THE MAY, 1935

# RADEX

THE ALL-WAVE RADIO MAGAZINE



25°

More than 130 Changes in this Issue
Do You Want More Educational
Programs?
The Network Programs on Short Waves
A Brand New Idea in Set Building

## THE MONTH'S CHANGES

		FREQUENCIES	770 790	KFAB CMOA	Lincoln, Neb., 5000 to 10000 Havana, Cuba, 500 to 72
			840	CMQ	Havana, Cuba, 5000 to 500
560 580	$\begin{array}{c} \text{WNOX} \\ \text{WILL} \end{array}$	Knoxville, Tenn., from 1010 Urbana, Ill., from 890	920 940	$\frac{\text{CMX}}{\text{CMBC}}$	Havana, Cuba, 1000 to 650
600	CMW	Havana, Cuba, from 930	960	CMCD	Havana, Cuba, 150 to 195 Havana, Cuba, 500 to 180
640	CMBY	Havana, Cuba, from 635	1000	CMBZ	Havana, Cuba, 100 to 120
660	CMCX	Havana, Cuba, from 865	1030	CMCY	Havana, Cuba, 500 to 1000
680	CMCQ	Havana, Cuba, from 610	1060	CMK	Havana, Cuba, 3150 to 1500
730 750	CMAF CMCW	Havana, Cuba, from 680 Havana, Cuba, from 755	1130 1140	$\frac{\text{CMJI}}{\text{CMBG}}$	Ciego de Avila, Cuba, 150 to 45
760	CMJK	Camaguey, Cuba, from 790	1170	CMBD	Havana, Cuba, 225 to 325 Havana, Cuba, 150 to 163
770	CMBS	Havana, Cuba, from 775	1180	CMHJ	Clenfuegos Cuba, 40 to 100
790	CMOA	Havana, Cuba, from 1175	1200	CMCJ	Havana, Cuba, 400 to 500
810	CMHW	Cienfuegos, Cuba, from 910	1230	CMCB	Havana, Cuba, 150 to 112
815 890	CMCF KSEI	Havana, Cuba, from 610 Pocatello, Idaho, from 900	1255 1320	CMCG	Havana, Cuba, 150 to 162 Havana, Cuba, 200 to 250
900	WTAD	Quincy, Ill., from 1440	1320	KGMB	Honolulu, Hawaii, 250 to 1000
920	$\mathbf{C}\mathbf{M}\mathbf{X}$	Havana, Cuba, from 928	1320	KRNT	Des Moines, Iowa, 250 to 500
940	CMBC	Havana, Cuba, from 1035	1320	WSMB	New Orleans, La., 500 to 1000
960 1000	$\frac{\text{CMCD}}{\text{CMBZ}}$	Havana, Cuba, from 955	1330 1350	CMHK	Cruces, Cuba, 50 to 250
1010	CMJG	Havana, Cuba, from 1005 Camaguey, Cuba, from 1050	1350	$\frac{\text{CMCA}}{\text{WAWZ}}$	Havana, Cuba, 150 to 435 Zarephath, N. J., 250 to 500
1010	XEU	Veracruz, Ver., from 1160	1380	CMBX	Havana, Cuba, 150 to 171
1010	WIS	Columbia, S. C., from 560	1410	CMCR	Havana, Cuba, 150 to 122
1010	XEAF CMCY	Nogales, Son., from 540	1420 1440	WELL	Battle Creek, Mich., 50 to 100
$1030 \\ 1060$	CMK	Havana, Cuba, from 1100 Havana, Cuba, from 725	1470	KXYZ $CMOK$	Houston, Texas, 500 to 1000 Havana, Cuba, 25 to 184
1065	VOAC	St. John's, Nfld., from 1300	1500	CMCN	Havana, Cuba, 250 to 162
1070	CMHA	Sagua la Grande, Cuba, from 1103			,
1110	CMCO	Havana, Cuba, from 1280			
$\frac{1120}{1130}$	CMGF CMJI	Matanzas, Cuba, from 971 Ciego de-Avila, from 1210			NEW
1140	CMBG	Havana, Cuba, from 1150			14211
1150	CMJF	Camaguey, Cuba, from 930			
1170	CMBD	Havana, Cuba, from 1350	610	KINY	Juneau, Alaska
1180 1180	$ \begin{array}{c} \text{CMHJ} \\ \text{CMJO} \end{array} $	Cienfuegos, Cuba, from 1125 Ciego de Avila, Cuba, from 1010	900 1210	WFMD KIUO	Frederick, Md. Ardmore, Okla.
1210	CMHI	Santa Clara, Cuba, from 1037	1310	WTAL	Tallahassee, Fla.
1220	CMJE	Camaguey, Cuba, from 1170	1310	KROC	Rochester, Minn.
1230	CMCB	Havana, Cuba, from 1060	1370		Astoria, Ore.
1240 1250	CMHB CMKC	San Spiritus, Cuba, from 1245 Santiago, Cuba, from 1034	1400 1420	CMGC KIUN	Matanzas, Cuba Pecos, Texas
1255	CMCG	Havana, Cuba, from 1125	1420	KWBG	Hutchinson, Kans.
1270	CMHD	Caibairien, Cuba, from 950	1420		Parkersburg, W. Va.
1280	CMCU	Havana, Cuba, from 1255	1500	KPLC	Lake Charles, La.
1320 1320	CMOX KRNT	Havana, Cuba, from 1325 Des Moines, Iowa, from 1430			
1330	CMHK	Cruces, Cuba, from 1225			
1350	CMCA	Havana, Cuba, from 1230			CALLS
1360	СМЈН	Ciego de Avila, Cuba, from 1150			
1370 1380	CMGE CMBX	Cardenas, Cuba, from 1375 Havana, Cuba, from 1435	1310	WCMI	Ashland, Ky., from WMFP
1410	CMCR	Havana, Cuba, from 1400	1370	WPAY	Portsmouth, Ohio from WHBD
1420	CMGI	Colon, Cuba, from 1094	1400	WIRE	Indianapolis, Ind., from WKBF
1420	WCBS	Springfield, Ill., from 1210			
1430	CMJP	Moron, Cuba, from 1360			
1460 1470	CMKF CMOK	Holquin, Cuba, from 1363 Havana, Cuba, from 1230			DELETE
1470	KGA	Spokane, Wash., from 900			
			1310	WISC	Milwaukee, Wis.
		POWER	1310	KFPM	Greenville, Tex.
		POWER	1320	KSO	Des Moines, Iowa
550	CFNB	Fredericton, N. B., 500 to 1000			
580 580	KMJ WILL	Fresno, Calif., 500 to 1000 Urbana, Ill., 250 to 1000		PERM	IT TO CHANGE LOCATION
600	CMW	Havana, Cuba, 1400 to 100			
600	WICC	Bridgeport, Conn., 1000 to 500	1500	KGFK	Moorehead, Minn., to Duluth, Minn.
610	WIP	Philadelphia, Pa., 1000 to 500			,
640 660	CMBY CMCX	Havana, Cuba, 250 to 125 Havana, Cuba, 150 to 250			
680	CMCQ	Havana, Cuba, 1000 to 250			NETWORK
710					
-00	$\mathbf{wor}$	Newark, N. J., 5000 to 50000			
730	CMAF	Havana, Cuba, 1000 to 250			Catan Parish Arma Program
750 750 770		Havana, Cuba, 1000 to 250 Havana, Cuba, 150 to 117 Havana, Cuba, 150 to 130	600	wmt	Cedar Rapids, Iowa, NBC (Blue) from Columbia



## Phenomenal for Distance Getting

#### Full Range HIGH FIDELITY

25 to 16.000 Cycles.. Covers the human ear's full tonal range... more than doubles best previous accomplishment of high fidelity radio reproduction.

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Keeps every program constantly at pre-determined volume. Operates efficiently on broadcast band and short wave stations over the whole range between 13 and 550 meters.

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Custom-built, of course, in one of the world's finest radio laboratories to the most exacting specifications. Guaranteed for five years (except tubes). Sold in the U. S. A., direct from laboratory on 30-day trial basis.

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Name	
City	State

### May 1, 1935



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- Editor and Publisher

B. FRANCIS DASHIELL Technical Editor PAGE TAYLOR Short Wave Editor

ELEVENTH YEAR

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## A Brand New Idea in Set Building

• • • By FRANCIS DASHIELL

ANY of our readers will recollect with regret the passing of those early experimental days of radio when it was necessary to build your own set in order to have one. In those times everyone had to wind their own coils, drill panels and assemble the parts of the circuit as best they could. But the inevitable day arrived when complicated receivers became the rage. Soon homemade sets were too difficult to construct, and the radio-building craze died away except among amateurs and a few others who were more experimentally inclined The flood factory-built superheterodynes that swept the land took all the romance out of set building.

But many people opine that history repeats itself. Perhaps they are right, for, in spite of the abundance of fine radio receivers available on every hand, there now appears to be another drift toward a new era of set building. The new day brings a new idea in radio construction that permits anyone to build the most complicated superheterodyne circuit with almost no effort. One man. more than any other, is responsible for the idea back of this revival in set building.

#### A Remarkable Invention

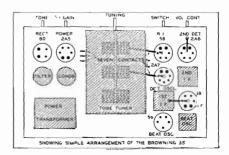
Glenn H. Browning, of Bowning-Drake fame during the early days of radio, has this time revolutionized all-wave set building. He remembers how untold thousands toiled over coils, condensers and trimmers for hours and days. He knew of the disheartening attempts to balance and tune radio-frequency and intermediate-frequency stages in sets that just couldn't be made to work properly. So, with the memory of ruffled tempers and sleepless nights,

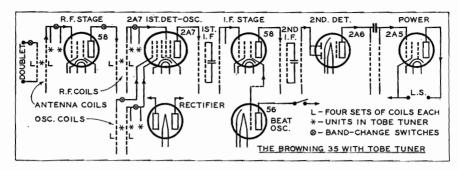
Browning, together with the Tobe Deutschmann Corporation, produced a complete, factory-assembled and adjusted tuning unit that is ready to fit into any home-made radio circuit. And the thing is so very simple that it makes us wonder why it was not done long ago.

Because of this invention it is now practical to construct efficient receivers for broadcast, short or long waves, quickly, easily and cheaply. The tuner is a compact, electro-statically shielded device, electrically and mechanically designed so as to be used as the heart and brains of any all-wave superheterodyne receiver. This tuner is the product of the Tobe Deutschmann Corporation, long eminent in the field of radio condensers and parts. The circuit with which it operates most efficiently was designed by Mr. Browning. It is his first contribution to radio since his former outstanding development.

#### The Tobe Tuner

The Browning 35 with Tobe Tuner is a superheterodyne radio receiver that can be easily and quickly assembled with a minimum of connections and practically no adjusting. It is an efficient circuit using seven of the newest types of tubes. Exceptional selectivity, which tends to eliminate image frequencies and harmonics, is





provided by means of a band-pass filter i.f. stage. The i.f. transformers are accurately adjusted at the factory for a frequency of 456 kilocycles with not more than a 5 kc. band-pass width. Automatic volume control is used. A beat-frequency oscillator, an integral part of the set, permits CW signals to be received, and it also locates weak and otherwise easily missed signals.

The heart of the set is the Tobe It has been designed and assembled so as to obtain maximum gain and selectivity. This tuner incorporates a complete wave-band changing or switching arrangement as well as the several all-wave coils, trimmers and variable tuning condensers. In addition there is a tuned stage of r.f. amplification that covers The oscillator cirall frequencies. cuit is also within the tuner. In other words, all of the tuned circuits, tuning coils for the four separate multi - contact bands. and switches and variable and balancing condensers, are built into the sealed tuner unit.

#### Perfectly Shielded Coils

This tuner does not utilize plug-in coils. The band-change switch has silver contacts so as to make good electrical connection and also provide low losses between the parts. Provision is made automatically to short out all the other coils in the unit which are not actually in use. These coils are space wound. Silver plated wire

is used because it has the lowest possible resistance to radio or high-frequency currents that travel only on the surface of the wire.

The coils used in the antenna circuit are mounted in a separate compartment of the tuner unit. The coils for the tuned r.f. stage are in a second shielded compartment. And the oscillator coils are in a third com-Thus all troublesome inpartment. teraction between these three essential circuits is entirely eliminated. The balancing or trimmer condensers used with each of the coils are enclosed within the proper compartments. A three-gang tuning condenser is mounted on the top of the shielded tuner unit enclosing the coils and switch connections, but it also is carefully shielded with an individual This keeps the inductances cover. away from the capacitances. tuner is absolutely single control in It holds its adjustment its action. and provides a quality of workmanship and design seldom equaled in all-wave receivers.

#### Factory Adjusted

The whole Tobe tuner is wired, aligned, tracked and tested at the factory. This is accomplished by means of a test radio chassis identical to the chassis the set builder will construct. The tuner is slipped into place and seven clips are connected to the terminals of the tuner, and the alignment performed by a skilled operator. It is then sealed and is ready

for shipment. When the tuner is placed in a circuit no further adjustments are necessary. Here is the high point of this long-needed device—only seven connections are made to the rest of the circuit in order to build a complete receiver!

The range of the Tobe 35 tuner is from 540 to 22,600 kilocycles-.54 to 22.6 megacycles, or 550 to 12 meters. The four sets of coils contained in the tuner cover four bands: First, 540 to 1.500 kilocycles; second, 1.400 to 3.850 kilocycles; third, 3,-400 to 9.200 kilocycles; and fourth and last, 8,800 to 22,600 kilocycles (550 to 200 meters, 215 to 78 meters, 88 to 33 meters, and 34 to 12 meters, respectively). It can be seen that there is sufficient overlap at the end of each band to prevent the possibility of any stations being lost when shifting from band to band.

#### Seven Tubes

Band spreading can be provided on all bands by means of a microvernier arrangement on the three-gang tuning condenser. A pointer that is attached to the main shaft of the condenser moves over a dial which is calibrated in megacycles. A second pointer is attached to the micro-vernier tuning knob and rotates through the full 360 degrees of a scale that is divided into only 100 equal spaces.

The first tube used in the New Browning 35 circuit, as shown in the diagram, is a type 58 or 6D6, depending upon the filament voltage that is to be used in the receiver: it is the radio-frequency amplifier. The second tube is a double purpose (mixer) type 2A7 or 6A7 combination first detector with its oscillator electronically coupled. The third tube is a type 58 or 6D6 used in a highly selective intermediate - frequency The fourth tube is a type stage. 2A6 or 75 diode second detector which also furnishes the voltage for (Continued on page 41)



# Put More Stations ON YOUR DIAL with the RCA World-Wide Antenna

Your radio will give amazingly better performance with an RCA World-Wide Antenna!

It greatly reduces manmade interference on short waves and brings you more foreign stations. \$6 plus installation.

The De Luxe RCA World-Wide Antenna reduces man-made interference on all wave-lengths. \$7.50 plus installation.

Ask your radio service engineer or dealer for a Certified Installation of the Noise-Reducing RCA World-Wide Antenna. And write for booklet, "Antenna Facts".

RCA PARTS DIVISION Dept. X CAMDEN, N. I.

#### WORLD-WIDE ANTENNA SYSTEM



## The Airport Stations

## and Other S. W. News

● ● By PAGE TAYLOR

Some of the most interesting shortwave stations at the present time are the army airports, particularly in view of the fact they verify correct reports. An interesting letter was recently received from Mr. George S. Clark of Air Corps Radio Station WTR, 19th Wing, Albrook Field, Canal Zone, giving information on a number of stations. Mr. Clark writes:

"Our transmitter here is an RCA ET-3666 Radiophone, Model signed for airports, which delivers approximately 300 watts We use a semi-vertical antenna. The receivers we Marconi antenna. use are a Hammerlund Comet PRO and an RCA AVR-5A Airport Superhet.

"Here is a list of the aircorps radiophone stations with which we work daily, usually between 9 pm and midnight EST .: IS3, Bolling Field, Washington, D. C., 6385, 6425 and 6645 kcs.; WO9, Mitchell Field, Hempstead, Long Island, 6385 kcs.; FG7, Langley Field, Hampton, Va., 6645 kcs.; VK1, Selfridge Field. 6425kcs.; PE2.Mich.. Field, Dayton, Ohio, 6645 kcs.; BB1, Maxwell Field, Montgomery, Ala.; BC1, Chanute Field, Rantoul, Ill., 6425 kcs. and WUK, Chapman Field, Miami, Fla., 8620 kcs.

"The calls VK1, WO9 and the others that are apparently unofficial are known as tactical calls. They are assigned to these transmitters for use in air to ground communication. Such long distant point-topoint work was not contemplated when these transmitters were installed, and it is only recently that these stations, at the instigation of

the operators, have been working together in a radiophone net. Under very adverse operating circumstances we have been trying to organize some sort of dependable, systematic radiophone network and so far it has been more or less dependable but not very systematic.

"Until recently when the two broadcast stations HP5B and HP5J were licensed in Panama, WTR was the only voice modulated transmitter between Costa Rica and Colombia. Concerning the interference from YN1GG of Managua, Nicaragua, he is on daily at irregular intervals throughout the entire day on this frequency, and practically ruins our air to ground communication at times. So far we have been able to do nothing about it but make the usual formal reports."

#### A New League Schedule

Mr. Gallarati of the Information Section of the League of Nations advises us that "Radio-Nations" added a new transmission to their regular schedule. "It may interest you to know that, as a result of our recent experiments, we have fixed our second weekly broadcast for Monday morning at 8:15 am, GMT on a wavelength of 16.25 meters," he writes. HBL and HBP will continue with their usual Saturday night broadcasts. 8:15 am GMT is equivalent t.o 3:15 amEastern Standard Time.

Listeners who have reported regularly to the German Shortwave Broadcasters were rewarded recently by receiving a phonograph recording of the announcer's voice and the familiar interval signal. The letter which accompanied the recording reads: "The German shortwave station thanks you for the faithful collaboration it has received from you since its directional beam service was inaugurated, in the numerous letters and reports of reception you have sent in. Such collaboration is always very welcome, not only for the help it affords in the future development of our service, but also because it has made, as we believe, a personal bond of fellowship between listeners and ourselves, from which we draw daily new suggestion and encouragement in our work.

"The little record which accompanies this letter is sent as a token of our wish to make this bond still closer and to give you an especial pleasure. Play it over on your gramophone to yourself and to your You will hear our chime friends. "Ub 'immer Treu Redlichkeit. . ', the familiar voice of our announcer, and two folk songs sung by a boys' choir. The record is meant to remind you that our program awaits you every evening, and to bring you at the same time a greeting from Germany,"

#### The "Q" Troubles

"For the past thirty days reception has been quite frequently marred by QRM, QRN and QSB," complains Irving C. Johnson. Argyle St., Chicago, Ill. However. from the few hours of good reception and from confirmations received we hope to offer a few tips that may assist some fellow DX-er in logging some elusive station. The shortwaves of today certainly remind us of the pioneer DX days way back in 1922. Then we had the same heterodyne interference which is beginning to become particularly ags gravating on the shortwaves now. When these chaotic conditions existed on the BC band back in the days when PWX and KFI were the goal of every DX-er, the Federal



Jack and Loretta Clemens, musically talented kin of the late Mark Twain and one of radio's most popular young song and dialogue teams, are on the air Sunday mornings at 11:15 EST over an NBC-WEAF hookup. Besides singing solos and duets, Jack plays the guitar and banjo and Loretta plays the piano.

Radio Commission came to the rescue. What we need today is a World Radio Commission to regulate the 8000 shortwave stations on the globe.

"Saturday is a good day to log HVJ at the Vatican City. Very frequently they are on the air on this day at 10 am on 15.12 megs. Sunday morning is usually a good time to bring in the stations from 'down under' but recently I was surprised to find LKJ1 at Jeloy, Norway on 9.55 megs at 5 am, EST."

#### Some DX Reports

"I do not know if this is considered a good catch, but recently I received a QSL card from VUB, Bombay, 9565 kcs." reports Mr. A. Belanger, 76 Hotel-de-Ville St., Hull, P. Q. "The card is signed by what looks like C. B. Sethna, Station Director of the Indian State Broadcasting Service. The best time to hear this station is between 7:30 and 8 am, EST, on Sunday mornings."

"Colorado is not favorably located for reception of European stations but there are two that come in very well," writes Murray Black, 1012 Whipple Ave., Canon City, Colo. "The two are GSA and EAQ. GSE and GSD are next best while DJB and



Horace Heidt, whose orchestra has blazed a musical trail of glory from the University of California to Monte Carlo, may now be heard on the twice-weekly program of the CBS "Ship of Joy." Tuesdays and Thursdays at 10:30 p.m. EST.

2RO come in well on occasions, but such occasions are to be celebrated. The S. A.'s are heard with tremendous volume; HJ1ABB is probably best but YV2RC, YV3RC, HJ3ABF, HJ1ABG and PRF5 are very good. Of all the foreign stations. PLV in Bandoeng, Java, is the most consistent. This is quite a coincidence inasmuch as this is also the most distant station heard. They are on from five to fifteen minutes each morning at about 8 am (MST), then go into inverted speech. My radio is a Pilot All-wave, 1933 model, and its performance is phenomenal for a set of moderate cost."

#### A Dominican Special

A QSL card from station HIH advises us that this station works on 44 meters or 6800 kcs, from 4 until 8:30 pm, EST with a power of 75

watts, and that a special program is radiated on Sunday mornings from 3 to 4 am, EST. This program is dedicated to all s.w. fans in the United States and Canada. Reports on HIH should be addressed to Sr. Domingo Dominguez, Radiodifusora HIH, La Voz del Higuamo, San Pedro de Macoris, Dominican Republic.

"The location of the Hungarian stations is called Szekesfehervar and not Skekesfehevar," corrects Albert Steinmetz, 205 E. Main St., Norristown, Pa. "Here is something I think is quite important and wonder if you agree with me: In Germany they have German mail carriers: in America, Americans, and in Hungary, the postmen are Hungarian. I think it would be better to give the address of the Hungarian stations in the Hungarian language for the benefit of the man who eventually must deliver the letter. This address is Magyar Kiralyi Postakiserleti Allomas. IX Kerulet Gyali Ut 22, Budapest, Hungary."

#### **English Reception**

"Last night I heard Daventry on its new wavelength," contributes Geo. W. Acker, 267 N. Lyman St., Wadsworth, Ohio. "This is GSL, 49.1 meters or 6110 kcs. They were on the air at 10 pm. EST, announcing GSL, L for Liberty. This broadcast is known as Transmission No. A short while ago YV6RV Six. moved down to 6520 kcs. and has been there since. No doubt this move was made to avoid interference with HP5B. Now YV6RV is bothered by code."

Robert Pybus, 4 Highfield Road. Chorlton-cum-Hardy, Manchester, England, reports again on shortwaves in England: "VK3LR has been testing lately with HBL, the League of Nations, and has been heard well here, although 3LR's announcement that they were using only 600 watts as compared with HBL's 20 kw, was

greeted with amazement. HBL, by the way, used on this last occasion a wavelength of 16 meters. CT1AA in Lisbon has slightly altered its wavelength to 31 meters; they also test once in a while on 50.26 meters near 10 pm GMT. The strength is excellent but it may offer some difficulty to American listeners."

#### The S. A. on 11,720

spanish-speaking station has been heard often in the early evenings on 11.720 megs, and nearly everyone reporting it believed it to be a harmonic. It is not a harmonic. however, but Radiodifusora HJ4-"Ecos ABA. de la. Montana," This station is Medellin, Colombia, heard with good volume and quality. except that occasionally interference is noted from Pontoise. France. No interval signal or theme song has been recognized as yet, but the call letters, slogan, and the name of the owner, Francisco Cuartas, are mentioned often in the announcements.

James L. Black, 2252 Bellfield Ave., Cleveland, Ohio, has identified some of the new police stations which are listed by locations in the DX Log of the World but which did not have call letters at the time the Log was printed. His list follows: "Storm Lake, Iowa, 1.682 megs. KNFO; Steubenville, Ohio. WPHD: Newcastle, Ра., 2.482. WPGE: Parkersburg, W. Va.. 2.490, WPHQ. Other new ones not yet listed are WPGF, Providence. R. I., 1.712; Dodge City, Kans. on about 2.474 and Cambridge, Ohio, on 1.596. Some other interesting calls I have heard are WYER, 2.604, Lexington, Mo.; WYBF, 2.604, Napo-Ieon. Mo.; WZAO, the U.S. Steamer Bixbee, and WZAF, somewhere in Missouri."

#### Two New Stations

"There is a new s.w. station on 9.590 megs. in Panama City, Panama," postcards R. Abella, Havana, Cuba. "This is 'La Voz de Panama."

HP5J, and they constantly interfere with W3XAU between 7 and 10 pm, EST."

