenton, N. J.	
XEMX	z	100		Mexico City, D. F.	
XEXM	z			Mexico City, D. F.	
1200	1		1222	A)	
1290	KC	ys.	(232	.4)	
CMCU		500	-	Harana Cuba	-6.55 am 1.00 am
KDYL	ak		RX	Havana, Cuba Salt Lake City, Ut.	-6:55 am-1:00 am
	ak	1000		Black Sull Age	
KLCN	ak	100	D	Blytheville, Ark.	
KTRH	ak	1000	<b>G</b> (2)	Houston, lexas	0.00 1.00
WEBC	ak	1000	Č (5) N (5) C (5)	Houston, Texas Duluth, Minn.	-8:00 am-1:00 am
WJAS	ak	1000	G (9)	Pittsburgh, Pa. Saranac Lake, N. Y.	-7:30 am-12:30 am
WNBZ	ak	100	D	Saranac Lake, N. Y.	-9:30 am-ss
WNEL	ak	1000	(2.5)	San Juan, P. R.	—5:45 am—11:30 pm
1300	1-0	170	(230	6)	
1000	KU	ys.	(200	.0/	
KALE	ak	500	СМХ	Portland, Ore.	
KFAC	ak	1000	CIVIZE	Los Angeles, Calif.	—All night station
KFH	ak	1000	C (5)	Wichita, Kans.	-An ingut station
	23 6				
WRRD	ak			Brooklyn N V	
WBBR	ak	1000	1	Brooklyn, N. Y.	
WBBR WEVD WFAB	ak	1000 1000		Brooklyn, N. Y. New York, N. Y.	
WEVD WFAB	ak ak	1000 1000 1000	1 1 1	Brooklyn, N. Y. New York, N. Y. New York, N. Y.	
WEVD WFAB WFBC	ak ak ak	1000 1000 1000 1000	1 1 1 N (5)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C.	
WEVD WFAB WFBC WHAZ	ak ak ak ak	1000 1000 1000 1000 1000	1 1 1	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y.	6:00 pmmidnight
WEVD WFAB WFBC	ak ak ak	1000 1000 1000 1000	1 1 1 N (5)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C.	—6:00 pm—midnight
WEVD WFAB WFBC WHAZ WHBL	ak ak ak ak ak	1000 1000 1000 1000 1000 250	1 1 1 N (5) 1	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis,	—6:00 pm—midnight
WEVD WFAB WFBC WHAZ WHBL	ak ak ak ak ak	1000 1000 1000 1000 1000 250	1 1 1 N (5) 1	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis,	—6:00 pm—midnight
WEVD WFAB WFBC WHAZ	ak ak ak ak ak	1000 1000 1000 1000 1000	1 1 1 N (5)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis,	—6:00 pm—midnight
WEVD WFAB WFBC WHAZ WHBL	ak ak ak ak ak	1000 1000 1000 1000 1000 250	1 1 1 N (5) 1 (228	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis.	
WEVD WFAB WFBC WHAZ WHBL 1310	ak ak ak ak ak ak	1000 1000 1000 1000 250 YS.	1 1 1 N (5) 1	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9) Charlottetown, P.E.I	
WEVD WFAB WFBC WHAZ WHBL 1310 CHCK CJKL CLLS	ak ak ak ak ak ak kc	1000 1000 1000 1000 250 YS. 50	1 1 1 N (5) 1 (228	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	ι.
WEVD WFAB WFBC WHAZ WHBL 1310 CHCK CJKL CLLS	ak ak ak ak ak ak ak ak	1000 1000 1000 1000 250 YS. 50 100	1 1 1 N (5) 1 (228	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	ι.
WEVD WFAB WFBC WHAZ WHBL 1310 CHCK CJKL CLLS	ak ak ak ak ak ak ak ak	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100	1 1 1 N (5) 1 (228 F F	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	
wevd wfab wfbc whaz whbl 1310 chck cjkl cjls ckcv kand karm	ak ak ak ak ak ak ak ak z z	1000 1000 1000 250 <b>YS</b> . 50 100 100 100 100	1 1 1 N (5) 1 (228	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	ι.
wevd wfab wfbc whaz whbl 1310 chck cjkl ckcv kand karm kckn	ak ak ak ak ak ak ak ak ak ak z	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100	1 1 1 N (5) 1 (228 F F D C	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	ι.
wevd wfab wfbc whaz whbl 1310 chck cjkl cjls ckcv kand karm	ak ak ak ak ak ak ak ak z z	1000 1000 1000 250 <b>YS</b> . 50 100 100 100 100	1 1 1 N (5) 1 (228 F F D C	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, .9)	
wevd wfab wfbc whaz whbl 1310 chck cjkl ccjks ckcv kand kckn kckn kckn kckn	ak ak ak ak ak ak ak ak ak z ak	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100	1 1 1 N (5) 1 (228 F F D C	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, .9)	
wevd wfab wfbc whaz whbl 1310 chck cjkl cjkl ckcv kand kckn kcrj kfpl kfxr	ak ak ak ak ak ak ak ak z z ak ak	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100	1 1 1 N (5) 1 (228 F D C (.25) (.25) (.25)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	 
wevd wfab wfbc whaz whbl 1310 chck cjkl ccjks ckcv kand kckn kckn kckn kckn	ak ak ak ak ak ak ak ak ak z ak k k	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100	1 1 1 N (5) 1 (228 F D C (.25) (.25) (.25)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	
wevd wfab wfbc whbc whbl 1310 chck cjls ckcv karm kckn kckn kckr kfpl kfpz	ak ak ak ak ak ak ak ak ak ak ak ak ak a	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100 100 100	1 1 1 N (5) 1 (228 F C (.25) (.25) (.25)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. .9)	
wevd wfab wfbc whbc whbl 1310 chck cjls ckcv karm kckn kckn kckr kfpl kfpz	ak ak ak ak ak ak ak ak ak ak ak ak ak a	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100 100 100 100	1 1 1 N (5) 1 (228 F D C (.25) (.25) (.25)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
wevd wfab wfbc whbc whaz whbl 1310 chck cjls ckcv kand kckn kckn kckn kckn kfpl kfpl kfyo	ak ak ak ak ak ak ak ak ak z ak kk kk ak	1000 1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100 100 100	1 1 1 N (5) 1 (228 (228  F D C (.25) (.25) (.25) (.25) (.25)  D	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
wevd wfab wfbc what whbl 1310 chck cjkl clls ckard karm kcrij kfpl kfpl kfpl kfpl kfpl kfpl kfpl kfpl	akkaak Kakkaak akkakkak	1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100 100 100 100	1 1 1 N (5) 1 (2288 F D C (.25) (.25) (.25) (.25) 	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
wevd wfab wfbc what whbl 1310 chck cjkl clls ckard karm kcrij kfpl kfpl kfpl kfpl kfpl kfpl kfpl kfpl	akkakk aakkak aakkk aakkk zakkkk aakk aakk aakkk aakk aakk aakk	1000 1000 1000 250 <b>XS.</b> 50 100 100 100 100 100 100 100 100 100	1 1 1 N (5) 1 (228 F F D C (.25) (.25) (.25) (.25) (.25) (.25) (.25) D XZ	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
wevd wfab wfbc whaz whbl 1310 chck cjkl cjkl ckcv kand kckn kckr kfpl kfpz kgfw khub	akkaak Kakkaaz zakkkkkkkkkk	1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100 100 100 100	1 1 1 N (5) 1 (228 F C C (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) D XZ DP	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
wevd wfab wfbc what whel 1310 chck cjkl ckcv kand kckn kcrj kfyr kfyr kfyr kfyr kfyr kfyr kfyr kfyr	akukaka ka	1000 1000 1000 250 <b>YS.</b> 50 100 100 100 100 100 100 100 100 100	1 1 1 1 N (5) 1 (228 (25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) DP DP DP	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	
wevd wfab wfab wfbc what whel 1310 chck clls ckcv kard kfpl kfpl kfpl kfpl kfpd kkfyd kkfyd kkfyd kkfyd kkfyd kkfyd kkrba	akukaak Kaakkaz zaddakkkka zaz	1000 1000 1000 250 250 300 100 100 100 100 100 100 100 100 10	1 1 1 1 N (5) 1 (228 (25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) DP DP DP	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	
wevd wfab wfac wfac whac whe l 1310 chck cjkl cjkl cjkl cjkl cjkl cjkl ckevd karm kckn kckn kkfpl kkfyk kfpd kkfyk kkkfy	adaka Kaana za zada ada a za	1000 1000 1000 1000 250 <b>YS</b> . 50 100 100 100 100 100 100 100 100 100	1 1 1 1 N (5) 1 (228 (25) (25) (25) (25) (25) (25) (25) (25) (25) (25) DP DP DP (225)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	
wevd wfab wfab wfbc what whel 1310 chck cjkl cls ckard kcri kfpl kkppl kkpp kkpbm kkpbm kkrd kkrd kkrd kkrd kkrd kkrd kkrd kkr	ahakaha Kahakazzaaddahahakazazaa		1 1 1 1 N (5) 1 (228 (25) (25) (25) (25) (25) (25) (25) (25) (25) DP DP DP DP DP (25) (25)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	
wevd wfab wfab ufab ufab ufab ufab ufab ufab ufab u	aaaaa Kaaaazzaadaaaaaaazazaaa		1 1 1 1 N (5) 1 (228 (25) (.25) (.25) (.25) XZ DP DP DP DP (.25) (.25	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
wevd wfab wfab wfbc what whel 1310 chck cjkl ckcv kand karm kcrj kfpr kfpr kfpr kkfvy kkfvy kkfvy kkfvy kkfvy kkfvy kkfvy kkfvy kkfvy kkfby kkfvy khfvy kkfvy khfvy kkfv	akakaka Kaaba zakkkkakkka ka zazaaaz		1 1 1 1 N (5) 1  F D C (.25) (.25) (.25)  D D D D D D D D D D D D D	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
WEVD WFAB WFABC WFABC WFABC WFABC WFAC CHCL CJIS CCICK CJIS CCCCV KAND KCCKJ KFPL KFYR KCCKJ KFPL KFYR KCFUB	aaaaaa Kaaaaazaadaaaaaaaazaazaazaa	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \hline \\ yS.\\ 50\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100\\ 100\\$	1 1 1 1 N (5) 1 (228 (25) (.25) (.25) (.25) XZ DP DP DP DP (.25) (.25	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
WEVD WFAB WFABC WFABC WFAD <b>1310</b> CHCK CJKS CKCV KAND KCKJ KCKJ KCKJ KCKJ KKFXR KKFYO KKFW KKFW KKFW KKFW KKFW KKROC KKROV KKROV KSUB	aaaaa K aaaaazzaadaaaaaaaaa kkkk	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \end{array}\\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1 1 1 1 N (5) 1 (228 (25)	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
WEVD WFAB WFABC WFABC WFABC WFABC WFABC WFABC CHCK CJIS CCICK CJIS CCKCV KAND KCKJ KFVC KCKCJ KFVC KKFYO KKFVO KFVO	aadaaa K aaaaa zaadaaaaaaaa zazaaazaaaa kkkk	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1 1 1 1 N (5) 1  F D C (.25) (.25) (.25)  D D D D D D D D D D D D D	Brooklyn, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	7:00 am10:45 pm 7:00 am10:45 pm 8:00 ammidnight -8:00 am-10:15 pm 9:00 am-11:00 pm 7:00 am12:15 am 11:00 am9:00 pm 8:30 am1:00 am
WEVD WFAB WFABC WFAZ WHBL 1310 CHCK CJKL CJK CKCVD KARM KCKVD KCKV KCKV KCKV KCKV KCKV KCKV KCK	aaaaa Kaaaaa zaaadaaaaaaa zazaaazaaaaaa	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	1 1 1 1 N (5) 1  F  F D C (.25) (.25) (.25) (.25)  D D D D D D D N (.25) N (.25) (.25) (.25)  D D N N N N N N N N N N N N N	Brooklyn, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
WEVD WFAB WFAB WFAB UHAZ WHBL 1310 CHCK CJLS CKCV KAND KARM KCRJ KFXR KFYO KKOK KKOX KKOX KKOX KKOX KKOX KKOX KK	anahan Kananzzandananana zazananzananzananzananz	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1 1 1 1 N (5) 1  F D C (.25) (.25) (.25)  D D D D D D D D D D D D D	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	7:00 am10:45 pm 7:00 am10:45 pm 8:00 ammidnight -8:00 am-10:15 pm 9:00 am-11:00 pm 7:00 am12:15 am 11:00 am9:00 pm 8:30 am1:00 am
WEVD WFAB WFABC WFABC WFABC WFABC WFABC WFABC CHCK CJKL CJLS CKCV CLLS CKCV CKCRJ KFXR KCKD KKCKJ KFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKSRO KKSRO KKSNO	anahan Kananazzanadanahan zazanazanan zahana Kakak	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1 1 1 1 N (5) 1  F D C (.25) (.25) (.25) (.25)  D D D N((.25) D D	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	7:00 am10:45 pm 7:00 am10:45 pm 8:00 ammidnlght 8:00 am10:15 pm 9:00 am11:00 pm 7:00 am12:15 am 11:00 am9:00 pm 8:30 am1:00 am 7:00 amss
WEVD WFAB WFABC WFABC WFAZ WFBC UFAC WFBC WFBC WFBC WFBC UFAC UFAC UFAC UFAC UFAC UFAC UFAC UFA	anahan Kananazzanadananan zazananzananazzak	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1 1 1 1 N (5) 1 <b>(2288</b> <b>F</b> <b>)</b> <b>)</b> <b>)</b> <b>(225)</b> <b>)</b> <b>)</b> <b>)</b> <b>)</b> <b>)</b> <b>)</b> <b>)</b> <b></b>	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. 	
WEVD WFAB WFABC WFABC WFABC WFABC WFABC WFABC CHCK CJKL CJLS CKCV CLLS CKCV CKCRJ KFXR KCKD KKCKJ KFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKFXR KKSRO KKSRO KKSNO	anahan Kananazzanadanahan zazanazanan zahana Kakak	$\begin{array}{c} 1000\\ 1000\\ 1000\\ 1000\\ 1000\\ 250\\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1 1 1 1 N (5) 1  F D C (.25) (.25) (.25) (.25)  D D D N((.25) D D	Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis, 	7:00 am10:45 pm 7:00 am10:45 pm 8:00 ammidnlght 8:00 am10:15 pm 9:00 am11:00 pm 7:00 am12:15 am 11:00 am9:00 pm 8:30 am1:00 am 7:00 amss

-	_				
WBOW	ak ak	100	N (.25 N	) Terre Haute, Ind.	
WBRE WBRK	ak Z	100 100		Wilkes-Barre, Pa. ) Pittsfield, Mass.	
WCLS	ak	100		Joliet, Ill.	-8:00 am-9:30 pm
WCMI	ak	100	(.25)	Ashland, Ky.	
WDAH	ak	100	Š (.25)	Ashland, Ky. El Paso, Texas Buffalo, N. Y.	-11:30 am-10:30 pm (Sun. only)
WEBR	ak	100	<b>B</b> (.25)	) Buffalo, N. Y.	-7:00 am-midnight
WEMP WEXL	ak ak	100 50	D	Milwaukee, Wis. Royal Oak, Mich.	
WFBG	ak	100	3	Altoona, Pa.	
WFDF	ak	100		Flint, Mich.	-6:00 am-midnight
WGAU	z	100	(.25)P	Athens, Ga.	u u
WGH WGTM	ak	100	(.25)	Newport News, Va.	—7:00 am—midnight
WHAT	z ak	100 100	D 4	Wilson, N. C. Philadelphia, Pa.	
WJAC	ak	100	3 (.25)	Johnstown, Pa.	
WLAK	z	100		Lakeland, Fla.	
WLBG	ak	100	(.25)	Muncie, Ind.	—7:00 am—midnight
WLNH WMBO	ak ak	100 100	М	Laconia, N. H. Auburn, N. Y.	
WMFF	ak	100	(.25)	Plattsburg, N. Y.	
WNBH	ak	100	M (.25	) New Bedford, Mass.	-7:30 am-11:15 pm
WOL	ak	100	MXZ	Washington, D. C.	-
WRAW WROL	ak	100 100	NIC 251	Reading, Pa. Knoxville, Tenn,	—7:00 am—11:00 pm
WSAJ	ak ak	100	14(.23)	Grove City, Pa.	
WSGN	ak	100	B (.25)	Birmingham, Ala.	—8:00 am—midnight C.—8:00 am—10:00 pm
WSJS	ak	100	С	Winston-Salem, N. C	28:00 am-10:00 pm
WTAL WTEL	ak ak	100 100	4	Tallahassee, Fla. Philadelphia, Pa.	-8:00 am-midnight
WTJS	ak	100	(.25)	Jackson, Tenn.	-8:00 am-midnight
WTRC	ak	100	(.25)	Elkhart, Ind.	-7:00 am-10:30 pm
XEAG	z	10	4.541	Cordoba, Ver.	-
XEBO XECW	z ak	25 10	••••	Irapuato, Guan. Mexico City, D. F.	
XEFW	ak	250		Tampico, Tams.	—11:00 am—10:00 pm
XETB	ak	125		Tampico, Tams. Torreon, Coah.	<b>P</b>
XEX	ak	125		Monterrey, N. L.	
1320	kc	ys.	(227	1)	
			(22)	· · · · · · · · · · · · · · · · · · ·	
CMOX KGHF	ak ak	200 500	B	Havana, Cuba Pueblo, Colo,	—9:00 am—1:00 am
KGMB	ak	1000	B C M	Honolulu, Hawaii	-1:30 am-6:00 pm
KID 👘	ak	500	(1)	Idaho Falls, Idaho	-
KRNT WADC	ak	1000 1000	C (5) C	Des Moines, Iowa	
WORK	ak ak	1000	Ň	Akron, Ohio York, Pa.	—7:00 am—1:00 am —8:00 am—10:00 pm
WSMB	ak	1000	R	New Orleans, La.	····· ···· ···· ····
1220	1-0		(225		
1330		ys.	(225		
CMHK	Z	250 1000	14	Cruces, Cuba	10.00 am 4.00 am
KGB KMO	ak ak	1000	M M	San Diego, Calif. Tacoma, Wash.	—10:00 am—4:00 am —9:00 am—3:00 am
KRIS	z	500	N	Corpus Christi, Tex.	, 0.00 um
KSCJ	ak	1000	C (5) C (5)	Sioux City, Iowa Hartford, Conn.	-7:00 am-1:00 am
WDRC WSAI	ak ak	1000 1000	G (5) MNU5)	Cincinnati, Ohio	—7:00 am—midnight —7:00 am—1:00 am
WTAQ	ak	1000	MN(5) C	Green Bay, Wis.	_7.00 am_1.00 am
	4		(000		
1340	kc	ys.	(223	.7)	
CMAB	z			Pinar del Rio, Cuba	
CMJL KDTH	Z	75 500	DP	Camaguey, Cuba Dubuque, Iowa	
KGDY	z ak	250	Ď.	Huron, S. Dak	-10:00 am-1:00 am
KGIR	ak	1000	Ñ (2.5)	Huron, S. Dak, Butte, Mont.	and all dill
KGNO	ak	250		Dodge City, Kans. Pensacola, Fla.	-8:30 am-midnight
WCOA WFEA	ak ak	500 500	CX MN(1)	Manchester, N. H.	-6.30 am-1.00 am
WSPD		1000	B (5)	Toledo, Ohio	6:30 am1:00 am 6:30 am
XEXD	z	350		Jalapa, Ver.	
1350	ke	Ve	(222	1)	
	kc			•	
CMCA CMKW	ak	450	x	Havana, Cuba	
KIDO	z	1000	N (2.5)	Santiago, Cuba Boise, Idaho	—10:00 am—midnight
	z ak	1000 1000	N (2.5)		—10:00 am—midnight —6:30 am—1:00 am