"I have logged a very new s.w. station," advises Manuel Alberto Cadilla, Box 337, San Juan, P. R. "This station is VP6YB on about 44 meters, giving its location as Demerara, Barbados, and requesting reports. Despite an unfavorable s.w. location, I have built up a log of 50 s.w. broadcasters, which I believe is very good for tropical reception."

(VP6YB, Craigston, Aquatic Gardens, Garrison, Barbados, 7070 kcs., 42.4 meters. This is an amateur station which has been conducting tests, mostly with England. On the completion of these tests it is expected regular broadcasting service will be inaugurated in either the 25-, 31- or 49-meter bands. Ed.)

"I have a 5-tube A-K Model 325 and am very pleased with its tone



Meet the newest member of Captain Henry's Show Boat troupe, Kathleen Wells, former dress shop mannequin who studied singing during her lunch hours. Born in Jersey City, this black-haired, blue-eyed colleen modeled clothes during the day and sang the blues in occasional radio appearances at night. Every Thursday at 9 p. m. EDST on NBC-WEAF.

and selectivity," says Joe Sacchi, Marshfield, Ore. "Will someone please answer these questions for me? A station on 6520 kcs. plays pipe organ music and has chimes for an interval signal. Does HP5B work every day and do they announce in English? I would like to hear from other DX'ers and will answer all letters."

Replying to the questions, the first station is YV6RV, Valencia, Venezuela, on its new frequency. HP5B works daily from 7 to 10:30 pm, EST and announces often in English.

#### The French "Fones"

Francis D. Gilliland, 3621 Sutherland Road, Shaker Heights, Ohio, has a complete official list of the French commercial stations from the Compagnie Radio-France. This list includes the following telephone stations: FTX, 6175 kcs; FTF. 7770 kcs; FTY, 7885 kcs: FTL. 9965 FTA, 11940; FQO, 12160; FTN, 12260: FTK, 15880: FTO, 18250; FTE, 18330; FTM, 19355; and FRO, These stations are all lo-19420. cated at Ste. Assise.

"I have been a s.w. fan since last May and am really pulling in the stations on my Philco 16X," boasts G. H. Millican, 321 E. 24th Ave., Amarillo, Tex. "Looking over my log I find several nice catches, among these being HC2ET, Guayaquil, Ecuador, 4600 kcs. They have so far failed to verify my reception. I have logged the three VK's, HP5B, Daventry, Zeesen, YV5RMO, Kahuku, OAS4D, HI4D, CT1AA and many others. RV15 is heard every morning before going to work, and sometimes YDB at Bandoeng."

#### Reception in Western Provinces

"Shortwave reception in Alberta has been very erratic during the past five months," reports P. I. Ogilvie, Ponoka, Alta. "The best European stations are undoubtedly Daventry (GSE, -D, -B and sometimes GSA)

and Paris on 25.2 meters. Madrid, is possibly the third best but their signal does not come through strongly the as two countries. The D stations at Zeesen. Germany, are heard very poorly, the best being DJC on 49.8 m. and the new station DJN. The three Australian stations come in well. got a verification from VK5LR in which they state they use only 600 watts in the aerial, and that their antennae are omni-directional and also uni-directional. JVE. Nazaki. Japan, can be heard calling Dixon near 8 pm; JVF calls Dixon near 6 Mr. Ogilvie hears the usual run of South American stations, rating HJ1ABB as the best of them all.

#### The Rome Stations

"I received a verification from 2RO, Rome, Italy, a short while ago and note several changes in their stations," comments Jasper Pollina,



Carlyle Stevens has been given the first annual "BBDO Award for Good Announcing." Such qualities as naturalness, absence of curious inflections and lack of mannerisms, were among those considered in making the award. Stevens is 27 years old and a regular staff announcer of Columbia chain programs emanating from WABC.

R.1. Port Huron, Mich. "They tell me that they use two transmitters, each with a power of 25 kw., and they can work on four frequencies, 6085, 9600, 9780 and 11810 kcs. The 9780 kcs. transmissions have been dropped and they broadcast now on 9600 kcs. (same frequency used by CT1AA). Their schedule is. in EST, daily, 9 to 10 am, 11810 kes. (to Japan); 2:30 to 5 pm, 9600 kcs; Monday, Wednesday and Friday from 6 to 7:30 pm on 6085 kcs. (to North America); Monday, Wednesday and Friday, 7:45 to 9:15 pm, 9600 kcs (to South America)."

When Rome moved to 9600 kcs. it became necessary for CT1AA to make a change. Geo. W. Acker of Wadsworth Ohio, and R. N. Putman, 920-12th Ave. No., Fargo, N. Dak., report CT1AA operating on their regular schedule on the new frequency of 9590 kcs.

#### A New Mexican

"This evening from 6-7 pm, EST, I tuned in a station which, as far as I can ascertain, does not appear in any of the current s.w. lists," postcards J. G. Richard Heckscher, Devon, Pa. "This is XECR, 7350 kcs., Mexican Foreign Office, Mexico City, Mexico."

"So far March has been a total loss to me as I cannot get any distance through the static and heavy interference which has been so prevalent." complains Harvey E. Sells, 677 Kennesaw Ave. N. E., Atlanta, "I wonder who has heard GSL, London, testing on 6110 kcs. heard them about 9:30 pm, CST on a Saturday night. They asked for reports and said they would verify. Can nothing be done about the amateurs and code stations working in the broadcast sections? The code stations ruin everything for me except the 19-meter band. Codes have prevented me from ever hearing PHI, and constantly play havoc with GSA and DJC. I would appreciate it if some readers will tell me when and where to catch Honolulu."

"I am pleased to report that YV6RV does verify reports. I recently received a QQSL from them on which they tell me their frequency is changed to 6520 kcs and their broadcasting hours extended to 8:30 pm, EST. I hear this station nightly on my National FB7," reports Morgan Fashay, 168 Park St., Montclair, N. J.

#### Set Your Watch by S. W.

"I recently came across a list of broadcasting government stations time signals and it occurred to me there might be some listeners who would be interested in the list," suggests Ray N. Putnam of Fargo, N. Dak. "The list follows: 11:55 to 12 midnight, EST., NAA, Washington, 4525 kcs. 2:55 to 3 am, NAA, Washington, 9050; NPG, San Fransisco, 8590 and NPM, Honolulu, 8090; 7:55 to 8 am, NPO, Cavite. P. I., 9050, 11:55 to 12 noon, NAL, Washington, 690; NAA, Washington, 8410, 12615, 16820; NPG, San Francisco, 12885; NPM, Honolulu, 8090. 3:55 to 4 pm, NAA, Washington, 9050. 6:55 to 7 pm, NAA, Washington, 9050. 9:55 to 10 pm, NAA. Washington, 9050; NPG, San Francisco, 12855; NPM, Honolulu, 16810. 11:25 to 11:30 pm, NPO, Cavite, P. I., 8872, 17744.

#### Some S. W. Chat.

"Here are a few s.w. items that may be of interest," contributes W. L. Damkoehler, 6649 W. Mt. Vernon, Milwaukee, Wisc. Ottumwa, Iowa, 15 watts, heard on 49.9 meters. The call letters of W1XAZ, Millis, Mass. have been changed to W1XK. I am using a Lincoln S-W34 for my DXing and have about 80 of the 100 Best Shortwave Stations. I would like to mention that the new HJ4ABL in Man-(Continued on page 40)

## Getting Acquainted with the Stars

• • • *By* "BETTY"



ERNICE CLAIRE left her Oakland, Calif., home in 1929 with a definite five-year plan to become a national figure in the entertainment world—and she has succeeded.

Her five years of accomplishments include: One year as the feminine star in the midwest company of the "Desert Song"; star roles in five motion pictures-"No, No Nanette," "Song of the Flame," "Kiss Me Again," "Top Speed," and "Numbered Men"; a concert tour of Canada: several New York concert and radio appearances, and a contract to co-star with Frank Munn in the weekly "Lavender and Old Lace" series heard over the Columbia network each Tuesday from 8:00 to 8:30 p.m. EDST, and on "Waltz Time" over the NBC (red) network at 9:00 p.m. EDST each Friday.

Born in Oakland, Bernice studied as a child to become a professional dancer, but discovered at an early age that she was gifted with a beautiful singing voice. "I decided it was easier to sing than dance," she confesses, "and soon gave up dancing." She made her first public appearance in the Oakland Tribune Auditorium, in one of the Aunt Elsie Club entertainments. when eleven, and for seven years thereafter she was associated with the juvenile social organization.

The Aunt Elsie Club gave entertainments each six weeks for the children of Oakland. At 14 Bernice was selected to stage these entertainments and it was through her work there that she met Alice Eggers, an Oakland vocal teacher, who trained her voice. To Miss Eggers Bernice gives credit for much of her success.

Miss Eggers was indirectly responsible for Bernice's initial appearance on the professional stage in the "Desert Song." Back in 1929, the vocal teacher obtained an audition for Bernice with Emil Pollak, nationally-known impresario, who was visiting in San Francisco. Pollak advised her to come to New York.

Months later, without forewarning, Pollak received a telephone call from Bernice in New York. She had arrived in the city and wanted a job. And Pollak didn't fail her. Through his courtesy she was signed to play in the "Desert Song."

Bernice broke into the movies as the result of extending a courtesy to Alexander Gray, radio and movie baritone. He was to be given a movie test and asked Bernice to do a scene with him from the "Desert Song." When the test film was viewed by Hollywood executives Gray was chosen to play a star role in "Nancy"

—and Bernice, much to her surprise, was offered a contract to star in "No, No Nanette." The producers of the picture had been searching for a girl of her type—youthful, blonde and vivacious. After playing in this musical film, she was signed to play in the other four pictures. She came to radio as a natural result of her success on the stage, in the concert field, and in Hollywood.

She is friendly and democratic... lives in a comfortable but not lavishly decorated apartment on Central Park West, New York... loves to attend the theatre, but is unable to stay out very late, as lack of sleep affects her singing voice... likes to swim, play tennis and ride horseback.

Rudy Vallee recently signed a new contract which will keep him before the microphone for another year and a half at least, and may keep him on the same job for the next seven years. The popular air headliner who has been broadcasting for Fleischmann's for five and a half years, will achieve a record of nearly thirteen years under the same sponsorship if all the options of his new contract are fulfilled. Rudy's old contract called for his services until the end of the present year. The new one continues the agreement through 1936 with options for each of the succeeding five years, or until January 1. 1942. The young bandleader made his debut on the old Fleischmann Sunshine Hour on October 24, 1929, and has been the star of the Thursday night broadcasts over NBC networks ever since. With the evolution of the Sunshine Hour into the present Fleischmann Variety Hour he became identified as a showman as well as a singer and orchestra leader. and today is regarded as one of the air's outstanding impresarios.

Robert Simmons, top tenor of the

Revelers, started life as a Methodist Episcopal minister's son in Fairplay, Mo. Educated at Marionville Academy and Washington University, St. Louis . . . enrolled at New England Conservatory of Music, Boston, worked five years as choir director and tutor . . . studied in Berlin . . . came to radio five years ago as concert tenor . . . made good as singer of "hot tunes" because he chose to eat . . . has a lodge on mountain near Cornwall, N. Y. . . . drives his own car at high speed, although expertly . . . has an aversion for raucous voices and loud-speaking women . . . is not exactly a woman-hater but keeps 'em at a distance . . . five feet ten . . . 160 pounds . . . black wavy hair . . . brown eyes.

There are really four Pickens Sisters . . . Grace is 27, Helen 26, Jane 24 and Patti 17 years old. Helen. Jane and Patti comprise the famous trio . . . Grace manages the business details and is always ready to substitute for any one of her sisters should she be taken ill. . . Jane writes those trick orchestrations you hear and is the only girl in radio who can write her own orchestrations... Helen helps Grace keep account of their business engagements, and Patti devotes her spare time to collecting tropical fish and answering fan mail. Mother Pickens stays in the background and keeps their scrap-book up to date.

In tribute to the work they have done in promoting the welfare of amateur entertainers, the new Association of Radio Amateurs has presented a scroll to Arnold Johnson, conductor, and Ray Perkins, master-of-ceremonies, of Columbia's "National Amateur Night" broadcasts. Johnson is giving free musical advice to two non-professionals who he believes have exceptional talent. Carl Good is president of the amateur association.

## The Thrill of the Month Club

#### Our Readers Tell What They Heard

ITH the 1934-35 season rapidly drawing to a close. the reports are taking on the nature of post-mortems. The foreign stations are beginning to appear with greater and greater frequency in these reports. With the increasing power of the foreign stations, the improved tuning technique of our DXers and the constant improvement of receivers, another winter ought to bring the foreigners through many a loud-speaker that has never vibrated to their signals before. Already we read of Australia interfering with Nashville. Is the day coming when Timbuctoo will interfere with Podunk?

#### Getting Across

"During January we experienced some very good TA reception," observes Walter C. Birch. 22 Oneida Street, East Lynn, Mass. "Some of better catches were EAJ-41. Madonna, Moravska-Ostrava Lodz. and IIGE. CX-14 is the fellow on 810 who has been coming through WCCO regularly during the evening hours. He signs off at midnight, Argentina time, with news reports and recording 'Anchors Aweigh.' CX-28 was also logged, identified and reported. The station on 815 is not PRA6 but a Cuban. I have never been able to get the fourth letter of his call. He is located in Havana and the first three letters are CMC. Two other stations new to me were logged: CX-16 and CE-76. The former has been raising the deuce with WWL and the latter has been heard in the background of WJZ on quite a few evenings. February was an off month for the TA's. But SA reception held up very well. New stations logged were LR-10, CPX, YV3RC and-what I consider the best catch of the season-CX-30, 'Radio Nacional', Montevideo, 1130 kcs. He was heard immediately after WJJD had signed off on February 20, 21 and 22. Another good catch is HHK who can be heard most any Friday p. m. from 7:30 to 9:30 on about 922.

"On Sunday, March 3, I heard the following stations in the afternoon: PP, Toulouse, Paris PTT, Fecamp, Bordeaux. CT1GL. EAJ1. EAJ7. EAJ15, Sottens, Brno, I1RO IITO. Sottens and Paris PTT were new additions to my season's log bringing my total TA to 45. In SA I have heard 23 stations. LR-8, 'Radio Paris', Buenos Aires, has been heard consistently during the evening this month. He has changed his frequency or else is wandering away from his 1150 as I hear him on about 1144. YV6RV is now broadcasting on 1350 instead of 675. LS2 has been a most consistent visitor. I believe I have missed him but three or four times since the middle of November, LR5 is also very regular; his signal now compares with that of LS2. I. too. heard the New Year ring in in Buenos Aires via LR5. and then shifted to LS2 to hear a special Pan-American program for the hour."

#### Traps the Locals

"I use a home-made wave-trap with a range of 500 to 3000 kcs. and find it a great help not only in tuning out unwanted stations but in tuning in many faint signals I could not hear without it," avers James L. Black, 2252 Bellfield Ave., Cleveland, Ohio. "It also makes a noiseless volume control. A very useful article for me was the one in January, 1934, 'Proper Reports Bring Verifications,' by Alfred Oppel. I have used his type of report during the past year and only twice have I failed to receive a verie. One report

says, in part, 'Your report was very easy to check and every detail was correct.' I think that is a real endorsement of Mr. Oppel's method. I am sure that more DXers ought to use it. During the frequency checks of March 7th, I heard 31 out of 48 stations, eight of those missed being in Texas or California. I heard WSPA testing on its old frequency of 1420. Also KGBX, now listed on 1230, was heard on 1310.

"Between February 13 and March 13 of this year, I added 50 new stations to my log. That is what a few nights on the frequency checks will do. I would like to correspond with other DXers. My other hobby is amateur astronomy and I would like to hear from other DXers who are interested in astronomy."

#### New Mexicans?

"I am enclosing a clipping from the Laredo Times which gives notice of a new station, XECR, Mexico City, which will give its inaugural broadcast on Sunday, March 24th, XECR is operated by the Secretary of Foreign Relations. There is also a new station with the call XEFH located at Torreon, Coahuila," This information comes from Samuel A. Meyer. Jr., 83 Canterbury Road, Rochester, N. Y., but he unfortunately fails to give either the frequencies or power of the two stations and these are not listed in the latest report from the Mexican Government. "I now have 448 stations verified on the b cb, and a total of 559 logged," adds Samuel. "Some of my best verified catches are KFPM, CFCT, XEWZ. XEU, CMCD, XEYZ, PP, VONF, LR5, CMJP, CMGF, YV1RC, TGW, HIX and Radio-Normandie. I have reports out to HHK, LR2, LR6 and HJN. Has anyone received a verie from XEFZ? I would like to correspond with DXers in Latin-America and will do my best to answer all letters. We have a little club of DXers here that we call the Rochester DX Club and on the 6th and 13th of January,



Kay Thompson, the deep-throated singer who has become so popular with Fred Waring's Pennsylvanians, has now been joined by her two sisters. Blanche (left) and Marian (right) sing in the girls' glee club and Kay (center) does solo work. On the Columbia each Thursday from 9:30 to 10:30 p. m. EDST.

XEKL (1240) broadcast two programs dedicated to us. I am curious to know how many DXers received these programs. Only one of our members heard it and he said it was barely audible. If any others received it, will they drop me a card?"

#### 30 Watts and 8163 Miles

"After working 4AY in Avr. Queensland, Australia, for more than three weeks, hearing their calls on several occasions, I was finally rewarded by hearing about 30 minutes of their program without a break," says Wm. H. Ansell, 168 Wascana Street, N., Regina, Sask, "Under date of December 19, 1934, Norman L. Dahl, Managing Director of 4AY, wrote me as follows: 'It was a great pleasure to us to receive your report on the reception of this station. Considering that at present we have only 30 watts (unmodulated) in the aerial, your reception was quite remarkable. We have had more than 400 reports from New Zealand, 1400 miles distant, and have also been reported from New Guinea and the Pacific Islands. However yours is our most distant report to date.' It was a surprise to me to learn that 4AY was using only 30 watts as this has permission to use watts. Naturally, I am quite proud

of my verification which makes my nineteenth from Australia. All have been received on a Northern Electric 7-tube t. r. f. 1932 set. I hope soon to pass the twenty mark as I have reports out to two other Australians." According to our World Globe, the distance from Ayr to Regina is 8,163 miles which is some mileage for a 30-watt signal.

Answering Mr. Hambly

For Mr. Hambly of London, England, the following answer to his queries comes from Warren E. Winkley, P. O. Box 12, Hughson, Calif. "His Cuban station is none other than CMCY who is on 1110 kcs. according to the announcement I hear from them every night. I also was bothered by the terms 'General Electric' until I learned who they were. The COA Mr. Hambly hears is really COH, their short-wave call. They are heard here every night from 5:45 to 7:30 PST. CMQ is heard here absolutely R9. Two weeks ago on Bill Ellis' set, CMQ was heard with good volume a block away in clear sunlight! Incidentally CMCY dedicated a piece to me the latter part of December which it was a big thrill for me to hear. Who can be the Mexican on 705 in the evening? I never heard any human speak so fast as the announcer on that station. I've had five years of Spanish but I can't positively identify him. I thought I heard him say XED once. Who are the Spanish-speaking stations on 815. 885 and 995? For the person first reporting to me the correct identity of these stations, I'll give an indoor aerial: that is how anxious I am to learn who they are."

#### Over the North Pole

"My list of verified Europeans has increased to eleven," finds Charles H. Hesterman, 2214 Herman Ave., Saskatoon, Sask. "I now have the following verified: Stuttgart, Langenburg, Leipzig, Fecamp, PP, Milan, HAL, Monte Ceneri, Riga, Vienna and Praha. I have verified both

Langenburg and Leipzig twice which disproves any 'freak' reception. I am wondering if the signals I am receiving from Europe are coming to me via the North Pole. I hear that listeners in the Yukon are using the European stations for entertainment purposes! Otherwise why do I receive the Europeans so well and yet have great difficulty in hearing the powerful eastern USA stations? When I tuned in Vienna on 592, I heard a very fine, strong symphony orchestra. I will be pleased to answer any and all letters I receive through RADEX."

"I now have three continents verified," asserts Richard W. Watts. 19695 Beach Cliff Blvd., River, Ohio. "Three of my veries are HAL, PP and CX-26. Have reports out to LR5 and 1YA. Best on this continent are XEFZ, XEWZ, TGW and CFCT. Would like to hear from DXers outside of the U.S. and Canada, XFX is now a 24-hour station on 610, 1YA on 650 is heard often and 2UE every Saturday morning. I have now heard both the farthest east. and farthest west stations. WAGM and KRGV. Have all states verified except Wyoming and Vermont. To get Idaho try 1240 at 1:00 a. m. EST and you will hear KTFI. I use a Scott all-wave with 150 feet of aerial. I am now a member of the CDXR and we have a Cleveland chapter."

#### Who Is CC-1?

"In July, 1934, I began DX with a new 9-tube all-wave Silvertone," says A. J. Paul, Rt. 2, Box 279, Austin, Texas. "I now have a total of 334 stations on the bcb. including 42 states, the D. of C., Canada, Cuba, Puerto Rico, Mexico, Guatemala, Hawaii, Japan and New Zealand. I have logged five Japanese—JOBK-1, JOBK-2, JOIK, JOHK and JOAK-1. On sw. I have 39 with VK2ME-3ME-3LR, JVF and RW-15 as my best. Can anyone identify the following for me? Station CC-1 heard talking

to an airplane February 9, at 9:05 a.m. CST on 650 kcs. This could have been a harmonic. A broadcast station using the call KPRS in Houston, Texas. This station has been heard on different frequencies and is not KPRC. Would like to hear from other DXers and all letters will be answered."

"Although I am only 14 years old, I have been interested in DX for about four years," relates Bob Greer. 2514 Elm St., Youngstown, Ohio, "In 1931, after we bought a nine-tube Philco 96. I began on a small scale. That winter I received 139 stations. The next year I did a little worse, receiving only 124. In 1933-34 I got a copy of RADEX and that year I received close to 375. This year I have really gone in for DX seriously and thus far I have received 490 stations. Among my best are CMJP, TGW, CX-26, LR5, VE9EK, KXO, KERN, KWG, KPJM, XEU and CJLS. I have received 25 from California. My all-time total is now 590. I have all the states but Wyoming, I would like tips on WKZO, WKAR, WJAG and WSPA. DX is sure one good hobby."

#### The 650 Stranger Again

C. C. Wilson, 11 S. College Ave., Salem, Va., also reports the mysterious stranger on 650 to which W. Russell Du Cette. Seattle. referred in the April issue. Says Mr. Wilson: "A station on 650 kcs. comes in from about 3 a. m. to 6 a. m. EST and sounds like a hundred-watt station about 1000 or more miles distant. They broadcast American graph records, talk in English and apparently announce in English. I have heard real performers there too. The call I heard sounded like XELE. It does not take much QRM to spoil any announcement they make and WSM usually ruins their program." The new 1YA on 650 has been quite widely reported.

From Eugene S. Allen, 2519 Ridge Road, Berkeley, Calif.: "In the past three months I have added 85 new stations on the bcb, to my log, During the past year I have heard 378 bc. and 117 sw. stations. Included in the 378 are 23 in Mexico, 22 in Japan. 19 in Canada, 3 in N. Z., 2 in Australia, China, Formosa, Hawaii, Puerto Rico and USSR, and one each in Cuba and Alaska. I think my best is RW-41 on 560 and RW-17 on 640. I have a Patterson PR-10 allwave with a two-stage i. f. pre-selector, making 12 tubes in all. Antenna is 120 feet long in an E-W direction. Would like to hear from other users of the Patterson."

#### Thought It Impossible

"I was one of the DX hounds who thought it impossible to reach Europe, South America or Asia," admits Reid Kling, White Deer, Pa. "But, thanks to the tips from your magazine, I pulled in CTIGL, XIX, XJN,



Did you know that Jack Pearl and conductor Freddie Rich are cousins? Their mothers were sisters and Freddie and Jack' were brought up in the same neighborhood in New York City. Rich, whose latest portrait is shown above, and his 30-piece orchestra, and Pearl as "Peter Pfeiffer" are heard over the Columbia net each Wedresday at 10 p. m. EDST.

CX26, LR5, KGMB with about 700 stations verified. I am using a Philco 11-tube, three years old, with no aerial except the leadin, and a copper hammer buried in the cellar for a ground. On the morning of January 1, on 1330, I heard a station at 5 a. m. EST announcing a 12-hour New Year program and the call HJ2A-. I could not catch the last letter. Can anyone help me?"

"I have read of logs and how long it took to build them so I would like to submit one that I made in just 30 minutes on one band. the 31-meter, on March 1st, from 5:30 to 6:00 EST," submits Lyle Stanard, 817 King St., Three Rivers, Mich, "Here it is: COH, PRF5, GSB, OXY, DJN, W1XAS, GSC, W3XAU, CT1AA and EAQ. These stations came in clear and loud, the volume control on my Scott 15 swung well across the dial. I did not stop to hear all the call letters but I have heard them enough times before to be sure of the identity and the type of broadcast they were presenting."

"Many thanks for printing the article, 'Which is the Best Antenna'. It is just the information that I have been looking for," appreciatively affirms Jack McLaren, 515 Rathgar Ave., Winnipeg, Man. "I have a ninetube Rogers-Majestic, 1931 model and am using a single antenna, sevenstrand, about 35 feet long and 20 feet high. I consider my best catch to be KLZ at two o'clock in the afternoon of January 16. I verified the station on a 15-minute talk at that time. Among others I have received are XEAF, XEW, XEN, KPO, XEPN, XEAW and WGY. Although I have only a standard broadcast radio, I am as much interested in s. w. as b. c."

#### From South Africa

Here is a winter report on summer reception from A. C. Lyell, Johannesburg, South Africa: "Whilst conditions were on the erratic side, there has been on the whole a measure of

improvement in the reception on the bcb. For the last ten days (January 31) there has been no trace of any sound on the broadcast band. The stations received recently include Hamburg, Budapest, Bordeaux, Breslau, Moscow, Madona, Monte Ceneri, Brno, Lwow, Rome, Cologne, Milan, Berlin, KMOX, WTAM, WOAI, WBT and WLW. These were heard during the month and verifications are being applied for, I use a Pilot 63."

"I wrote KMJ, Fresno, Calif., a very fine letter of reception, giving them about seven or eight numbers they played. I now receive a card saying they are sorry but they cannot verify my report as I did not furnish the exact wording of their station announcement. So if any listeners want to have reports verified, let them make sure that they get the station announcement as it looks as though the musical selections and other data, will not be sufficient." Thus warns J. Edward Diehm, Jr., 424 Walnut St., Pottstown, Pa.

"I am 16 and a senior in High School," prefaces Frank Field, Jr., (no address). "I am just starting my sixth month of DX using a Philco 16-B. Since October 15, 1934, I have identified 635 stations on the bcb. 1 have now come to the place where the going is hard although in February I added 45 stations to my list. I have every state in the U.S., every province in Canada, 20 stations in Mexico, 13 in Cuba, 3 in Australia, 2 in Guatemala, 2 in Argentina, 2 in France, and one each in Spain, Portugal, New Zealand and Korea, I have two in Puerto Rico, and one each in Alaska and Hawaii."

#### Relay Station for Mexico

Robert Phebus, RR3, Box 206, Laporte, Ind., seems to have a private connection to the Mexican stations. "I have 52 bcb. Mexican stations now operating. I get XEMO like a 50,000-watt Chicago. The following come in almost like locals: XEFI, XEBC, XEAO, XEFB, XEOX. XES, XEAW, XEU, XFB, XFX, XFC, XEO-XEFO-XFO. On the other hand I have but 38 bcb. in Canada with the Maritime Provinces. Quebec and Ontario still out. XEPN reports a station operating on 760 as XENO, Ciudad Victoria, Tamaulipas and another as XERO, XEPN seems to work with both stations but neither is listed. Can anyone throw anv light on either XENO XERO?"

"T have been DXing for months now and in that time I have logged 132 bcb. and 120 sw. using an RCA-Victor 122 six-tube Globe Trotter with a 50-foot two-wire antenna phased at the center to reduce electrical interference. A twisted leadin is coupled to the set by means of a matching coil. The antenna is in the attic and is NW-SE." Thus writes Lloyd G. Holmes, P. O. Box 640, Chatham, N. B. "On the bcb. I have logged stations in 33 states and six provinces. I am a member of the International Broadcasting Club of London, England, and would appreciate letters from other members."

Eric Butcher, Cokeville, Wyo., is one of our leading joiners. He signs as a member of the CDXR, ISWC, IDA, IBC, KDXC and the NNRC. Says he: "HHK on 920 kcs. came in R6 here on their special and XEBT R7. B. c. veries back from XEWZ, JOQK, JVT, Radio Coloniale, Paris, WNBR, HJ4ABE, X2AH, CFJC, CJRM, W6XAI, WLAP, CFQC and many others. If veries are wanted from XEOK, XEFL, XELO, send ten cents to Doc. Morris Associated Broadcasting System, Box 6, San Diego, Calif."

#### You Auto DX

"Have any of your readers tried DXing with an auto radio?" queries David B. Birrell, 35 Bradford St.. Brighton Station, Rochester, N. Y. "I have a 1934 GE auto radio, model C-41, in my Plymouth sedan and I have logged and verified the follow-

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RADIO MFG. CO. Dept. RX5 1528 Armitage Ave. Chicago, III.

ing among many others: WWL. WKBF. WIBW. WMC. WREN. WSUI, WTIC, KFI, WCCO, KPO. WFEA, KMOX, KSL, WRVA, WSB and KSOO. Every one was picked up while I was driving my car inside the city limits of Rochester between 6 p. m. and 2:30 a. m. EST. I would be much interested to hear from any other reader who has tried this wrinkle in DXing."

"The first day I had my Grunow 11-tube 1 received YDA, VK2ME. VLZ, EAQ, the London stations and, much to my surprise, 2RN in Dublin, Ireland," exults Charles Dooley, 731 Elberon Ave., Zanesville, Ohio, with good reason. "I have an RCA Brownie balanced s. w. aerial which cuts out most all of local interference. I would like to hear from other owners of the Grunow." Charles postscripts: "Your magazine certainly must have some circulation for when I asked for advice on a new set I received letters galore from all parts of this country, Canada and Mexico."

"Although I have logged 676 stations on the bcb.," notes Frank Wheeler, 406 Eagle Point, Lakeside, Erie, Pa., "there are plenty left for me to work on. I lack 28 in the U. S., 20 in Canada, 43 in Cuba, 42 in Mexico and 607 in other countries. I have received 1YA nine times in succession, that is every time I

have DXed in that period of time. Since my last report I have received CRCW, CMCJ, 10-AK, KFUO, WIS, KFXJ, WHDL, WDNC, KOY, KGIW, KOMO, CFLC, CKX, CKWX and CKOV. CHNS sends a picture of their vertical radiating tower at Bedford, N. S. and a 50-page book."

Texas is Massachusetts' Local
Away up in Greenfield, Mass.,
H. A. Brown finds his best source for
NBC programs to be WOAI, San
Antonio, Texas! That's going a long
ways for a local. Says he: "I am a
new comer. On February 21, I
bought an American-Bosch 7-tube
all-wave set. I haven't had much luck
with the sw. having logged only ten
of the principal stations by their
announcements in English. In two
weeks, however, I have positively
identified 83 stations on the bcb."

"The veries are coming in very slow," bemoans Clifford Drain, 617 Camden St., Parkersburg, West Va. "My best are LR5, KGU, KGMB, WKAQ, PP, Rennes, Radio Normandie, Bordeaux, Leipzig, I1MI, I1TO, I1TR, CP4, YV1RC, CT1GL, TGW, HIH and VE9EK. The first four were verified in 1934 and the balance this season. I still have reports out to Berlin, Munich, Frankfurt, HJN, LR4, LR6 and the new 1YA in Auckland, N. Z., 2BL in Sydney and 4RK in Rockhampton."

"My Echophone 18 sure has been a boon to me," declares Raymond S. Swenson, 2325 Tenth Street, Rockford, Ill. "My log stands at 718 stations with 523 verifications. My latest of note are 3HA, 2HD, 2UW, Bordeaux, PP, KGMB, VE9EK and 10-AK. I heard and identified ten TA's during the last two weeks in December. Right now the TP's have very good signal strength; 2BL, 2GB, 1YA and 4QG come in R7 nearly every a. m. It was JOQK I received; I have never heard JOOK."

#### Verifies JVT

"The Australian and New Zealand stations have been received the best ever on the bcb. in the last few weeks," writes O. Ingmar Oleson, Ambrose, N. Dak. under date of March 7. "During this time the s.w. reception has not been as good as usual but it is improving again. I use a Scott 12-tube deluxe receiver and would like to compare notes with other users of this model. I have finally received a veri from JVT covering reception last fall."

"Starting DX the latter part of August with a 5-tube Majestic, Model 59, in six months I have heard 13 countries on four continents," is the excellent record of Paul V. Trice, 379 Grant St., Sharon, Pa. "Among the best were CFCT, TGW, KGU, XEAF, 4BC, WKAQ, LR5, HJN, HIX, 1YA and Normandie. I hear 1YA as early as 3:30 a. m. EST."

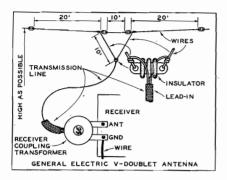
"I am a little afraid to present my small log," modesty writes Reginald Vining, 105 Tompkins St., Cortland, N. Y. "At this time I have logged 321 stations in 43 states. Canada, Cuba, Mexico, lowerCalifornia, Puerto Rico and Guatemala on my Philco 4-tube midget. I consider KPO, TGW, KVI, KTM, WNEL, TGW, XFX, XEBC, and CKY my best catches to date. CRCW writes me they are on the air from 5:30p.m. EST until 11:15 p.m. at present. I would like to correspond with any DXer. Will answer promptly."

"Purchased a Philco 144-H January 23, 1935, and started DXing," briefs A. E. Steyer, 1414 West 85th St., Cleveland, Ohio. "To date I have logged 274 stations on the bcb. On sw. I have sent reports to CT1AA, EAQ, DJC, 12RO, PCJ, YV6RV, HJ4ABB and PRF5. On March 1, Pontoise, France, could be heard all over the house. 'How am I doin' '? I'd like to communicate with anyone anywhere using the Philco."

#### Who Spoils KDKA?

"Can it be that one of those wandering Cubans has got on 980?" queries Dr. M. Dean Miller, 1100 Cadillac Blvd., Akron, Ohio. "KDKA (Continued on page 42)

# The New G-E "V" Doublet Antenna



THE General Electric Company has developed a new type of doublet antenna. It is called a "V-doublet," and can be used with any type of radio receiver. The antenna responds admirably to all wave bands now in use, but this uniform selectivity is due to the arrangement of the antenna.

The system incorporates a doublet. the center portion of which takes the form of a "V." Signals intercepted by the doublet are fed to the receiver through a balanced, twisted pair of lead-in wires. This transmission line is coupled to the receiver through specially constructed receivercoupling transformer. The transmission line is noise-eliminating, and electric impulses of static from local sources cannot affect it. In the "Vdoublet" system, complete rejection of signals picked up along the transmission line is accomplished because of the specially balanced design of the coupling transformer and the established length and impedance of the transmission line.

#### Installation Is Simple

The design of the "V-doublet" antenna system is not complicated, and its installation is very simple. As shown in the drawing, the horizontal

portion of the antenna should be as high as possible above the effective ground surface. A high location removes the antenna top from the field of "man-made" static interference. However, the antenna may be placed as far as 500 feet from the receiver in order to get away from automobile highways simply by adding the required length of transmission line to the 100-foot length supplied with the antenna system. But not less than 100 feet of transmission line should be used. This line has a definite impedance and it is twisted in a certain manner. Ordinary twisted lamp-cord cannot be used.

Each half of the doublet is 20 feet long. Insulators are used at both ends and at the center where a spacing wire 10 feet in length is placed. The sides of the "V" are each 10 feet long. At the bottom of the "V" an insulator is used to support and insulate the ends of the doublets and the transmission line, as shown in detail in the drawing. The antenna must not be stretched too tightly, but should be allowed to sag so that the center portion of the doublet is about 3 feet below its ends.

#### Good Ground Important

The receiver-coupling transformer is attached to the antenna ground terminals of the receiver. Then connect the transmission line to the terminals marked "T" and "L" of the transformer. Any remaining portion of the line should not be cut but coiled in the rear of the receiver. A short wire from the ground terminal of the receiver to the nearest cold-water pipe must be The importance of a good ground cannot be overestimated as the degree of noise reduction will depend on this.

The General Electric "V-doublet" antenna comes complete in a kit ready to be installed. The doublet wires are coiled at the top of the box with the transmission line coiled beneath. All

connections are soldered and it is only necessary to hang the antenna up in its proper place by carefully unpacking and uncoiling the wires in the kit, run the transmission line to the receiver, attach the coupler, and everything is ready for use.

# My Radio Experiences • • • By OLIVER AMLIE\*



IT WAS back in 1919 that I built my first radio set—a crystal receiver of my own design. My DX record on this was Denver, Colo. When tubes began to be available in 1920 I built a Hammarlund-Roberts three-tube set. On this, to my great satisfaction, I received three California stations. This set me at DX in earnest. In the International contest which old-timers will remember—the eastern U. S. stations were silenced—I received Spain, Costa

Rica, Mexico, Alberta, Cuba and California—six countries. I took fourth place in this contest.

In 1930 I became interested in short-wave radio and built a number of sets with which my results were nothing to brag about. I then designed my own s. w. receiver and, after a couple of evenings, using two 201-A and one 12-A type tubes, I received on the speaker G5SW, France, Rome and, on a Sunday morning in June, 1931, I picked up Australia. I received my verifications from VK2ME-VK3ME in September, 1931.

Then came a national short-wave contest sponsored by a radio magazine in which a trophy was presented each month. Nine trophies were won by other fans; I tried but lost. The next time I tried I received 1.40 stations in two weeks, received honors for 94, and the trophy was mine in spite of the fact that I had used the smallest receiver and the oldest type tubes.

Soon after this contest the Australian Broadcasting Commissioner asked me to report regularly on the signal strength of their three stations, 2ME, 3ME and 3LR. I have sent from two to four reports each month on VK2ME, four to ten on 3LR and three to five on 3ME. These reports are to continue until September, 1935.

The circuit of my three-tube receiver has become somewhat famous as a result of my work and I will be glad to send a copy of the circuit diagram to any RADEX reader who sends return postage.

\*56th City Line Ave., Overbrook, Philadelphia, Pa.

The RADEX Radio Map of the World with Time-Converting Dial tells the time for the whole world. Price 25c postpaid.

## Notes and News of the I.D. A.

• • • By JAMES T. SPALDING\*

REETINGS DXers! We thank you all for the splendid support given this column in the short time it has appeared. We have been quite busy answering letters from friends who liked the page. Now for a few notes.

Several reports have mentioned a new Panama station, HP5J, on 9590 kcs. There is a Spanish speaking station on that frequency, but we are not sure where it is, as no calls have been heard in English.

Bill Ellis of Hughson, Calif., Director of the Second I. D. A. District, is planning an amateur relay for sending DX news and tips to our Anzac members. Fine work.

The I. D. A. contest for the handsome Randolph Trophy and other valuable awards is attracting many entrants and bids fair to be a very exciting race. More news in next month's issue.

Paul Fendersen, radio editor of the Honolulu Star Bulletin and I. D. A. representative, says Hawaii is a DXer's paradise and proves it with a fine log of Japs, Anzacs and U. S. stations.

Reports of good TA and TP reception have been received from John Shanks of Tennessee, G. T. Magee of Alabama, and Helding Gustafson of Illinois. Mr. Magee also heard VPD.

Two new stations which should be heard by all SW fans are TI60W. Puerto Limon, Costa Rica, on 7000 or 7070 kcs. and Hector McCormick's HJ2ABD on 5960 kcs. in Bucaramanga, Colombia.

Watch for the very special I.D.A. program from RNE and RKI on May 5, from 8:00 to 9:00 a.m. EST, which was arranged by John De-Myer of Lansing, Mich.

Oliver Amlie of Philadelphia, who needs no introduction, writes us

that VPD, Suva, Fiji Islands, is not a new station but, on the contrary, it owns and operates VK2ME and that he has personally seen a VPD veri dated August 5, 1929.

The latest British Globe Circler reports very bad MW or BCB reception in Europe, but we would be very well pleased to have half as good a log as some of the English members report. Some of the stations most frequently heard over there include WNEL, WBT, KMOX, KOA, LSZ and. WTIC. The editor of B.G.C. recently made a very interesting tour by auto of Germany, Belgium and Austria in with three university ccmpany friends.

Bob Hamilton of Saltcoats, Scotland, reports reception of VK2ME, W8XK and other fine DX on his three-valve all-wave set.

We were very pleased recently by a card from A. C. Baker, who is now in Brussels in charge of electrical work at the British section of the Exhibition there. Art is a champion DXer, an ardent I.D.A. fan and a fine chap.

Emmet Iniver of Dunedin, N. Z., reports good U. S. reception from "down under" as does George Ingle of Narrabie, N.S.W.

It took plenty of work to keep our promise of free "Globe Circlers" to interested DXers but we kept our word and herewith report several new members and numerous prospects gained from readers of this page. The offer of a free copy is still open. All that is necessary is a postcard or letter requesting same to the address below or to I.D.A., 1018 Prairie St., Ploomington, Illinois. You'll get it!

Good DX is reported by George Haylock and H. M. Blaber, charter members of the London Chapter which has already outgrown its present quarters. Other chapters have been formed in Lansing, Mich., Bloomington, Ill., two large ones in Los Angeles and our friends Elsden Jones of Bermuda and George Millican are busy with plans for chapters in their respective localities.

Charlie Miller of Covington, Ky., is logging plenty of 20 meter hams and other SW catches.

Lloyd Westmoreland, of Regina, has joined the publicity staff and is doing fine work on that and DX reception.

According to Senor Enrique Linares, Jr., our Panama representative and Chief Engineer of HP5B Radio Panama, they will again DX for I.D.A. on June 14 and will dedicate special selections to some of our foreign members, so you fellows watch for this program. HP5B is on 6030 kcs. and the Globe Circler was the first magazine to report this station and I.D.A. was the first club honored by a DX program.

Our Department of Foreign Affairs, whose duty is the arranging of foreign programs, has had a most successful season. Under the able direction of Vice President Randolph Hunt, programs were arranged from nearly every country in the world, many of these being from stations that most DXers previously had not had the opportunity of logging.

The German SW stations recently sent us a victrola recording of their familiar chimes, call and two folk songs in appreciation of our reports concerning reception of DJA, B, C, D, C, O and N,—a V.F.B. souvenir.

While on the subject of reports we advise DXers to make them interesting and informative. Note such items as tone, audibility, fading, Q.R.M., make of receiver, aerial and, when possible, a comparison of reception with a station in the same locality as the one reported is desirable. Never fail to include a reply ccupon. Local coin or postage is useless in a foreign country.

And now, with the request to con-

tinue your reports and note our new Q.R.A., we must until June say . . . Good Dxes, Vy 73.

\*Director of Publicity, 3524 N. Western Parkway, Louisville, Ky.

### The CRCS DX Program

DUE to interference from another station on the same channel as well as to adverse weather conditions, the special RADEX program from CRCS, Chicoutimi, Quebec, on March 3rd, was not as widely received as had been hoped for. The most distant report was from Ray E. Everly, 102 West Washington Street, Newton, Ill., while the most distant in Canada came from L. Scourfield, 299 Tunis St., Ingersoll, Ont. To each of the above a year's subscription to RADEX has been awarded.

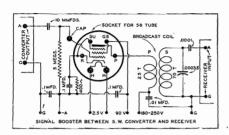
The most helpful report and the most valuable to the station engineers was received from H. E. Pippy. 18 Currie St., Glace Bay, N. S. "The report sent in by Chas. L. Morgan, 800 East 179th St., New York City, is by far the neatest bit of work we have ever seen and shows considerable effort and painstaking care by Mr. Morgan," comments J. E. Roberts, Engineer in Charge, CRCS. We are therefore duplicating the award and sending a copy of "The Beginner's Story of Radio" to both Mr. Morgan and Mr. Pippy.

The eleven next most distant listeners to report this program were from Rockford, Ill., Harvard, Ill., Rocky River, Ohio, Neenah, Wisc., Proctorville, Ohio, Genoa, Ohio, Detroit, Mich., Dimondale, Mich., Akron, Ohio, and Beaver, Pa.

"CRCS will be pleased to present another DX program for RADEX at some future date," adds Mr. Roberts.

# The Monthly Clinic for RADIO PROBLEMS

#### **● ●** By THE TECHNICAL EDITOR



TUSE a Stewart Warner short wave converter, model 301A, with my Atwater Kent broadcast receiver, model 55C. I have read about signal boosters for use between a converter and receiver, but as I do not know much about making one it will be appreciated if you will give me clear instructions, especially as to the connections to the tube. I will need all the information required so I can get the proper sizes of the parts needed.

The use of a signal booster is not always to be advised. In many cases it cannot be of much assistance as the signals are about as strong as they should be without too much noise entering into the final results. However, as a booster is relatively simple to set up, and is always worth the fun of experimenting, a circuit for a simple booster is shown in our drawing.

The specifications of the coil used as a radio-frequency transformer for the converted broadcast-band signal are the same as for any r.f. transformer in a broadcast receiver. It may be wound on a tube about two inches in diameter with No. 26 cotton covered wire. The primary should have about 25 turns and the secondary about 70 turns. A space of ½ inch is left where the primary ends and the secondary begins.

A type 58 tube may be used, or a type

57 just as well. The socket is shown, looking down upon the top, and the connections to the terminals are indicated. The secondary of the broadcast transformer is tuned with a .00035 mfd. capacity variable condenser. The circuit is tuned to 300 meters or whatever point reception is best when the converter is used. The values of the bypass condensers and resistors are all given in the drawing. The operating voltages may be taken from points in the receiver or separate batteries can be utilized.

#### Converter Fails Below 22 Meters

My short-wave converter fails to pick up signals below 22 meters. It originally worked well in the low waves. What shall I do to restore the low-wave band to operation?

Failure of a converter, or any short-wave device, to operate below 22 meters usually indicates that the oscillator is not functioning. It is difficult at the best to create the high rate of oscillations needed to beat against the extremely rapid incoming frequencies. When the oscillator tube weakens it fails first on the high frequencies, and very often the mere substitution of a new tube will bring about perfect operation on the very low waves.

#### Dial Seems To Slip

My Philco 112 will be tuned exactly to 1500 kcs., and a 1500 kcs. station will come in exactly as tuned. Then, after a while the station can be heard changing its frequency, and I have to reset the dial, say, to 1495 or 1505 kcs. This also occurs on other frequencies. The set gets out of line from 2 to 10 kilocycles. I have been told that the trouble is "dial-slipping" but I have watched carefully and the dial does not move at all.

Although your trouble is often called "dial-slipping," this is simply a term used to express the fact that the station signal appears to slip in its position on the dial. This is frequently due to temperature effects in the tuning and trimming condensers. The tuning condenser shaft may bend slightly when the heat increases, making the rotor plates diverge, thus slightly changing the capacity of the tuning condenser. The rotor shaft may. in expanding, move the plates lengthwise, accounting for the trouble. Also, any condenser plate, and even the trimmers, if it warps or bends ever so slightly (measureable only with micrometers) due to heat, can cause sufficient capacity changes to throw the dial off its original setting. Other parts in the circuit may also be responsible. Remove the chassis from the cabinet and operate it in a cool place where a good circulation of air is present and see if the trouble persists.

#### Noise With Loud Volume

I have a Scott all-wave 12-tube receiver. I can not turn on much volume without getting a noise like pulling on a taut rosined string. It is worse on the short waves. The makers of this set have examined it and report it to be in good shape.

Your report seems to indicate that the radio-frequency or intermediatefrequency stages are adjusted to unstable positions. It might be sufficient in remedying this trouble to "stagger" the tuned circuits, that is, adjust every alternate one slightly off resonance, both above and below the peak frequencies. If this does no good, the instability will probably be found due to failure of one of the plate or screen bypass condensers in the r.f. system. This trouble is quite distinct from lack of sensitivity as the latter may be due to a faulty tube, poor circuit adjustments, or a defective part. service man should be able to make the "staggered" adjustments using oscillator meters, but the problem is purely an experimental one.

#### A.V.C. Blasting

My receiver has been returned to the makers three times and it still blasts and distorts when on a station for a while. It is the automatic volume control that causes the trouble.

Although the effectiveness of the a.v.c. circuit throughout the sensitivity range for which it is designed, may be reduced, our suggestion is to place a high resistor from the plate to cathode of the a.v.c. tube and another of equal value from plate to ground. A value of from 5 to 8 megohms is advised.

Sometimes a.v.c. blasting may be traced to an improper selection of values for the resistors and capacities in the a.v.c. circuit or filter. By simply changing values here, this trouble can often be cleared up. These values are not at all critical.

#### Short-Wave Harmonics

My model 59 Majestic works quite normal in the daytime, but late at night when the broadcast stations sign off, amateur and police stations of 160 and 170 meter bands come in on the broadcast band. The amateurs come in five to ten points of the dial on either side of 300 meters, or just double their normal wave. The police also appear at 750 kcs., and with greater volume at 1500 kcs—in fact, between 1480 and 1550 kcs. The set is selective, and the antenna is 80 feet long.

From your description it appears that the second, third or fourth harmonics of the oscillator in your receiver is combining with the fundamental or second harmonic frequencies of the undesired police and amateur phone stations.