					THE BI HE
WAWZ WBNX WMBG	ak ak ak	500 1000 500	1 (1) 1 R	Zarephath, N. J. New York, N. Y. Richmond, Va.	
1360	kc	eys.	(220	.4)	
CMJH KCRC	dk ak	50 250	м. М	Ciego de Avila, Cuba Enid, Okla.	
KGER WCSC	ak ak	1000 500	N (1)	Lond Beach Calif	—7:00 am—midnight
WFBL WGES WOBC	ak ak ak	1000 500 1000	N (1) C (5) 1 (1) D	Charleston, S. C. Syracuse, N. Y. Chicago, Ill. Vicksburg, Miss.	—7:00 am—1:00 am —8:00 am—9:00 pm
WSBT	ak	500	ĩ	South Bend, Ind.	
1370		eys.	(218		
CFAR CKCW	z ak	100 100	ŕ	Flin Flon, Man. Moncton, N. B.	
CMGE KAST	ak ak	$\begin{array}{c} 150 \\ 100 \end{array}$	D	Cardenas, Cuba	10:00 am10:30 pm 11:00 am8:30 pm
ксмо	ak ak	100	3	Astoria, Ore. Kansas City, Mo. Seattle, Wash.	-7:00 am-2:00 am
KEEN KELD	z	100 100		El Dorado, Ark.	
KERN KFGO	ak ak	$\begin{array}{c} 100 \\ 100 \end{array}$	N D	Bakersfield Calif	—11:00 am—3:00 am —7:00 am—2:00 pm
KFJZ <sup>`</sup>	ak	100	(.25) D	Boone, Iowa Fort Worth, Texas Longview, Texas	—7:30 am—midnight
KFRO KGAR	ak ak	$\begin{array}{c} 250 \\ 100 \end{array}$		Tucson, Arizona	-7:00 am-ss
KGFL KGKL	ak ak	$\begin{array}{c} 100 \\ 100 \end{array}$	4 (.25)	Roewell N Mey	
KICA KIUP	ak	100	4	San Angelo, Texas Clovis, N. Mex. Durango, Colo. Galveston, Texas	
KLUF	ak ak	100 100		Galveston, Texas	
КМАС КОВН	ak ak	100 100	5 (.25)	San Antonio, Tex. Rapid City, S. Dak. La Junta, Colo.	—8:00 am—9:00 pm 8:00 am—midnight
KŎKŎ KONO	z ak	100 100		La Junta, Colo.	
KRE	ak	100	5 (.25) 3	San Antonio, Tex. Berkeley, Calif. Everett, Wash.	—7:00 am—11:00 pm —24 hours daily
KRKO KRMC	ak z	50 100	3 (.25)	Everett, Wash. Jamestown, N. D.	
KSLM KTEM	ak ak	100 250	(.25) M D	Salem, Ore. Temple, Texas	-10:00 am-1:00 am
кток	bk	100	м		
KUJ KVGB	ak z	$\begin{array}{c} 100 \\ 100 \end{array}$		Walla Walla, Wash. Great Bend, Kans. Rock Springs, Wyo. Sheridan, Wyo. Albany, N. Y. Dathen, Ala	9:30 am-1:00 am
KVRS KWYO	z ak	100 100	(.25)P (.25)	Rock Springs, Wyo.	0.00 cm midulche
WABY	ak	100	B	Albany, N. Y.	—9:00 am—midnight —7:00 am—midnight
WAGF WATL	ak ak	250 100	D (.25)	Dothan, Ala. Atlanta, Ga.	9:00 am-ss 7:00 am-1:00 am
WBLK WBNY	ak ak	$\begin{array}{c} 100 \\ 100 \end{array}$		Albany, N. Y. Dothan, Ala. Atlanta, Ga. Clarksburg, W. Va. Buffalo, N. Y.	6:00 am
WBTM	ak	100	2(.25) (.25)	Danville, Va.	
WCBM WDAS	ak ak	$\begin{array}{c} 100 \\ 100 \end{array}$	(.25)	Baltimore, Md. Philadelphia, Pa.	-8:00 am-midnight
WDWS WEOA	ak ak	100 100	Ď	Champaign, Ill. Evansville, Ind.	
WFOR	ak	100	C(.25)	Hattiesburg, Miss.	
WGL WGRC	ak ak	100 250	N D		
WHBO WHDF	ak ak	$\begin{array}{c} 100 \\ 100 \end{array}$	(.25)	New Albany, Ind. Memphis, Tenn. Calumet, Mich. Virginia, Minn. Jackson, Mich.	
WHLB	ak	100	C( DE)	Virginia, Minn.	
WIBM WLLH	ak ak	100 100	(.25) Sv	Jackson, Mich. Lawrence, Mass. 25) Lowell, Mass. Jacksonville, Fla. Wilmington N.C.	
WLLH WMBR	ak ak	$\begin{array}{c} 100 \\ 100 \end{array}$	MSy(.2)	25) Lowell, Mass. Jacksonville, Fla	-7:30 am midnight -7:30 am midnight
WMFD	ak	100			
WMFO WMIN	ak ak	100 100	D (.25)	Decatur, Ala. St. Paul, Minn.	
WOC WPAY	ak ak	100 100	C (.25)	Davenport, Iowa	—7:00 am—1:00 am —7:00 am—10:15 pm
WPRA	Z	100	(.25)	Mayaguez, P. R.	7.00 am 10.15 pm
WRAK WRDO	ak ak	100 100	(.25) M	Williamsport, Pa. Augusta, Maine	-8:00 am-11:15 pm
WRJN	ak ak	100 100	(.25)	Augusta, Maine Racine, Wis. Wausau Wis	
WSAU WSVS	ak	50	2D	Wausau, Wis. Buffalo, N. Y.	-7.00 ant-11:15 pm
XECZ	z	100		San L. Pot., S.L.P.	

	NORT	TH AM	IERICAN B. C. S	STATIONS BY FREQUENCIES
XEI XELZ	ak 125 z 100 2 100		Morelia, Mich. Mexico City, D. F. Owen Sound, Ont.	
1380	kcys.	(217	.3)	
CMCR CMCX KOH KQV WALA WKBH WNBC WSMK	z 150 ak 500 ak 500 ak 500 ak 1000 ak 250 ak 200	 C1 C (1) C D C 1	Havana, Cuba Havana, Cuba Reno, Nevada Pittsburgh, Pa. Mobile, Ala. La Crosse, Wis. New Britain, Conn. Dayton, Ohio	9:00 am11:00 pm 11:00 am3:00 am 7:00 am10:00 pm 8:30 ammidnight 7:00 amss 6:00 am
1390	kcys.	(215	.7)	
CJGX CMJC	ak 100 z 150	F	Yorkton, Sask, Camaguey, Cuba	
KLRA KOY KRLC	ak 1000 ak 1000 ak 250	C (5) C	Little Rock, Ark. Phoenix, Ariz. Lewiston, Idaho	9:00 am12:15 am
WHK WQDM	ak 1000 dk 1000	BM(2.5 D	5) Cleveland, Ohio St. Albans, Vt.	—6:30 am—midnight
1400	kcys.	(214	.2)	
CMGC CKKR	ad 150 z 100	 25W	Matanzas, Cuba Santiago, Cuba Hilo, T. H.	
KHBC KLO KTUL	ak 250 ak 500 ak 500	CM B C (1)	Ogden, Utah Tulsa, Okla,	—10:00 am—1:00 am
WARD WBBC WHDL	ak 500 ak 500 ak 250	2 2(1) D	Brooklyn, N. Y. Brooklyn, N. Y. Olean, N. Y.	
WIRE WLTH	ak 1000 ak 500	MR (5) 2	Indianapolis, Ind. Brooklyn, N. Y. Brooklyn, N. Y.	-7:30 am-1:00 am
WVFW	ak 500 kcys.	<sup>2</sup> (212		
CKFC	ak 50	5	Vancouver, B. C.	
CKMO CMCQ KFJM	ak 100 ak 5000 ak 500	5 (1)	Vancouver, B. C. Havana, Cuba Grand Forks, N. D.	
KGNC KMED WAAB	ak 1000 ck 250 ak 500	(2.5) N N M (1)	Amarillo, Texas Medford, Ore. Boston, Mass.	-24 hours daily
WBCM WHIS	ak 500 ak 500	(1) (1)	Bay City, Mich. Bluefield, W. Va. Rockford, Ill.	
WROK WSFA	ak 500 ak 500	(1) C (1)	Rockford, Ill. Montgomery, Ala.	—7:30 am—midnight —7:30 am—midnight
1420	kcys.	(211	.1)	
CHLN CKGB KABC	z 100 ak 100 ak 100	F (25)	Three Rivers, P. Q. North Bay, Ont. San Antonio, Texas	
KABR KATE	ak 100 ak 250	(.25) XZ D	Aberdeen, S. D. Albert Lea, Minn.	7:30 amss
KBPS KCMC KEUB	ak 100 ak 100 ak 100	4 (.25)	Portland, Ore. Texarkana, Tex. Price, Utah St. Cloud, Minn.	—2:00 pm—8:00 pm —9:30 am—midnight
KEUB KFAM KFIZ KGFF	z 100 ak 100 ak 100	P (25) M	St. Cloud, Minn. Fond du Lac, Wis. I Shawnee, Okla.	
KGGC KGIW	ak 100 ak 100	i	San Francisco, Cal. Alamosa, Colo.	-9:30 am-10:30 pm
KIDW KIUN KLBM	ak 100 ak 100 z 100	1 (.25) P	Lamar, Colo. Pecos, Texas La Grande, Ore.	—9:00 am—8:00 pm —8:00 am—10:00 pm
KNET KORE KRBC	ak 100 ak 100 ak 100	D M (.25)	La Grande, Ore. Palestine, Texas Eugene, Ore. Abilene, Texas	
KRLH KTRI	a-k 100 z 100	D	Midland, Texas Sioux City, Iowa	our man sour part
KUMA	ak 100	100 ·	Yuma, Ariz.	

KWBG	ak 10	0	Hutchnison, Kans.	
KXL WACO	ak 10		Portland, Ore.	—All night station
WACO	ak 10	D C	Waco, Texas	11.00 7.00
WAGN	ak 10		Presque Isle, Me.	—11:00 am—7:00 pm —7:00 am—7:00 pm
WAPO WAZL	ak 10 ak 10		Chattanooga, Tenn. Hazleton, Pa.	
WCBS	ak 10	0 (.25)	Springfield, Ill.	-8:00 am-11:00 pm
WCHV	ak 10	0 3 (.25)	Charloffesville, Va.	—7:00 am—midnight
WEED	ak 10	0 3 (.25)	Rocky Mount, N. C. Battle Creek, Mich.	<b>5</b> 20
WELL	ak 10		Alberry Co	—7:30 am—midnight
WGPC WHFC	ak 10 ak 10		Albany, Ga. Cicero, Ill.	
WILM			Wilmington, Del.	
WJMS	ak 10	0	Wilmington, Del. Ironwood, Mich.	
WLAP	ak 10	(.25)	Lexington, Ky. Erie, Pa. Springfield, Mass. Detroit, Mich.	
WLEU WMAS	ak 10 ak 10	C(25)	Springfield, Mass.	-7:00 am-midnight
WMBC	ak 10	0 (.25)	Detroit, Mich.	-7:30 am-midnight
WMBH	ak 10	0 (.25)	Jopini, mo.	· • • • • • • •
WMBS	ak 25		Uniontown, Pa.	6:00 am6:00 pm
WMFJ WMSD	ak 10 ak 10	0	Daytona Bch., Fla.	
WNNY	z 10	0 (.25) P	Sheffield, Ala. Watertown, N. Y. Paducah, Ky.	0.00 am 11.00 pm
WPAD	ak 10		Paducah, Ky.	—7:00 am—midnight
WPAR	ak 10	0 C	Parkersburg, w. v.	
WPRP	z 10		Ponce, Puerto Rico	
	z 10	• • • • •	Kenora, Ont.	
		(	-\	
1430	kcys	. (209	.7)	
		•		
CMJP	ak 7 ak 100	5	Moron, Cuba Los Angeles, Cal. North Platte, Neb. 5) Des Moines, Iowa Columbus, Ohio Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn.	-10:00 am-3:00 am
KECA KGNF	ak 100 ak 100		North Platte, Neb.	
KSO	ak 50	0 BM(2.	5) Des Moines, Iowa	0100 <b>0111</b> 0100 <b>p</b>
WBNS	ak 50	0 C(1)X	Columbus, Ohio	6:30 am
WHEC	ak 50	O C(1)	Rochester, N. Y.	-7:00 am-midnight
WHP WMPS	ak 50 ak 50	0 (1) B	Harrisburg, Pa. Memphis, Tenn.	-6:30 am-midnight
woko	ak 50		Memphis, Tenn. Albany, N. Y.	
				0.00 mm 1.00 mm
1440	kcys			
1440	kcys	. (208	3.2)	
1440 cmoa kdfn	kcys z 15 ak 50	. (208	3.2)	
1440 cmoa kdfn kela	kcys z 15 ak 50 ak 50	. (208	3.2)	
1440 cmoa kdfn kela kxyz	kcys z 15 ak 50 ak 50 ak 100	. (208	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas	—24 hours daily
1440 cmoa kdfn kela kx yz wbig	kcys z 15 ak 50 ak 50 ak 100 ak 100	. (208 0 0 M 0 B 0 C	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas	24 hours daily 6:30 am11:30 pm
1440 cmoa kdfn kela kxyz	kcys z 15 ak 50 ak 100 ak 100 ak 100 ak 100	$\begin{array}{c}     \begin{array}{c}         & (208) \\         & & \\         & & \\         & & \\         $	3.2)	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight
1440 cmoa kdfn kela kx yz wbig wcba wmbd wsan	kcys z 15 ak 50 ak 100 ak 100 ak 100 ak 100	$\begin{array}{c} & (208) \\ & & \\ 0 & & \\$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III. Allentown, Pa.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm
1440 cmoa kdfn kela kxyz wbig wcba wmbd	kcys z 15 ak 50 ak 100 ak 100 ak 100	$\begin{array}{c} & (208) \\ & & \\ 0 & & \\$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight
1440 cmoa kdfn kela kxyz wbig wcba wkbd wsan xefi	kcys z 15 ak 50 ak 100 ak 100 aj 50 ak 100 aj 50 ak 25	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C \\ 0 & a \\ 0 & C(5) \\ 0 & Na \\ 0 & \dots \end{array}$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III. Allentown, Pa. Chihuahua, Chih.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight
1440 cmoa kdfn kela kxyz wbig wcba wkbd wsan xefi	kcys z 15 ak 50 ak 100 ak 100 aj 50 ak 100 aj 50 ak 25	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C \\ 0 & a \\ 0 & C(5) \\ 0 & Na \\ 0 & \dots \end{array}$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III. Allentown, Pa. Chihuahua, Chih.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight
1440 CMOA KDFN KELA KX YZ WBIG WCBA WMBD WSAN XEFI 1450	kcys z 15 ak 50 ak 100 ak 100 aj 50 ak 25 kcys	$\begin{array}{c} (208) \\$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III, Allentown, Pa. Chihuahua, Chih.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm
1440 CMOA KDFN KELA KX YZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT	kcys z 15 ak 50 ak 50 ak 100 aj 50 ak 100 aj 50 ak 25 kcys ak 50	$\begin{array}{c} (208) \\$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III, Allentown, Pa. Chihuahua, Chih.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm
1440 CMOA KDFN KELA WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS	kcys z 15 ak 50 ak 100 ak 100 aj 50 ak 25 kcys ak 50 ak 50	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III, Allentown, Pa. Chihuahua, Chih.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm
1440 CMOA KDFN KELA KX YZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM	kcys z 15 ak 50 ak 100 aj 50 ak 100 ak 100 ak 25 kcys ak 50 ak 50 ak 50 ak 50	. (208 0 0 M 0 B 0 C 0 C 0 C 0 C 0 C 0 Na 0 N	Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, III, Allentown, Pa. Chihuahua, Chih.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am10:00 pm
1440 CMOA KELA KX YZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM KGCX	kcys z 15 ak 50 ak 100 aj 50 ak 100 aj 50 ak 25 kcys ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100 ak 100	$\begin{array}{c} & (208) \\ & & \\ 0 & & \\ 0 & & \\ 0 & M \\ 0 & B \\ 0 & C \\ 0 & 0 \\ 0 & C \\$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Gentralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Pooria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>B.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am
1440 CMOA KDFN KELA KX YZ WBIG WCBA WMBD WGBA WMBD CBCT CHGS CMHM KGCX KIEM	kcys z 15 ak 50 ak 50 ak 100 ak 100 ak 100 ak 50 ak 25 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 50 ak 100 ak 100 a	. (208  	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Peoria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>D.8)</li> <li>Victoria, B. C.</li> <li>Summerside, P.E.I.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am10:00 pm
1440 CMOA KDEN KELA KX VZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CHMM KGCX KIEM KTBS	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 a ak 50 a a 50 a 50 a 50 a 50 a 50 5	. (208  	<b>B.2)</b> Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Pooria, III. Allentown, Pa. Chihuahua, Chih. <b>D.8</b> ) Victoria, B. C. Summerside, P. E. I. Cienfuegos, Cuba Wolf Point. Mont. Eureka, Calif. Shreveport, La. Atlanta, Ga.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm -7:00 ammidnight -1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KDEN KELA WCBA WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KGX KIES WAGA	kcys z 15 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 25 kcys ak 50 ak 50 ak 50 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 a a 50 a 50 a 50 a a 50 a 50	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	<ul> <li>B.2)</li></ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KDEN KELA KX VZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CHMM KGCX KIEM KTBS	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C \\ 0 & C \\ 0 & Na \\ 0 & C \\ 0 & Na \\ 0 & Na$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Peoria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>D.8)</li> <li>Victoria, B. C.</li> <li>Summerside, P.E.I.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Clevcland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm -7:00 ammidnight -1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KDEN KELA WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KTBS WAGA WGAR	kcys z 15 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 a ak 50 ak 50 ak 50 a ak	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C \\ 0 & C \\ 0 & Na \\ 0 & C \\ 0 & Na \\ 0 & Na$	<b>B.2)</b> Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Pooria, III. Allentown, Pa. Chihuahua, Chih. <b>D.8)</b> Victoria, B. C. Summerside, P. E. I. Cienfuegos, Cuba Wolf Point. Mont. Eureka, Calif. Shreveport, La. Atlanta, Ga.	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KELA KELA WCBA WCBA WCBA WCBA WCBA WCBA CFCT CHGS CMHM KTBS WAGA WCAR WCAR WCAR	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C \\ 0 & C \\ 0 & Na \\ 0 & C \\ 0 & Na \\ 0 & Na$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Peoria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>D.8)</li> <li>Victoria, B. C.</li> <li>Summerside, P.E.I.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Clevcland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KDEN KELA WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KTBS WAGA WGAR WHOM WSAR XEF	kcys z 15 ak 50 ak 50 ak 100 ak 100 ak 25 kcys ak 50 ak 100 ak	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C(5) \\ 0 & Na \\ 0 & Na \\ 0 & C(5) \\ 0 & Na \\ 0 & Na \\ 0 & Na \\ 0 & C(1) \\ 0 & M \\$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>Chihuahua, Chih.</li> <li>Summerside, P.E.I.</li> <li>Cienfuegos, Cuba Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KELA KELA WCBA WCBA WCBA WCBA WCBA WCBA CFCT CHGS CMHM KTBS WAGA WCAR WCAR WCAR	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50	$\begin{array}{c} & (208) \\ 0 & \dots & 0 \\ 0 & M \\ 0 & B \\ 0 & C(5) \\ 0 & Na \\ 0 & Na \\ 0 & C(5) \\ 0 & Na \\ 0 & Na \\ 0 & Na \\ 0 & C(1) \\ 0 & M \\$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>Chihuahua, Chih.</li> <li>Summerside, P.E.I.</li> <li>Cienfuegos, Cuba Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KDEN KELA KX VZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KTBS WAGA WGAR WGAR WHOM WSAR XEF 1460 CMKF	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 a ak 50 ak 50 ak 50 ak 50 a ak	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	B.2)         Havana, Cuba         Casper, Wyo.         Centralia, Wash.         Houston, Texas         Greensboro, N. C.         Allentown, Pa.         Pooria, III.         Allentown, Pa.         Chihuahua, Chih.         D.8)         Victoria, B. C.         Summerside, P.E.I.         Cienfuegos, Cuba         Wolf Point, Mont.         Eureka, Calif.         Shreveport, La.         Atlanta, Ga.         Cleveland, Ohio         Jersey City, N. J.         Fall River, Mass.         Juarez, Chih.         5.4)         Holgeuin, Cuba	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am 7:30 am1:00 am 6:30 ammidnight
1440 CMOA KELA KELA WCBA WCBA WCBA WCBA WCBA WCBA WCBA KTBS WCCA KIEM KTBS WAGA CFCT CHCS CMHM KGCX KIEM WAGA WCAR WCAR WCA KIEA CHCS CHCS CHCS CHCS CHCS CHCS CHCS CHC	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Pooria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>B.</li> <li>Cienfuegos, Cuba</li> <li>Wictoria, B. C.</li> <li>Summerside, P.E.I.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> <li>Alonguin, Cuba</li> <li>Kt. Paul, Minn.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 1:00 pm11:30 pm 10:45 am12:15 am 6:30 am12:00 pm 10:00 am1:00 am 7:30 am1:00 am
1440 CMOA KDEN KELA KX VZ WBIG WCBA WMBD WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KTBS WAGA WGAR WGAR WHOM WSAR XEF 1460 CMKF	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 a ak 50 ak 50 ak 50 ak 50 a ak	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	B.2)         Havana, Cuba         Casper, Wyo.         Centralia, Wash.         Houston, Texas         Greensboro, N. C.         Allentown, Pa.         Pooria, III.         Allentown, Pa.         Chihuahua, Chih.         D.8)         Victoria, B. C.         Summerside, P.E.I.         Cienfuegos, Cuba         Wolf Point, Mont.         Eureka, Calif.         Shreveport, La.         Atlanta, Ga.         Cleveland, Ohio         Jersey City, N. J.         Fall River, Mass.         Juarez, Chih.         5.4)         Holgeuin, Cuba	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am 7:30 am1:00 am 6:30 ammidnight
1440 CMOA KDEN KEEN KVEN WBIG WCBA WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KTBS WAGA WGAR WGAR WGAR WHOM WSAR XEF 1460 CMKF KSTP WJSV	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Pooria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>B.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> <li>Juarez, Chih.</li> <li>Holguin, Cuba</li> <li>St. Paul. Minn.</li> <li>Washington, D. C.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am 7:30 am1:00 am 6:30 ammidnight
1440 CMOA KELA KELA WCBA WCBA WCBA WCBA WCBA WCBA WCBA KTBS WCCA KIEM KTBS WAGA CFCT CHCS CMHM KGCX KIEM WAGA WCAR WCAR WCA KIEA CHCS CHCS CHCS CHCS CHCS CHCS CHCS CHC	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak	$\begin{array}{c} & (208) \\ & & & \\ 0 & &$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Pooria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>B.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> <li>Juarez, Chih.</li> <li>Holguin, Cuba</li> <li>St. Paul. Minn.</li> <li>Washington, D. C.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am 7:30 am1:00 am 6:30 ammidnight
1440 CMOA KELA KYZ WBIG WCBA WGBA WGBA WGBA KESA CHCS C	kcys z 15 ak 50 ak 50 ak 100 aj 50 ak 25 kcys z k 100 ak 55 ak 55 z k 100 ak 55 ak 100 ak 55 z 2 ak 100 ak 55 z 2 z 25 ak 100 ak 55 z 2 z 25 ak 100 ak 50 ak 100 ak 100 a ak 100 ak 100	$\begin{array}{c} & (208) \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $	<ul> <li>3.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Peoria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>5.8)</li> <li>Victoria, B. C.</li> <li>Summerside, P. E. I.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point. Mont.</li> <li>Eureka. Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland. Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> <li>5.4)</li> <li>Holguin, Cuba</li> <li>St. Paul, Minn.</li> <li>Washington, D. C.</li> </ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am 7:30 am1:00 am 6:30 ammidnight
1440 CMOA KDEN KEEN KVEN WBIG WCBA WSAN XEFI 1450 CFCT CHGS CMHM KGCX KIEM KTBS WAGA WGAR WGAR WGAR WHOM WSAR XEF 1460 CMKF KSTP WJSV	kcys z 15 ak 50 ak 50 ak 50 ak 100 ak 100 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 50 ak 100 ak 100 ak 100 ak 100	$\begin{array}{c} & (208) \\ & & & \\$	<ul> <li>B.2)</li> <li>Havana, Cuba Casper, Wyo.</li> <li>Centralia, Wash.</li> <li>Houston, Texas</li> <li>Greensboro, N. C.</li> <li>Allentown, Pa.</li> <li>Pooria, III.</li> <li>Allentown, Pa.</li> <li>Chihuahua, Chih.</li> <li>B.</li> <li>Cienfuegos, Cuba</li> <li>Wolf Point, Mont.</li> <li>Eureka, Calif.</li> <li>Shreveport, La.</li> <li>Atlanta, Ga.</li> <li>Cleveland, Ohio</li> <li>Jersey City, N. J.</li> <li>Fall River, Mass.</li> <li>Juarez, Chih.</li> <li>Juarez, Chih.</li> <li>Juarez, Chih.</li> <li>Juarez, Chih.</li> <li>Juarez, Chih.</li> <li>Calification of the second s</li></ul>	24 hours daily 6:30 am11:30 pm 6:30 am11:30 pm 7:00 ammidnight 10:45 am12:15 am 6:30 am10:00 pm 10:00 am1:00 am 7:30 am1:00 am 6:30 ammidnight