While you cannot avoid these signals on their fundamental frequencies, you can avoid this harmonic interference by properly shielded and adjusted input system. You have a rather long antenna, and we suggest cutting it in two.

A wave trap in the antenna circuit of the parallel-resonant type in series with the antenna, properly shielded, should stop this trouble. The wave trap is then tuned to the frequency of the undesired signal. Such a trap is shown on page 22 of the March, 1935, issue of RADEX.

#### Majestic Tubes

Please tell me if there any substitute for the G2S tube in the Majestic model 210 receiver. I find it hard to get this tube from the local dealers in this small town.

Several tube manufacturers make tubes for the Majestic receivers with characteristics similar to the original Majestic tubes.

If you wish to replace the Majestic G2S tube, we suggest the use of a Sylvania type 2S. You will find that its characteristics will match those of the Majestic model G2S as the tube is made to replace the latter.

#### Image Frequency

I purchased a Philco model 118 and notice that on the short waves it reproduces groups of stations along the dial at such places as to make me believe that they cannot be harmonics. The set also picks up several harmonics of broadcast stations on the short-wave dial; I understand this is natural and as the set works nicely otherwise I fully expect this latter trouble. Is there anything wrong with the set which requires fixing?

From your description it appears that you are receiving image frequencies. These are signals which find their way through the pretuner when it is set as much above the oscillator-frequency as the latter was originally above the signal frequency. To make this more clear, for example, if you can receive a station by tuning to 10 megacycles, the oscilator frequency (assuming it to be 465 kcs.) is 10,465 kes. This is 10,000 plus 465, or 10,465 kilocycles. Now, when the receiver is tuned to 9.170 kcs. the oscillator really is performing at 9,535 kcs., and the 10 megacycle signal will be received because the difference between 10 megacycles and the oscillator frequency is 465 kilocycles—the same as the oscil-



J. Herbert Hyde. Elmwood, Conn., in his "radio corner" with his 16-L Phileo on which he has logged 467 stations, positively identified, with 192 verified. He has now verified 30 stations 2000 miles or more distant. Mr. Hyde is a member of the NNEC, the Chicago S. W. Radio Club, the CDXR, and the N. Z. DX Radio Assn.

lator. This proves that the input wave trap, as well as the pretuner, must be adjusted more perfectly and all shielding faults, if present, must be corrected to prevent this image-frequency reception. Your service man or the dealer selling the set can make these adjustments without difficulty.

#### **Tube Functions**

Please tell me the locations and functions of the tubes in my Stewart Warner 102B receiver, and also in my 301B short-wave receiver. This set gets weak and sometimes cuts on and off. Why is this and can it be improved?

The tubes in the 102B receiver are: first detector—a 24; second detector—a 24; oscillator—a 27; intermediate frequency—either a type 51 or 35; pentode power output—80. The intermediate frequency of types PZ or 47; and rectifier—an this receiver is 177.5 kilocycles.

Looking down upon the set, from the rear; left rear is the i.f. 35 tube; right rear is the 47 power output; rear center is the 24 second detector. In the second row across, from left to right, first detector is a 24 tube; center is the 27 oscillator; and the right is the type 80 rectifier. The type 301B converter has two tubes—a type 24 detector and a type 27 oscillator. The plate supply plug should connect to a 250-volt source.

We believe that reception can be improved in this set if you remove the 500,000 ohm resistor that is between the control grid of the 47 power output tube and the point where a bypass condenser and another resistor connect together. Move the 500,000 ohm resistor over close to the condenser just mentioned but between it and the other resistor's point of contact. This reduces the resistance in the biasing circuit of the control-grid of the pentode power tube.

#### Aerial Condenser

Tell me about the aerial adjustment on my Silver Marshall model Q receiver. Does it tune the short waves or the broadcast band? The set does not read correctly on the dial. Can this also be corrected?

The antenna compensating condenser is connected in series with the antenna. It is a small trimmer condenser of about 25 mmfds, capacity and is used only to tune to the length of antenna used, so as to give maximum selectivity and volume on all the wave bands.

If your receiver is off on its calibration it means that the trimmer condensers require adjusting. This usually is a job for the serviceman.

The two large variable condensers on the dial shaft have small trimmer condensers shunted across them. If these are properly balanced the tuning of the dial should track nicely. You can make the adjustments by tuning to three stations, one at each end of the dial and the third in the middle, and then setting the trimmers for maximum volume and proper reading on the dial. This is a Use an insulated tool tedious job. when turning the movement on the trimmers. Then each of the three intermediate-frequency coils or transformers also must be tuned, that is, the primary and secondary coils brought into proper i.f. resonance by adjusting the small trimmer condensers shunted across the two coils of each transformer. These trimmers are accessible from below the three aluminum cans shielding the three i.f. coils.

#### Leaking Condenser

I have a Stewart Warner 1109-R 110A receiver. One of the filter condensers is corroded and a fluid of some kind leaks at times from the top of the can. What is wrong with it?

From your description it seems evident that the electrolytic filter condenser is defective. It must be replaced. As long as this type of condenser does not leak and causes no great amount of corrosion at its terminals and does not pass more than one-quarter of a milliampere per microfarad of rated capacity it may be considered to be in good condition. But when the liquid leaks out much of the electrolyte is lost and the effectiveness of the condenser is seriously reduced.

In purchasing a new electrolytic condenser unit we suggest removing the old one and use it for a sample to determine the proper size so the new one will fit your chassis. It is hardly necessary to procure a capacity larger than 8 mfds. to the

section, and four sections is about the limit.

#### Image Frequency

I have a Philco model 16B receiver that seems to be troubled with some image frequency. Do you think that a preselector will prevent this? Also, I use a 5Z3 tube in the rectifier socket of this set?

Because of the mutiple band arrangement of the Philco 16B receiver, the use of a pre-selector is A wave trap is pronot advised. vided in the antenna circuit of this receiver to eliminate image frequencies. Perhaps it is only maladjustment of this wave trap that is causing your trouble. Careful adjustment of the circuits as well as selection of the proper tube in the first detector will contribute to the suppression of image interference. The type 80 rectifier may be replaced directly with the type 5Z3 tube, but no particular advantage would be obtained. The 5Z3 tube is designed to handle more power and need not be used unless more power is actually required to operate the tubes. is not the case in your receiver.

#### Interference On S-W Set

I have built a short-wave set that works nicely, but I get harmonics of our local broadcasting station at several points on the dial. What can be done to eliminate this unwanted reception?

Quite frequently in short-wave receivers broadcast stations will be received covering the dial almost completely. The antenna circuit in your set is not tuned intentionally and therefore signals of every frequency will impress themselves on the control grid of the amplifier. If there is no tuning in the plate circuit of the tube all of the signals will be subsequently amplified and their relative intensities will be changed in accordance with the circuit through which they pass. A considerable amount of detection of signals therefore often takes place in the first tube of the circuit, especially at high signal levels such as local broadcasting stations, and any carrier energy will carry this modulation into the regenerative circuit.

To avert such trouble the antenna circuit should be tuned to the frequency desired, and the first r.f. tube should be of the vario-mu type. Furthermore, a series antenna condenser of small capacity should be used to reduce this signal strength. the regenerative should be adjusted for high selectivity by operating it extremely close to the critical point of oscillation. Of course, if the first tube acts as a detector, no amount of selectivity introduced into the regenerative detector can do any good in eliminating The third the undesired signals. caution is to be sure that the circuits are well shielded. They pick up



You pronounce it—"Parkyakakas".—Greek dialectician and stooge of Eddie Cantor. Off the air he is known as Harry Einstein, a former advertising executive for a large New England furniture company, who deserted the business world at the behest of Cantor. They are heard each Sunday over the Columbia from 8:00 to 8:30 p. m. EDST together with Ted Husing and Dave Rubinoff's orchestra.

signal energy directly from nearby stations without the use of an antenna. We are sure that careful attention to the points outlined above will result in success,

#### Rebuilding Difficulties

My Silver Marshall 726 SW receiver might be improved a lot if I should rebuild the circuit and install some modern parts. Please tell me how to go about this and what new parts I should buy.

When we desire to make changes in receivers it is well to consider the receiver as originally designed with a thorough technical understanding. It must be remembered that it is the cooperative value of the various parts in a receiver that goes toward its excellence of performance. Obviously, if we change the electrical specifications of one part, many of the other parts of the receiver must be changed to take advantage of an improvement which the one part may have.

A fair example of this is seen in a wholesale change in tubes. If we switch from a screen-grid to a pentode tube, for example, we must change the socket, the transformer coupling the tube to the next tuned circuit, the shielding of the tube, the power supply taps to feed the screen voltages, the cathode bias resistor, the volume control, the bypass condensers, and other items. This, of course, is an extreme case, nevertheless shows the idea plainly. Some simple changes, such as type 56 tubes for 27s, are satisfactory. Occasionally some new type tubes can be substituted for other older types merely by using adaptors that can be purchased for this purpose. A rebalancing and alignment of the set should then be in order.

#### Lowered Sensitivity

My Midwest 16 receiver has a whistle on the 800 to 900 kilocycle portion of the broadcast band. I moved the grid lead wires of the tubes as far away from other wiring and parts as was possible. But this has not stopped the whistle. And now the set is weaker and seems to have lost sensitivity.

The reduction of sensitivity may be attributed to a weakening of the tubes of the receiver due to reduction of electronic emission, accumulation of gas, metallic deposits on the elements, and other causes. Because of the cooperative nature of these tubes, it often is necessary to replace all of them at once in order to remedy such trouble.

The description which you have offered of the whistle is not sufficiently clear for us to judge its source. It may be due to selfoscillation for which there are a number of conventional cures, such as reduction of plate voltage on the r.f. and i.f. tubes, reduction of screen voltage, the correction of plate and by-pass screen troubles, proper biasing of these tubes, proper shielding precautions of repairs, and proper positions of the leads to the controlgrid and plate circuits. The whistle might also be caused by image interference or actual heterodying between to stations in the section of the wave band you have mentioned.

#### 10 K. C. Selectivity

I have a model 750 Grunow receiver that seems to tune rather broadly. It does not have the 10 kilocycle station separation that I have always believed existed in radio sets. My local dealer states that this set is made to tune broadly so as to get good audio reproduction and tone. Its tone is good, of course, but I would like a little more selectivity.

The selectivity of one circuit is increased by reducing its a.c. resistance or reactance, and the selectivity of a series of circuits, such as comprise your receiver, depends upon a number of well-balanced units and cooperating values. Selectivity is increased when the coupling between the circuits is reduced or

when the gain of the circuit is toned down. The oscillator circuit in a superheterodyne furnishes but little selectivity. On the other hand selectivity can be reduced by a great increase in antenna length.

The term 10 kilocycle selectivity applies only for a definite signal, a definite antenna length, and other very definite specifications. Otherwise no receiver can be said to have 10 kilocycle selectivity over its entire When it does have too wave range. great a selectivity it then shows a tendency to distort and force the entire range of audio frequencies through a narrow band of tuning. Now, we cannot determine exactly what the selectivity of the Grunow model 750 receiver should be, but we wish to state that any receiver, regardless of make or model, is subject to proper adjustment and, when necessary, replacement of various items so as to improve its selectivity and sensitivity.

The main factors contributing to lack of selectivity in a receiver after it has been operating for some time are: Gas in the tubes: this lowers their grid input resistances. Then moisture gets in the coils and dielectrics and ruins their constancy of resonance. Dust between the plates of the tuning condensers and on other parts causes leakage of the r.f. currents. Excess plate voltages and, in fact, any characteristics which results in a greater gain of the r.f. and i.f. circuits will tend to broaden the tuning and lower selectivity. Investigation into the matters mentioned should result in improvement in this otherwise excellently manufactured instrument.

#### Utah Speaker

While doing some experimenting on my Utah loud speaker I loosened two screws on the top of the cover. The nuts dropped off, but some rivets prevent the entire removal of the cover and cone and therefore I cannot re-



Jolly Coburn of the Sparton Triolians (NBC-WJZ, Sundays, 4 p. m. EDST) is a veteran broadcaster. He directed an orchestra over WJZ back in the early days. Last year he was selected to open the Rainbow Room atop the RCA building in Rockefeller Center.

place the screws. Will it do any harm to use the speaker with the cover loose and the screws out?

The speaker chassis is supported by more than the single screws which you have loosened. If vibration of the loose parts does not cause trouble there is no harm in allowing them to remain as they are. If the screws do cause trouble through vibration we suggest unriveting the cone assembly and replacing the rivets with screws. This speaker is quite simple in design and you need only follow simple mechanical rules to correct the difficulty.

#### Reason For Blue Glow

In the February issue we mentioned the blue flicker or glow observed in some tubes. The Technical Editor of "Sylvania News," published by the Hygrade Sylvania Tube Corporation and which some of our advanced readers might wish to obtain by subscription from Emporium,

Penna., has provided this department with some valuable hints about the blue glow in tubes,

There are three different types of blue haze which may appear while tubes are in operation—fluorescent glow; mercury vapor haze; and gas.

The fluorescent glow is usually of violet color and is noticeable around the inside surface of the glass bulb. The glow changes with the intensity of the signal and may become at times very brilliant. This glow has no effect on the operation of the receiver and need give no concern as it merely indicates a characteristic of the tube.

Mercury vapor haze is a blue glow noticeable in certain rectifier tubes—namely types 82 and 83. The perfect operation of some rectifiers is dependent upon a mercury vapor which comes from free mercury that has been, placed in the bulb during the course of manufacture. This blue haze is in no way detrimental to the operation of these tubes.

But, gas in a tube produces a blue haze that is usually confined to the vicinity of the plate and filament structure. Its presence, when of large content, affects the operation of a receiver to the extent that erratic performance is noticeable. Gassy tubes should always be replaced with new tubes.

Most of the blue flicker which is noticeable in the larger power output tubes is due to electronic bombardment within the tube and is of a cathode-ray nature. This blue glow is apparent usually in tubes using barium (such as Sylvania). This gives a lower gas content and more uniform operation.

This, then, may create considerable doubt as to what constitutes proper blue haze or actual trouble. Rectifier tubes can be eliminated as blue glow is natural with them. Power tubes, too, as a rule, show this characteristic glow. A simple test is to bring

a strong steel magnet close to the tube bulb. A gassy tube will not be affected and the tube should be replaced. But if the glow is simply a natural fluorescent phenomenon, the presence of the magnet will shift the glow about in the tube as the magnet is shifted around the bulb.

## MoreLoopExperiments • • • By H. E. Frost\*

A FTER reading J. L. Edmiston's comments in the March issue on the use of a loop, I am prompted, for the benefit of some of your readers who may desire to try out a loop on their own set, to give my experience covering about three years on my Atwater Kent, early model 55, t. r f. receiver.

. I consulted with the serviceman of the distributors here and was informed that I could use a loop all right but would not get much out of town. I picked up an old Bodine basket-weave loop and began experimenting. I soon determined the most efficient connection and have been using it very successfully ever since.

The first tube of AK is preceded by a transformer, the primary of which is tapped for long and short aerials. I connected one end of the loop to the long aerial post of the receiver and the other end to the stator of a .0005 mfd. variable condenser, the rotor of which I connected to the ground post of the set. use neither ground nor aerial although there is no reason why both may not be used in conjunction with From 900 to 15000 kcs., the loop. however, the loop works better alone and loses most of its directional effect if an aerial is used.

As a test, last night between 10:30 p.m., and 12:30 a.m. I logged the following stations: KYW, CKLW, WTIC, CFCO, KNX, KTHS, WTAM, WBT, KMOX, WPG, WRVA, WISN.

KSL, and WAPI. WISN, 250 watts, Milwaukee, came in strong with ample reserve. On practically all of the above, the loop pointed E-W but for WAPI I reversed it to get better strength.

Without the loop I could not have tuned closer than three or four channels to WTAM on either side as their 50,000-watt transmitter is only about 15 miles from my home. I set the loop to neutralize WTAM. Salt Lake City on 1130, came in almost like a local.

\*10427 St. Clair Ave., Cleveland, Ohio.

### Radio in 1922 and Now

#### • • • By Roy E. DeMent\*

 $\mathbf{W}_{\scriptscriptstyle{1922}}^{\scriptscriptstyle{ ext{HAT}}}$  a contrast in radio in

In the former years, when radio was first being put to commercial usage, each station had its own varied programs, the larger stations being on 500 to 1,000 watts power. Now some of these same stations are on 50,000 watts and are connected with chain hookups, much to the disappointment of this listener.

In 1922, the Dallas News came out in one of its Sunday morning editions with a novel 1-tube (WD-12) set, easy to construct and easier to operate. Heretofore, I had only dealt with and built only crystal sets, no batteries and no tubes. The old galena or mixed metal crystal being used. I built this set, known by the name of "Shut-'er Down, Eddie" set (Eddie, being the operator at the Dallas News station at the time). Tuning was done by means of a variable 43-plate condenser and a slide coil. It worked fine, from the first and many were the thrills I received in logging broadcasters then called DX. Next came a one-tube audio amplifier built in another cabinet. On some stations this would pull a small loudspeaker. I made several of these sets, each working as fine as my first one.

Then came the International Foreign Test in the fall of 1924. All American broadcasting stations were to stand by in a two-hour period at midnight to permit American listeners to try for Europeans. My first night, was little more than a whim to try. The second night, there was a little more hope, for a friend came over with his amplifier and loudspeaker, but the latter or phones, all to no avail! The third night I tried again with my two-tubes. Needless to say, for it could never be expressed in words, what a thrill it was to hear coming over the ether waves, on a wee two-tube radio you had built yourself, the broadcasting stations 2LO. London, England, and 5SC. Glasgow, Scotland! I sent in my report and received a verification of having heard overseas stations during the test. This was in 1924, at which time I resided in Paris, Texas, the city of my birth.

Then moving to the plains country, where radio reception is supposed to be anything but good; due to the high and dry atmospheric conditions which prevail. Due to business I dropped the radio tinkering, losing out at the time all-electric sets came into existence.

Now, in 1935, I bought my first factory-built receiver, a seven-tube Super, with dynamic speaker built-in, on the first of the year. My first short wave station to be logged was EAQ, Madrid, Spain. Though I was mighty well pleased at hearing them, the old thrill wasn't there . . . it was not a home-made job!

In one month of DXing now, I have logged 43 foreign stations, to say nothing of the numerous hams, American Relays, police and airplane stations and the standard broadcast band.

Five years of real radio, skip eight

and though 1935 radio is much improved in numerous ways, here is one listener-in who still wishes that the old days were yet with us.

\*P. O. Box 206, Plainview, Texas.

## The Reorganized Globe Circlers

By William G. Odenwalder\*

Was organized in September, 1932, by a trio of New Jersey enthusiasts. Growth was slow the first season, but, with its increasing prominence among the clubs, the membership soon rose more rapidly. During the first three seasons, 184 special programs were arranged through 146 stations. Fifty-two bulletins were issued bringing hundreds of DX tips to the members.

A reorganization took place in February, 1935, when the name was changed to The Globe Circlers DX Club. It is the only club in New York State. A membership drive is now being conducted. Fees are \$1.25 per year, 75c for six months and 30c for a trial period of 60 days. The president of the club is William H. Wheatley, 254 Cleveland St., Brooklyn, N. Y.; 1st vice-president, Murray Buitekant, Brooklyn; 2nd vicepresident, Donald S. Voorhies, Brooklyn: 3rd vice-president, Irwin Beitman, Elyria, Ohio; secretary-treasurer, Raphael Geller, Bronx; CPC chairman, William G. Odenwalder, New York City.

\*501 West 123rd Street, New York, N. Y.

See the DX Log of the World for complete lists of foreign and short wave stations. Price 10c.

#### The Situation in Cuba

UE to the great growth of stations in Havana and vicinity and the lack of control, the broadcasters have themselves petitioned the Government to require crystal control and assign definite frequencies to the stations so that the crystals may be ground to that specification. Government has accordingly issued an order reallocating the channels to stations in and near Havana and, beginning, the 30th day of June, 1935. prohibiting the operation of radio stations of all classes in excess of 250 watts which are installed less than 500 meters from the boundary of a city. Stations will be suspended which fail to maintain a 50-cycle variable limit from their assigned frequency.

The following frequencies are designated "Bands of Foreign Daytime Frequencies": 544 to 576, 604 to 636, and 1284 to 1316. Following are "Bands of Foreign Nighttime Frequencies": 644 to 676, 684 to 716, 774 to 806, 844 to 906, 964 to 996, 1074 to 1136, and 1294 to 1316. Broadcasting in the first-named bands will be prohibited between 6 a.m. and 6 p.m. and in the last-named between 6 p.m. and 2 a.m.

The governmental order contains two lists of the assigned frequencies. These two lists differ in that they show the following stations assigned two different channels: CMBC, 940 and 1170; CMBD, 1170 and 1255; CMX, 910 and 920.

It is sincerely to be hoped that this step means a more positive control of our Cuban broadcasting friends. The crystal controls which are required will not only help to keep them on their assigned frequencies but the expense of such controls ought to be a deterrent to constant change in channels.

# Do You Want More Educational Programs?

THE Federal Communications Commission has called a conference to be held in the city of Washington on Wednesday, May 15th, 1935, "at which time plans for mutual cooperation between broadcasters and non-profit organizations can be made to the end of combining the educational experience of the educators with the program technique of the broadcasters."

As our readers probably know there is a strong national organization which has been at work for some time to induce Congress to set aside at least one-quarter of the broadcasting channels for the use of the educational institutions and cultural organizations. The Commission indicates that although they cannot see their way clear to make such a recommendation to Congress. the Commission intends actively "to encourage the best minds among broadcasters and educators alike in order to develop a satisfactory technique for presenting educational programs in an attractive manner to the radio listeners."

We believe that our readers constitute the most important group of representative radio listeners in the United States. We would like to know their opinions in regard to this question which will be considered by the conference. If such an opinion is at all conclusive, one way or the other, we will see that it is presented to the Commission as the representative opinion of the radio listeners who constitute the "public" for whose benefit the Radio Act was established.

Will you, our readers, therefore fill out the ballot below and return

it to us at once in order that we may represent your position fairly? Immediate action is necessary as this conference is called for May 15th. If you do not wish to cut your copy of the magazine, please copy the ballot on a postcard.

RADEX makes no recommendations in this matter; it merely wishes to gather its readers' opinions and present them to the conference and to the Commission.

## With the Editor

THE May-June-July issue of the DX Log of the World will appear on the newsstands on May first with completely revised lists of all the broadcast and short wave stations of the world. As in the last issue, both broadcast and short-wave stations will be listed three waysby frequencies and wave-lengths, by countries, states and cities, and by call letters. Anyone reading the letters from our readers published in RADEX must be struck with the increasing number who are picking up the foreign stations. You, too, will have that thrill one of these days and when the big moment comes, you will want a DX Log at hand to identify your station for you.

All those who would like to see a continuation of "The Beginner's Story of Radio" please say "Aye." "The Beginner's Story" will give anyone the fundamentals of radio and a clear understanding of just what goes on within a set. In our opinion, however, no one will ever really get a complete grasp of radio

Do you want more operas and classical music $\square$	Yes	No
Do you want more lectures and educational talks.	Yes	No
Mail immediately to The Radex Press, Inc., Hanna Bldg., Cleveland.	Ohio.	

until he actually builds sets. We are now mulling over the idea of a new series, "How to Build Radio Sets." It is our plan to get together a kit of necessary parts, reasonably priced, and ask Mr. Dashiell to prepare a series of How-to-Build articles

#### This is the Plan

The first article might cover a simple regenerative set. grams would call for the parts included in the kit. Our readers would then build Set No. 1 after which they would tear it down and use the same parts to build Set No. 2 which would be somewhat more advanced. idea is that in this way our readers would learn exactly what happens when such things as chokes, gridleaks, condensers, etc., are placed in Each issue of RADEX a circuit. would contain a How-to-Build article and these would be progressively more difficult. Wave-traps. preselectors, boosters, a.f. stages, etc., would be covered, all of which would the parts contained in use original kit.

Each issue of RADEX would provide for the building of some one circuit. This would be used and experimented with for a month and then torn down ready for rebuilding into a new circuit in accordance with the next month's instructions.

Now the question is, how many will want to enroll in this set-building course. The more that enroll, the lower will be the cost of the kits. These should not, in any event, cost more than five dollars and perhaps not that much. A whole winter's enjoyment would be provided.

#### When is a Verie?

"That article on page 35 of the March issue has caused much argument and hard feeling between our club and RADEX," protests Donald Weber, Secretary of the Plainfields DX Club, 1377 Park Ave., Plainfield, N. J. The article to which Mr.