	NORT	TH AM	IERICAN B. C. S	TATIONS BY FREQ
1480	kcys.	(202	.6)	
KOMA WHIP WKBW	ak 5000 z 5000 ak 5000	C D C	Oklahoma City, Ok. Hammond, Ind. Buffalo, N. Y.	7:30 am1:00 am 7:30 am5:30 pm 8:00 am1:00 am
1490	kcys.	(201	.2)	
KFBK WCKY	ak 5000 ak 10000	N X N	Sacramento, Calif. Covington, Ky.	—7:00 am—midnight
	kcys.	(199	/	
CJIC KAWM	ak 100 z 100		S. S. Marie, Ont. Gallup, N. Mex. Muskogee, Okla.	
KBIX	ak 100	M	Muskogee, Okla.	
KBST KDAL	z 100 ak 100		Duluth. Minn.	
KDB	ak 100	M(.25) (.25) (.25)	Santa Barbara, Cal. Brownsville, Tex. Tyler, Texas	
KGFI KGKB	ak 100 ak 100	(.25)	Tyler, Texas	
KGKY KNEL	ak 100 ak 250	(.25) D	Scottsbluff, Neb.	
KNOW	ak 100	С	Brady, Texas Austin, Texas	-
KOTN KOVC	ak 100 ak 100	D (.25)	Pine Bluff, Ark. Valley City, N. D.	
KPLC	ak 100	(.25)	Valley City, N. D. Lake Charles, La. Paris, Texas	otoo unit i totoo pini
KPO	z 250 ak 100N	D 1(.25)	Wenatchee, Wash.	
KRŇR KROD	ak 100M ak 100	1(.25) P	Wenatchee, Wash. Roseburg, Ore. El Paso, Texas	
KSAL KUTA	ak 100	(.25) P	Salina, Kans.	
KUTA KVOE	z 100 ak 100	P M	Salt Lake City. Ut.	-Noon to 2:00 am
KWEW	z 100	DP	Santa Ana, Calif. Hobbs, N. Mex.	
KXO WCNW	ak 100 ak 100	1 (.25) C	El Centro, Calif. Brooklyn, N. Y. Durham, N. C.	11:00 ammidnight 9:00 ammidnight 7:30 am12:30 am
WDNC WGAL	ak 100 ak 100	C (.25)	Durham, N. C. Lancaster, Pa.	-7:30 am-12:30 am
WHBB	ak 100		Selma, Ala.	—7:30 am—ss —7:30 am—10:00 pm
WHEF WJBK	ak 100 ak 100	(.25) (.25)	Kosciusko, Miss. Detroit, Mich.	7:30 am10:00 pm 24 hours daily
WKAT WKBB	z 100 ak 100	(.25)	Miami Beach, Fla. E. Dubuque, Ill.	· · · · · · ·
WKBV WKBZ	ak 100	(.25)	Richmond, Ind. Muskegon, Mich.	
WKBZ WKEU	ak 100 ak 100	(.25) D	Muskegon, Mich. Griffin, Ga.	-7:00 am-10:00 pm
WMBO	ak 100	1	Brooklyn, N. Y. Boston, Mass.	
WMEX WNBF	ak 100 ak 100	(.25) C(.25) DM	Boston, Mass. Binghamton, N. Y.	
WNLC WOMI	ak 100 z 100	DM (.25)	Binghamton, N. Y. New London, Conn,	
WOPI	ak 100		Owensboro, Ky. Bristol, Tenn.	—7:00 am—10:30 pm —7:00 am—9:00 pm
WRDW WRGA	ak 100 ak 100	C(.25) (.25)	Augusta, Ga. Rome, Ga.	—7:00 am—9:00 pm —8:00 am—11:00 pm
WRTD WSYB	z 100	B	Richmond, Va. Rutland, Vt.	-
WTMV	ak 100 ak 100	(.25)	E. St. Louis, III. Woodside, N. Y.	
WWRL WWSW	ak 100 ak 100	1 (.25) (.25)	Woodside, N. Y. Pittsburgh, Pa.	—8:00 am—midnight
	kcys.	(198	.6)	
CFRC CKCR TG1	ak 100 ak 100 ak	F	Kingston, Ont. Waterloo, Ont. Guatemala City, Gt.	—Noon—11:00 pm —8:00 am—11:00 pm
1530	kcys.	(196	.0)	
KXBY WBRY	ak 1000 ak 1000	M	Kansas City, Mo. Waterbury, Conn.	—8:00 am—3:30 am —8:00 am—midnight
1550	kcys.	(193	.4)	
KPMC WQXR	ak 1000 ak 1000	M 	Bakersfield, Calif. New York, N. Y.	—10:00 am—2:00 am —10:00 am—9:15 pm
			-	-0

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.

ALABAMA	Pine Bluff	KSFO 560 1000 C	DELAWARE
Birmingham	KOTN 1500 100 Siloam Springs	KYA 1230 1000 San Jose	Wilmington
WAPI 1140 5000 C WBRC 930 1000 R	KUOA 1260 5000	KQW 1010 1000M	WDEL 1120 250 R WILM 1420 100
WSGN 1310 100 B		San Luis Obispo KVEC 1200 250	
Decatur WMFO 1370 100	CALIFORNIA Bakersfield	Santa Ana KVOE 1500 100M	DISTRICT OF COLUMBIA
Dothan WAGF 1370 250	KERN 1370 100 N	Santa Barbara	Washington
Gadsden	KPMC 1550 1000M Berkeley	KDB 1500 100M KTMS 1220 500B	WJSV 1460 10000 C WMAL 630 250 B
WJBY 1210 [100	KRE 1370 100 Beverly Hills	Santa Rosa	WOL 1310 100M WRC 950 500 R
Huntsville WBHP 1200 100	KMPC 710 500 Chico	KSRO 1310 250 Stockton	FLORIDA
Mobile WALA 1380 500 C	KHSL 1260 250 El Centro	KGDM 1100 1000M KWG 1200 100N	Clearwater
Montgomery	KXO 1500 100	Visalia	WFLA 620 1000 N
WSFA 1410 500 C Selma	Eureka KIEM 1450 500M	KTKC 1190 250 Watsonville	Daytona Beach WMFJ 1420 100
WHBB 1500 100	Fresno	KHUB 1310 250	Gainesville
Sheffield WMSD 1420 100	KMJ 580 1000 N		WRUF 830 5000
Tuscaloosa	Glendale KIEV 850 250	COLORADO	Jacksonville WJAX 900 1000 N
WJRD 1200 250	Hollywood KFWB 950 1000		WMBR 1370 100 C
ALASKA	Long Beach	Alamosa KGIW 1420 100	Lakeland WLAK 1310 100
Anchorage	KFOX 1250 1000 KGER 1360 1000	Colorado Springs KVOR 1270 1000 C	Miami WIOD 610 1000 N
KFQD 780 250	Los Angeles	Denver	WMBF 610 1000
Juneau KINY 1310 100	KECA 1430 1000 B KEHE 780 1000	KFEL 920 500M KLZ 560 1000 C	WQAM 560 1000 C Miami Beach
Ketchikan	KFAC 1300 1000 KFI 640 50000 R	KOA 830 50000 R KPOF 880 500	WKAT 1500 100
KGBU 900 500	KFSG 1120 500	KVOD 920 500 B	Orlando WDBO 580 1000 C
	KFVD 1000 1000 KGFJ 1200 100	Durango KIUP 1370 100	Pensacola
ARIZONA	KHJ 900 1000M KMTR 570 1000	Grand Junction KFXJ 1200 100	WCOA 1340 500 C
Jerome KCRJ 1310 100	KNX 1050 50000 C KRKD 1120 500	Greeley KFKA 880 500M	St. Augustine WFOY 1210 100
Lowell	Merced	Le Junta	St. Petersburg WSUN 620 1000 N
KSUN 1200 100 Phoenix	KYOS 1040 250 Modesto	KOKO 1370 100	Tallahassee WTAL 1310 100
KOY 1390 1000 C	KTRB 740 250	Lamar KIDW 1420 100	Tampa
KTAR 620 1000 N Tucson	Monterey KDON 1210 100M	Pueblo	West Palm Beach
KGAR 1370 100 C	Oakland	KGHF 1320 500 B Sterling	WJNO 1200 100 C
KVOA 1260 1000 Yuma	KLS 1280 250 KLX 880 1000	KGEK 1200 100	GEORGIA
KUMA 1420 100	KROW 930 1000		Albany
	Pasadena KPPC 1210 100	CONNECTICUT	WGPC 1420 100 Athens
ARKANSAS	Redding	Bridgeport	WGAU 1310 100 Atlanta
Blytheville	KVCV 1200 100 Sacramento	WICC 600 500M	WAGA 1450 500 WATL 1370 100
KLCN 1290 100 El Dorado	KFBK 1490 5000 N	Hartford WDRC 1330 1000 C	WGST 890 1000 C
KELD 1370 100	KROY 1210 100 C San Bernardino	WT1C 1040 50000 R	WSB 740 50000 R Augusta
Fort Smith KFPW 1210 100	KFXM 1210 100M	WTHT 1200 100M New Britain	WRDW 1500 100 C
Hot Springs	San Diego KFSD 600 1000 B	WNBC 1380 250	Columbus WRBL 1200 100
KTHS 1060 10000 N Jonesboro	KGB 1330 1000M	New Haven WELI 900 500	Griffin WKEU 1500 100
KBTM 1200 100	San Francisco KFRC 610 1000M	New London	Macon WMAZ 1180 1000 C
Little Rock KARK 890 500 N	KGGC 1420 100 KGO 790 7500 B	WNLC 1500 100M Waterbury	Rome
KGHI 1200 100	KJBS 1070 500	WATR 1190 100	Savannah
KLRA 1390 1000 C	KPO 680 50000 R	WBRY 1530 1000M	WTOC 1260 1000 C

Thomasville WPAX 1210 100	Rockford WROK 1410 500	Marshalltown KFJB 1200 100	Lake Charles KPLC 1500 100
Waycross WAYX 1200 100	Rock Island WHBF 1210 100	Mason City KGLO 1210 100 C	Monroe KMLB 1200 100
	Springfield	Shenandoah	New Orleans
HAWAII	WCBS 1420 100 WTAX 1210 100	KFNF 890 500 KMA 930 1000	WBNO 1200 100 WDSU 1250 1000 B
Hilo KHBC 1400 250M	Tuscola WDZ 1020 250	Sioux City KSCJ 1330 1000 C KTRI 1420 100	WJBW 1200 100 WSMB 1320 1000 R WWL 850 10000 C
Honolulu	Urbana WILL 580 1000	KTKI 1420 100	Shreveport
KGMB 1320 1000 C KGU 750 2500 N	WIEL 300 1000		KRMD 1310 100
RGC 750 200010		KANSAS	KTBS 1450 1000 N
ІДАНО	INDIANA	Abilene	KWKH 1100 10000 C
	Anderson	KFBI 1050 5000 Coffeyville	MAINE
Boise	WHBU 1210 100	KGGF 1010 1000M	MAINE
KIDO 1350 1000 N	Elkhart	Dodge City	Augusta
Coeur d'Alene KGCI 1200 100	WTRC 1310 100	KGNO 1340 250	WRDO 1370 100M
Idaho Falls	Evansville WEOA 1370 100 C	Garden City KIUL 1210 100	Bangor WABI 1200 100
KID 1320 500	WGBF 630 500 N	KIUL 1210 100 Great Bend	WLBZ 620 500 C
Lewiston	Fort Wayne WGL 1370 100 N	KVGB 1370 100	Portland
KRLC 1390 250	WGL 1370 100 N WOWO 1160 10000 B	Hutchinson	WCSH 940 1000 R WGAN 640 500
Nampa KFXD 1200 100	Gary	KWBG 1420 100	Presque Isle
Pocatello	WIND 560 1000	Kansas City KCKN 1310 100	WAGM 1420 100
KSEI 900 250	Hammond	Lawrence	
Twin Falls KTFI 1240 1000	WHIP 1480 5000 WWAE 1200 100	KFKU 1220 1000	MAR YLAND
KTFI 1240 1000	Indianapolis	WREN 1220 1000 B	
	WFBM 1230 1000 C	Manhattan KSAC 580 500	Baltimore WBAL 760 2500 B
ILLINOIS	WGVA 1050 1000 WIRE 1400 1000 R	Pittsburg	WBAL 1060 10000 B
Bloomington	Muncie	KOAM 790 1000 N	WCAO 600 500 C
WJBC 1200 100	WLBC 1310 100	Salina	WCBM 1370 100 WFBR 1270 500 R
Carthage	New Albany	KSAL 1500 100	College Park
WCAZ 1070 100	WGRC 1370 250	Topeka WIBW 580 1000 C	W3XJ 1060 100
Champaign WDWS 1370 100	Richmond WKBV 1500 100	Wichita	Cumberland WTBO 800 250
Chicago	South Bend	KANS 1210 100 B	Frederick
WAAF 920 1000 WBBM 770 50000 C	WFAM 1200 100 WSBT 1360 500	KFH 1300 1000 C	WFMD 900 500
WCBD 1080 5000	Terre Haute		Hagerstown
WCFL 970 5000 N	WBOW 1310 100 N	KENTUCK Y	WJEJ 1210 50
WCRW 1210 100 WEDC 1210 100	West Lafayette	Ashland	Salisbury WSAL 1200 250
WENR 870 50000 B	WBAA 890 500	WCMI 1310 100	
WGES 1360 500 WGN 720 50000M		Covington	MASSACHUSETTS
WJJD 1130 20000	IOWA	WCKY 1490 10000 N	
WLS 870 50000 B WMAO 670 50000 R		Lexington WLAP 1420 100	Boston
WMBI 1080 5000	Ames WOI 640 5000	Louisville	WAAB 1410 500M WBZ 990 50000 B
WSBC 1210 100	Boone	WAVE 940 1000 N WHAS 820 50000 C	WCOP 1120 500
Cicero WHFC 1420 100	KFGQ 1370 100	Middlesboro	WEEI 590 1000 C WHDH 830 1000
Decatur	Cedar Rapids	WLMU 1210 100	WMEX 1500 100
WJBL 1200 100	WMT 600 1000 B	Owensboro	WNAC 1230 1000 R WORL 920 500
East Dubuque	Davenport WOC 1370 100 C	WOMI 1500 100	Fall River
WKBB 1500 100 East St. Louis	Decorah	Paducah WPAD 1420 100	WSAR 1450 1000M
WTMV 1500 100	KGCA 1270 100 KWLC 1270 100		Greenfield WHAI 1210 250
Harrisburg		LOUISIANA	Lawrence
WEBQ 1210 100	Des Moines KRNT 1320 1000 C		WLAW 680 1000 WLLH 1370 100
Joliet WCLS 1310 100	KSO 1430 500 B WHO 1000 50000 R	Alexandria KALB 1210 100	Lowell
Peoria	Dubuque	Baton Rouge	WLLH 1370 100M New Bedford
WMBD 1440 1000 C	KDTH 1340 500	WJBO 1120 500 B	WNBH 1310 100M
Quincy WTAD 900 1000	Iowa City WSUI 880 500	Lafayette KVOL 1310 100	Pittsfield WBRK 1310 100 C
	1.501 000 500	1310 100	