Weber refers is the one entitled "Yes. It is no Verie." It pertained to a letter from XEWZ reading about as follows: "We thank you for your report in which you tell us you heard transmission." Certainly club of standing would admit such a "verie" in any contest. Boiled down it is merely "Thank you for your letter." It is unfortunate when a station fails to verify definitely just as it is when a station fails to reply A listener may be content at all. with just logging stations or he may collect "Thank you" cards or he may collect verifications. If he is counting verifications. however. should really and actually be verifications and not merely acknowledgments. Pursues Mr. Weber: "If a station takes the trouble to send a card or letter stating they thank you for the report and please write again and make no statement actually verifying the report or stating that it is not correct, why can't that be considered a verie?'' Many stations reply to reports but unfortunately fail to state anywhere in their reply that the report is correct. In our opinion this is merely a "thank you" and not a If our readers think verification. we are wrong, we will be glad to publish their arguments.

#### "It has Never Let us Down"

A. L. George writes from aboard the steamship "Scottish Chief," enroute to Japan: "Reading the last chapter of 'The Beginner's Story of Radio,' as given in the February issue. I should say that it is a book which has been long-awaited. Your RADEX-an interesting and very informative magazine,—has invaluable just recently in enabling us to follow up the sequential chain of news-flashes right through the tense drama of the 'Macon' disaster. Because of the scope it covers, the magazine has been in constant demand aboard ship for reference and has never let us down." It is interesting to know that "men who go down to the sea in ships" are "charting their course" in radio by the help of this magazine.

Here are some interesting figures from a recent compilation by the Electrical Division of the U. S. Department of Commerce. The first column gives the number of radio sets in use, the second the number of long-wave stations, the third the number of medium-wave stations and the last the number of short-wave stations, in each continent.

North America	26,592,613		849	33
South America	1,169,417		189	25
Europe	20,788,363	15	227	45
Europe-Asia	2,005,500	43	52	6
Asia	2,050,339		115	19
Oceania	800,163		98	6
Africa	176,079		17	7
TOTAL	53,582,474	58	1537	136

F. N. Maire, 2663 Terrace Drive, Honolulu, Hawaii, sends us a clipping from the Honolulu Advertiser to the effect that that paper has filed an application for a permit to erect a new short wave broadcasting station in the Island Territory. It is planned to have sufficient power to reach a radius of 7000 miles and to relay the programs of KGU. The V-type directional and reflecting antenna will be directed toward San Francisco and the reverse of the beam will point directly toward Australia and New Development plans neces-Zealand. sitate the building of a new master studio bigger than the two present ones of KGU combined.

Daylight Saving Time, our semiannual bugaboo, comes into effect the last Sunday in April. We are correcting "What's on the Air Tonight" to show EDST but we find it necessary to discontinue "Where to Get the Day's News" temporarily as some of the stations listed will change to DST while others will not. This makes our news schedules wholly confusing. This feature will be resumed in a more convenient form

(Continued on page 38)

Now in Book-Form

# The Beginner's Story of Radio

by B. Francis Dashiell

Tears the Mystery away from Radio

Written in a surprisingly simple way and yet intriguingly interesting, this book explains just what goes on within the radio receiver when the dials are turned.

At last a real understanding of the modern marvel of Radio is possible for the ordinary listener. Don't fail to place this book in the hands of your son—it may decide his life's work.

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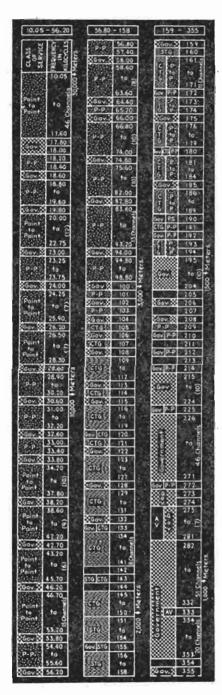
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## The Frequency Allocation

IN THIS and succeeding issues, we are publishing in diagrammatic form the allocation of the frequencies from 10.05 to 500.000 kilocycles. These diagrams present, in the clearest form we have yet seen a picture of the subdivisions of the whole radio spectrum. For them we are indebted to "Radio Retailing" that excellent publication for dealers and servicemen. The whole series will require several issues of this magazine and we suggest that our readers save and mount each installment. The data will be most helpful in tuning, particularly in the short-wave field.

#### Symbols

AG Agriculture
AM Amateur
AV Aviation
BC Broadcast, clear channel
BE Broadcast, experimental
BL Broadcast, local channel
BP Broadcast, pickup
BR Broadcast, regional channel
CH Coastal, harbor
CTG Coastal, telegraph
CTL Coastal, telephone
EM Emergency, (special)
EX Experimental, (general)

FI Fire (marine)
GE Geophysical
Gov. Government
PM Police, municipal
P-P Point to point (fixed)
PR Press, (mobile)
PS Police, state
RE Relay, broadcast experimental
SH Ship, harbor
STG Ship, telegraph
STL Ship, telephone
TV Television
Blank Unassigned

## With the Editor

(Continued from page 37)

with the return to Standard times the first of October.

Readers complain of the difficulty of receiving the Canadian stations on their frequency check programs. The CDXR write us that the Canadian Government fails to give any

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information as to the time of these tests and that they change the hours frequently. Our readers are reminded of the fact that these frequency tests are not staged for their benefit but for the convenience of the government engineers in making the tests.

We are all mixed up on the Des Moines Register-Tribune stations in Iowa. Last month the news came that the Waterloo station, WMT, was to be moved to Cedar Rapids and that KRNT of Cedar Rapids was to be moved to Des Moines. Now comes the information that KSO at Des Moines officially became KRNT on March 17th and that KWCR (or KRNT) at Cedar Rapids has adopted the call KSO. It is not clear whether the Des Moines station will 1430 1186 originally assigned to KWCR or 1320, the old KSO frequency. We will try to have this mix-up straightened out in the next

Comes a letter from the Canadian Marconi Co. "Our Glace Bay station

is listed in RADEX as a broadcasting This station ceased to be a broadcasting station as of March 31. 1933, and thereafter the frequency of 680 kcs. could only be used for the transmission of official broadcasts of the Department of Marine, Ottawa. We would be obliged if you would kindly withdraw the notice in question." While VAS is included in our list of broadcasting stations, we think our readers understand that it is not a broadcasting station in the true sense of the word. It does however broadcast weather reports on the broadcast band just as NAA broadcasts time signals. It is picked up by our readers and they want to identify it. With all due courtesy to the Canadian Marconi Co., we believe that as long as VAS uses the b.c.b. it should be listed in this magazine.

The Editor asks that his readers return the blank which will be found on page 79. It will help him greatly in providing the things the readers like best.

## NETWORK PROGRAMS on Short Waves

The broadcast stations over which programs originate are shown in the first column. The shortwave transmitters are shown in second column, frequencies in the third, wavelengths in the fourth and power in the fith. Time is EDST.

WJZ	W3XAL	17,780	16.873	12-35 KW
$\mathbf{W}\mathbf{J}\mathbf{Z}$	W3XL	6,100	49.18	15-35 KW
WGY	W2XAF	9,530	31.48	40 KW
WGY	W2XAD	15,330	19.56	20 KW
KDKA	W8XK	6,140 11,870 15,210 21,540	48.86 25.27 19.72 13.93	40 KW 40 KW 40 KW 40 KW
WENR	W9XF	6,100	49.18	10 KW
wLw	W8XAL	6,060	49.5	10 KW
WBZ WCFL	W1XAZ W9XAA	9,570 6,080	31.33 49.34	10 KW .5 KW
WIOD CFCF CRCT	W4XB VE9DR VE9GW	11,830 17,780 6,040 6,005 24,380 6,095	25.35 16.57 49.67 49.96	.5 KW .5 KW 2.5 KW .05 KW

Mon., Wed., Sat., 5-6 p.m. Also Sat. midnight
to I a.m.
Daily 6:30-11 p.m. Also outstanding events from
time to time.
Daily 2:30-3:30 p.m. Also outstanding events
from time to time.
Daily 4:30 p.m. to 1 a.m.
Daily 4:30 p.m. to 11:00 p.m.
Daily 7:00 a.m. to 4:15 p.m.
Daily 7:00 a.m. to 2:00 p.m.
Mon - Fri. incl. 1-2 a.m. and 9-10 p.m.
Sat. 1-2 a.m., Sun. 1-2:30 a.m. and 9-10 p.m.
Dally exc. Sat. and Sun., 6:30 a.m. to 8 p.m. and
11 p.m. to 2 a.m.; Sat. 6:30 a.m. to 8 p.m. and
11 p.m. to 3 a.m.; Sun. 8 a.m. to 8 p.m. and 11 p.m.
to 2 a.m.
Daily 7 a.m. to 1 a.m.; Sun. 8 a.m. to 1 a.m.
Daily exc. Sun., 9:30 a.m. to 6 p.m.; Sun. 11:30
a.m. to 9 p.m.
Used only occasionally.
Used only occasionally.
Temporarily discontinued.
Dismantled temporarily,
Experimental.

Mon., Tues., Wed., 3 p.m. to midnight; Thur., Fri., Sat., 7 a.m. to midnight; Sun. 1-9 p.m.

Daily except Sunday, 9-10 a.m. Also Tues.,

Thurs, and Fri., 3-4 p.m.

## The DX Calendar

DURING the winter radio season, this magazine publishes every month a list of the special DX programs arranged by the various broadcasting stations throughout the world. These programs are quite generally discontinued in early spring and resumed in the fall. The next hour-by-hour DX calendar will appear in our October issue.

For the benefit of our readers, however, we call attention to the fact that the U.S. radio authorities check the frequencies of several hundred low-powered stations the first seven mornings of each month. At these times, other stations on the same frequencies are silenced. The hours of these tests appeared in the DX calendar in the March issue of this magazine. The times of the Canadian tests were also given in the same calendar. These are presumed to take place on the 19th and 20th of each month although the Canadian government does not adhere to a fixed schedule. In the April issue we published a resume of the monthly periods of the regular DX programs. While many of these will be dropped during the summer months, some will undoubtedly appear as scheduled. Our readers are therefore referred to the March DX calendar on page 49 of the March issue and the April DX calendar on page 35 of the April number.

## Short Wave News

(Continued from page 11)

izales, Colombia is one of the most interesting of all the shortwavers. They are on every Saturday night until after 11 pm. CST.

"I have been following with in-

terest the discussions about when to log or when not to log a station. Some seem to believe that a station should be removed from one's log when it leaves the air. Then one should delete such stations as DENNE, the stratosphere balloon, HRB, etc. This does not seem right to me."

"I received a verification in less than a month from CO9GC in Santiago de Cuba. On their QSL they give their frequency as 6150 kcs. or wavelength of 48.79 meters. They retransmit the programs of CMKB, Santiago." Ansel E. Gridley, Box 1294, Sarasota, Fla.

#### Portugal's Schedule

"A letter from CT1GO gives the following schedule for their station: 12396 kcs., Sunday, 10-11:30 am and Tuesday, Thursday and Friday from 1 to 2:15 pm. On 6198 kcs., Sunday, 7:20 to 8:30 pm and Tuesday, Wednesday, Thursday and Friday, 7:20 to 8:30 pm. Time is EST. CT1GO is a 350 watts station and the address is Radio Club Portugues, Parede, Portugal." P. J. Walsh, 12 Flower Hill, St. John's, Newfoundland.

"I have been hearing HAT, Budapest, on their Sunday evening schedule from 8 to 9:15 pm, EST. I also hear PCJ, Hilversum, Netherlands, on week days as well as Sundays." C. B. Denman, G.P.O., Hamilton, Bermuda,

"I have a verification which I believe is unique," writes George Tichenor, 19 S. Pierson Road, Maplewood, N. J. "It verifies reception of W2XBX and W1OXAA. These two stations are in a Fairchild and a Ford airplane respectively and are owned by the Bell Telephone Laboratories. The transmitters work on 4797.5 kcs."

Charles Miller, Covington, Ky.: "HC2JSB, at Guayaquil, Ecuador, now works nightly from 8:15 to

11:15 pm, EST, on 38.96 meters, and HJ1ABD, Cartagena, Colombia, has moved down to 41.21 meters to avoid the congestion in the 49 meter band."

Wm. McDaniel: "It still is hard to tune in DJC and GSA on account of the crowded condition in the 49meter band."

Andrew Shassetz: "Something must be done about the 'free for all' on the 31 and 49 meter bands."

Irving C. Johnson: "The interference in the shortwave bands reminds one of the pioneer DX days way back in 1922."

## New Idea in Set Building

(Continued from page 5) the automatic volume control circuit: a short-circuiting switch is provided so that the AVC can be cut out at will on the short waves. The fifth tube is the power output—a type 2A5 or 42, and feeds directly into the output transformer or loud speaker. The sixth tube is a type 56 or 76 beat And the seventh or last oscillator. tube is a type 80 rectifier which is sufficient to supply all the current and voltage necessary to operate the receiver.

#### A Complete Kit

A complete kit of all parts necessary to build this brand new circuit has been assembled by the Tobe Deutschmann Corporation, Canton, Mass. All parts are carefully selected and tested for uniformity. A book describing the set and its construction, written by Glenn H. Browning, is also furnished. A complete set of prints, full size, showing every wire and position, may be had.

The base and panel are carefully drilled so the assembly of all the parts will be easy. The foundation chassis is cadmium plated and the panel is finished in black damaskene.

The metal cabinet is also of the same finish. All lugs, terminal strips, etc., of proper design, are supplied in the The power transformer that is furnished has both 2.5 and 6.3-volt secondary windings so that either 2.5 or 6.3-volt tubes can be used. This power transformer, the tube sockets, filter condensers and other units, together with the intermediate-frequency transformers and resistors are set into position and easily wired. However, in the center of this assembled chassis there will still remain a vacant space toward which the free ends of seven connecting wires or leads point.

#### The Tuner And Dial

The Tobe 35 tuner is mounted in this open space. Soft rubber washers are inserted between the main chassis of the set and the base of the tuner. This cushioning tends to reduce mechanical feed-back caused by actual vibration of the condenser plates due to sound waves from the loud speaker. Because the tuner has been carefully tracked and aligned at the factory it should be handled gently and should neither be opened nor adjusted under any circumstances.

When the tuner and all other parts have been assembled on the chassis the receiver is ready for the assembly of the front panel and dial. The coil-switch shaft and tuning-condenser shaft of the Tobe tuner extend through holes in the panel but do not touch. The two volume controls-one a 10.000 ohm resistance on the 58 i.f. tube, and the other a 500,000 ohm potentiometer in the diode circuit of the 2A6 tube (the main control) -are mounted on the panel along with the AVC cut-out switch, the tone control and the power switch.

A large two-color translucent dial is furnished with each kit. It indicates frequencies in megacycles, gives the locations where foreign and domestic short-wave stations can be found, shows the police and amateur bands, translates wave lengths into meters, and separates the broadcast band and the three individual short-wave bands. The tracking and tuning adjustments made at the factory insure the dial and tuner tuning to the fraction of a division on the scales of the dial. A dial light illuminates the face from a bracket mounted in the rear of the dial.

#### Uses a Loud Speaker

For the particular requirements of this receiver, a special matched speaker is offered separately. As there are many older sets in use today, many of which are mounted in fine cabinets together with excellent speakers, the Browning 35 receiver may be used to replace such sets and bring the outfit up to date. In many instances the new receiver can be placed in the old cabinet provided the old speaker has about 1800 ohms in its field resistance.

The beat-frequency oscillator which is incorporated as a part of the receiver provides an excellent tuner. When this beat oscillator is turned on signals come in with an identifying whistle. This faint carrier-wave squeal shows that a weak station signal or wave is present and careful manipulation of the adjustments will soon make the station audible. Without it the signal may be too weak to be noticed and will be passed by, even though the tuning is slow and painstaking. The microvernier knob on the short-wave dial turns the condenser shaft very slowly and also aids in tuning weak and sharp sta-

## Thrill of the Month Club

(Continued from page 20)

heterodynes today so badly that it cannot be listened to on either the good old Radiola 28 with a loop or the R-78 RCA-Victor, Terribly loud whistle on this channel only."

"I am using a Sparton 8-tube model 580 all-wave and it is giving splendid satisfaction," submits J. Russell Graham, 1005 Allard Ave., Verdun, Que. "I bought this set December 11th last and my log at present stands at 476 on the bcb. and 77 on the sw. Have had no success so far with the TP's GSL on 49.10 comes in here like a local, just as well as GSA. I use a flat top aerial, one wire about 85 feet long."

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Ernest Lockyer Wills, 138 Lelievre Street, Montreal, Quebec, appeals for help and advice in tuning in Japan, New Zealand and Australia on which he has set his heart. "Who," he inquires, "is the French station on 10250 kcs. It does not come in clear but I am sure it is French as I speak a little myself. She comes on at noon and is still on when I go to work at 3:30 p.m."

"Revising my log to comply with the 'RADEX Standard' suggested by Howard L. Spies, in the March issue, I find I have 467 stations," reports Leo Wickens, R. R. 1, Aldershot, Ont. "I have 20 in Canada, 13 in Mexico, 3 in Cuba, 1 in Puerto Rico and 430 in the US. My best are KERN, CJLS, WKAQ and CMC. I still lack New Hampshire, Vermont, Nevada and Wyoming."

"Please publish the fact that station WLTH, Brooklyn, does not verify," warns Harold J. Clark, President of Plainfield DX Club, 431 Watchung Ave., North Plainfield, N. J. "I have sent three reports in which postage was included. A follow-up was sent in each case. No reply as yet."

Ashley Wright, Box 274, Glen Ellyn, Ill., sends a list of the stations he had received on his fourtube Federal midget set. They reach from Portland, Oregon, on the west to Wilmington, Delaware on the east. Certainly a good record for a small set.

"I have a table model Philco 95, 9-tubes, which I bought in January,

1930," advises Benj. A. Mansfield, 28 Bates Ave., Danvers, Mass. "I am able to get KFI most any night after 9 p.m. EST. It has come in like a house aftre in heavy blizzards."

"I have boosted my log from 244 to 325 with 72 veries," supplies V. R. Grassie, P. O. Box 213, Duncan, V. I., B. C. "My recent best are WKAQ, 2BL, 1YA, 3YA, 5CK, 4QG, 4BH, XEK, XEWZ and LR5. CMX conducts a swell DX program every Sunday morning, 2-4 EST. It is especially dedicated to DXers of Central and SA. Am still using my GE-X and would like to hear from DXers anywhere."

"Last November I purchased a Grunow 752 all-wave. Since then I have logged 169 b.c. and 47 s. w. which I do not think is bad for a beginner," admits John E. Webb, 15½ Veall Street, New Bedford, Mass. My b. c. log covers every frequency from 550 to 1500 and 37 states. I would like to correspond with other Grunow 752 owners."

From Bernard J. Murray, Jr., 1045 West Ninth St., Erie, Pa.: "My log of active stations now reaches 577. Now have 14 states completely logged and need only one station in each of 18 other states. Have heard 84 new stations this season including LR4, CX16, W6XAI, TGW, KVI, CKOV, KGU, XEE, CFCT, XETH and others."

"On my Sparton 931, I have received 605 stations," recapitulates Clarence Wakefield, Wiarton, Ont. "These are all separate transmitters. I do not count frequency changes, calls or moves to other cities. My best this season are 2BL, TGW, CKWX, KFPM, XEAA, XEFO, XEFB, CMBX, CMOA, CMOX, CMCU and CMCO."

"My log now stands at 701 with my best 1YA at R6, also 2YA, 2BL, CX26, KGMB, KGU, LR5, YV1RC, TGW and WKAQ. I have 51 Canadians, 26 Mexicans, 20 Cubans, 2 Puerto Ricans, two Zedders and one each in Argentina, Venezuela, Uruguay, Guatemala and both Hawaiians." This excellent summary comes from Clarence Kerkel, Jr., 622½ North 7th St., Quincy, Ill.

"My record is now 440 logged with 129 verified," submits Robert N. Hoffman, 306 W. School Lane, Philadelphia, Pa. "As I write it is still broad daylight (5 p. m.) and I just heard the announcement from KOA right through WRUF, WHDH and WEEU."

From James B. Crusan, 424 Smith-field St., Mount Pleasant, Pa.: "My all-time total now stands at 513, all on my 1932 7-tube Airline. My monthly log (January) was for 209 stations."

"Could you tell me when to pick up KNRA, the Seth Parker, and the frequency most commonly used?" asks Bob Calder, Box 647, Kenora, Ontario. Bob would like to hear from other 17 year-old DXers. Referred to Dick Fales, Roslyn Estates, L. I., N. Y., who wants a correspondent in Canada.

"I started this season with about 200 stations," says Leo Herz, 1317 S. Grove Ave., Berwyn, Ill., "and this has increased to date to 330. Just started to write for verifications a month ago. I got all these on a little 4-tube Halson. Would like to correspond with other DXers and promise faithfully to answer every letter."

From "A Radexer," 1380 Snowden Ave., Memphis, Tenn.: "In seven nights, with my new RCA-Victor 'Magic Brain', I logged 203 stations on the b. c. b. including 43 on the west Coast, KGU, KFQD, HIX, and VOGY. The set has incredible power. On the s. w. I've got GBT, XGN, DJC, and several in France and Italy that I have not fully identified."

"I think DXing the greatest hobby in the world," exclaims Mrs. A. C. Johnson, Henry, S. Dak. "At present I have only 154 stations logged and 68 verified. Seems I can't get any stations outside of the US, Canada and Mexico. I use a Gloritone, 5-tube set. Does anyone else have one like it?"

From Lewis Larson, 412 Harrison St., Lindsborg, Kansas: "My radio is a 7-tube U. S. Apex and is very selective considerring that it is more than three years old. I have logged 200 stations on the b. c. b. I am able to received the new high-fidelity stations above 1500. My radio tunes to about 1800 kcs."

"I am 15 years old and have been DXing since January, 1934," indicates Maurice E. Dolloff, 61 Boston Ave., West Medford, Mass. "I have a grand total of 330 stations including 120 with 100 watts or less on the b. c. b. with a 7-tube Apex. The monthly frequency checks have boosted my total."

From Charles Leboeuf, Box 222, North Grosvenordale, Conn.: "I have reports out to Hamburg on 904, Frankfurt-am-Main on 1195, CP4, COX, COA, XEFO, WKEU, WNEL, VOGY, and many others. These bring my log up to 647 with 82 calls deleted, 355 verified with 47 2000-mile verifications."

"I have an 8-tube Majestic 90-B which is five years old," explains Harold E. Schieffer, 451 Center St., Healdsburg, Calif. "I have received 241 stations including 18 J's, 3 in China, 2 in Hawaii, 2 in Alaska, 22 in Canada, 15 in Mexico, one in Argentina and the rest in the U. S."

"My log now stands at 342 after four months of DX. Latest catches include LR5, WAGM, WCAX, KNOW, KFPL, KFJZ and last but not least, KFPM. I use a four-tube Philco." Francis Schmidt, 707 Edmond St., Pittsburgh, Pa.

From Albert T. Cartmell, 1311 College, Kansas City, Mo.: "I have a 9-tube Silver-Marshall. In six weeks I have logged 220 covering 40 states. I have 5 from New York City, 13 from Chicago, 5 in Florida, 24 in Texas."

From Charles L. Clarke, 214 White St., Waverly, Mass.: "Started DX November, 1933, and up to the present have logged 363 including 92 100-watt, seven 50-watt and two 150-watt. So far this season have logged 39 new stations, mostly 100-watters."

From Julian Schaefer, 2036 West 83rd St., Cleveland, Ohio,: "This month has been the best I've ever had. My log is 550 active stations. I use an old 1928 Majestic with seven tubes."

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From Al Vasko, RFD 2, Swanton, Ohio: "I have never used a set with more than three tubes. I have 283 in four countries with 30 s. w. in ten countries, 64 police in 23 states, foreign amateurs 406 in 43 countries and all continents. My US amateurs totaled 3389."

From Richard Fales, Roslyn Estates, Long Island: "I think every active DXer who wants to get the most out of his radio should have a Perfect Phone Adapter. It certainly is a wonderful instrument. I would like to correspond with other DXers in Mexico or Canada."

From Edgar D. Petrie, 1013 Queen St., E., Toronto, Ont.: "I have increased my log to 612 stations. On the morning of December 2, I heard TGW, WPAC, KRGV, KGKO, WHIB, CKUA, and WMEX. Would like to hear from owners of the Sonora C34."

recently purchased new Crosley 6AF super," says A. v. Deterly. East Blvd., 125Baton "I like my new set Rouge, La. very much. I am something of an amateur fan and get a lot of fun out of listening to them."

"At 7 a.m. EST, I heard a station very faintly announce the letters KTRM on about 820 kcs. Can anyone tell me what station this could have been?," asks H. Walter Hobson, 118 Miles St., State College Pa.

### WHAT'S ON THE AIR TONIGHT

Fill in calls and dial numbers for those stations through which you best receive the three chains You can then turn quickly to the one that has the feature you want.

COLUMBI	A (C)
Call	Dial

NATIONAL, Red (R)					
Dial					

NATIONAL	, Blue (B)
Call	Dial

TIME: ED Eastern Daylight; E Eastern; C Central; M Mountain For Pacific Time subtract one hour from Mountain.

RADEX is the only publication listing stations in alphabetical order for your convenience.

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

Due to change to Daylight Saving Time on April 28, some of the stations listed will be unable to carry particular features.

#### MONDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Buck Rogers; 25th Century CKLW WAAB WABC WBNS WCAO WCAU WFBL WHEC WHK WJAS WJSV WKBW WKRC WOKO

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

CFCF CRCT KDKA WBAL WBZ WBZA WFLA WGAR WHAM WIOD WJAX WJR WJZ WLW WMAL WRVA WSYR

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

- Myrt and Marge BC WADC WBT WCAO WCAU WABC

WDAE WDBO WEAN WFBL WGR WJAS WJSV WKRC WNAC WOKO WQAM WSPD WTOC WWVA

B - Amos 'n' Andy

KDKA WBAL WBZ WBZA WCKY WENR WFLA WGAR WHAM WIOD WJR WJZ WLW WMAL WPTF WRVA

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

KDKA KOIL KSO KWCR KWK WBAL WBZ WBZA WCKY WENR WHAM WJR WJZ WMAL WSYR

R - Stories of Black Chamber KYW WBEN WCAE WCSH WEAF WEEI WGY WJAR WMAQ WRC WSAI WTAG WTAM WTIC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C - The O'Nellis

WABC WCAO WCAU WDRC WFBL WGR WHEC WHP WJAS WJSV WMAS WOKO WORC WWVA

C — Buck Rogers; 25th Century KMBC KMOX KRLD KTRH KTSA WBBM WBT WCCO WDSU WFBM WGST WHAS WMBG

- Red Davis; Drama

43

KDKA KOIL KPRC KSO KSTP KTBS KWCR KWK WAVE WBAL WBZ WBZA WEBC WENR WFLA WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WMAL WMC WPTF WREN WRVA WSB WSM WSMB WSYR WTAR WWNC

R -- Easy Aces

KSO KYW WCAE WCSH WEAF WGY WMAQ WOW WRC WSAI WTAG WTAM WWJ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45 C — Boake Carter for Philco CKLW KMBC KMOX WABC WBBM WBT WCAO WCAU WCCO WGR WHAS WHK WJAS WJSV WNAC

B - Dangerous Paradise; Drama KDKA KOIL KSO KTBS KVOO KWCR KWK WBAL WBZ WBZA WENR WFAA WGAR WHAM WJR WMAL WOAI WREN WJZ WKY WSB WSM WSMB WSYR

- Uncle Ezra

KYW WBEN WCAE WCSH WDAF WEAF WEEL WGY WJAR WMAQ WOW WRC WSAI WTAG WTAM

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 - Richard Himber and Orchestra KPRC KSD KTBS KVOO WBAP WBEN WCAE WCSH WDAF WEAF WEEI WFAA WGY WHO WJAR WKY WMAQ WOAI WOC WOW WRC WSAI WTAG WTAM WTIC

- Fray and Braggotti

CKLW KDB KERN KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KSL KWG WABC WADC WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO WSPD

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

CKLW KMBC KMOX WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO WSPD

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C - Kate Smith's Star Revue

CKLW KFAB KFH KGKO KLRA KMBC KMOX KOMA KRLD KTRH KTSA KTUL WABC WADC WALA WBBM WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDRC WDSU WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WIBW WIBX WICC WISN WJAS WJSV WKRC WLAC WLBZ WMAS WMBG WMBR WMT WNAC WNOX WNBF WOKO WORC WOWO WQAM WREC WSBT WSFA WSPD - Voice of Firestone

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

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

CKLW KDB KERN KFBK KFH KGMB KHJ KFPY KFRC KGB KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KSCJ KSL KTRH KTSA KTUL KVI KWG WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WICC WISN WJAS WJSV WKBH WKBW WKRC WLACWLBW WMBG WLBZ WMAS WMBD WMBR WMT WNAC WNAX WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC

R — A & P Gypsies KSD WBEN WCAE WCSH WDAF WEAF WEEI WGY WHO WJAR WLIT WMAQ WOC WOW WTAG WTAM WTIC WWJ

– Sinciair Greater Minstreis

KDKA KFI KFSD KFYR KOA KOIL KPO KPRC KSO KSTP KTAR KTBS KTHS KVOO KWK WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJR WJZ WKY WLS WLW WMC WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WTAR WTMJ WWNC

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C — The Big Show

CKAC CKLW KFAB KLZ KMBC KMOX KSL WABC WADC WBBM WBNS WBT WCAO WCAU WCCO

#### MONDAY (Continued)

WDRC WDSU WEAN WFBL WFBM WHAS WHK WICC WJAS WJSV WKBW WKRC WNAC WOKO WOWO WREC WSPD

R — Otto Harbach Musical Show
KDYL KFI KFYR KGO KGW KHQ
KOA KOMO KPRC KSD KST.'
KTBS KVOO WBEN WCAE WCSH
WDAF WDAY WEAF WEBC WEEI
WFAA WFBR WFLA WGY WHO
WIBA WIOD WIS WJAR WJAX
WJDX WKY WLIT WLW WMAQ
WMC WOAI WOC WOW WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ WWNC

B — Princess Pat Players
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WENR
WGAR WHAM WJR WJZ WMAL
WREN WSYR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Wayne King and Orchestra
CKLW KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KRLD
KSL KVI KWG WAAB WABC WADC
WBBM WBNS WCAO WCAU WCCO
WDRC WDSU WEAN WFBL WFBM
WHAS WHK WIBW WJAS WJSV
WKBW WKRC WOKO WSPD

R—Contented Program
CFCF CRCT KDYL KFI KFYR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP WBEN WCAE WCSH
WDAF WEAF WEBC WEEI WFAA
WFBR WGY WHO WJAR WKY
WLIT WLW WMAQ WMC WOAI
WOC WOW WRC WSB WSM WTAG
WTAM WTIC WTMJ WWJ

B — Jackie Heller, Tenor KDKA KOIL KSO KWCR WBAL WBZ WBZA WCKY WENR WGAR WHAM WJR WJZ WMAL WREN WSYR

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C- Lilac Time; Night Singer CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KRLD KSL KVI WABC WBBM WCAO WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C — Myrt and Marge

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KTRH KVI KWG WALA WBBM WBRC WCCO WDSU WFBM WGST WHAS WLAC WREC WSFA

B — Amos 'n' Andy
KOIL KPRC KSTP KTHS KWK
WBAP WCKY WDAF WENR WFAA
WJR WKY WMC WOAI WREN
WSB WSM WTMJ

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 C — Glen Gray and Orchestra KLRA WABC WALA WBRC WBT

KLRA WABC WALA WBRC WBT
WCAO WDAE WDBJ WDBO WDNC
WDOD WDRC WDSU WEAN WFEA
WJSV WLAC WLBZ WMAS WMBG
WMBR WNAC WNOX WORC WPG
WQAM WREC WSFA WSJS WTOC

C — Edwin C. HIII KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG ED-11:30 p.m., E-10:30, C-9:30, M-8:30 R — Voice of Firestone KDYL KFT KFSD KGHL KGIR.

KDYL KFİ KFSD KGHL KGIR KGU¶KGW KHQ KOA KOMO KPO KTAR

C — Kate Smith's Star Revue KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

#### TUESDAY

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

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

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 B — Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — Buck Rogers, See Monday

R - Easy Aces, See Monday

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C—Frank Munn; Gustav Haenschen CKLW KMBC KMOX WABC WADC WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO

R — Leo Reisman and Orchestra KFYR KPRC KSD KSTP KTBS KVOO WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFI WFLA WGY WIBA WIOD WIS WJAR WJAX WJDX WKBF WKY WMAQ WMC WOC WOW WPTF WRC WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMI WWNC

B-Eno Crime Clues
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WJR
WJZ WLS WLW WMAL WREN
WSYR

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C — Abe Lyman; Vivienne Segal CFRB CKLW KMBC KMOX WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO WOWO WSPD

R — Wayne King and Orchestra KPRC KSD KSTP WBEN WCAE WCSH WDAF WEAF WEEI WFAA WFI WGY WHO WJAR WKBF WKY WMAQ WMC WOAI WOC WOW WRC WSAI WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ

B — Edgar Guest; Welcome Valley KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WJR WJZ WLS WMAL WMT WREN WSYR

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Bing Crosby
CKLW KDB KERN KFBK KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KRLD KSL
KTUL KVI KWG WABC WADC
WBBM WBT WCAO WCAU WCCO
WDRC WDSU WEAN WFBL WFBM
WGST WHAS WHK WJAS WJSV
WKBW WKRC WNAC WOKO
WOWO WREC WSPD

R — Ben Bernie and Orchestra
KFYR KOA KPRC KSD KSTP
KTBS WBAP WBEN WCAE WCSH
WDAY WEAF WEEI WFBR WFI
WGY WJAR WJDX WKY WMAQ
WMC WOAI WOW WRC WSB WTAG
WTAM WTIC WTMJ WWJ

B — Red Trails; Drama KDKA KDYL KFI KGW KHQ KOA KOIL KPO KSO KWCR KWK WBAL WBZ WBZA WCKY WFI WHAM WJR WJZ WKBF WLS WMAL WREN WSYR

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C—Phil Spitalny's Orchestra CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KMBC KMJ KMOX KOIN KOL KSL KVI KWG WABC WABC WBBM WCAO WCAU WCCO WDRC WEAN WFBM WHAS WHK WJAS WJSV WKBW WKRC WMAS WNAC WOKO WOWO

WSPD

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R—Ed Wynn; Eddle Duchin
KDYL KFI KFSD KFYR KGHL
KGIR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTAR KTBS
KTHS KVOO WAVE WBAP WBEN
WCAE WCSH WDAF WDAY WEAF
WEBC WEEI WFBR WFI WFLA
MGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKBF WKY WMAQ
WMC WOAI WOW WPTF WRC
WRVA WSB WSM WSMB WSOC
WTAG WTAM WTIC WTMJ WWJ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Glen Gray; Walter O'Keefe
CKLW KFAB KFH KLRA KMBC
KMOX KOMA KRLD KSCJ KTRH
KTSA KTUL KWKH WABC WACO
WADC WALA WBBM WBIG WBNS
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDNC WDOD
WDRC WDSU WEAN WFBL WFBM
WFFA WGST WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKBN WKBW WKRC WLAC
WLBW WLBZ WMAS WMBD
WMBG WMBR WMT WNAC WNAX
WOKO WORC WOWO WPG WQAM
WREC WSFA WSJS WSPD WTOC

R—Palmolive Beauty Box
CFCF CRCT KDYL KFI KFSD
KFYR KGHL KGIR KGO KGW
KHQ KOA KOMO KPRC KSD KSTP
KTAR KTBS KVOO WAVE WBAP
WBEN WCAE WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WFLA
WJDX WKBF WKY WLW WMAQ
WMC WOAI WOC WOW WPTF
WRC WRVA WSB WSM WSMB
WSOC WTAG WTAM WTMJ WWJ

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
C — Horace Heidt and Orchestra
CKLW KDB KERN KFAB KFFK
KFFY KFRC KGB KHI KLRA KLZ
KMJ KMOX KOIN KOL KRLD
KRNT KSL KTRH KTSA KTUL
KVI KWG WABC WBBM WBNS
WBRC WBT WCAO WCAU WCCO
WDRC WDSU WFBL WFBM WGR
WGST WHAS WHK WIAS WJSV
WKRC WLAC WMBG WMBR
WNAC WNAX WOC WOKO WQAM
WREC

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 C — Voice of Crusaders CKAC CKLW KFH KGB KGKO

#### TUESDAY (Continued)

KHJ KLRA KLZ KMBC KOH KOL KOMA KRLD KTRH KTSA KVI KVOR WABC WADC WALA WBBM WBIG WBNS WBT WCAO WCCO WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFEA WGR WGST WHAS WHEC WHK WHP WIBX WICC WKBN WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOC WOKO WORC WPG WOAM WREC WSBT WSJS WSMK WSPD WTOC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C - Myrt and Marge, See Monday B - Amos 'n' Andy, See Monday

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

C - Dance Orchestra CKAC CKLW KDB KFH KGKO KLRA KLZ KOH KOMA KRLD KTRH KTSA KVOR KWKH WABC WACO WADC WALA WBNS WBRC WBT WCAO WDAE WDBJ WDBO WDNC WDRC WDSU WEAN WFBL WDNC WDRC WDSU WEAR WFBL
WFEA WGLC WHEC WHK WHP
WIBW WJAS WJSV WKBW WKRC
WLAC WLBW WLBZ WMAS WMBG WMBR WMT WNAC WNAX WNOX WOKO WORC WPG WQAM WSBT WSFA WSJS WSPD WTOC WWVA

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

C — Dance Orchestra

CFRB CKAC CKLW KFH KGKO KLRA KLZ KMBC KOH KOMA KRLD KSCJ KTRH KTSA KVOR KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFEA WHEC WHK WHP WIBW WICC WISN WJAS WJSV WKBW WKRC WLAC WLBW WLBZ WMAS WMBD WMBR WMT WNAC WNAX WNOX WORC WPG WQAM WSBT WSFA WSJS WSPD WTOC WWVA

R - Leo Reisman and Orchestra KDYL KFI KFSD KGIR KGU KGW KHQ KOA KOMO KPO KTAR

#### WEDNESDAY

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

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

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

B - Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 R - Black Chamber, See Monday B - Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C - Buck Rogers, See Monday

B - Red Davis, See Monday

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C - The O'Neill's, See Monday

R - Easy Aces, See Monday

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

– Dangerous Paradise, See Monday R - Uncle Ezra, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 R - One Man's Family

CFCF CRCT KDYL KFI KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSTP KTAR KTBS KVOO WAVE WBAP WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WESI WDAF WBAI WEAF WEBC WEEI WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLIT WMAQ WMC WOAI WOC WOW WPTF WRC WRVA WSAI WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ

B — Hal Kemp and Orchestra KDKA KOIL KSO KWCR KWK WBAL WBZ WBZA WGAR WHAM WJRWJZ WLS WLW WMAL WREN WSYR

C — Johnny and His Foursome CKLW KMBC KMOX KRNT WABC WADC WBBM WCAO WCAU WDRC WEAN WEBL WEBM WHAS WHK WJAS WJSV WKBW WKRC WNAC WOKO WOWO WSPD

ED-8:15 p.m., E-7:15, C-6:15, M-5:15 C - Edwin C. Hill, See Monday

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 Everett Marshall; Victor Arden CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KVI KWG WABC WADC WBBM WBT WCAO WCAU WDRC WDSU WEAN WFBL WFBM WGR WHAS WIBW WJAS WJSV WKRC WLAC WNAC WOKO WOWO WSPD

R - Wayne King, See Tuesday

B - House of Glass; Drama KDKA KOIL KSO WBAL WBZA WFIL WFLA WGAR WHAM WIOD WIS WJAX WJZ WLS WMAL WMT WPTF WREN WRVA WSOC WSYR WTAR WWNC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 R — Fred Allen; Lennie Hayton KPRC KSD KSTP KTBS KVOO

WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFBR WGY WIOD WIS WJAR WJAX WKY WLIT WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WTIC WTMJ wwJ

B - Warden Lawes; Drama

KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KSO KWCR KWK WBAL WBZ WBZA WCKY WGAR WHAM WJR WJZ WKBF WLS WLW WMAL WREN WSYR C - Chesterfield Program, See Mon.

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

CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KTRH KTSA KVI KWG WABC WADC WBBM WBIG WBT WCAO WCAU WCCO WDRC WDSU WEAN WFBL WFBM WHK WJAS WJSV WKBW WKRC WNAC WOKO WORC WOWO WSPD

B - John Charles Thomas

KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KSO KWCR KWK WBAL WBZ WBZA WCKY WENR WGAR WHAM WJR WJZ WKBF WLW WMAL WREN WSYR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C - Jack Pearl; Freddie Rich CKLW KDB KERN KFAB KFBK

KFRC KGB KGKO KEH KEPY KLZ KMBC KMJ KMOX KOIN KOL KOMA KLRA KRLD KSCJ KSL KTRH KTSA KTUL KVI KWG KWKH WABC WALA WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFBM WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJSV WKBW WKRC WLAC WMAS WMBD WMBG WMBR WMT WNAC WNAX WNBF WNOX WOC WOKO WOWO WQAM WREC WSBT WSMK WSPD WTOC

R —Guy Lombardo and Orchestra KPRC KSD KTBS KTHS KVOO WAVE WBEN WCAE WCSH WDAF WEAF WEEI WFAA WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WJDX WKBF WKY WLIT WMAQ WMC WOAI WOC WPTF WRC WRVA WSB WT.W wow WSM WSMB WTAG WTAM WTIC WWJ WWNC

B — Jimmy Fidler, Hotlywood Gossip KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO WBAL WBZ WBZA WCKY WENR WGAR WHAM WJR WJZ WLIT WMAL WREN WSYR

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — Howard Barlow, Norman Cordon CFRB CKAC CKLW KDB KFH KGKO KHJ KLRA KLZ KMBC KOH KOMA KRLD KSCJ KTRH KTSA KVOR KWKH WAAB WABC WACO WADC WALA WBBM WBIG WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WGR WHEC WHP WIBW WICC WISN WJAS WJSV WKRC WMAS WMBD WLAC WLBW WMBR WMT WNOX WOKO WORC WQAM WSBT WSFA WSJS WSPD WTOC

R — Ray Noble and Orchestra KDYL KFI KGW KHQ KOA KOMO KPO KSD KYW WAPI WAVE WBEN WCAE WCSH WEAF WEEI WFBR WGY WHO WJAR WJDX WKBF WLW WMAQ WMC WOW WRC WSB WSM WSMB WTAG WTAM WTIC WWJ

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C - Myrt and Marge, See Monday

B - Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 C — Dance Orchestra KLRA WABC WALA WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFEA WJSV WLAC WLBZ WMBR WNAC WNOX WORC WPG WQAM

WSFA WSJS WTOC C - Edwin C. Hill, See Monday

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

KLRA WABC WALA WBRC WBT WCAO WCAU WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFEA WICC WISN WJSV WLAC WLBZ WMAS WMBR WNAC WNOX WORC WPG WQAM WSFA WSJS WTOC

C - Voice of Experience KDB KERN KFBK KFPY KFRC-KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

ED-12:00p.m.,E-11:00,C-10:00,M-9:00 R - Fred Ailen; Lennie Hayton KDYL KFI KGO KGW KHQ KOA KOMO

#### THURSDAY

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

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

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 B - Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C - Buck Rogers, See Monday

- Molle Minstrels

KSD KYW WBEN WCSH WDAF WEAF WGY WHO WJAR WMAQ WRC WSAI WTAG WTAM WWJ

- Floyd Gibbons

KDKA KOIL KSO WBAL WBZ WBZA WENR WFIL WFLA WHAM WIOD WIS WJAX WJZ WMAL WMT WPTF WREN WSOC WSYR WTAR WWNC

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 R - Rudy Vallee and Orchestra CFCF CRCT KDYL KFI KFYR

KGO KGW KHQ KOA KOMO KPRC KSD KSTP KTAR KVOO WAPI WBAP WBEN WCAE WCSH WDAY WEAF WEBC WEEL WFBR WFI WFLA WGY WHO WIOD WIS WLW WJAR WJAX WJDX WKY WMAQ WMC WOAI WOC WOW WRVA WSB WSM WSMB WTAG WTAM WTIC WWJ WWNC

C - David Ross; Readings

CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KSL KVI KWG WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WMAS WNAC WOKO

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 - Leith Stevens' Harmonies

CKLW KMBC KMOX WARC WADO WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO WOWO WSPD

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C — Glen Gray; Walter O'Keefe

CKLW KFAB KFH KLRA KMBC KMOX KOMA KRLD KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WICC WISN WJAS WJSV WKRC WKBW WLAC WKBN WMAS WI.RW WLBZ WMBD WMBG WMBR WMT WNAC WNAX WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC

- Maxwell House Show Boat KDYL KFI KFSD KGHL KGIR KGO KGW KHQ KOA KOMO KPRO KSD KSTP KTAR KTBS WAPI WAVE WBAP WBEN WCAE WCSH WDAF WEAF WEEL WFBR WFI WFLA WGY WHO WIOD WIS WJAR WJAA WMAQ WMC WRVA WJAX WJDX WKBF WKY WT.W WMC WOAI WOC WOW WSAT WSB WSM WSMB WTAG WTAM WTIC WTMJ WW.I WWNC

B - Death Valley Days; Drama

KDKA KOIL KSO KWCR KWK WBAL WBZ WBZA WGAR WHAM WJR WJZ WLS WLW WMAL WREN WVSR

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C - Fred Waring's Pennsylvanians CFRB CKLW CRCM KDB KERN KFAB KFBK KFH KFPY KFRC KCB KCKO KHI KLBA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WGST WHAS WHEC WHK WHP WIBW WICC WISN WJAS WJSV WKBN WKBW WKRC WLAC WLBW WLBZ WMAS WMBD WMBG WMBR WMT WNAC WNAX WNOX WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC

B — Mexican Musical Tours

KDKA KOIL KSO WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJZ WMAL WMT WREN

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 - Paul Whiteman's Music Hall CFCF CRCT KDYL KFI KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSTP KTAR KTBS KTHS KVOO WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEL WFBR WFL WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOC WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C - Horace Heidt, See Tuesday

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 Voice of Crusaders, See Tuesday

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C - Myrt and Marge, See Monday

B — Amos 'n' Andy, See Monday

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

CFRB CKAC CKLW KDB KFH KGKO KLRA KLZ KOH KOMA KRLD KSCJ KTRH KTSA KVOR KWKH WABC WACO WADC WALA
WBBM WBNS WBRC WBT WCAO
WCCO WDAE WDBJ WDBO WDNC
WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WHEC WHK WHP WIBW WISN WJAS WJSV WKBW WKRC WLAC WLBW WLBZ WMAS WMBD WMT WNAC WNAX WNOX WOKO WORC WPG WQAM WSBT WSFA WSJS WSPD WTOC WWVA

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Glen Gray; Walter O'Keefe KDB KERN KFBK KFPY KFRC

KGB KHJ KLZ KMJ KOH KOIN KOL KSL KVI KVOR KWG

#### FRIDAY

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — H. V. Kaltenborn

CKLW KFH KGKO KLZ KMBC KOH KOMA KRLD KSCJ KSL KTRH KVOR KWKH WAAB WABC WBBM WCAO WCAU WDNC WDRC WFBL WGLC WHEC WHK WISN WJAS WJSV WKBW WLAC WLBW WMT WOKO WORC WSPD

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

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

B - Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 - Black Chamber, See Monday Tony and Gus, See Monday

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ED-7:30 p.m., E-6:30, C-5:30, M-4:30 B - Red Davis, See Monday

C - The O'Neill's, See Monday

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

C — Boake Carter, See Monday B — Dangerous Paradise, See Monday

P -- Uncle Ezra, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 R — Cities Service Concert

CRCT KDYL KOA KPRC KSD KSTP KTBS KTHS KVOO KYW WBAP WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFAA WFBR WGY WHO WJAR WKY WLIT WOAI WOC WOW WRC WRVA WSAI WTAG WTAM WTIC WWJ

B - Irene Rich; Drama KDKA KOIL KSO KWCR WAVE WBAL WBZ WBZA WHAM WJZ WLS WMAL WMC WREN WSB WSM WSYR

C — Mrs. Franklin D. Roosevelt

CFRB CKLW KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSCJ KSL KTRH KTSA KVI KWG WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WDSU WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJSV WKRC WLAC WLBZ WMBR WNAC WMRG WNOX WOKO WORC WQAM WREC WSPD

ED-8:15 p.m., E-7:15, C-6:15, M-5:15 C - Edwin C. Hill, See Monday

- Morton Downey

KOIL KSO WBZ WBZA WCKY WFIL WHAM WIRE WJZ WLS WMAL WMT WREN WSYR

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 B — Ruth Etting; Red Nichols

KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WJR WJZ WLS WMAL WMT WREN WSYR

C — True Story Court
CKLW KMBC WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WGR WHK WJAS WJSV WKRC WNAC WOKO

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C — March of Time

CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KRLD KSL KVI KWG

#### FRIDAY (Continued)

WABC WADC WBBM WCAO WCAU WCCO WDRC WDSU WEAN WFBL WFBM WGST WHAS WHK WJAS WJSV WKBW WKRC WNAC WOKO WOWO WEDD

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

B - Beatrice Lillie

CFCF CRCT KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KPRC KSO KTHS KWCR KWK WAPI WAVE WBAL WCKY WFLA WGAR WHAM WIOD WIS WJAX WJDX WJZ WKY WLIT WLS WMAL WMC WPTF WREN WSB WSMB WSYR WTAR WWNC