			1
Springfield	St. Paul	Wolf Point	Gallup
WBZA 990 1000 B	KSTP 1460 10000 R	KGCX 1450 1000	KAWM 1500 100
WMAS 1420 100 C	WMIN 1370 100		Hobbs
WSPR 1140 500M	Virginia		KWEW 1500 100
Worcester	WHLB 1370 100 C	NEBRASKA	Roswell
WORC 1280 500 C	Winona		KGFL 1370 100
WTAG 580 1000 R	KWNO 1200 250	Clay Center KMMJ 740 1000	Santa Fe
MICHIGAN	MISSISSIPPI	Kearney KGFW 1310 100	KRQA 1310 100
Battle Creek	Grenada	Lincoln KFAB 770 10000 C	NEW YORK
WELL 1420 100	WGRM 1210 100	KFOR 1210 100 C Norfolk	Albany
Bay Clty	Gulfport	WJAG 1060 1000	WABY 1370 100
WBCM 1410 500	WGCM 1210 100	North Platte	WOKO 1430 500 C
Calumet	Hattiesburg	KGNF 1430 1000	Auburn
WHDF 1370 100	WFOR 1370 100	Omaha	
Detroit	Jackson	KOIL 1260 1000 B	WMBO 1310 100
WJBK 1500 100	WJDX 1270 1000 R	WAAW 660 500	Binghamton
WJR 750 50000 C	Kosciusko WHEF 1500 100	WOW 590 1000 R	WNBF 1500 100 C
WMBC 1420 100	Laurel	Scottsbluff	Brooklyn
WWJ 920 5000 R	WAML 1310 100	KGKY 1500 100	WARD 1400 500
WXYZ 1240 1000 B	Meridian		WBBC 1400 500
East Lansing	WCOC 880 500 C		WBBR 1300 1000
WKAR 850 1000	Vicksburg	NEVADA	WCNW 1500 100
Flint	WQBC 1360 1000		WLTH 1400 500
WFDF 1310 100		Reno	WMBO 1500 100
Grand Rapids		KOH 1380 500 C	WVFW 1400 500
WASH 1270 500 N WOOD 1270 500 N	MISSOURI		Buffalo WBEN 900 1000 R
Ironwood	Cape Girardeau	NEW HAMPSHIRE	WBNY 1370 100
WJMS 1420 100	KFVS 1210 100		WEBR 1310 100 B
Jackson	Columbia	Laconia	WGR 550 1000 C
WIBM 1370 100		WLNH 1310 100M	WKBW 1480 5000 C
Kalamazoo	KFRU 630 500	Manchester	WSVS 1370 50
WKZO 590 1000 B	Jefferson Clty	WFEA 1340 500 N	
Lansing	KWOS 1310 100 Joplin	Portsmouth	Canton WCAD 1220 500
WJIM 1210 100	WMBH 1420 100	WHEB 740 250	Elmira
Lapeer	Kansas City		WESG 850 1000 C
WMPC 1200 100	KCMO 1370 100 KMBC 950 1000 C	NEW JERSEY	Freeport WGBB 1210 100
Marquette	KXBY 1530 1000	Asbury Park	Jamestown
WBEO 1310 100	WDAF 610 1000 R	WCAP 1280 500	WJTN 1210 100 B
Muskegon WKBZ 1500 100	WHB 860 1000M Poplar Bluff KPBM 1310 100	Atlantic City	Newburgh WGNY 1210 100
Royal Oak	St. Joseph	WPG 1100 5000 C	New York
WEXL 1310 50		Bridgeton	WABC 860 50000 C
Saginaw	KFEQ 680 2500 St. Louis	WSNJ 1210 100	WBIL 1100 5000 WBNX 1350 1000
WHÂL 950 500	KFUO 550 500	Camden	WBOQ 860 50000
	KMOX 1090 50000 C	WCAM 1280 500	WEAF 660 50000 R
MINNESOTA	KSD 550 1000 R	Jersey City	WEVD 1300 1000
	KWK 1350 1000 B	WAAT 940 500	WFAB 1300 1000
Albert Lea	KXOK 1250 1000	WHOM 1450 250	WHN 1010 1000
	WEW 760 1000	Newark	WINS 1180 1000
KATE 1420 250	WIL 1200 100	WHBI 1250 1000	WJZ 760 50000 B
Duluth		WOR 710 50000M	WMCA 570 1000
KDAL 1500 100 G WEBC 1290 1000 N	Springfield KGBX 1230 500 N KWTO 560 5000	Red Bank	WNEW 1250 1000 WNYC 810 1000
Fergus Falls		WBRB 1210 100	WOV 1130 1000
KGDE 1200 100		Trenton	WOXR 1550 1000
Hibbing	MONTANA	WTNJ 1280 500	Olean WHDL 1400 250
WMFG 1210 100	Billings	Whippany	Plattsburg
Minneapolis	KGHL 780 1000 N	W3XDD 50000	
WCCO 810 50000 C	Butte	Zarephath	WMFF 1310 100
WDGY 1180 1000 C	KGIR 1340 1000 N	WAWZ 1350 500	Rochester
WLB 1250 1000	Great Falls		WHAM 1150 50000 B
WTCN 1250 1000 B	KFBB 1280 1000 C		WHEC 1430 500 C
Moorhead	Helena	NEW MEXICO	WSAY 1210 100
Northfield	KPFA 1210 100	Albuquerque	Saranac Lake
	Kalispell	KGGM 1230 1000	WNBZ 1290 100
WCAL 1250 1000	KGEZ 1310 100	KOB 1180 10000 N	Schenectady
	Lewistown	Carlsbad	WGY 790 50000 R
Rochester			
Rochester KROC 1310 100 St. Cloud	KDNC 1200 100 Missoula	KLAH 1210 100 Clovis	Syracuse WFBL 1360 1000 C

$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
Utica WHBX 1200 100         Cleveland WCLE 610 500M Work 1450 500 C Work 1450 500 C Work 1150 100         KBPS 1120 100 KKL 1420 100 B KKL 1420 100 KKL 1420 100 KKL 1420 100 KKL 1420 100 KKL 1420 100 KKL 1420 100 WHK 6 640 500 WORK 1500 100 Work 6 500 Work 1500 100 Work 1500 100 Wor				
Waretrown WNNY 1420 100 WNNY 1420 100 WrAx 1210 1	Utica	Cleveland	KBPS 1420 100 KEX 1180 5000 B	
With and and set of the set of t		WGAR 1450 500 C	KOIN 940 1000 C	
WPAR 1210         UW         WRNS 1210         UW         WRNS 1210         Roseburg         Roseburg         WPRP 120         WPRP 120         WPRP 120         MORTH CAROLINA         WROTL 1210         1000         KRNK 1350         100M         Salem         Salem         Salem         WRNC 1240         1000         Roseburg         WRNC 1240         1000         Roseburg         WRNC 1210         1000         Roseburg         WRNC 1200         Roseburg         WRNC 1200         1000         Roseburg         WRNC 1200         Roseburg         WRNC 1200         1000         Roseburg         WRNC 1200         1000         Roseburg         WRNC 1200         1000         Roseburg         WRNC 1200         1000         Roseburg         WRNC 1200         Roseburg         WRNC 1200         Roseburg         R	White Plains	WTAM 1070 50000 R		WPRA 1370 100
WRL 1:00         WRC 6:00         Salem 2         WRC 1:20		WBNS 1430 500 C	Roseburg	WPRP 1420 100
Masheville         WHIO 1260 1000 C         WESME 1380 200 C         PENNS YLVANIA         Pennie Composition           MWNC 570 1000 N         WBLY 1210 100         Norman         Allentown         MEAY 1210 100           WBOC 1210 100 N         WBLY 1210 100         Portsmouth         WGBA 1440 500 N         Allentown           WBOC 1200 100 C         WSDC 1200 100         Toledo         WSSN 1310 100         MCGA         MEAY 1320 100           WSDC 1200 100 C         WSPD 1340 1000 B         Zanesville         WEST 1200 100         WALK 1210 100           WETC 1200 100         WKRD 570 500 C         Zanesville         WEST 1200 100         WCSC 1366 500 N           WETC 1200 100         WALR 1210 100         Canesville         WIEC 1420 100 B         Corrensburg           WETC 1200 100         KALAHOMA         Ada         Greensburg         WOLS 1310 100         WOLS 1310 100           WIEST 1310 100         KSO 1210 100M         KSO 1210 100M         Harrisburg         WSPA 920 1000         Southbard           WISS 1310 100         KCC 1360 250 M         Muskoge         WAL 1420 100         Southbard           WSSS 1310 100         KSO 1210 100M         KSO 1210 100M         Harrisburg         Southbard           WSSS 1310 100         KSO 120 100M         KSO 120 100 <td></td> <td>WHKC 640 500</td> <td>Salem</td> <td>WKAQ 1240 1000</td>		WHKC 640 500	Salem	WKAQ 1240 1000
WWRC Charlotte WSOC 1210         Lima WBLY 1210         Allentown WSAN 1440         Allentown WSAN 1440         Marlown WSAN 1440         Marlown WWRAN 1440         Marlown WSAN 1440         Marlown WSAN 1440         Marlown WSAN 1440         Marlown WSAN 1440         Marlown WSAN 1440         Marlown WSAN 1440         Marlown South         Marlown Marlown WSAN 1310         Marlown WSAN 13		WHIO 1260 1000 C	DENNIS VEVANIA	RHODE ISLAND
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	WWNC 570 1000 N	Lima		Providence WEAN 780 1000M
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	WBT 1080 50000 C			WJAR 890 1000 R
No.         Constraint         No.         Constraint         No.	Durham	WPAY 1370 100	WSAN 1440 500 N	
Mitch Paine         Down         Easton         Easton           WMFR 1200         100         WKIMS         550 C         WKIMS         WKIMS         Charleston           WFTC 1200         100         WKIM         WS         550 100         WCSC         1300         Charleston           WFTC 1200         100         WKIMS         550 C         WS         550 100         Charleston           WFTC 1200         100         MKAIM         100         WS         550 1000         Charleston           WHTM 1370         100         MKAIM         100         MS         Spartaburg         WS         Spartaburg         WS         Spartaburg         WSPS         550 1000         Spartaburg	Greensboro	WSPD 1340 1000 B	Altoona WFBG 1310 100	SOUTH CAROLINA
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Youngstown		Anderson WAIM 1200 100 C
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	WMFR 1200 100 Kinston	Zanesville	Erie	Charleston WCSC 1360 500 N
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	WFTC 1200 100 Raleigh	WALR 1210 100		Columbia
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	WPTF 680 1000 N	OKLAHOMA	WIBG 970 100	Florence
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	WEED 1420 100		WHJB 620 250 C	Greenville
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	WMFD 1370 100	KADA 1200 100M Ardmore	WSAJ 1310 100	Spartanburg
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	WGTM 1310 100	Elk City	WHP 1430 500 C	SOUTH DAKOTA
Muskogee         Muskogee         Muskogee         Muskogee         Muskogee         KABK 1420         100           NORTH DAKOTA         Norman         Norman         Johnstown         Brookings         Brookings           Muskogee         KBIX 1500         1000         Muskogee         Johnstown         Brookings           Muskogee         KFXR         550         1000 N         KFXR         1310         100           Devils Lake         KFXR         1310         100         WGAL         1500         100           KDLR         1210         100         KFXR         1310         100         WGAL         1500         100           Fargo         940         1000 N         KGKX         170         5000 C         KGFX         630         200           Grand Forks         Ponca City         WBZ         1200         100M         WFL         560         1000         KSOO         110         2500 N           Mandan         Shawnee         KTUL         1400         500 C         WJAS         1300         100         KUSA         980         500           Minot         KLPM         1240         250         MKAST         1370         100         <	WAIR 1250 250	Enid	Hazleton	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	WSJS 1310 100 C	Muskogee	Johnstown	Brookings
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	NORTH DAKOTA	Norman	-	KFDY 780 1000 Huron
Alt No.       No.       KOMA       1480       5000 C       K.W.M. (120)       K.G.W.A       630       200       Rapid City         Berlin       K.DLR       1210       100       K.G.M.A       1480       5000 C       K.W.M. (120)       1000 R       Rapid City       Rapid City         WDAY       940       1000 N       WKY       900       1000 N       WCAU       1170       5000 C       KOBH       1370       100 N       WCAU       1170       5000 C       WOAS       1370       100 N       WCAU       1170       5000 C       WCAT       1210       100 N       Corr (110)       Corr		Oklahoma City	WGAL 1500 100	Pierre
KDLR       1210       100       WKY       900       1000 N       WKAS       1370       100       KOBH       1370       100         WDAY       940       1000 N       Grand Forks       WHSC       1210       100       WCAT       1310       100       WCAT       1200       100         Grand Forks       Ponca City       Ponca City       WHAT       1310       100       WCAT       1200       100       Sioux Falls       WCAT       1200       100       Sioux Falls       WCAT       1200       100       Sioux Falls       WCAT       1200       100       WCAT       <	Devils Lake	KOMA 1480 5000 C	KYW 1020 10000 R	KGFX 630 200 Rapid City
WDAY         940         1000 N Grand Forks         KHBG 1210 Ponca City         100 Ponca City         WFLD         500         100 B WFLD         Sioux Falls           KFJM         1410         500         Ponca City         WHAT         1310         100         KELO         1200         100 M           Jamestown         Shawnee         KGFF         1420         100 M         WFR         920         1000         KSOO         110         2500 N           Mandan         Tulsa         KUUL         1400         500 C         KQV         1380         500 C         Werntllion         With 2 300 000 B         KUSD         890         500         Watertown           Minot         KUVOO         1140         2500 N         WCAE         1220         1000 C         Watertown           KLPM         1240         250         OREGON         Reading         WKW 1310         100         WAAX         570         1000 C           MAstoria         KAST         1370         100         Scranton         Scranton         WAPO         1420         100         Chattanooga           WADC         1320         1000 C         Kastoria         Kastoria         Sunbury         WGN N 880         500		WKY 900 1000 N	WDAS 1370 100	
Grand Forks         WBZ 1200         100M         WIP         610         1000         KSOO         1110         2500         N           Jamestown         KFJM         1300         100M         Shawnee         WTE         920         1000         Vermillion         KSOO         1110         2500         N           Mandan         Tulsa         KTUL         1400         500 C         KQV         1380         500 C         WTEL         1310         100         Watertown           Minot         Tulsa         KTUL         1400         500 C         WCAL         1220         1000 R         Watertown         Watertown           Minot         KUVOO         1140         2500 N         WCAL         1220         1000 R         Watertown         WAX         700 C         WAX         700 CO         WAX         WKW N 1500         100         Yankton         WAX         570 1000 C         WAX         Startanon         WCAL         1300 100         Chattanooga         WAV         1310 100         Startanooga         WAV         1310 100         Chattanooga         WAPO 1420 100         Uniontown         WDO 1280 1000 C         Jackson         WDO 1280 1000 C         Jackson         WTJS 1310 100         Jackson	WDAY 940 1000 N	KHBG 1210 100	WHAT 1310 100	Sioux Falls
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		WBBZ 1200 100M	WIP 610 1000 WPEN 920 1000	KSOO 1110 2500 N
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				KUSD 890 500
Minot Minot       KVOO       1140       25000 N       WCAE       1220       1000 R       WNAX       570       1000 C         KLPM       1240       250       Minot       WIAS       1290       1000 R       WNAX       570       1000 C         Valley City KOVC       000       Minot       Minot       WIAS       1290       1000 R       WNAX       570       1000 C         Minot       Minot       Minot       Minot       Width       Minot       Width       Minot       Width       Status	Mandan	Tulsa	KDKA 980 50000 B	KWTN 1210 100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			WČAE 1220 1000 R	WNAX 570 1000 C
KORC 1500         100         Astoria (Astoria)         Reading (Astoria)         Reading (WEU         Reading (Solution)         Bristol           Matoria         Mastoria         (Mastoria)         (Mastori	KLPM 1240 250	OPECON	WWSW 1500 100	TENNESSEE
OHIO         KAST 1370         100         WRAW 1310         100         WOPI         1500         100           Akron         Corvallis         KOAC         550         1000         Scranton         Scranton         Chattanooga         Chattanooga         WAPO         1420         100         Chattanooga         WaPO         1420         100         Chattanooga         WaPO         1420         100         WaPO         1420         100         Sunbury         WIOD         1280         1000         Chattanooga         WaPO         1420         100         WaPO         1420         100         WaPO         1280         1000         Chattanooga         WaPO         1420         100         Knoxville         WaPO         1310         100         Knoxville         WaPO         1310         100         Knoxville         WaPO         1310         100         Knoxville         WaPO         1310         100         Marshfield         WaPO         1310         100         Marshfield         WaPO         1320         100         WMC         780         100	KOVC 1500 100		WEEU 830 1000	
Akron         Corvanis         WGAC         550         1000         WAPO         1420         100           MAron         KOAC         550         1000         Eugene         WQAN         880         500         WDOD         1420         100           MADC         1320         1000         C         Eugene         Sunhury         Jackson         WIDOD         1280         1000         C           Ashtabula         Klamath         Falls         Uniontown         WTJS         1310         100         Knoxville           WHBC         1200         100         KLBM         1420         100         WROX         1010         Knoxville           WHBC         1200         100         KLBM         1420         100         WROX         1010         000 C           Cincinnati         Marshfield         Medford         Williamsport         WHPO         1370         100           WKRC         550         1000 C         Medford         Williamsport         WMPS         1430         100 R	0110	KAST 1370 100	-	WOPI 1500 100
WAINC         1320         1000 C         Eugene         Sunbury         Jackson           WJW         1210         100         KORE         1420         100M         WKOK         1210         100         Jackson           Ashtabula         Klamath Falls         Klamath Falls         Uniontown         WKOK         WIJS         1310         100           Canton         La Grande         Wilkes-Barre         WROX         1010         100 N           WHBC         1200         100         Wilkes-Barre         Memphis         Memphis           WCPO         1200         100         KOS         1200         100         WHBC         1310         100 N           WCPO         1200         100         Koos         1200         100         WHBC         1310         100 N		Corvallis KOAC 550 1000	WGBI 880 500	WAPO 1420 100
Ashtabula         Klamath Falls         Uniontown         Knoxville           WICA         940         250         KFJI         100         Wilkes-Barre         WNOX         1010         100 Contown         Knoxville           WICA         940         250         La Grande         WMBS         1420         250         WNOX         1010         100 Contown         WNOX         1010         1000 Contown         WROL         1310         100 N         WHE         1310         100 N         WHE         1310         100 N         WMC         780         1000 R         WMC         7	WADC 1320 1000 C		Sunbury WKOK 1210 100	Jackson
Canton         La Grande         WHBS 1420         250         WHBS 1001         1000 R           WHBC 1200         100         KLBM         1420         100         Wilkes-Barre         WROL 1310         100 N           Cincinnati         Marshfield         WBAX 1210         100         WHBQ 1370         100           WKCC 550         1000 C         Medford         Welford         Williamsport         WHDQ 1370         100 R	Ashtabula WICA 940 250		Uniontown	Knoxville
Cincinnati         Marshfield         WBAX         1210         100         Memphis           WCPO         1200         100         KOOS         1200         100         WIBO         1370         100           WKRC         550         1000 C         Medford         Williamsport         WWPS         1430         500 B	Canton	La Grande KLBM 1420 100	Wilkes-Barre	WROL 1310 100 N
WCPO         1200         100         100         100         100         100         100         WMC         780         1000 R           WKRC         550         1000 C         Medford         Williamsport         WMPS         1430         500 B	Cincinnati	Marshfield	WBAX 1210 100	WHBQ 1370 100
	WKRC 550 1000 C	Medford	Williamsport	WMC 780 1000 R WMPS 1430 500 B
	WLW 700 500000 N	KMED 1410 250 N	WRAK 1370 100	