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

CFRB CKAC CKLW KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJSV WKBH WMAS WMBD WMBG WMBR WMT WNAC WNAX WNOX WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC

R - Pick and Pat

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

B - Armour Program: Phil Baker KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KPRC KSO KSTP KTAR KWK WAPI WAVE WBAL WBZ WBZA WEBC WENR WFAA WFLA WGAR WHAM WIOD WJAX WJR WJZ WKY WMC WOAI WREN WRVA WSB WSM WSMB WTMJ WWNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 R - First Nighter; Drama

KDYL KFI KGO KGW KHQ KOA KOMO KPRC KSD KSTP WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFAA WFBR WGY WHO WJAR WKY WLIT WLW WMAQ WMC WOAI WOC WOW WRC WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ

B - Joe Cook; B. A. Rolfe

KDKA KOIL KSO KWCR WBZ WBZA WCKY WENR WFIL WFLA WGAR WHAM WIOD WIS WJAX WJZ WMAL WPTF WREN WSOC WSYR WTAR WWNC

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

C - Col. Stoopnagle and Budd CKLW KGB KGKO KHJ KLRA KMBC KOH KOL KOMA KRLD KSCJ KVI KVOR KWKH WAAB WABC WACO WBBM WBIG WBNS WBT WCAO WCAU WCCO WCHS WDBJ WDNC WDOD WDRC WDSU WEAN WFBL WGR WHAS WHEC

WHP WICC WJAS WJSV WKRC WLAC WMAS WMBD WMBG WMT WNAC WNOX WOC WOKO WORC WPG WREC WSBT WSJS WSPD

R — Coca Cola: Frank Black CFCF CRCT KDYL KFI KFSD KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KPO KSTP KTAR KTBS KTHS KYW WAVE WCAE WCSH WDAY WEAF WEBC WEEI
WFBR WFLA WGY WIBA WIS
WJAR WJAX WJDX WKBF WLW
WMC WOW WPTF WRC WSB WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C - Myrt and Marge, See Monday

B - Amos 'n' Andy, See Monday

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

KLRA WABC WALA WBRC WBT WCAO WDAE WDBO WDNC WDOD WDRC WDSU WEAN WFEA WHK WJSV WLAC WLBZ WMAS WNAC WNOX WORC WPG WQAM WSFA WSJS WTOC

C - Edwin C. Hill, See Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 B-Joe Cook; B. A. Rolfe KDYL KFI KFSD KFYR KGHL KGIR KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS KVOO WAVE WBAP WDAY WEBC WIBA WJDX WKY WMC WOAI WSB WSM WSMB WTMJ

#### SATURDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Frederic William Wile

CKAC CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLRA KLZ KMJ KMOX KOIN KOL KRLD KSL KTRH KTSA KVI KWG WAAB WABC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDSU WFBL WFBM WGR WGST WHAS WHEC WHK WICC WJSV WQAM WKRC WMBR WNOX WREC WTOC

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 - Soconyland Sketches

WABC WDRC WEAN WGR WICC WLBZ WMAS WNAC WOKO WORC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — Victor Arden and Orchestra

CFRB CKAC CKLW WABC WBBM WCAO WCAU WFBL WHK WJAS WNAC WOKO

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C - Roxy and His Gang

CFRB CKAC CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KTRH KTSA KVI KWG WABC WBBM WBRC WCAO WCAU WCCO WDOD WDRC WDSU WEAN WFBL WFBM WGR WGST WHAS WHK WIBW WJAS WJSV WKRC WLAC WMT WNAC WOKO WORC WREC

R - Lucky Strike; Lennie Hayton

KDYL KFI KFSD KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KYW WAPI WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WHIO WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WTTF WRC WSB WSMB WSOC WTAG WTAM WTAR WTIC WWNC

ED-8:45 p.m., E-7:45, C-6:45, M-5:45 C — Benay Venuta

CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KSL KVI KWG KWKH WABC WADC WBBM WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO WOWO WSPD

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 R — Radio City; Ray Noble KDYL KFI KFYR KGW KHQ KOA

KOMO KPO KPRC KSD KSTP.
KTBS KTHS KYW WAPI WAVE
WBAP WBEN WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WFLA WGY WHIO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

- Chesterfield Program, see Monday

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C — Richard Himber and Orchestra CKLW KFH KMBC KMOX WAAB WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WDRC WDSU WEAN WFBL WFBM WGST WHK WJAS WJSV WKBW WKRC WOKO WSBT WSPD

B -- National Barn Dance

KDKA KOIL KSO KWCR KWK WBAL WBZ WBZA WGAR WHAM WJR WJZ WKBF WLS WMAL WREN WSYR

R—Al Joison; Victor Young
KDYL KFYR KOA KSTP KYW
WBEN WCAE WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WGY
WHIO WIBA WJAR WMAQ WRC
WSAI WTAG WTAM WTIC

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

C — California Melodies CFRB CKLW KDB KFH KGKO KHJ KLRA KLZ KMBC KOH KOMA KRLD KSCJ KTRH KTSA KVOR KWKH WAAB WABC WACO WADC WALA WBIG WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WGR WHEC WHP WIBW WICC WISN WJAS WJSV WKRC WLAC WLBW WLBZ WMAS WMBD WMT WNAX WNOX WOKO WORC WPG WQAM WSBT WSFA WSJS WSPD WTOC WWVA

R — Let's Dance

KFYR KPRC KSD KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCSH WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WRC WSB WSMB WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C — Richard Himber and Orchestra KDB KERN KFBK KFPY KFRC

#### SATURDAY (Continued)

KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG ,

B --- National Barn Dance

KDYL KFI KGO KGW KHQ KOA KOMO WAVE WJDX WIS WMC WSB WSMB

#### ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Dance Orchestra

CKAC CKLW KLRA WAAB WABC WBT WDAE WDBJ WDBO WDOD WDRC WDSU WFBM WGLC WGR WHEC WHP WIBW WJAS WJSV WKRC WLAC WORC WOAM WSBT WSFA WSJS WTOC

#### ED-12:00p.m.,E-11:00.C-10:00.M-9:00 C — Dance Orchestra

CKAC CKLW KDB KFH KGKO KLRA KLZ KMBC KOH KOMA KTRH KTSA KWKH WABC WBNS WCAU WDBO WDNC WDOD WEAN WFBL WFBM WGLC WHP WIBW WICC WJSV WKBW WKRC WLAC WLBW WNAC WNOX WOKO WPG WOAM WSBT WTOC

#### SUNDAY

#### ED-11:30 a.m., E-10:30, C-9:30, M-8:30 C - Salt Lake Tabernacie Choir

CKLW KFH KGKO KLRA KLZ KOH KRLD KSCJ KSL KTRH KTSA KWKH WABC WACO WADC WALA WBBM WBMS WCCO WDAE WDBO WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WHK WHP WIBW WICC WISN WJAS WJSV WLAC WLBW WLBZ WMAS WMBD WMBR WMT WNAC WNAX WNOX WOKO WORC WQAM WREC WSFA WSPD

R - Major Bowes' Family

KDYL KFYR KOA KPRC KSTP KTBS KVOO WAPI WCAE WDAF WDAY WEAF WEBC WFAA WFBR WDAY WEAF WEBG WFAA WFDA WFLA WGY WHO WIOD WJAR WJAX WKY WMAQ WMC WOAI WOC WRC WRVA WSAI WSMB WTAG WTAM WWNC

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

C - Romany Trail
CKLW KMBC KMOX WABC WADC WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WJAS WJSV WKH WKRC WMAS WNAC WOKO WORC WOWO WSPD

### B -- Radio City Symphony

CFCF CRCT KDKA KDYL KFI KFYR KGO KGW KHQ KOA KOIL KOMO KPRC KSO KVOO WAPI WBAL WBZ WBZA WCKY WDAY WEBC WGAR WHAM WIS WJDX WJZ WKY WMAL WREN WSMB WSYR WWNC

#### ED-1:00p.m., E-12:00, C-11:00, M-10:00 C - Church of the Air

CFRB CKLW KFH KGKO KHJ KLRA KLZ KOH KRLD KSCJ KSL KTRH KTSA KWKH WAAB WABC WACO WALA WBBM WBIG WBNS WBT WCAO WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WFBL WGLC WGR WHEC WHP WIBW WJAS WJSV WKRC WLAC WLBW WLBZ WMBR WMT WNOX WOKO WORC WPG WQAM WREC WSBT WSFA WSJS WSPD WWVA

#### ED-1:30p.m.,E-12:30,C-11:30,M-10:30 R — Miss Bab-o's Surprise

WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFI WGY WJAR WMAQ WOW WRC WSAI WTAG WTAM WWJ

#### C — Mary Eastman; Evan Evans

CKLW KFAB KFH KLZ KMBC KMOX KOMA KRLD KSCJ KSL WABC WADC WBBM WBNS WBT WCAU WCCO WDRC WFBL WFBM WGR WHAS WHK WJAS WJSV

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

- Lazy Dan, Minstrei Man CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KVI KWG WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WDBJ WDRC WDSU WEAN WFBL WFBM WGST WHAS WHEC WHK WIBW WJAS WJSV WKBW WKRC WLAC WMBG WMT WNAC wowo

#### ED-2:30 p.m., E-1:30, C-12:30, M-11:30 - Eddie Dunstedter at Organ

CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KVI KWG WABC WADC WBBM WBT WCAO WCAU WCCO WDBJ WDRC WDSU WEAN WFBL WFBM WGST WHAS WHEC WHK WIBW WJAS WJSV WKBW WKRC WLAC WMBG WMT WNAC wowo

#### B — Lux Program; Dramas

KDKA KDYL KFI KFYR KGO KGW KHQ KOA KOIL KOMO KPRC KSO KSTP KTBS KTHS KVOO KWCR KWK WBAL WBZ WBZA WDAY WEBC WFAA WGAR WHAM WIBA WJR WJZ WKY WLW WMAL WOAI WPTF WREN WRVA WSYR WTAR

R — Carefree Carnival
KSD KYW WCAE WCSH WEAF
WEEI WFBR WGY WJAR WMAQ wow WRC WSAI WTAG WTAM

ED-3:00 p.m., E-2:00, C-1:00, M-12:00 C — N. Y. Philharmonic Symphony CFRB CKAC CKLW KFH KGKO KHJ KLRA KLZ KOH KRLD KSCJ KSL KTRH KTSA KVOR KWKH WABC WADC WALA WBIG WBNS
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDNC WDOD WDRC
WDSU WEAN WFBL WFBM WFEA WGLC WGR WHEC WHK WHP WIBW WICC WISN WJAS WJSV WKRC WLAC WLBW WLBZ WMAS WMBD WMBR WMT WNAC WOKO WORC WQAM WREC WSBT WSFA

#### WSJS WSPD WTOC R -- Sally of The Talkles

WAPI WBEN WCAE WCSH WDAF WEAF WEEL WFBR WGY WHO WJAR WJDX WLIT WMAQ WMC WOC WOW WRC WSAI WSB WSM WSMB WTAG WTAM WWJ

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

KDYL KFI KGO KGW KHQ KOA KOMO KSD WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WHO WJAR WLIT WLW WMAQ WOC WOW WRC WTAG WTAM WTIC WWJ

#### ED-4:00 p.m., E-3:00, C-2:00, M-1:00

Rev. Charles E. Coughlin KSTP KWK WCAO WCAU WDRC WEAN WFBL WFEA WGAR WGR WHB WHO WICC WIND WJAS WJJD WJR WLBZ WLW WMAS WNAC WNBH WOC WOKO WOL WOR WORC

#### R - Rhythm Symphony

KDYL KFI KGW KOA KOMO KPO KPRC KTBS WAPI WAVE WBAP WBEN WCSH WDAF WEAF WEBC WESH WUSH WIFA WEST WEST WEEI WFBR WFILA WGY WIBA WIOD WJAR WJAX WJDX WLIT WMAQ WMC WOAI WPTF WRC WRYA WSAI WSB WSM WSMB WTAG WTAM WTIC WWJ

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B - Jolly Coburn and Orchestra KDKA KOIL KSO KWCR WBAL WBZ WBZA WCKY WENR WFIL WJZ WKBF WMAL WREN WSYR

#### ED-4:30 p.m., E-3:30, C-2:30, M-1:30 R — Harry Reser and Orchestra

CFCF CRCT KTBS KTHS KVOO KYW WBAP WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WJAR WKY WMAQ WOAI WRC WSAI WTAG WTAM WTIC WWJ

#### ED-4:45 p.m., E-3:45, C-2:45, M-1:45 R — Dream Drama

WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFI WGY WJAR WMAQ WRC WSAI WTAG WTAM WTIC WWJ

#### ED-5:00 p.m., E-4:00, C-3:00, M-2:00 - Country Church of Hollywood

CKLW KFH KLRA KLZ KMBC KMOX KOMA KRLD KSL KTRH KTSA KTUL WAAB WABC WADC WBBM WBIG WBRC WBT WCAO WCAL WCCO WDOD WDRC WDSII WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WIBW WJAS WJSV WKBN WKRC WLAC WLBZ WMAS WMBG WOKO WORC WOWO WREC WSPD

#### R — Sentinels Serenade

CFCF CRCT KDYL KFI KFYR KGO KGW KHQ KOA KOMO WAVE WBEN WCAE WCSH WDAF WEAF WEBC WEEL WFBR WFI WGY WHO WIBA WJAR WKBF WMAQ WMC WOC WOW WRC WSAI WSB WSM WTAG WTAM WTIC WTMJ www

#### B - Roses and Drums

KDKA KOIL KPRC KSO KTHS KWCR KWK WBAL WBAP WBZ WBZA WENR WGAR WHAM WJR WJZ WKY WLW WMAL WOAL WREN WSYR

ED-5:30 p.m., E-4:30, C-3:30, M-2:30 C — Frank Crumit; Julia Sanderson CKLW KFH KMBC KMOX KOMA KTUL WAAB WABC WADC WBNS WCAO WCAU WDRC WDSU WEAN WFBL WFBM WGR WHAS WHEC WHK WIBX WICC WJSV WMAS WOKO WORC WSPD WWVA

#### R -- Tony Wons

CFCF CRCT KDYL KFI KFSD KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTHS KVOO KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKBF WKY WMAQ WMC WOAI WOW WPTF WRC

#### SUNDAY (Continued)

WRVA WSAI WSB WSMB WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Cook Travelogues

KDKA KOIL KSO KWCR KWK WBAL WBZ WBZA WCKY WENR WFI WGAR WHAM WJR WJZ WMAL WREN WSYR

ED-5:45 p.m., E-4:45, C-3:45, M-2:45 B — Becker's Dog Chats

KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KSO KWCR KWK WBAL WBZ WBZA WENR WGAR WHAM WJR WJZ WMAL WREN

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

CERB CKLW KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KSL KVI KWG WAAB WABC
WBBM WBNS WBT WCAO WCAU
WCCO WDRC WDSU WFBL WFBM WGST WHAS WHEC WHK WJAS WJSV WKBW WKRC WOKO

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 - Smilin' Ed McConnell

CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KRLD KSL KVI KWG WAAB WABC WBBM WBNS WBRC WBT WCAU WCCO WDRC WDSU WEAN WFBL WFBM WFEA WGST WHAS WHK WHP WICC WISN WJAS WJSV WKBW WKRC WLAC WLBW WLBZ WORC WQAM WREC WWVA

B — Compana Grand Hotel

KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KSO KSTP KWCR KWK WBAL WBZ WBZA WEBC WENR WGAR WHAM WJR WJZ WMAL WREN WSYR WTMJ

ED-6:45 p.m., E-5:45, C-4:45, M-3:45 C — Voice of Experience

CKLW KMBC KMOX WAAB WABC WBBM WBT WCAO WCAU WCCO WDRC WEAN WFBL WHAS WHK WJAS WJSV WKBW WKRC WNAC WOWO WWVA

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 B - Jack Benny; Don Bestor

KDKA KDYL KF1 KGO KGW KHQ KOA KOIL KOMO KPRC KSO KSTE KWCR KWK WBAL WBAP WBZ WBZA WEBC WGAR WHAM, WIBA WJDX WJR WJZ WKY WLS WLW WMAL WMC WOAI WREN WSB WSM WSMB WSYR WTMJ

C — Roadways of Romance

KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMBC KMOX KOIN KOL KSL KVI KWG WABC WBBM WCAO WCAU WCCO WDRC WFBL WGR WHAS WHK WJAS WJSV WKRC WNAC WOKO

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 B — Joe Penner; Ozzie Nelson

KDKA KDYL KFI KFYR KGO KGW KHQ KOA KOIL KOMO KPRC KSO KSTP KTAR KVOO KWCR KWK WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WJAX WJDX WJR WJZ WKY WLS WMAL WMC WOAT

WPTF WREN WRVA WSB WSM WSMB WSYR WTMJ

– American Radiator Musical WBEN WCAE WCSH WEAF WFBR WGY WJAR WMAQ WOW WRC WSAI WTAG WTAM WWJ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45 R — Fitch Program; Wendell Hall CFCF KSD WBEN WCAE WCSH WEAF WFBR WGY WHO WJAR WKBF WLIT WMAQ WOC WOW WRC WSAI WTAG WTAM WTIC

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C - Ethel Merman; Al Goodman

CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KTRH KTSA KTUL KVI KWG WAAB WABC WADC WBBM WBRC WBT WCAO WCAU WCCO WDRC WDSU WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJSV WKRC WOKO WOWO WSPD

R — Major Bowes' Amateur Hour CFCF CRCT KDYL KFI KFYR KGO KGW KHQ KOA KOMO KPRC KSD KSTP KTAR KVOO WAPI WAVE WBEN WBZ WBZA WCAE WCSH WDAF WDAY WEAF WEBC

WFAA WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WJDX WKY WLIT WLW WMAQ WMC WOAI WOC WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC **B** — General Motors Symphony

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

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C — Guif Headliners

C — Guir Meadiners
CKLW KLRA KRLD KTRH KTSA
WABC WACO WADC WALA WBIG
WBNS WBRC WBT WCAO WCAU
WDAE WDBJ WDBO WDDD WDRC
WDSU WEAN WFEA WGST WHAS WHEC WHK WJAS WJSV WKRC WLAC WLBZ WMAS WMBG WMBR WNAC WOKO WORC WOWO WQAM WREC WSPD WTOC

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

CFRB CKLW KDB KERN KFBK CERLO CRLW RIJB KERN KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KSCJ KSL KTRH KTSA KTUL KVI KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJSV WLAC WKBN WKRC WKBH WLBW WLBZ WMAS WMBR WMT WNAC WNAX WNOX WOKO WORC WOWO WOAM WSBT WSFA WSJS WSPD WTOC WWVA

R - Manhattan Merry-Go-Round CFCF KDYL KFI KGO KGW KHQ KOA KOMO KSD KSTP WDAF WEAF WEBC WFBR WFI WGY WHO WJAR WMAQ WOC WOW WRC WSAI WTAG WTAM WTIC WTMJ WWJ

B - Silken Strings; Charles Previn KDKA KDYL KFI KGO KGW KHQ KOA KOAI KOIL KOMO KPRC KSO KSTP KWCR KWK WBAL WBAP WBZ WBZA WEBC WGAR WHAM WIBA WJR WJZ WKY WLS WLW WMAL WREN WSYR WTMJ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 R — Album of Familiar Music

CFCF CRCT KDYL KFI KGO KGW KHO KOA KOMO KPRC KSD KSTP KVOO WBEN WCAE WCSH WDAF WEAF WEEI WFAA WFBR WFI WFLA WGY WHO WIOD WIS WIA WIAX WJDX WKY WMAQ
WMC WOAI WOC WOW WPTF
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTMJ WWJ WWNC

B - Walter Winchell

KDKA KOIL KSO KWCR KWK WBAL WBZ WBZA WENR WGAR WHAM WJR WJZ WLW WMAL WREN WSYR

ED-9:45 p.m., E-8:45, C-7:45, M-6:45 B-Adventures of Sherlock Holmes KDKA KOIL KSO KWCR WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJR WJZ WMAL WREN WSYR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 R — The Gibson Family

KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSTP KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFBR WGY WHO WIBA WLW WMAQ WOW WRC WTAG WTAM WTIC WTMJ WWJ

C — Wayne King, See Monday

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

C — William A. Brady
CKAC CKLW KFH KGKO KHJ
KLRA KLZ KMBC KOH KRLD
KSCJ KTRH KTSA KVOR KWKH WABC WACO WALA WBIG WBNS WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFBM WFEA WGLC WGR WHEC WHP WIBW WICC WISN WJAS WJSV WKRC WLAC WLBW WLBZ WMAS WMBD WMBR WMT WNAX WNOX WOKO WORC WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC

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

CFRB CKAC CKLW KFH KGKO KLRA KLZ KOH KRLD KSCJ KTRH KTSA KVOR KWKH WABC WACO WADC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WDSU WEAN WFBL WFEA WGLC WGR WHEC WHK WHP WIBW WISN WJAS WJSV WKRC WLAC WLBW WLBZ WMAS WMBD WMBR WMT WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC

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

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 B — Jack Benny; Don Bestor KDYL KFSD KGIR KGU KHQ KOA KOMO KTAR

#### CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Daylight Saving

C-Columbia: R-National (Red): B-National (Blue)

These features are correct at the time of going to press, but changes are being made daily.

#### CONCERTS

Ford Concert, 9:00 p.m. Sunday, C General Motors Symphony, 8:00 p.m. Sunday, B Andre Kostelanetz, 9:00 p.m. Mon., Wed. and Sat., C N. Y. Philharmonic, 3:00 p.m. Sunday, C Radio City Music Hall, 12:30 p.m. Sunday, B

#### DANCE BANDS

Victor Arden, 8:30 p.m. Wednesday; 7:30 p.m. Sat., C Leon Belasco, 9:30 p.m. Friday, B Ben Bernie, 9:00 p.m. Tuesday, R Don Bestor, 7:00 and 11:30 p.m. Sunday, B Frank Black, 10:30 p.m. Fri., R Jolly Coburn, 4:00 p.m. Sunday, B Eddie Duchin, 9:30 p.m. Tuesday, R Lud Gluskin, 9:30 p.m. Monday, C Al Goodman, 9:30 p.m. Monday, R; 8:00 p.m. Sunday, Glen Gray, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m. Thursday; 11:15 p.m. Mon., C Ferde Grofe, 9:30 p.m. Wednesday, C Lennie Hayton, 9:00 and 12:00 p.m. Wednesday; 8:00 p.m. Sat., R p.m. Sat., R
Horace Heldt, 10:30 p.m. Tues, and Thurs., C
Richard Himber, 8:30 p.m. Monday, R; 9:30 and
11:00 p.m. Saturday, C
Hal Kemp, 8:30 p.m. Wednesday, B
Wayne King, 8:30 p.m. Tues, and Wed., R; 10:00 p.m.
Sunday and Monday, C
Let's Dance, 10:30 p.m. Saturday, R
City Lombarda, 10:30 p.m. Saturday, R Guy Lombardo, 10:00 p.m. Wednesday, R Abe Lyman, 9:00 p.m. Friday, R; 8:30 p.m. Tuesday, C Ozzle Nelson, 7:30 p.m. Sunday, B Red Nichols, 8:30 p.m. Friday, B Ray Noble, 10:30 p.m. Wednesday; 9:00 p.m. Sat., R Charles Previn, 9:00 p.m. Sunday, B Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R Harry Reser, 4:30 p.m. Sunday, R Freddie Rich, 10:00 p.m.Wednesday; 7:00 p.m. Sun., C B. A. Rolfe, 10:00 and 11:30 p.m. Friday, B Phil Spitalny, 9:30 p.m. Tuesday. C Leith Stevens, 8:30 p.m. Thursday, C Rudy Vallee, 8:00 p.m. Thursday, R Fred Waring, 9:30 p.m. Thursday, C Paul Whitman, 10:00 p.m. Thursday, R.

#### DIALOG

Fred Allen, 9:00 and 12:00 p.m. Wednesday, R Amos 'n' Andy, 7:00 and 11:00 p.m. daily, except Sat. and Sun., B Phil Baker, 9:30 p.m. Friday, B Jack Benny, 7:00 and 11:30 p.m. Sunday, B Block and Sully, 9:30 p.m. Monday, C Joe Cook, 10:00 and 11:30 p.m. Friday, B George and Gracle, 9:30 p.m. Wednesday, C Lou Holtz, 10:00 p.m. Thursday, R Beatrice Lillie, 9:00 p.m. Friday, B Walter O'Keefe, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m. Thursday, C
Jack Pearl, 10:00 p.m. Wednesday, C Joe Penner, 7:30 p.m. Sunday, B Ray Perkins, 6:00 p.m. Sunday, C Pick and Pat, 9:30 p.m. Friday, R Stoopnagle and Budd, 10:30 p.m. Friday, O Uncle Ezra, 7:45 p.m. Mon.; Wed., Fri., R. Ed Wynn, 9:30 p.m. Tuesday, R.