Nashville	San Angelo KGKL 1370 100	Bellingham KVOS 1200 100M	WISN 1120 250 C WTMJ 620 1000 N
WLAC 1470 5000 WSIX 1210 100	C KGKL 1370 100 San Antonio	Centralia	Poynette
WSM 650 50000	N KABC 1420 100	KELA 1440 500M	WIBU 1210 100
	KMAC 1370 100 KONO 1370 100	Everett KRKO 1370 50	Racine WRJN 1370 100
TEXAS	KTSA 550 1000 C	Longview	Sheboygan
Abilana	_ WOAI 1190 50000 N Sherman	KWLK 780 250	WHBL 1300 250 Stevens Point
Abilene KRBC 1420 100	KRRV 1310 250	Olympia KGY 1210 100M	WLBL 900 5000
Amarillo	Temple KTEM 1370 250	Pullman KWSC 1220 1000	Superior WDSM 1200 100
KGNC 1410 1000	N Texarkana	KWSC 1220 1000 Seattle	Wausau
Austin KNOW 1500 100	KCMC 1420 100 C Tyler	KEEN 1370 100	WSAU 1370 100
KTBC 1120 1000	KGKB 1500 100	KIRO 710 1000 C KJR 970 5000 B	WYOMING
Beaumont	Waco WACO 1420 100 C	KOL 1270 1000M	
KFDM 560 500	Weslaco	KOMO 920 1000 R KRSC 1120 250	Casper KDFN 1440 500
Big Spring KBST 1500 100	KRGV 1260 1000 N Wichita Falls	KTW 1220 1000	Rock Springs
Brady	KGKO 570 250 C	KXA 760 250 Spokane	KVRS 1370 100
KNEL 1500 250		KFÍO 1120 100	Sheridan KWYO 1370 100
Brownsville KGFI 1500 100	UTAH	KFPY 890 1000 C KGA 1470 5000 B	KW10 13/0 100
College Station	Cedar City	KHQ 590 1000 R	BAHAMAS
WTAW 1120 500	KSUB 1310 100 Ogden	Tacoma KMO 1330 1000M	Nassau
Corpus Christi	KLŐ 1400 500 B	KVI 570 1000 C	ZNS 540 400
KRIS 1330 500 Corsicana	N Price KEUB 1420 100	Walla Walla KUJ 1370 100	CANADA
KAND 1310 100	Salt Lake City	Wenatchee	
Dallas	C KDYL 1290 1000 R KSL 1130 50000 C	KPQ 1500 100M Yakima	ALBERTA
KRLD 1040 10000 WFAA 800 50000		KIT 1250 250M	Calgary
WRR 1280 500	4		CFAC 930 1000 F CFCN 1030 10000 F
Dublin VEDU 1310 100	VERMONT	WEST VIRGINIA	CJCJ 690 100 F
KFPL 1310 100 El Paso	Burlington		Edmonton
KROD 1500 100	WCAX 1200 100 Rutland	Bluefield WHIS 1410 500	CFRN 960 100 F CJCA 730 1000 F
KTSM 1310 100 WDAH 1310 100	WSYB 1500 100	Charleston	CKUA 580 500 F
Fort Worth	St. Albans WQDM 1390 1000	WCHS 580 500 C Clarksburg	Grande Prairie
KFJZ 1370 100	Springfield	WBLK 1370 100	CFGP 1200 100 Lethbridge
KTAT 1240 1000 WBAP 800 50000		Fairmont WMMN 890 500 C	CJOC 950 100 F
Galveston	WDEV 550 500	Huntington	
KLUF 1370 100		WSAZ 1190 1000 Parkersburg	BRIT. COLUMBIA
Greenville KGVL 1200 100	VIRGINIA	WPAR 1420 100 C	Chilliwack
Houston	Charlottesville	Wheeling	CHWK 780 100 F
KPRC 920 1000 KTRH 1290 1000		WWVA 1160 5000 C	Kamloops CFJC 880 1000 F
KXYZ 1440 1000	B WBTM 1370 100		Kelowna
Kilgore KOCA 1210 100	Harrisonburg WSVA 550 500	WISCONSIN	CKOV 630 100 F
Longview	Lynchburg	Eau Claire	Prince Rupert CFPR 580 50
KFRO 1370 250	WLVA 1200 100	WEAU 1050 1000	Trail
Lubbock KFYO 1310 100	Newport News	Fond du Lac	CJAT 910 1000 F
Lufkin	WGH 1310 100 Norfolk	KFIZ 1420 100 Green Bay	Vancouver CBR 1100 5000 F
KRBA 1310 100	WTAR 780 1000 N	WHBY 1200 100	CJOR 600 500
Midland KRLH 1420 100	Richmond	WTAQ 1330 1000 C	CKCD 1010 100 CKFC 1410 50
Palestine	WBBL 1210 100 WMBG 1350 500 R	Janesville WCLO 1200 100	CKMO 1410 100
KNET 1420 100	WRNL 880 500	LaCrosse	CKWX 1010 100
		WKBH 1380 1000 C	Victoria
Pampa KRDN 1210 100	WRTD 1500 100 B WRVA 1110 5000 C	WKD11 1300 1000 C	
KPDN 1310 100	WRVA 1110 5000 C Roanoke	Madison	CFCT 1450 500
Pampa KPDN 1310 100 Paris KPLT 1500 250	WRVA 1110 5000 C		MANITOBA
KPDN 1310 100 Paris KPLT 1500 250 Pecos	WRVA 1110 5000 C Roanoke WDBJ 930 1000 C	Madison WHA 940 5000 WIBA 1280 1000 N Manitowoc	MANITOBA Brandon
KPDN 1310 100 Paris KPLT 1500 250 Pecos KIUN 1420 100	WRVA 1110 5000 C Roanoke WDBJ 930 1000 C WASHINGTON	Madison WHA 940 5000 WIBA 1280 1000 N Manitowoc WOMT 1210 100	MANITOBA Brandon CKX 1120 1000 F
KPDN 1310 100 Paris KPLT 1500 250 Pecos	WRVA 1110 5000 C Roanoke WDBJ 930 1000 C	Madison WHA 940 5000 WIBA 1280 1000 N Manitowoc	MANITOBA Brandon

Winnipeg CJRC 630 500 F CKY 910 15000 F	
NEW BRUNSWICK	C
Fredericton CFNB 550 500 F Moncton CVCW 1270 100 F	
CKCW 1370 100 F St. John CHSJ 1120 500 F	
N. W. TERRITORY	
Aklavik CJCU 1210 50	
NOVA SCOTIA	-
Glace Bay VAS 685 2000 Halifax	c
CHNS 930 1000 F	C
Sydney CJCB 1240 1000 F	
Wolfville CKIC 1010 50 Vermouth	
Yarmouth CJLS 1310 100	Ĭ
ONTARIO	C C
Brantford CKPC 930 100 F Chatham	
CFCO 630 100 F	1
Cobalt CKMC 1210 50	C
Fort William CKPR 730 100 F	C
Hamilton CHML 1010 100 F CKOC 1120 500 F	
Kenora 1420 100	-
Kingston CFRC 1510 100 F	C
London CFPL 730 100 F	C
North Bay	C
CJKL 1310 100	1
CKGB 1420 100 Ottawa	C
CBO 880 1000 F CKCO 1010 100 F	C
Owen Sound 1370 100	
Prescott CFLC 930 100	т
St. Catharines	T T
CKTB 1200 100 F Sault Ste. Marie	
CJIC 1500 100	
Stratford CJCS 1210 50	
Sudbury CKSO 780 1000 F	
Toronto	
CBL 840 50000 F CFRB 690 10000 C CKCL 580 100 F CRCY 960 100 F	
CRCY 960 100 F	Č

MERICIAL B. C.	~ ~
Waterloo CKCR 1510 100 Windsor	c
CBW 600 500 F	c
Wingham	
·····	c c
PRINCE EDWARD ISLAND	C
Charlottetown CFCY 630 1000 F CHCK 1310 50	C
Summerside CHGS 1450 50 F	C
QUEBEC	
Chicoutimi CRCS 1120 100 F	lõ
Hull CKCH 1210 100 F	
Montreal CBF 910 50000 N	
BM 1050 5000 F FCF 600 500 B	Ιč
CFCF 600 500 B CHLP 1120 100 F	ĬČ
CHLP 1120 100 F CKAC 730 5000 C	
New Carrisle	
Ouebec	18
CHRC 580 100 CKCV 1310 100 F	Ιč
CKCV 1310 100 F CRCK 950 1000 F	ĬČ
Rimouski	
Rimouski JBR 1030 1000 F Sherbrooke	
Sherbrooke CHLT 1210 100 Three Rivers	
Three Rivers CHLN 1420 100	
SASKATCHEWAN	
Moose Jaw CHAB 1200 100 F	Ğ
Prince Albert CKBI 1210 100 F	
Regina JRM 540 1000 F KCK 1010 1000 F	C
Saskatoon FQC 840 1000 F	С
Yorkton JGX 1390 100 F	CCC
COSTA RICA	G
San Jose	C
San Jose           TEP         880         1000           TPG         625         2000           TX         650	С
CUBA	С
	~
Caibarien MHD 1270 250	C
Camaguey MJA 1010 300	C
Camaguey MJA 1010 300 MJC 1390 150 MJE 1220 50 MJF 1150 200 MJK 780 250 MJL 1340 75	C
MJC 1390 150 MJE 1220 50 MJF 1150 200	
MJF 1150 200	
MJK 780 250 MJL 1340 75	CCCC
MJX 830 500	Č

	-	
Carde	nas	150
CMGE	1370 de A	vila ,
Ciego CMJH CMJI CMJO	1360 1130	50 150
CMJI	1130	, 50
Cienf	uegos	
Cienfr CMHJ CMHM CMHX	1160 1450	175 100
CMHX	760	200
Cruce CMHK	s 1330	250
Guan CMKS	tanan 960	10
Havar	70V 18	
Havar CMBC CMBC CMBD CMBD CMBS CMBU CMBS CMBX CMBY CMCC CMCC CMCC CMCC CMCC CMCC CMCC	950	10000 500
CMBF	950 1260 770 750	10000
CMBL	750 680	10000 2500 5000
CMBS	1170	150
CMBX CMBY	1070	500 150
CMBZ	1000	500
CMC CMCA	1260	150 450
CMCB	1170 1070 970 1000 1260 1350 1230 630 810	150
CMCD CMCF	630 810	250 600
CMCG	680	1000
CMCD CMCF CMCG CMCK CMCJ CMCK CMCC CMCC CMCQ CMCQ CMCQ CMCQ CMCX CMCY CMCX CMOX CMOX CMOX CMOX	1110	500
CMCL	730	10000
CMCM	850 1200	250
CMCO	1410	5000
CMCU	1290	500
CMCW	1140	500
CMCY	570	150 5000
CMK	720	5000 3000 150
CMOX	1320	200
CMQ	600	25000 1400
CMOX CMQ CMW CMX	880 920 630	1000
	030	10000
Holgu CMFK CMKO	1460	250
Manza CMKM	1120	200
Matar CMGC CMGF CMGH	izas	
CMGC CMGF	1400	150 250
СМĞН	1120 790	500
Moror CMJP	1430	75
Pinar	del F	
СМАВ	1340	
Sagua CMHA	1070	rande 50
Sancti CMHB	i Spiri 1240	tus 50
Santa	Clars	۱
Santa CMHI CMHW	1210 820	150 100
Santia	go	150
CMKC CMKD	1250	150 250
Santia CMKC CMKD CMKG CMKR	1160	100
	1400	100

CMKW 1350 CMKX 1190 DOMINICAN REPUBLIC Trujillo HIX 800 700 **GUATEMALA** Guatemala City TGW 1230 10000 TG1 1510 MEXICO AGUASCALIENTES Aguascalientes XEBI 1000 25 XEXC 810 350 **BAJA CALIFORNIA** Mexicali XEAA XEAO 750 660 200 250 XECL 1100 1700 Rosarito Beach ERB 730 100000 XERB Tijuana XEAC 980 5000 1000 XEBG XEC 820 1150 100 XELO XEMO 670 50000 860 5000 XEOK 760 2500 CHIHUAHUA Chihuahua XEFI 250 1440 Juarez 1210 100 XEFV XEF 1450 100 1020 1000 XEJ XEP 1160 500 Parral XEAT 1210 250 COAHUILA Piedras Negras XEMU 580 XEPN 730 100000 Sabinas XEBX 640 250 Saltillo XEAS 1160 XELA 1240 50 50 Torreon XETB 1310 125 Villa Acuna XERA 840 350000 D. F. Atzcapotzalco XEMG 1060 100 Chapultepec XERO 670 Gra. Anaya XEDA 1220 200

Mexico City XEAL 660 1000 XEAY 1240 100 XEB 1030 10000	Leon XEKL 1240 500	SAN LUIS POTOSI San Luis Potosi XECZ 1370 100	Tampico XEFW 1310 250 XES 990 250
XEBS 1240 200	JALISCO	XEXH 1250 250	VERACRUZ
XEBZ         1160         100           XECW         1310         10           XEDP         1080         500           XEFO         930         5000           XEJP         1120         100           XEJW         870            XEK         990         100	Guadalajara XEAD 1060 125 XED 1160 2500 Guzman XEBA 1080 20	SINALOA Mazatlan XEBL 1220 50	Cordoba XEAG 1310 10 Jalapa XEXB 1270 50 XEXD 1340 350 Minatitlan
XEL <sup>*</sup> 1100 1000 XELZ 1370 100	MICHOACAN	SONORA	XEDW 1150 20
XEMX1280100XEN7801000XENC86050XEW89050000	Morelia XEI 1370 125	Hermosillo XEBH 930 500 Nogales XEAF 990 750	Veracruz XETF 1220 30 XEU 1010 250
XEXE 1270 17 XEXM 1280 XEYO 940 500	NUEVO LEON	XEAF         990         750           Obregon         XEAP         1240         50	YUCATAN Merida
Tacuba XEFA 1180 500	Monterrey XEFB 870 200 XEFJ 1230 100 XEG 1220 250	TAMAULIPAS	XEBJ         1160         20           XEFC         550         100           XEZ         630         500
DURANGO	XEH 720 250	Matamoros XEAM 750 25	NEWFOUNDLAND
Durango XEE 1210 50	XET 690 5000 XEX 1310 125	Nuevo Laredo XEBK 1000 60 XEDF 810 100	St. John's VOAC 1065 40 VOAS 940 100
GUANAJUATO	PUEBLA	XEFE 980 150 XENT 910 150000	VOCM 1006 200 VOCY 840 400
Irapuato XEBO 1310 25	Puebla XETH 1210 100	Reynosa XEAW 960 50000	VONF 1195 500 VOWR 681 500

	CBF 910 Montreal, P. Q.	50000	CFNB 550 500 Fredericton, N. B.	CHSJ 1120 St. John, N. B.	500
	CBL 840 Toronto, Ont.	50000	CFPL 730 100 London, Ont.	CHWK 780 Chilliwack, B. C.	100
	CBM 1050 Montreal, P. Q.	5000	CFPR 580 50 Prince Rupert, B. C.	CJAT 910 Trail, B. C.	1000
	CBO 880 Ottawa, Ont.	1000	CFQC 840 1000 Saskatoon, Sask.	CJBR 1030 Rimouski, P. Q.	1000
	CBR 1100 Vancouver, B. C.	5000	CFRB 690 10000 Toronto, Ont.	CJCA 730 Edmonton, Alta.	1000
	CBW 600 Windsor, Ont.	500	CFRC 1510 100 Kingston, Ont.	CJCB 1240 Sydney, N. S.	1000
	CFAC 930 Calgary, Alta.	1000	CFRN 960 100 Edmonton, Alta,	CJCJ 690 Calgary, Alta.	100
<u> </u>	CFAR 1370 Flin Flon, Man.	100	CHAB 1200 100 Moose Jaw, Sask.	CJCS 1210 Stratford, Ont.	50
	CFCF 600 Montreal, Que.	500	CHCK 1310 50 Charlottetown, P.E.I.	CJCU 1210 Aklavik, N. W. T.	50
	CFCH 930 North Bay, Ont.	100	CHGS 1450 50 Summerside, P.E.I.	CJGX 1390 Yorkton, Sask.	100
	CFCN 1030 Calgary, Alta.	10000	CHLN 1420 100 Three Rivers, P. Q.	CJIC 1500 S. Ste. Marie, Ont.	100
	CFCO 630 Chatham, Ont.	100	CHLP 1120 100 Montreal: Que.	CJKL 1310 North Bay, Ont.	100
	CFCT 1450 Victoria, B. C.	500	CHLT 1210 100 Sherbrooke, P. Q.	CJLS 1310 Yarmouth, N. S.	100
	CFCY 630 Charlottetown, P.	1000	CHML 1010 100 Hamilton, Ont.	CJOC 950 Lethbridge, Alta.	100
	<b>CFGP</b> 1200 Grande Prairie, Al	100	CHNC 960 1000 New Carlisle, Que.	CJOR 600 Vancouver, B. C.	500
	CFJC 880 Kamloops, B. C.	1000	CHNS 930 1000 Halifax, N. S.	CJRC 630 Winnipeg, Man.	500
	CFLC 930 Prescott, Ont.	100	CHRC 580 100 Quebec, Que.	CJRM 540 Regina, Sask.	1000
				1	

	CKAC 730 5000 Montreal, Que.	CMBY 970 150 Havana, Cuba	CMJF 1150 2 Camaguey, Cuba
	CKBI 1210 100	CMBZ 1000 500	CMJH 1360
	Prince Albert, Sask.	Havana, Cuba	Ciego de Avila, Cuba
	CKCD 1010 100 Vancouver, B. C.	CMC 1260 150 Havana, Cuba	CMJI 1130 1 Ciego de Avila, Cuba
	CKCH 1210 100	CMCA 1350 450	CMJK 780 2
	Hull, Que.	Havana, Cuba	Camaguey, Cuba
	CKCK 1010 1000 Regina, Sask.	CMCB 1230 150 Havana, Cuba	CMJL 1340 Camaguey, Cuba
	CKCL 580 100	CMCD 630 250	CMJO 1180
_	Toronto, Ont.	Havana, Cuba	Ciego de Avila, Cuba
	CKCO 1010 100	CMCF 810 600	CMJP 1430
	Ottawa, Ont. CKCR 1510 100	Havana, Cuba CMCG 680 1000	Camaguey, Cuba CMJX 830 5
	Waterloo, Ont.	Havana, Cuba	Camaguey, Cuba
	CKCV 1310 100	CMCJ 1110 500	CMK 720 30
	Quebec, Que.	Havana, Cuba	Havana, Cuba
	CKCW 1370 100 Moncton, N. B.	CMCK 1030 Hayana, Cuba	CMKC 1250 1 Santiago, Cuba
	CKFC 1410 50	CMCL 730 10000	CMKD 1050 2
	Vancouver, B. C.	Havana, Cuba	Santiago, Cuba
	CKGB 1420 100	CMCM 850	CMKF 1460 2 Holguin Cuba
	North Bay, Ont. CKIC 1010 50	Havana, Cuba CMCO 1200 250	Holguin, Cuba CMKG 1160
	Wolfville, N. S.	Havana, Cuba	Santiago, Cuba
	CKLW 1030 5000	CMCQ 1410 5000	CMKM 1120 2
	Windsor, Ont.	Havana, Cuba	Manzanillo, Cuba CMKO 1280
	CKMC 1210 50 Cobalt, Ont.	CMCR 1380 Havana, Cuba	Holguin, Cuba
	CKMO 1410 100	CMCU 1290 500	CMKR 1400 1
_	Vancouver, B. C.	Havana, Cuba	Santiago, Cuba
	CKNX 1200 100 Wingham, Ont.	CMCW 1140 500 Havana, Cuba	Guantanamo, Cuba
	СКОС 1120 500	CMCX 1380 150	CMKW 1350
	Hamilton, Ont.	Havana, Cuba	Santiago, Cuba
	CKOV 630 100	CMCY 570 5000	Santiago, Cuba
· **-	Kelowna, B. C. CKPC 930 100	Havana, Cuba CMGC 1400 150	CMOA 1440
	Brantford, Ont.	Matanzas, Cuba	Havana, Cuba
	CKPR 730 100	CMGE 1370 150	CMOX 1320
-	Fort William, Ont. CKSO 780 1000	Cardenas, Cuba CMGF 1120 250	Havana, Cuba CMQ 600 250
	Sudbury, Ont.	Matanzas, Cuba	Havana, Cuba
	CKTB 1200 100	CMGH 790 500	CMW 880 14
	St. Catharines, Ont.	Matanzas, Cuba	Havana, Cuba CMX 920 10
	CKUA 580 500	CMHA 1070 50	CMX 920 10 Havana, Cuba
	Edmonton, Alta.	Sagua la Grande, Cuba CMHB 1240 50	CRCK 950 10
	Vancouver, B. C.	Sancti Spiritus, Cuba	Quebec, Que.
	CKX 1120 1000	CMHD 1270 250	CRCS 1120 : Chicoutimi, Que.
_	Brandon, Man. CKY 910 15000	Caibarien, Cuba CMHI 1210 150	CRCY 960
	Winnipeg, Man.	Santa Clara, Cuba	Toronto, Ont.
	CMAB 1340	CMHJ 1160 175	HIX 800
	Pinar del Rio, Cuba CMBC 950 10000	Cienfuegos, Cuba	Trujillo, D. R. KABC 1420
	CMBC 950 10000 Havana, Cuba	CMHK 1330 250 Cruces, Cuba	San Antonio, Texas
	CMBD 1260 500	CMHM 1450 100	KABR 1420
	Havana, Cuba	Cienfuegos, Cuba	Aberdeen, S. Dak.
	CMBF 770 10000	CMHW 820 100 Santa Clara, Cuba	Ada, Okla.
_	Havana, Cuba CMBL 750 2500	CMHX 760 200	KALB 1210
	Havana, Cuba	Cienfuegos, Cuba	Alexandria, La.
	CMBQ 680 5000	CMJA 1010 300	Fortland, Ore.
	Havana, Cuba CMBS 1170 150	Camaguey, Cuba CMJC 1390 150	KAND 1310
	Havana, Cuba	Camaguey, Cuba	Corsicana, Texas
	CMBX 1070 500	CMJE 1220 50	KANS 1210 1
	Havana, Cuba	Camaguey, Cuba	Wichita, Kans

86

 KARK 890 500				 
KARK 890 500 Little Rock, Ark.		KFAM 1420 St. Cloud, Minn.	100	KFXD 1200 1 Nampa, Idaho
KARM 1310 100		KFBB 1280	1000	KFXJ 1200 1
 Fresno, Calif. KASA 1210 100		Great Falls, Mont. KFBI 1050	5000	 Grand Junction, Colo. KFXM 1210 1
 Elk City, Okla.		Abilene, Kans.	3000	San Bernardino, Calif.
KAST 1370 100		KFBK 1490	5000	KFXR 1310 1
 Astoria, Ore. KATE 1420 250		Sacramento, Calif. KFDM 560	500	 Oklahoma City, Okla. KFYO 1310 10
 Albert Lea, Minn.		Beaumont, Texas		Lubbock, Texas
KAWM 1500 100 Gallup, N. Mex.		KFDY 780 Brookings, S. D.	1000	KFYR 550 100 Bismarck, N. D.
 KBIX 1500 100		KFEL 920	500	 KGA 1470 50
 Muskogee, Okla.		Denver, Colo. KFEQ 680		 Spokane, Wash.
KBPS 1420 100 Portland, Ore.		KFEQ 680 St. Joseph, Mo.	2500	KGAR 1370 10 Tucson, Ariz.
KBST 1580 100		KFGQ 1370	100	KGB 1330 100
 Big Spring, Texas KBTM 1200 100		Boone, Iowa KFH 1300	1000	 San Diego, Calif. KGBU 900 50
Jonesboro, Ark.		Wichita, Kans.	1000	 Ketchikan, Alaska
KCKN 1310 100			50000	KGBX 1230 50
 Kansas City, Kans. KCMC 1420 100		Los Angeles, Calif. KFIO 1120	100	 Springfield, Mo. KGCA 1270 10
 Texarkana, Texas		Spokane, Wash.		Decorah, Iowa
KCMO 1370 100		KFIZ 1420	100	KGCI 1200 10
 Kansas City, Mo. KCRC 1360 250	-	Fond du Lac, Wis. <b>KFJB</b> 1200	100	 Coeur d'Alene, Idaho KGCU 1240 25
 Enid, Okla.		Marshalltown, Iowa	[	 Mandan, N. D.
KCRJ 1310 100 Jerome, Ariz.		KFJI 1210 Klamath Falls, Ore.	100	KGCX 1450 100
 KDAL 1500 100	-	KFJM 1410	500	 Wolf Point, Mont. KGDE 1200 10
 Duluth, Minn.		Grand Forks, N. D	u [	 Fergus Falls, Minn.
KDB 1500 100 Santa Barbara, Calif.		<b>KFJZ 1370</b> Fort Worth, Texas	100	KGDM 1100 100 Stockton, Calif.
KDFN 1440 500		KFKA 880	500	 KGDY 1340 25
 Casper, Wyo.		Greeley, Colo.	1000	 Huron, S. D.
KDKA 980 50000 Pittsburgh, Pa.		Lawrence, Kans.	1000	KGEK 1200 10 Sterling, Colo.
KDLR 1210 100		KFNF 890	500	 KGER 1360 100
 Devils Lake, N. D. KDNC 1200 100		Shenandoah, Iowa KFOR 1210	100	 Long Beach, Calif. KGEZ 1310 10
Lewistown, Mont.		Lincoln, Neb.	100	Kalispell, Mont.
KDON 1210 100 Monterey, Calif.		KFOX 1250 Long Beach, Calif.	1000	KGFF 1420 10 Shawnee, Okla.
 KDTH 1340 500		KFPL 1310	100	 KGFI 1500 10
 Dubuque, Iowa		Dublin, Texas		 Brownsville, Tex.
KDYL 1290 1000 Salt Lake City, Utah		KFPW 1210 Fort Smith, Ark.	100	KGFJ 1200 10 Los Angeles, Calif.
 KECA 1430 1000		KFPY 890	1000	 KGFL 1370 10
 Los Angeles, Calif.	-	Spokane, Wash. KFQD 780	250	 Roswell, N. M.
KEEN 1370 100 Seattle, Wash.		KFQD 780 Anchorage, Alaska	230	KGFW 1310 10 Kearney, Neb.
 KEHE 780 1000		KFRC 610	1000	KGFX 630 20
 Los Angeles, Calif. KELA 1440 500		San Francisco, Calif KFRO 1370	250	 Pierre, S. D. KGGC 1420 10
Centralia, Wash.		Longview, Texas	230	San Francisco, Calif.
KELD 1370 100		KFRU 630	500	KGGF 1010 100
 El Dorado, Ark. KELO 1200 100		Columbia, Mo. KFSD 600	1000	 Coffeyville, Kans. KGGM 1230 100
 Sioux Falls, S. Dak.		San Diego, Calif.		 Aibuquerque, N. M.
KERN 1370 100 Bakersfield, Calif.		KFSG 1120 Los Angeles, Calif.	500	KGHF 1320 50 Pueblo, Colo.
 KEUB 1420 100	-	KFUO 550	500	 KGHI 1200 10
 Price, Utah		St. Louis, Mo.		 Little Rock, Ark.
KEX 1180 5000 Portiand, Ore.		KFVD 1000 Los Angeles, Calif.	1000	KGHL 780 100 Billings, Mont.
 KFAB 770 10000	1.000	KFVS 1210	100	 KGIR 1340 100
 Lincoln, Neb. KFAC 1300 1000	-	Cape Girardeau, Mo KFWB 950	1000	 Butte, Mont.
Los Angeles, Calif.		Hollywood, Calif.	1000	KGIW 1420 10 Alamosa, Colo.
			F	 

	KGKB 1500	100
	Tyler, Texas KGKL 1370	100
	San Angelo, Texas KGKO 570	250
-	Wichita Falls, Texa KGKY 1500	s 100
	Scottsbluff, Neb. KGLO 1210	100
	Mason City, Iowa KGMB 1320	1000
	Honolulu, T. H. KGNC 1410	1000
	Amarillo, Texas KGNF 1430	1000
	North Platte, Neb. KGNO 1340	250
	Dodge City, Kans. KGO 790	750 <b>0</b>
	San Francisco, Cali KGU 750	ť. 2500
	Honolulu, T. H. KGVL 1208	100
	Greenville, Texas KGVO 1260	1000
	Missoula, Mont. KGW 620	1000
	Portland, Ore. KGY 1210	100
	Olympia, Wash. KHBC 1400	250
	Hilo, T. H. KHBG 1210	100
	Okmulgee, Okla. KHJ 900	1000
	Los Angeles, Calif.	
	KHQ 590 Spokane, Wash.	1000
	KHSL 1260 Chico, Calif.	250
	KHUB 1310 Watsonville, Calif.	250
	KICA 1370 Clovis, N. M.	100
	Idaho Falls Idaho	500
	Boise, Idaho	1000
	KIDW 1420 Lamar, Colo.	100
	KIEM 1450 Eureka, Calif.	500
	KIEV 850 Glendale, Calif.	250
	KINY 1310	100
	Juneau, Alaska KIRO 710 Seattle, Wash. KIT 1250 Vakima Wash	1000
	I continue, freesta.	250
	<b>KIUL 1210</b> Garden City, Kans.	100
_	KIUN 1420	100
	Pecos, Texas KIUP 1370 Durango, Colo. KIRS 1070	100
	KJBS 1070 San Francisco, Cali	500 f.

	KJR Seattle	970 Wash	5000	
	Seattle, KLAH	1210	100	
	Carlsbac KLBM	1, N. Me 1420	ex. 100	
	La Gran KLCN	1290	100	
	Blythevi KLO	ille, Ark. 1400	500	
	KLO Ogden, KLPM	Utah 1240	250	
_	Minot,	N. D.		
	Little R	1390 ock, Ark	1000	
	KLS Oakland	<b>1280</b> , Calif.	250	
	KLUF Galveste			
	KLX Oakland	880	1000	
	KLZ	560	1000	
-	Denver, KMA	930	1000	
	Shenand KMAC		va. 100	
	San Ant KMBC	950	1000	
	Kansas KMED	City, Me	250 250	
	Medford	Ore.		
	KMJ Fresno, KMLB	580 Calif.	1000	
1000	KMLB Monroe,	1200 La.	100	
	KMMJ Clay Ce	740	1000	
	кмо	1330	1000	
	KMOX	1090	50000	
	St. Loui KMPC	s, Mo. 710	500	
	Beverly KMTR		lif. 1000	
	Los Ang KNEL	geles, Ca		
	Brady, ' KNET	Texas 1420		
	Palestin	e, Texas		
	KNOW Austin, KNX	1500	100	
	KNX Los Ang		50000	
-	KOA	830		
	Denver, KOAC	550	1000	
_	Corvallis KOAM	s, Ore. 790	1000	
	KOAM Pittsbur KOB	g, Kans 1180	10000	
	KOB Albuque KOBH	rque, N	. M. 100	
	Rapid C	ity, S. L	ak.	
	KOCA Kilgore, KOH	Texas	100	
	KOH Reno, N KOIL	1380 lev.	500	
	<b>KOIL</b> Omaha,	1260 Neb.	1000	
	l:			

KO Por		940 I, Ore.	1000
ко	<b>κο</b> Junt	1370	100
KO	L	1270	1000
KO	ttle, MA	Wash. 1480	5000
- Oki	ahom MO	a City, 920	Okla. 1000
Sea	ttle,	Wash.	
Sar	NO Ant	1370 onio, Te	100 xas
	OS rehfie	1200 ald, Ore.	100
KO	RE	1420	100
nu		Ore. 1500	100
Pin		iff. Ark. 1500	100
Val	ley (	City, N.	Dak.
KO	Y penix	1390 Ariz.	1000
KP	AC	1260	500
		thur. Te 1310	xas 100
_ Pop	plar I	Bluff, Mo	o.
Par	DN npa,	1310 Texas	100
KP	FA	1210 Mont	100
ļ KP	LC	Mont. 1500	100
L D	IT	1arles, L 1500	a. 100
Par	ris, T	exas	
	MC kersfi	1550 eld, Cali	1000 f.
KP	0	680	50000
KP	OF	ncisco, ( 880	500 Sant.
	nver, PC	Colo. 1210	100
Pas	saden	a, Calif.	
KP We		1500 nee, Was	100 h.
KP	RC	920	1000
ĸq		1380	500
		gh, Pa.	1000
	Jos	1010 e, Calif.	1000
] KR	BA	1310 Texas	100
KR	BC	1420	100
A b   <b>K r</b>		Texas 1370	100
Ber	rkelej	, Calif.	1000
We	slaco	, Texas	
	IS	1330	500 Tex.
<u>к</u> я	KD	1120	500
	a Ang KO	eles, Ca 1370	lif. 50
Ev	erett,	Wash.	
	LC visto	1390 n, Idaho	250
KR	LD	1040	10000
Da	nas, '	Texas	

		KTMS 1220 500	KWLC 1270 100
KRLH 1420 100 Midland, Texas		KTMS 1220 500 Santa Barbara, Calif.	Decorah, Iowa
 KRMC 1370 100		KTOK 1370 100	KWLK 780 250
 Jamestown, N. Dak.		Oklahoma City, Okla.	Longview, Wash. KWNO 1200 250
KRMD 1310 100 Shreveport, La.		KTRB 740 250 Modesto, Calif.	KWNO 1200 250 Winona, Minn.
 KRNR 1500 100		KTRH 1290 1000	KWOS 1310 100
Roseburg, Ore.		Houston, Texas	Jefferson City, Mo.
KRNT 1320 1000		KTRI 1429 100	KWSC 1220 1000 Pullman, Wash.
 Des Moines, Iowa KROC 1310 100		Sioux City, Iowa KTSA 550 1000	KWTN 1210 100
Rochester, Minn.		San Antonio, Texas	Watertown, S. Dak.
 KROD 1500 100		KTSM 1310 100	KWTO 568 5000
 El Paso, Texas KROW 930 1000		El Paso, Texas	Springfield, Mo. KWYO 1370 100
KROW 930 1000 Oakland, Calif.		Tulsa, Okia.	Sheridan, Wyo.
 KROY 1210 100		KTW 1220 1000	KXA 760 250
Sacramento, Calif.		Seattle, Wash.	Seattle, Wash.
KRQA 1310 100	1	KUJ 1370 100	KXBY 1530 1000
 Santa Fe, N. Mex. KRRV 1310 250		Walla Walla, Wash.	Kansas City, Mo. KXL 1420 100
 Sherman, Texas		Yuma, Ariz.	Portland, Ore.
KRSC 1120 250		KUOA 1260 5000	KXO 1500 100
 Seattle, Wash.	L	Siloam Springs, Ark.	El Centro, Calif. KXOK 1250 1000
KSAC 580 500 Manhattan, Kans.		KUSD 890 500 Vermillion, S. Dak.	St. Louis, Mo.
 KSAL 1500 100		KUTA 1500 100	KXRO 1310 100
Salina, Kans.		Salt Lake City, Utah	Aberdeen, Wash.
KSCJ 1330 1000		KVCV 1200 100	KXYZ 1440 1000 Houston, Texas
 Sioux City, Iowa KSD 550 1000		Redding, Calif.	KYA 1230 1000
St. Louis, Mo.		San Luis Obispo, Cal.	San Francisco, Calif.
KSEI 900 250		KVGB 1370 100	KYOS 1040 250
 Pocatello, Idaho		Great Bend, Kans. KVI 570 1000	Merced, Calif. KYW 1020 10000
KSFO 560 1000 San Francisco, Calif.		KVI 570 1000 Tacoma, Wash.	Philadelphia, Pa.
 KSL 1130 50000		KVOA 1260 1000	TGW 1230 10000
Salt Lake City, Utah	1	Tucson, Ariz.	Guatemala City, Guat.
KSLM 1370 100 Salem, Ore.	- 61	KVOD 920 500 Denver, Colo.	TG1 1510 Guatemala City, Guat.
 KSO 1430 500		KVOE 1500 100	TIEP 880 1000
 Des Moines, Iowa		Santa Ana, Callf.	San Jose, Costa Rica
KSOO 1110 2500		KVOL 1310 100	TIPG 625 2000 San Jose, Costa Rica
 Sloux Falls, S. Dak. KSRO 1310 250		Lafayette, La. <b>KVOO 1140 25000</b>	TIX 650
 Santa Rosa, Calif.		Tulsa, Okla.	San Jose, Costa Rica
KSTP 1460 10000		KVOR 1270 1000	VAS 685 2000
 St. Paul, Minn.		Colorado Springs, Colo. KVOS 1200 100	Glace Bay, N. S. VOAC 1965 40
KSUB 1310 100 Cedar City, Utah		Bellingham, Wash.	St. John's, Nfid.
 KSUN 1200 100		KVOX 1310 100	VOAS 940 10
 Lowell, Ariz.		Moorhead, Minn.	St. John's, Nild.
KTAR 620 1000		KVRS 1370 100 Rock Springs, Wyo.	VOCM 1006 20 St. John's, Nfld.
 Phoenix, Ariz. KTAT 1240 1000		KVSO 1210 100	VOGY 840 40
 Fort Worth, Texas		Ardmore, Okla.	St. John's, Nfld.
KTBC 1120 1000		KWBG 1420 100	VONF 1195 50
 Austin, Texas KTBS 1450 1000		Hutchinson, Kans. KWEW 1500 100	St. John's, Nfld.
Shreveport, La.	1	Hobbs, N. Mex.	St. John's, Nfld.
KTEM 1370 250		KWG 1200 100	WAAB 1410 50
 Temple, Texas		Stockton, Calif. KWJJ 1040 500	Boston, Mass. WAAF 920 100
KTFI 1240 1000 Twin Falls, Idaho		<b>KWJJ 1040 500</b> Portland, Ore.	Chicago, Ill.
 KTHS 1060 10000		KWK 1350 1000	WAAT 940 50
 Hot Springs, Ark.		St. Louis, Mo.	Jersey City, N. J.
KTKC 1190 250		KWKH 1100 10000	WAAW 660 50 Omaha Neb
Visalia, Calif.		Shreveport, La.	Omaha, Neb.