#### DRAMA

Brack Chamber, 7:15 p.m. Mon., Wed. and Fri., R William A. Brady, 10:30 p.m. Sunday, C.

Dangerous Paradise, 7:45 p.m. Mon., Wed. and Fri., B Red Davis, 7:30 p.m. Mon., Wed., and Fri., B Death Valley Days, 9:00 p.m. Thursday, B Dream Drama, 4:45 p.m. Sunday, R Eno Crime Clues, 8:00 p.m. Tuesday, B First Nighter, 10:00 p.m. Friday, R Grand Hotel, 6:30 p.m. Sunday, B Sherlock Holmes, 9:45 p.m. Sunday, B House of Glass, 8:30 p.m. Wednesday, B Warden Lawes, 9:00 p.m. Wednesday, B Lux Program, 2:30 p.m. Sunday, B Myrt and Marge, 7:00 and 11:00 p.m. daily, except Sat. and Sun., C Sat. and Sun., C One Man's Family, 8:00 p.m. Wednesday, R The O'Neills, 7:30 p.m., Mon., Wed., Fri., C Princess Pat Players, 9:30 p.m. Monday, B Red Trails, 9:00 p.m. Tuesday, B Irene Rich, 8:00 p.m. Friday, B Buck Rogers, 6:00 and 7:30 p.m. Mon. to Thurs., lnc., C Roses and Drums, 5:00 p.m. Sunday, B Sally of the Talkies, 3:00 p.m. Sunday, R Sativer the Takkes, 3:00 p.m. Sunday, R Soconyland Sketches, 7:00 p.m. Saturday, C True Story Court, 8:30 p.m. Friday, C Welcome Valley, 8:30 p.m. Tuesday, B

#### POPULAR PROGRAMS

A & P Gypsies, 9:00 p.m. Monday, R Album Familiar Music, 9:30 p.m. Sunday, R American Radiator Musical, 7:30 p.m. Sunday, R Miss Bab-o's Surprise, 1:30 p.m. Sunday, R Major Bowes, 11:30 a.m. Sunday; 8:00 p.m. Sunday, R California Melodies, 10:30 p.m. Saturday, C Carefree Carnival, 2:30 p.m. Sunday, R Chesterfield Program, 9:00 p.m. Mon., Wed. and Sat., Cities Service Concert, 8:00 p.m. Friday, R Contented Program, 10:00 p.m. Monday, R Fleischmann Variety, 8:00 p.m. Thursday, R Gibson Famly Musical, 10:00 p.m. Sunday, R Gulf Headliners, 8:30 p.m. Sunday, C Otto Harbach Musical Show, 9:30 p.m. Monday, R -Otto Harden Musica Show, 9-30 p.m. Arday, C Hollywood Hotel, 9:30 p.m. Friday, C Lilac Time, 10:30 p.m. Monday, C Lucky Strike, 8:00 p.m. Saturday, R Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R March of Time, 9:00 p.m. Friday, C Maxwell House Show Boat, 9:00 p.m. Thursday, R Mexican Musical Tours, 9:30 p.m. Thursday, B Molle Minstrels, 7:30 p.m. Thursday, R National Amateur Night, 6:00 p.m. Sunday. C National Barn Dance, 9:30 and 11:00 p.m. Saturday, B Palmolive Beauty Box, 10:00 p.m. Tuesday, R Penthouse Serenade. 3:30 p.m. Sunday, R Rhythm Symphony, 4:00 p.m. Sunday, R Roadways of Romance, 7:00 p.m. Sunday, C Roxy and His Gang, 8:00 p.m. Saturday, C Sentinels Serenade, 5:00 p.m. Sunday, R Sinclair Minstrels, 9:00 p.m. Monday, B Voice of Firestone, 8:30 and 11:30 p.m. Monday, R Tony Wons, 5:30 p.m. Sunday, R.

#### SINGERS

Lois Bennett, 10:00 p.m. Sunday, R Richard Bonelli, 9:00 p.m. Saturday , C Lucrezia Bori, 9:00 p.m. Monday, C Bernice Claire, 8:00 p.m. Tues., C: 9:00 p.m. Friday, R Norman Cordon, 10:30 p.m. Wednesday, C Bing Crosby, 9:00 p.m. Tuesday, C Morton Downey, 8:15 p.m. Friday, B Jessica Dragonette, 8:00 p.m. Friday, R Mary Eastman, 1:30 p.m. Sunday, C

Ruth Etting, 8:30 p.m. Friday, B Foursome, 8:00 p.m. Wednesday, C Wendell Hall, 7:45 and 11:00 p.m. Sunday, R. Annette Hanshaw, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m. Thurs., C Jackie Heller, 10:00 p.m. Monday, B Helen Jepson, 10:00 p.m. Thursday, R. Al Jolson, 9:30 p.m. Saturday, R Lazy Dan, 2:00 p.m. Sunday, C Elizabeth Lennox, 8:30 p.m. Wednesday, C Everett Marshall, 8:30 p.m. Wednesday C Maxine, 9:30 p.m. Tuesday, C Ethel Merman, 8:00 p.m. Sunday, C Frank Munn, 9:30 p.m. Sunday; 9:00 p.m. Friday, R; 8:00 p.m. Tuesday, C Joey Nash, 8:00 p.m. Mon., R; 9:30 and 11:00 p.m. Gertrude Niesen, 9:30 p.m. Monday, C Frank Parker, 9:00 p.m. Monday, R; 7:00 and 11:30 p.m. Sunday, B Lily Pons, 9:00 p.m. Wednesday, C Lanny Ross, 9:00 p.m. Thursday, R Sanderson-Crumit, 5:30 p.m. Sunday, C Mme. Schumann-Heink, 5:00 p.m. Sunday, R. Vivienne Segal, 8:30 p.m. Tuesday, C; 9:30 p.m. Sunday, R

Mary Small, 1:30 p.m. Sunday, R Smilin' Ed McConnell, 6:30 p.m. Sunday, C Kate Smith, 8:30 and 11:30 p.m. Monday, C Gladys Swarthout, 8:30 and 11:30 p.m. Monday; 10:00 p.m. Tuesday, R Conrad Thibault, 9:00 p.m. Thurs.; 10:00 p.m. Sun., R John Charles Thomas, 9:30 p.m. Wednesday, B Benay Venuta, 8:45 p.m. Saturday, C

Becker's Dog Chats, 5:45 p.m. Sunday, B Boake Carter, 7:45 p.m. daily, except Sat. and Sun., C Cook Travelogues, 5:30 p.m. Sunday, B Rev. Charles E. Coughlin, 4:00 p.m. Sunday Jimmy Fidler, 10:00 p.m. Wednesday, B Floyd Gibbons, 7:30 p.m. Thursday, B Edwin C. Hill, 8:15 and 11:15 p.m. Mon., Wed., Fri., C. H. V. Kaltenborn, 6:30 p.m. Friday. C Mrs. Franklin D. Roosevelt, 8:00 p.m. Friday, C Lowell Thomas, 6:45 p.m. daily, except Sat. and Sun., B Voice of Crusaders, 10:45 p.m. Tues. and Thurs., C Voice of Experience, 6:45 p.m. Sunday; 11:30 p.m. Wednesday, C Frederic William Wile, 6:00 p.m. Saturday, C Walter Winchell, 9:30 and 11:15 p.m. Sunday, B

Jack Monroe Clemens, known to radio fans as Bobby, of "The Gibson Family" has been in the show business since his early days . . .born in Cleveland 26 years ago . . . says he is Mark Twain's fourth consin . . . first radio audition on WHK in his teens . . . left school after eighth grade to contribute to family's support . . . first time in "big time" vaudeville at age of 15 . . . greatest thrills-acting on NBC and his first plane ride to Cleveland . . . likes gardenias, steaks, movies, shopping for clothes, riding bicycles and dreaming.

Freddie Rich is one of thirteen children. Six brothers are musicians and his six sisters aren't musical in the least. David Ross, who is the smallest member of "Club Romance." owns the biggest voice. Even petite Lois Bennett, the soprano, is taller than Ross.

Don Bestor's eight-year-old daughter, Mary Ann, will again be featured in the Metropolitan Opera this season. She will be the youngest member of the company, playing juvenile The line parts.

## KEY TO SYMBOLS

As Shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wavelength in meters. Night power is shown in watts in third column. Daytime power is shown in parenthesis in fourth column in kilowatts, thus (.25) indicating 250 watts. Some stations outside the United States use a "split frequency." Their exact frequency is shown in fourth column.

#### Second Column Symbols

- Verifies reception for return postage.
- Verifies only occasionally. b
- Does not verify
- ď Verification 10c; letter 25c.
- Sends Ekko stamp for 10c. ŧ
- Sends Ekko stamp for 5c.
- Sends Ekko stamp for postage.
- Sends own station stamp for 10c.
- Sends own station stamp for 5c.
- Sends own station stamp for postage.
- Has no stamps. m Verifies for 5c.
- No information available.

#### Fourth Column Symbols

American Broadcasting System.

- National "Blue" network.
- Columbia network.
- Day time only.
- Dn Day time with occasional evening hours.
- Canadian Radio Brdestg. Commission. National 'Red' and 'Blue' networks. N
- Has construction permit only. National "Red" network.  $\mathbf{R}$
- Sunday only.
- Synch ronized.
- Has permit to increase power.
- Has permit to change location.
- Has permit to change frequency.
- a-b-c. Small letters show stations using same transmitter.
- 1-2-3. Figures denote stations sharing time.
- ..... No information.

INDEX BI TRI	QUENCIES
540 kilocycles 555.2 meters	WMT af 1000 B (2.5) Cedar Rapids, Iowa WREC ak 1000 C (2.5) Memphis, Tenn.
CJRM ak 1000 F Moose Jaw, Sask.	610 kilocycles 491.5 meters
550 kilocycles 545.1 meters  CFNB ak 1000 F KFUO ae 500 2 (1) KFYR ae 1000 N (5) KOAC ak 1000 Corvallis, Ore.  KSD ak 1000 C (5) KTSA ak 1000 C (5) San Antonio, Texas  WEEV ac 500 D Weethers, V.	KFRC         ak         1000         C (5)         San Francisco, Calif.           KINY         z         250         P         Juneau, Alaska           WDAF         ak         1000         R (5)         Kansas City, Mo.           WIP         ae         500         A (1)         Philadelphia, Pa.           WJAY         ae         500         Cleveland, Ohio           XFX         ak         500         Mexico City, D. F.
	620 kilocycles 483.6 meters
WKRC ak 1000 G (2.5) Cincinnati, Ohio WSVA z 500 DP Staunton, Va.	KGW ak 1000 N (5) Portland, Ore. KTAR ae 1000 N Phoenix, Ariz. WFLA ae 1000 Na Clearwater, Fla. WHJB ak 250 (.5) Greensburg, Pa. WLBZ ak 500 C (1) Bangor, Maine
560 kilocycles 535.4 meters  KFDM ak 500 (1) Beaumont, Texas	WLBZ ak 500 C (1) Bangor, Maine WSUN ae 1000 Na (1) St. Petersburg, Fla. WTMJ ae 1000 N (5.) Milwaukee, Wis.
KLZ ae 1000 C (2.5) Denver, Colo. KTAB ak 1000 San Francisco, Calif.	630 kilocycles 475.9 meters
KWTO ak 1000 D TGW ak 10000 565 WFIL ae 1000 B WIND ak 1000 (2.5) WOOX ak 1000 C WOAM ae 1000 C XEAO ak 250 (.15)  KINOX ak 1000 C WOAM ae 1000 C XEAO ak 250 (.15)  Mexicali, B. C.	CFCY ae 1000 F Char't'w'n, P.E.I. CJGX ak 500 F Yorkton, Saak. CKOV ak 100 F Kelowna, B. C. KFRU ak 500 1(1) Columbia, Mo. KGFX ak 200 D Pierre, S. D. WGBF ae 500 1 Evansville, Ind. WMAL ak 250 B (.5) Washington, D. C. WOS ak 500 1D Jefferson City, Mo. WPRO ak 250 A Providence, R. I.
KGKO ak 500 C (1) Wichita Falls, Texas KMTR ak 500 Hollywood, Calif.	KEZ z 500 Merida, Yuc. 640 kilocycles 468.5 meters
KGKO         ak         500         C (1)         Wichita Falls, Texas           KMTR         ak         500          Hollywood, Calif.           KVI         ak         1000          Tacoma, Wash.           WKBN         ae         500         1C         Youngstown, Ohio           WMCA         ak         500         A         New York, N. Y.           WNAX         ak         1000         C (5)         Yankton, S. D.           WOSU         ak         750         1 (1)         Columbus, Ohio           WSYR         ak         250         B         Syracuse, N. Y.           WWNC         ae         1000         N         Asheville, N. C.	CMBY z   125   Havana, Cuba   KFI   ak   50000   N   Los Angeles, Calif.   WAIU   ae   5000   D   Ames, Lowa   XEOX   ak   250     Saltillo, Coah.
580 kilocycles 516.9 meters	650 kilocycles 461.3 meters
CHRC ak 100 F Quebec, Que. CKCL ae 100 F Toronto, Ont. CKUA ak 500 Edmonton, Alta. KMJ ak 1000 C Fresno, Calif. KSAC ak 500 2 (1) Manhattan, Kans. WCHS ak 500 (1) Charleston W Va	WSM ae 50000 N Nashville, Tenn.  660 kilocycles 454.3 meters  CMCX z 250 Havana, Cuba  WAAW ak 500 D Omaha, Neb.  WEAF ak 50000 R New York, N. Y.
WIBW ak 1000 C2 (5) Topeka, Kans. WILL ak 1000 Urbana, Ill.	670 kilocycles 447.5 meters
WTAG ae 500 R (1) Worcester, Mass.	WMAQ ck 50000 N Chicago, Ill.
590 kilocycles 508.2 meters	680 kilocycles 440.9 meters
KHO         ak         1000         N (2.5)         Spokane, Wash.           WEZO         ak         1000         R         Boston, Mass.           WKZO         ae         1000         D         Kalamazoo, Mich.           WOW         ae         1000         R (5)         Omaha, Neb.           XEPN         ak         50000          PledrasNegras, Coah.	KFEQ ae 2500 D St. Joseph, Mo. KPO ak 50000 N San Francisco, Calif. RDN z 500 San Salvador, E. S. VOWR ck 500 685 Glace Bay, N. S. VOWR ck 500 681 St. John's, Nfld. WPTF ae 1000 DnN (5) Raleigh, N. C.
600 kilocycles 499.7 meters	690 kilocycles 434.5 meters
CFCF         ae         400          Montreal, Que.           CJOR         ak         500          Vancouver, B. C.           CMW         ak         100          Havana, Cuba           CRCW         z         1000         F         Windsor, Ont.           FON         z         250         609         St. Pierre, Miquelon           KFSD         ae         1000         N         San Diego, Calif.	CFRB ae 10000 C Toronto, Ont. CJCJ ak 100 F Calgary, Alta. NAA ak 1000 Arlington, Va. XET ck 500 Monterrey, N. L.
KFSD ae 1000 N San Diego, Calif. WCAC ak 500 2 Storrs, Conn. WCAO ae 500 C (1) Baltimore, Md. WICC ae 500 2 C (1) Bridgeport, Conn.	700 kilocycles 428.3 meters WLW ak 500000 N Cincinnati, Ohio

## INDEX BY FREQUENCIES 710 kilocycles 422.3 meters | 810 kilocycles 370.2 meters

	J
KMPC ae 500 Beverly Hills, Calif. KPCB ae 250 Seattle, Wash. TIFB z 30 714 San Jose, C. R.	CMCF ak 250 815 Havana, Cuba CMHW z 100 Cienfuegos, Cuba WCCO ae 50000 C Minneapolis, Minn. WNYC ak 1000 N New York, N. Y.
TIFB z 30 714 San Jose, C. R. WOR ak 50000 X Newark, N. J. XEN ak 1000 711 Mexico City, D. F.	XFC z 350 Aguascalientes, Ags
720 kilocycles 416.4 meters	820 kilocycles 365.6 meters
WGN ck 50000 Chicago, Ill.	WHAS aj 50000 C Louisville, Ky. XETW dk 500 Mexico City, D. F.
730 kilocycles 410.7 meters	830 kilocycles 361.2 meters
CFPL ak 100 F London, Ont. CJCA ah 1000 F Edmonton, Alta.	CMC ae 500 835 Havana, Cuba KOA ak 50000 N Denver, Colo.
CKAC ak 5000 C Montreal, Que. CMAF ak 250 Havana, Cuba XEBC ak 5000 Agua Caliente, L. C.	TIVL z 30 835 San Jose, C. R. WEEU ak 1000 D Reading, Pa.
	WHDH ae 1000 Dn A Boston, Mass. WRUF ae 5000 Dn Gainesville, Fla.
740 kilocycles 405.2 meters	940 1-:11 256 0t
KMMJ ac 1000 D Clay Center, Neb. KTRB ak 250 D Modesto, Calif.	840 kilocycles 356.9 meters
WHEB ak 250 D Portsmouth, N. H.	CFQC ak 1000 F Saskatoon, Sask.
WSD ob 50000 N Atlanta Co	CMO z 500 Havana, Cuba CRCT ak 5000 F Toronto, Ont.
XELC z 100 Mexico City, D. F.	VOGY ak 400 St. John's Nfld.
750 kilocycles 399.8 meters	XEP z 500 Mexico City, D. F. XEXX z 500 845 Mexico City, D. F.
CMCW dk 117 Havana, Cuba	
CMCW dk 117 Havana, Cuba KGU aj 2500 N Honolulu, T. H. WJR ak 10000 B Detroit, Mich.	850 kilocycles 352.7 meters
	KIEV aj 250 D Glendale, Calif. WESG ak 1000 Elmira, N. Y.
760 kilocycles 394.5 meters	WESG ak 1000 Elmira, N. Y. WWL ae 10000 New Orleans, La.
CMJK ak 150 Camaquey Cuba	WWL ae 10000 New Orleans, La. WWPA z 250 DP Clarion, Pa.
CMJK ak 150 Camaguey, Cuba KXA ae 250 (.5) Seattle, Wash. WBAL ae 10000 BSy Baltimore, Md.	
WEW as 1000 D St. Louis, Mo.	860 kilocycles 348.6 meters
WJZ ck 50000 BSy New York, N. Y. XEOK z 2500 765 Tijuana, L. C.	-
	WABC ae 50000 C New York, N. Y. WHB ae 1000 D Kansas City, Mo. XEMO ak 2500 865 Tijuana, B. C.
770 kilocycles 389.4 meters	
CMBS ak 130 Havana, Cuba KFAB ae 10000 CSy Lincoln, Neb.	870 kilocycles 344.6 meters
WBBM ae 50000 CSy Chicago, Ill.	WENR ak 50000 Na Chicago, Ill. WLS ae 50000 Na Chicago, Ill.
780 kilocycles 384.4 meters	880 kilocycles 340.7 meters
CHWK ak 100 F Chilliwack, B. C. CKSO z 1000 F Sudbury, Ont. KELW ae 500 2 Burbank, Calif.	660 Kilocycles 540.7 Hieters
CKSO z 1000 F Sudbury, Ont. KELW ae 500 2 Burbank, Calif.	CFJC ak 100 F Kamloops, B. C.
KELW ac 500 2 Burbank, Calif. KFDY ac 1000 D Brookings, S. D.	CRCO ak 1000 F Ottawa, Ont.
KFOD ck 250 Anchorage, Alaska	KFKA ak 500 2 (1) Greeley, Colo. KLX ae 1000 Oakland, Calif. KPOF ak 500 2 Denver, Colo.
KFOD ck 250 Anchorage, Alaska KGHL ak 1000 N (2.5) Billings, Mont.	KPOF ak 500 2 Denver, Colo.
KTM ak 500 2(1) Los Angeles, Calif. WEAN ae 500 C (.25) Providence, R. I.	WCOC ae 500 (1) Meridian, Miss.
WEAN ae 500 C (.25) Providence, R. I. WMC aj 1000 N (2.5) Memphis, Tenn.	WGBI ae 500 1 Scranton, Pa.
WEAN   ak   500   2 (1)   Los Angeles, Calif.	WPHR z 500 D Petersburg, Va. WQAN ae 250 1 Scranton, Pa.
WEAN ac   500   2 (1)   Los Angeles, Calif.	WSUI ae 500 (1) Iowa City, Iowa
790 kilocycles 379.5 meters	890 kilocycles 336.9 meters
CMOA z 72 Havana, Cuba	CJIC z 100 D S. Ste. Marie, Ont.
KGO ak 7500 N San Francisco, Calit. WGY ak 50000 R Schenectady, N. Y.	KARK ak 250 (.5) Little Rock, Ark. KFNF ak 500 2 (1) Shenandoah, Iowa
800 kilocycles 374.8 meters	KSEI ck 250 (.5) Pocatello, Idaho KUSD ae 500 2 Vermillion, S. D.
TIGP z 75 San Jose, C. R.	WBAA ak 1000 D W. Lafayette, Ind. WGST aeh 250 C(1) Atlanta, Ga.
WBAP ak 50000 Na Fort Worth, Tex.	WJAR ae 500 R Providence, R. I.
WFAA ak 50000 Na Dailas, Tex.	WMMNae 250 (.5) Fairmont, W. Va.
WTBO ae 250 D Cumberland, Md.	XEW ak 50000 Mexico City, D. F.

,	
900 kilocycles 333.1 meters	970 kilocycles 309.1 meters
	1
KGBU ak 500: Ketchikan, Alaska KHJ ae 1000 C (5) Los Angeles, Calif.	KJR z 5000 N Seattle, Wash. WCFL ae 1500 B Chicago, Ill.
WBEN ae 1000 R Buffalo, N. Y.	WIBG ak 100 D Glenside, Pa.
WFMD z 500 DP Frederick, Md.	
WJAX ach 1000 N Jacksonville, Fla. WKY ac 1000 N Oklahoma City, Ok.	090 1-11-02-21-0 202 0
	980 kilocycles 303.9 meters
WLBL ak 2500 D Stevens Point, Wis. WMFI z 500 DP New Haven, Conn.	KDKA bk 50000 B Pittsburgh, Pa.
WTAD ak 500 D Quincy, Ill.	indian be soon b littlebulgh, la.
	000 1-11-0-10- 202 8 masters
910 kilocycles 329.6 meters	990 kilocycles 302.8 meters
	WBZ ak 50000 BSy Boston, Mass.
CJAT ak 250 F Trail, B. C. CRCM ak 5000 F Montreal, Que.	WBZA ak 1000 BSy Springfield, Mass.
CRCM ak 5000 F Montreal, Que. TICR z 75 911 San Jose, C. R.	WBZA ak 1000 BSy Springfield, Mass. XEK ak 100 Mexico City, D. F. XES dk 250 Tampico, Tams.
XENT ck 60000 Nuevo Laredo, Tams.	AES dk 250 Tampico, Tams.
	1000 kilocycles 299.8 meters
920 kilocycles 325.9 meters	
·	CMBZ ak 120 Havana, Cuba KFVD ak 250 Dn Los Angeles, Calif. WHO ak 50000 R Des Moines, Iowa
CMX ae 650 Havana, Cuba HHK ae 1000 Port-au-Prince, Haiti	KFVD ak 250 Dn Los Angeles, Calif. WHO ak 50000 R Des Moines, Iowa
KFEL ak 500 2 Denver, Colo.	WHO ak 50000 R Des Moines, Iowa
KFEL ak 500 2 Denver, Colo. KOMO ak 1000 N Seattle, Wash.	1010 1-11-0-101 206 0
KPRC ae 1000 N (5) Houston, Texas	1010 kilocycles 296.9 meters
KVOD ak 500 2 Denver, Colo. WAAF ak 500 D Chicago, Ill.	CHML aci 50 F Hamilton, Ont.
WBSO ae 500 D Babson Park, Mass.	CHWC ak 500 3F Regina, Sask.
WPEN ak 250 (.5) 1 Philadelphia, Pa.	CKCD ak 100 Vancouver, B. C. CKCK ak 500 3F Regina, Sask.
WRAX ak 250 1 (.5) Philadelphia, Pa.	OV.CO - 100 O
WSPA ae 1000 D Spartanburg, S. C. WWJ ak 1000 R Detroit, Mich.	
WWJ ak 1000 R Detroit, Mich. XEAA z 200 Mexicali, B. C.	CKWX ak 100 F Vancouver, B. C.
XEFE z 250 Nuevo Laredo, Tams.	CKWX ak 100 F Vancouver, B. C. CMJG z 50 Camaguey, Cuba
	KGGF ak 1000 2 Coffeyville, Kans. KQW ae 1000 San Jose, Calif.
930 kilocycles 322.4 meters	CMJG z 50 Camaguey, Cuba