	WABC 860 5000 New York, N. Y.	10	WBEN 900 10 Buffalo, N. Y.	000	WCBM 1370 10 Baltimore, Md.
	WABI 1200 10 Bangor, Malne	ю	WBEO 1310 1 Marquette, Mich.	100	WCBS 1420 10 Springfield, Ill.
_	WABY 1370 10	20	WBHP 1200 1	100	WCCO 810 5000
	Albany, N. Y. WACO 1420 10	0		000	Minneapolis, Minn. WCFL 970 500
	Waco, Texas WADC 1320 100		Greensboro, N. C. WBIL 1100 50	000	Chicago, Ill. WCHS 580 50
	Akron, Ohio		New York, N. Y.	100	Charleston, W. Va. WCHV 1420 10
	WAGA 1450 50 Atlanta, Ga.		Clarksburg, W. Va.		Charlottesville, Va.
	WAGF 1370 25 Dothan, Ala.	50	WBLY 1210 1 Lima, Ohio	100	WCKY 1499 1000 Covington, Ky.
	WAGM 1420 10 Presque Isle, Me.	00		100	WCLE 610 50 Cleveland, Ohio
	WAIM 1200 10	0	WBNS 1430 5	500	WCLO 1200 10
	Anderson, S. C. WAIR 1250 25	50		000	Janesville, Wis. WCLS 1310 10
	Winston-Salem, N. C. WALA 1380 50		New York, N. Y. WBNY 1370 1		Joliet, Ill. WCMI 1310 10
	Mobile, Ala.		Buffalo, N. Y.		Ashland, Ky.
	WALR 1210 10 Zanesville, Ohio		WBOQ 860 500 New York, N. Y.		WCNW 1500 10 Brooklyn, N. Y.
	WAML 1310 10 Laurel, Miss.	0	WBOW 1310 1 Terre Haute, Ind.	100	WCOA 1340 50 Pensacola, Fla.
	WAPI 1140 500 Birmingham, Ala.	00		100	WCOC 880 50 Meridian, Miss.
	WAPO 1420 10	0	WBRC 930 10	000	WCOL 1210 10
	Chattanooga, Tenn. WARD 1400 50	ю — —	Birmingham, Ala. WBRE 1310 1	100	Columbus, Ohio WCOP 1120 50
	Brooklyn, N. Y.		Wilkes-Barre, Pa.		Boston, Mass. WCPO 1200 10
	Grand Rapids, Mich.		Pittsfield, Mass.	100	Cincinnatl, Ohio
	WATL 1370 10 Atlanta, Ga.	10	WBRY 1530 10 Waterbury, Conn.	000	WCRW 1210 10 Chicago, Ill.
	WATE 1190 10 Waterbury, Conn.	0	WBT 1080 500 Charlotte, N. C.	000	WCSC 1369 50 Charleston, S. C.
	WAVE 940 100	10	WBTM 1370 1	100	WCSH 940 100
	Louisville, Ky. WAWZ 1350 50	10	Danville, Va. WBZ 990 500	000	Portland, Me. WDAE 1220 100
	Zarephath, N. J. WAYX 1200 10	ю	Boston, Mass. WBZA 990 10	000	Tampa, Fla. WDAF 610 100
	Waycross, Ga. WAZL 1420 10		Springfield, Mass.		Kansas City, Mo.
	Hazleton, Pa.		Canton, N. Y.	500	WDAH 1310 10 El Paso, Texas
	WBAA 890 50 West Lafayette, Ind.	10	WCAE 1220 10 Pittsburgh, Pa.	000	WDAS 1370 10 Philadelphia, Pa.
	WBAL 760 250 Baltimore, Md.	10		000	WDAY 940 100 Fargo, N. Dak.
	WBAL 1060 1000	ю	WCAM 1280 5	500	WDBJ 930 100
	Baltimore, Md. WBAP 800 5000	10	Camden, N. J. WCAO 600 5	500	Roanoke, Va. WDBO 580 100
	Fort Worth, Texas WBAX 1210 10	10	Baltimore, Md. WCAP 1280 5	500	Orlando, Fla. WDEL 1120 25
1	Wilkes-Barre, Pa.		Asbury Park, N. J.	100	Wilmington, Del.
	WBBC 1400 50 Brooklyn, N. Y.		Rapid City, S. Dak.		WDEV 550 50 Waterbury, Vt.
	WBBL 1210 10 Richmond, Va.	D	WCAU 1170 500 Philadelphia, Pa.	000	WDGY 1180 100 Minneapolis, Minn.
	WBBM 770 5000 Chicago, Ill.	0		100	WDNC 1500 10 Durham, N. C.
	WBBR 1300 100	10	WCAZ 1070 1	100	WDOD 1280 100
	Brooklyn, N. Y. WBBZ 1200 10	ю ———	Carthage, Ill. WCBA 1440 5	500	Chattanooga, Tenn. WDRC 1330 100
	Ponca City, Okla. WBCM 1410 50	ю — —	Allentown, Pa. WCBD 1080 50		Hartford, Conn. WDSM 1200 10
	Bay City, Mich.	-	Chicago, Ill.		Superior, Wis.
				*	

	WDSU 1250 1000 New Orleans, La.	WFIL 560 Philadelphia, Pa	1000	Kansas City, Mo.	1000
	WDWS 1370 100	WFLA 620	1000	WHBB 1500	100
	Champaign, Ill. WDZ 1020 250	Clearwater, Fla WFMD 900	. 500	Seima, Ala. WHBC 1200	100
/	Tuscola, Ill.	Frederick, Md.		Canton, Ohio	100
	WEAF 660 50000 New York, N. Y.	WFOR 1370 Hattlesburg, Mi	100	WHBF 1210 Rock Island, Ill,	100
	WEAN 780 1000	WFOY 1210	100 <b>10</b> 0	WHBI 1250	1000
	Providence, R. I. WEAU 1050 1000	St. Augustine, F		Newark, N. J. WHBL 1300	250
	Eau Claire, Wis.	WFTC 1200 Kinston, N. C.	100	Sheboygan, Wis.	250
	WEBC 1290 1000 Duluth, Minn.	WGAL 1500	100	WHBQ 1370	100
	WEBQ 1210 100	Lancaster, Pa. WGAN 640	500	Memphis, Tenn. WHBU 1210	10
	Harrisburg, Ill. WEBR 1310 100	Portland, Me.		Anderson, Ind.	
	WEBR 1310 100 Buffalo, N. Y.	WGAR 1450 Cleveland, Ohio	500	WHBY 1200 Green Bay, Wis.	10
	WEDC 1210 100	WGAU 1310	100	WHDF 1370	10
	Chicago, Ill. WEED 1420 100	Athens, Ga. WGBB 1210	100	Calumet, Mich. WHDH 830	1000
	Rocky Mount, N. C.	Freeport, N. Y.		Boston, Mass.	1000
	WEEI 590 1000 Boston, Mass.	WGBF 630	500	WHDL 1400	250
-	WEEU 830 1000	Evansville, Ind. WGB1 880	500	Olean, N. Y. WHEB 740	250
	Reading, Pa. WELI 900 500	Scranton, Pa.		Portsmouth, N. II.	
	WELI 900 500 New Haven, Conn.	Gulfport, Miss.	160	WHEC 1430 Rochester, N. Y.	500
	WELL 1420 100	WGES 1360	500	WHEF 1500	100
	Battle Creek, Mich. WEMP 1310 100	Chicago, Ill. WGH 1310	100	Kosciusko, Miss. WHFC 1420	1.0
	Milwaukee, Wis.	Newport News,		Cicero, Ill.	10
	WENR 870 50000 Chicago, Ill.	WGL 1370	100	WHIO 1260	100
	WEOA 1370 100	WGN 720	1. 50000	Dayton, Ohio WHIP 1480	5000
	Evansville, Ind. WESG 850 1000	Chicago, Ill.		Hammond, Ind.	
	Elmira, N. Y.	WGNY 1210 Newburgh, N. Y	100	Bluefield, W. Va.	500
	WEST 1200 100	WGPC 1420	100	WHJB 620	250
	Easton, Pa. WEVD 1300 1000	Albany, Ga. WGR 550	1000	Greensburg, Pa. WHK 1390	1000
	New York, N. Y.	Buffalo, N. Y.		Cleveland, Ohio	1000
	WEW 760 1000 St. Louis, Mo.	WGRC 1370 New Albany, Inc	250	WHKC 640 Columbus, Ohio	50
10	WEXL 1310 50	WGRM 1210	100	WHLB 1370	100
	Royal Oak, Mich. WFAA 800 50000	Grenada, Miss. WGST 890	1000	Virginia, Minn. WHN 1010	
	Dallas, Texas	Atlanta, Ga.	1000	New York, N. Y.	1000
	WFAB 1300 1000 New York, N. Y.	WGTM 1310	100	WHO 1000	50000
	WFAM 1200 100	Wilson, N. C. WGVA 1050	1000	Des Moines, Iowa WHOM 1450	250
_	South Bend, Ind.	Indianapolis, In	d.	Jersey City, N. J.	
	WFAS 1210 100 White Plains, N. Y.	WGY 790 Schenectady, N.	50000 V	WHP 1430 Harrisburg, Pa.	500
	WFBC 1300 1000	WHA 940	5000	WIBA 1280	1000
	Greenville, S. C. WFBG 1310 100	Madison, Wis. WHAI 1210	250	Madison, Wis. WIBG 970	10
	Altoona, Pa.	Greenfield, Mass		Glenside, Pa.	100
	WFBL 1360 1000 Syracuse, N. Y.	WHAL 950	500	WIBM 1370	100
	WFBM 1230 1000	Saginaw, Mich. WHAM 1150	50000	Jackson, Mich. WIBU 1210	100
	Indianapolis, Ind.	Rochester, N. Y		Poynette, Wis.	
1	WFBR 1270 500 Baltimore, Md.	WHAS 820 Louisville, Ky.	50000	WIBW 580 Topeka, Kans.	1000
- 32	WFDF 1310 100	WHAT 1310	108	WIBX 1200	100
	Flint, Mich. WFEA 1340 500	Philadelphia, Pa		Utica, N. Y.	
	Manchester, N. H.	WHAZ 1300 Troy, N. Y.	1000	WICA 940 Ashtabula, Ohio	250

	WICC 600 Bridgeport, Conn.	500		<b>WKAQ 1240 1000</b> San Juan, P. R.
	WIL 1200	100		WKAR 850 1000
	St. Louis, Mo.	100		East Lansing, Mich.
	WILL 580	1000		WKAT 1500 100
	Urbana, Ill.			Miami Beach, Fla.
	WILM 1420 Wilmington, Del.	100		<b>WKBB 1500 100</b> East Dubuque, Ill.
	WIND 569	1000	-	WKBH 1380 1000
	Gary, Ind.			LaCrosse, Wis.
	WINS 1180	1000		WKBN 570 500
	New York, N. Y. WIOD 610	1000		Youngstown, Ohio WKBO 1200 100
	Miami, Fla.	1000		Harrisburg, Pa.
	WIP 610	1000	-	WKBV 1500 100
	Philadelphia, Pa.			Richmond, Ind.
	WIRE 1400 Indianapolis, Ind.	1000		WKBW 1480 5000 Buffalo, N. Y.
	WIS 560	1000		WKBZ 1500 100
	Columbia, S. C.			Muskegon, Mich.
	WISN 1120	250		WKEU 1500 100
	Milwaukee, Wis. WJAC 1310	100		Griffin, Ga. WKOK 1210 100
	Johnstown, Pa.			Sunbury, Pa.
-	WJAG 1060	1000		WKRC 550 1000
	Norfolk, Neb.			Cincinnati, Ohio
	WJAR 890 Providence, R. I.	1000		WKY 900 1000 Oklahoma City, Okla.
	WJAS 1290	1000		WKZO 590 1000
	Pittsburgh, Pa.			Kalamazoo, Mich.
	WJAX 900 Iaaksonville Fla	1000		WLAC 1470 5000 Nashville, Tenn.
	Jacksonville, Fla. WJBC 1200	100		WLAK 1310 100
	Bloomington, Ill.			Lakeland, Fla.
	WJBK 1500	100		WLAP 1420 100
	Detroit, Mich. WJBL 1200	100		Lexington, Ky. WLAW 680 1000
	Decatur, Ill.	100		Lawrence, Mass.
	WJBO 1120	500		WLB 1250 1000
	Baton Rouge, La.			Minneapolis, Minn.
	WJBW 1200 New Orleans, La.	100		WLBC 1310 100 Muncie, Ind.
	WJBY 1210	100		WLBL 900 5000
	Gadsden, Ala.			Stevens Point, Wis.
	WJDX 1270 Jackson, Miss.	1000		WLBZ 620 500 Bangor, Me.
	WJEJ 1210	50		WLEU 1420 100
	Hagerstown, Md.			Erie, Pa.
	WJIM 1210	100		WLLH 1370 100
	Lansing, Mich. WJJD 1130	20000		Lawrence, Mass. WLLH 1370 100
	Chicago, Ill.	20000		Lowell, Mass.
	WJMS 1420	100		WLMU 1210 100
	Ironwood, Mich.	4.4.4		Middlesboro, Ky.
	WJNO 1200 W. Palm Beach, Fl	100 Ia		WLNH 1310 100 Laconia, N. H.
	WJR 750		-	WLS 870 50000
	Detroit, Mich.			Chicago, Ill.
	WJRD 1200	250		WLTH 1400 500 Brooklyn, N. Y.
	Tuscaloosa, Ala. WJSV 1460	10000		WLVA 1200 100
	Washington, D. C.			Lynchburg, Va.
	WJTN 1210	100		WLW 700 500000
	Jamestown, N. Y. WJW 1210	100		Cincinnati, Ohio WMAL 630 250
	WJW 1210 Akron, Ohio	100		Washington, D. C.
	WJZ 760	50000		WMAQ 670 50600
	New York, N. Y.			Chicago, Ill.

_		
	WMAS 1420	100
_	Springfield, Mass. WMAZ 1180	1000
	Macon, Ga. WMBC 1420	100
	] Detroit, Mich.	
	WMBD 1440 Peorta, Ill.	1000
	MMBF 610 Miami, Fla.	1000
	WMBG 1350	500
	Richmond, Va. WMBH 1420	100
	Joplin, Mo. WMBI 1080	5000
	C11 (	
	WMBO         1310           Auburn, N. Y.         WMBQ	100
	WMBQ 1500 Brooklyn, N. Y.	100
	WMBR 1370 Jacksonville, Fla.	100
	WMBS 1420	250
	Uniontown, Pa. WMC 780	1000
	Memphis, Tenn. WMCA 570	1000
	New York, N. Y. WMEX 1500	100
	Boston, Mass.	100
	WMFD 1370 Wilmington, N. C.	100
	WMFF 1310 Plattsburg, N. Y.	100
	WMFG 1210	100
	Hibbing, Minn. WMFJ 1420	100
	Daytona Beach, F WMFO 1370	la. 100
	Decatur, Ala.	
	High Point, N. C.	100
	St. Paul, Minn.	100
	WMMN 890 Fairmont, W. Va.	500
	WMPC 1200	100
	Lapeer, Mich. WMPS 1430	500
	Memphis, Tenn.	100
	Sheffield, Ala.	
	WMT 600 Cedar Rapids, Iov	<b>1000</b> 7a
	WNAC 1230 Boston, Mass.	1000
	WNAD 1010	100 <b>0</b>
	Norman, Okla. WNAX 570	1000
	Yankton, S. D. WNBC 1380	250
	New Britain, Com	ı.
	WNBF 1500 Binghamton, N. Y	100
	WNBH 1310 New Bedford, Mas	100 s.
	WNBX 1260 Springfield, Vt.	500
	Springhold, 46	

	WNBZ 1290 100 Saranac Lake, N. Y.		WPTF 680 Raleigh, N. C.	1000		WSFA 1410 Montgomery, Ala.	500
	WNEL 1290 1000 San Juan, P. R.		WQAM 560 Miami, Fla.	1000		WSGN 1310 Birmingham, Ala,	100
1	WNEW 1250 1000		WQAN 880	500		WSIX 1210	100
	New York, N. Y. WNLC 1500 100		Scranton, Pa. WQBC 1360	1000		Nashville, Tenn. WSJS 1310	100
	New London, Conn.		Vicksburg, Miss.			Winston-Salem, N. C	C.
	WNNY 1420 100 Watertown, N. Y.		WQDM 1390 St. Albans, Vt.	1000		WSM 650 5 Nashville, Tenn,	50000
	WNOX 1010 1000		WQXR 1550	1000		WSMB 1320	100
	Knoxville, Tenn. WNYC 810 1000		New York, N. Y. WRAK 1370	100		New Orleans, La. WSMK 1380	20
	New York, N. Y.		Williamsport, Pa.			Dayton, Ohio	
	WOAI 1190 50000 San Antonio, Texas		WRAW 1310 Reading, Pa.	100		WSNJ 1210 Bridgeton, N. J.	10
	WOC 1370 100		WRBL 1200	100		WSOC 1210	10
	Davenport, Iowa WOI 640 5000		Columbus, Ga. WRC 950	500		Charlotte, N. C. WSPA 920	100
	Ames, Iowa		Washington, D. C			Spartanburg, S. C.	
	WOKO 1430 500 Albany, N. Y.		WRDO 1370 Augusta, Me.	100		WSPD 1340 Toledo, Ohio	100
	WOL 1310 100		WRDW 1500	100		WSPR 1140	50
	Washington, D. C. WOLS 1200 100		Augusta, Ga. WREC 600	1000		Springfield, Mass. WSUI 880	50
	Florence, S. C.		Memphis, Tenn.			Iowa City, Iowa	
	WOMI 1500 100 Owensboro, Ky.		WREN 1220 Lawrence, Kans.	1000		WSUN 620 St. Petersburg, Fla	100
	WOMT 1210 100		WRGA 1500	100		WSVA 550	50
	Manitowoc, Wis. WOOD 1270 500		Rome, Ga. WRJN 1370	100		Harrisonburg, Va. WSVS 1370	5
	Grand Rapids, Mich. WOPI 1500 100		Racine, Wis.			Butfalo, N. Y. WSYB 1500	10
	Bristol, Tenn.		WRNL 880 Richmond, Va.	500		Rutland, Vt.	
	WOR 710 50000		WROK 1410	500		WSYR 570 Syracuse, N. Y.	100
	Newark, N. J. WORC 1280 500		Rockford, Ill. WROL 1310	100		WTAD 900	100
	Worcester, Mass. WORK 1320 1000		Knoxville, Tenn. WRR 1280	500		Quincy, Ill. WTAG 580	100
	York, Pa.		Dallas, Texas	500		Worcester, Mass.	
	WORL 920 500 Boston, Mass.		Richmond, Va.	100		WTAL 1310 Tallahassee, Fla.	10
	WOSU 570 750		WRUF 830	5000		WTAM 1070	5000
	Columbus, Ohio WOV 1130 1000		Gainesville, Fla. WRVA 1110	5000		Cleveland, Ohio WTAQ 1330	100
	New York, N. Y.		Richmond, Va.			Green Bay, Wis.	
	WOW 590 1000 Omaha, Neb.		WSAI 1330 Cincinnati, Ohio	1000		WTAR 780 Norfolk, Va.	100
	WOWO 1160 10000		WSAJ 1310	100		WTAW 1120 College Station, Tex	. 50
	Fort Wayne, Ind. WPAD 1420 100		Grove City, Pa. WSAL 1200	250		WTAX 1210	10
	Paducah, Ky. WPAR 1420 100		Salisbury, Md.			Springfield, Ili.	
	Parkersburg, W. Va.		WSAN 1440 Allentown, Pa.	500		WTBO 800 Cumberland, Md.	25
	WPAX 1210 100		WSAR 1450	1000		WTCN 1250 Minneapolis, Minn.	100
	Thomasville, Ga. WPAY 1370 100		Fall River, Mass. WSAU 1370	100		WTEL 1310	10
	Portsmouth, Ohio		Wausau, Wis.			Philadelphia, Pa. WTHT 1200	10
	WPEN 920 1000 Philadelphia, Pa.		WSAY 1210 Rochester, N. Y.	100		Hartford, Conn.	
	<b>WPG 1100 5000</b> Atlantic City, N. J.		WSAZ 1190	1000		WTIC 1040 Hartford, Conn.	5000
	WPRA 1370 100		Huntington, W. V WSB 740	a. 50000		WTJS 1310	10
	Mayaguez, P. R. WPRO 630 500		Atlanta, Ga.			Jackson, Tenn.	100
	Providence, R. I.		WSBC 1210 Chicago, Ill.	100		WTMJ 620 Milwaukee, Wis.	100
	WPRP 1420 100		WSBT 1360	500		WTMV 1500 East St. Louis, Ill.	10
	Ponce, P. R.		South Bend, Ind.			Last St. Louis, III.	
		Í					

	T		
	WTNJ 1280 500 Trenton, N. J.	XEBK 1000 60 Neuvo Laredo, Tams.	XELA 1240 Saltillo, Coah.
	WTOC 1260 1000 Savannah, Ga.	XEBL 1220 50 Mazatlan, Sin,	XELO 670 500
	WTOL 1200 100	XEBO 1310 25	Tijuana, B. Cfa. XELZ 1370 1
	Toledo, Ohio WTRC 1310 100	Irapuato, Guan.	Mexico City, D.F.
	Elkhart, Ind.	XEBS 1240 200 Mexico City, D. F.	XEMG 1060 1 Atzcapotzalco, D. F.
	WVFW 1400 500 Brooklyn, N. Y.	XEBX 640 250 Sabinas, Coah,	XEMO 860 50
	WWAE 1200 100	XEBZ 1160 100	Tijuana, L. C. XEMU 580
	Hammond, Ind, WWJ 920 5000	Mexico City, D. F. XEC 1150 100	Piedras Negras, Coah. XEMX 1280 1
	Detroit, Mich,	Tijuana, L. C.	Mexico City, D. F.
	WWL 850 10000 New Orleans, La.	XECL 1100 1700 Mexicali, B. Cfa,	XEN 780 10 Mexico City, D. F.
	WWNC 570 1000	XECW 1310 10	XENC 860
	Asheville, N. C. WWRL 1500 100	Mexico City, D. F. XECZ 1370 100	Mexico City, D. F. XENT 910 1500
	Woodside, N. Y.	San Luis Potosi, S.L.P. XED 1160 2500	Nuevo Laredo, Tams.
	WWSW 1500 100 Pittsburgh, Pa.	Guadalajara, Jal.	<b>XEOK 760 25</b> Tijuana, L. C.
	WWVA 1160 5000 Wheeling, W. Va.	XEDA 1220 200	XEP 1160 50
	WXYZ 1240 1000	Gra. Anaya, D. F. XEDF 810 100	Juarezi Chih. XEPN 730 1000
	Detroit, Mich. W3XDD 50000	Nuevo Laredo, Tams.	Piedras Negras, Coah.
	Whippany, N. J.	XEDP 1080 500 Mexico City, D, F.	XERA 840 3500 Villa Acuna, Coah.
	W3XJ 1060 100	XEDW 1150 20	XERB 730 1000
	College Park, Md. W8XO 700 500000	Minatitlan, Ver. XEE 1210 50	Rosarito Beach, B. Cfa XERO 670
	Cincinnati, Ohio	Durango, Dgo.	Chapultepec, D. F.
	XEAA 750 200 Mexicali, B. C.	XEF 1450 100 Juarez, Chih.	XES 990 2: Tampico, Tams.
	XEAC 980 5000	XEFA 1180 500	XET 690 50
	Tijuana, L. C. XEAD 1060 125	Tacubá, D. F. XEFB 870 200	Monterrey, N. L. XETB 1310 13
	Guadalajara, Jal. XEAF 990 750	Monterrey, N. L.	Torreon, Coah.
	Nogales, Son.	XEFC 550 100 Merida, Yuc.	XETF 1220 Veracruz, Ver.
	XEAG 1310 10 Cordoba, Ver.	XEFE 980 150 Laredo, Tams.	XETH 1210 10
	XEAL 660 1000	XEFI 1440 250	Puebla, Pue. XEU 1010 25
	Mexico City, D. F. XEAM 750 25	Chihuahua, Chih.	Veracruz, Ver.
	Matamoros, Tams.	XEFJ 1230 100 Monterrey, N. L.	XEW 890 5000 Mexico City, D. F
_	XEAO 660 250 Mexicali, B. C.	XEFO 930 5000 Mexico City, D. F.	XEX 1310 12
	XEAP 1240 50	XEFV 1210 100	Monterrey, N. L. XEXB 1270 5
	Obregon, Son. XEAS 1160 50	Juarez, Chih. XEFW 1310 250	Jalapa, Ver.
	Saltillo, Coah.	XEFW 1310 250 Tampico, Tams.	XEXC 810 35 Aguascalientes, Ags.
_	XEAT 1210 250 Parral, Chih.	XEG 1220 250	XEXD 1340 35
	XEAW 960 50000	Monterrey, N. L. XEH 720 250	Jalapa, Ver. XEXE 1270 1
	Reynosa, Tams. XEAY 1240 100	Monterrey, N. L.	Mexico City, D. F.
	Mexico City, D. F.	XEI 1370 125 Morelia, Mich.	XEXH 1250 . 25 San Luis Potosi, S.L.P.
	<b>XEB 1030 10000</b> Mexico City, D. F.	XEJ 1020 1000	XEXM 1280
	XEBA 1080 20	Juarez, Chih. XEJP 1120 100	Mexico City, D. F. XEXS 1000 10
	Guzman, Jal. XEBG 820 1000	Mexico City, D. F. XEJW 870	Portable in Mexico
	T'juana, B. Cfa.	Mexico City, D. F.	XEYO 940 50 Mexico City, D. F.
	XEBH 930 500 Hermosillo, Sonora	XEK 990 100	XEZ 630 500
-	XEBI 1000 25	XEKL 1240 500	
	Aguascalientes, Ags.	Leon, Guan.	Nassau, Bahamas
	Merida, Yuc.		
	Aguascalientes, Ags. XEBJ 1160 20	Mexico City, D. F. XEKL 1240 500	Merida, Yuc. ZNS 540

# Special DX Calendar

 $T_{\rm four \ hour \ clock.}^{\rm HE \ time \ given \ in \ the \ DX \ Calendar \ following \ is \ in \ EST \ by \ the \ twenty-$ 

### **DX Tips Periods**

- Mon., 0300-0315, KMTR, 570 kcs. 1100-1115, WEEU, 830 kcs. 2115-2130, CJCJ, 690 kcs.
- Mon., 2115-2130, CJCJ, 690 kcs.
- Tues., 1835-1900, W2XAF, 9530 kcs., and W2XAD, 15330 kcs.
- Wed., 0035-0045, KOY, 1390 kcs. 1345-1400, WTAR, 780 kcs.
- Thurs., 0230-0245, KGMB, 1320 kcs.
- Fri., 2330-2345, W8XK, 6140, and KDKA, 980 kcs.
- Sat., 0230-0245, KLS, 1280 kcs. 0300-0345, KDB, 1500 kcs. 1030-1045, WEEU, 830 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.)

Feb. 20, 0300-0400, KECA, Los An-

# Zenith Tour

### (Continued from page 11)

ly morning hours no longer appeal to this writer. But it is easy to believe that, with weather and the intervening period of darkness just right, the "VKs" can be heard as well as Europeans. As for Asia, it is believed, also, that the 50 kilowatts "JZ" of Japan, can be picked up at the right time with some patient tun-However, to date, the best ing. catch on this set was from a tiny portable transmitter set up by an explorer in the jungles of Guiana, in South America, in conversation with his base camp. The power of the set is unknown, but the writer believes that its clear reception on 31 meters by a commercial all-wave set, is remarkable.

geles, Calif., 1430 kcs.

- Feb. 27, 0330-0400, KGU, 750 kcs.
- Mar. 6, 0300-0400, CHLN, 1420 kcs.
- Mar. 13, 0300-0400, WCKY, 1490 kcs.
- Mar. 27, 0300-0400, KFOR, 1210 kcs.

### Special Broadcasts

- Feb. 25, 0530-0600, WEAU, Eau Claire, Wis., 1050 kcs. (URDXC).
- Feb. 27, 0300-0500, KWSC, Pullman, Wash., 1220 kcs. (URDXC).
- Mar. 5, 0245-0400, CHWK, Chilliwack, B. C., 780 kcs. (UDXC).
- Mar. 10, 0200-0600, CMHJ, Cienfuegos, Cuba, 1160 kcs. (E. Hidalgo).
- Mar. 13, 0100-0300, XEDF, Nuevo Laredo, Tams., 810 kcs. (Arranged by A. J. Parfitt for RADEX, NRC, RN and UDXC).
- Apr. 2, 0245-0400, CHWK, Chillawack, B. C., 780 kcs. (UDXC).
- May 7, 0245-0400, CHWK, Chilliwack, B. C., 780 kcs. (UDXC).
- June 4, 0245-0400, CHWK, Chilliwack, B. C., 780 kcs. (UDXC).

On the 20-meter amateur band, stations some distance away, such as on the Pacific coast and in South America, came in much better than nearby stations. This was to be expected, due to the skip effect. The 20-meter band is fairly alive when conditions are right, but the set is selective and much interference can be tuned out. Amateurs on the longer bands, 160, 80 and 40 meters, are heard without difficulty. The 49 meter Foreign band works quite well considering its poor reputation. On the police and aviation bands there is much to be heard all over the country. This receiver proved very satisfactory, and what few things there are to make the critical radio engineer unhappy are offset by its good behavior and excellent tone.

# At DEADLINE . . .

Construction Permits for two new stations have been granted by the FCC. KYSM, 1500 kcs, for Mankato, Minn., will transmit on 1500 kcs, with 100 watts nights and 250 watts days.

Galesburg, Ill. will have a station on 1500 kcs., employing 250 watts daytimes.

TGW Guatemala City is reported now on 1520 kcs. by George Nahas and Norman Glover.

### QUICK INDEX TO STATION DATA

### North American Broadcast

By	Frequencies	'38,	p. 62
By	Locations	'38,	p. 79
By	Calls Mar.	'38,	p. 85
Fre	quency Checks	'38,	p. 41

Fr	equency Checks
	INSURE YOUR RADIO ENJOYMENT
	SEND THIS BLANK TODAY
ļ	The Radex Press 14717 Detroit Ave., Cleveland, Ohio:
	Enclosed find \$ for which send me postpaid my choice of your offers as checked below:
	□ One Radio World Map and Time Converter
	□ One copy of the next RADEX
	$\Box$ One year's subscription to RADEX, 10 issues \$1.75
F I	□ Two years
ľ	Print Name Plainly
1	Street and Number
I I	City and State

### Shortwaves

Broadcasters, with Time on Air Mar. North American PoliceSept.	
1.6 megs. to 6 megs	
6 megs. to 400 megs. June	
Owners and Addresses June	
By Locations Apr.	
By Calls	'37, p. 65
Foreign Broadcast	
By Frequencies	'36, p. 43

By Frequencies
By Locations Dec. '36, p. 52
By Calls Dec. '36, p. 57
Asia
Oceania
South America
Europe June '37, p. 49

#### Long Waves

By	Frequencies										'36,		
Вy	Locations						-		. 4	Apr.	'36,	p.	51
Bу	Calls								. 1	Apr.	'36,	p.	52

### Miscellaneous

Choosing a Radio	
Roster of DX Clubs Nov. '37, p. 58	
NBC Network Stations	
Columbia Network Stations Mar. '38, p. 47	
Mutual Network Stations Feb. '37, p. 16	
Canadian Network Stations Mar. '37, p. 49	

# FOR BETTER RECEPTION

The Perfect Phone Adapter makes it easy to attach headphones to any radio set. Anyone can install it, without tools, in no time at all.

### IDEAL FOR THE HARD-OF-HEARING

Those who are very hard of hearing can enjoy radio reception by using our new HOH Model Adapter. The speaker can be silenced if desired.

In ordering be sure to give make and model of receiver and a list of the tubes used.

The HOH Model Phone Adapter ..... \$3.95

### We pay the postage on all orders

If you live in Ohio add 3% for Sales Tax

# THE RADEX PRESS 14717 Detroit Ave., Cleveland, Ohio

# ACCESSORIES FOR USE WITH THE PERFECT PHONE ADAPTER

6-Foot extension cord with connector	50c
Distant Volume Control, for regulation of volume of set from a distance	\$2.00
<b>Trimm Featherweight Headphones.</b> Precision built, combining ultra-sensitivity with rugged construc- tion. Weigh 4 <sup>1</sup> / <sub>4</sub> ounces complete. 24,000 ohms	<b>\$8</b> .50
Trimm Professional Headphones, the choice of countless users. Professional type. 4000 ohms	\$4.00
Trimm Dependable Headphones, long a favorite with amateur operators. The best in the world for the money. 2000 ohms	
Prices on single-unit or special 'phones on reques	t.
We pay the postage on all orders If you live in Ohio add 3% for Sales Tax	
THE RADEX PRESS	

14717 Detroit Ave., Cleveland, Ohio



#### E. SMITH, President National Radio Institute Established 1914





### Earned \$50 First Month in Spare Time "Tknew noth-

ing about Radio. After four lessons I began

lessons I began servicing Radios, earning \$50 the first month. Last winter I made as high as \$100 a month in spare time."-G. F. WALTON, 808 West Oluey Road, Norfolk, Va.

#### **Own Business** Pays \$300 a Month

"I now have my own Radio hundred det business which

hundred doi-lars a month profit-thanks again to National Radio." — FRANK T. REESE, 39 N. Felton St., Philadelphia,



The prove that my Training is just what you need to master Radio. My sample lesson text, "Radio Re-tester Troubles — There master Radio. My sample lesson text. "Radio Re-ceiver Troubles — Their Cause and Remedy" covers a long list of Radio receiver troubles in A.C., D.C. battery, universal, auto-nation of the sample of the all-wave, and other of your quick ceference. Special evention on receiver check-m, alicoment balancies. up, alignment, balancing, neutralizing, testing. Get this lesson Free. Mail the Coupon

# I WILL TRAIN YOU O START A SPARE TIME OR FULL TIME **RADIO SERVICE BUSINESS** WITHOUT CAPITA

Do you want to make more money? The world wide use of Radio has made many opportunities for you to have a spare time or full time Radio service business Three out of every four of your own. nomes in the United States have Radio sets which regularly require repairs, servicing, new tubes, etc. I will train you at home in your spare time to sell, install, service, all types of Radio setsto start your own Radio business and build it up on money you make in your spare time while learning. Mail coupon for my 64-nage book. It's Free—it for my 64-page book. It's Free-it shows what I have done for otherswhat I am ready to do for you

#### Many Make 55, 510, 515 a Week Extra In Spare Time While Learning

Almost every neighborhood needs a good spare time serviceman. The day you enroll I start sending you Extra Money Job Sheets. They show you how to do Radio repair jobs that you can cash in on quickly. Throughout your training I send you plans and Ideas that have made good spare time money-from \$200 to \$500 a year-for hundreds of fellows. I send you special equip-ment which gives you practical Radio experience-shows you how to conduct experiments and build circuits which illustrate important Radio principles.

#### Get Ready Now for Your Own Radio Business and for Jobs Like These

Radio broadcasting stations employ engineers, operators, station managers and pay up to \$5,000 a year. Spare time Radio set servicing pays as much as \$200 to \$500 a year-full time servicing jobs pay as much as \$30, \$50, \$75 a week. Many Radio Experts own their own full time or part time Radio businesses. Radio manufacturers and jobbers employ testers, inspectors, foremen, en-gineers, service men, paying up to \$6,000 Radio operators on ships get a year. good pay, see the world besides. Automobile, police, aviation, commercial Radio, loud speaker systems offer good opportunities. Television promises many good jobs soon. Men I have trained at home hold good jobs in these branches of Radio.

### Find Out What Radio Offers You

Mail the coupon now for my Free Lesson and my book. "Rich Rewards in Radio." Both are free to anyone over 16 years old. My book points out Radio's spare time and full time oppor-tunities and those coupling in Television: Radio's spare time and full time oppor-tunities and those coming in Television: tells about my Training in Radio and Television: shows you letters from men I have trained, telling what they are doing and earning; tells about my money back agreement. MALL THE MOLTEON in an envelope, or paste it on a penny post card-NOW!

J. E. SMITH. President National Radio Institute, RICH REWARDS Dept. 8CO IN RADIO Washington, 0.0.

# GOOD FOR BOTH 64 PAGE BOOK FREE

### J. E. SMITH, President, Dept. 8CO

Dear Mr. Smith: Without obligating me, send your sample lesson and the book which tells about spare time and full time Radio opportunities, and how I can train for them at home in spare time. (Please write plainly.)

Na	ame.	 	 e	/		 		. Ag	e		• • • • • •	
A	ldres					 				• • • •		·
C	ty				5 <b>2</b> 5 1 1		State		11.5		14 X	: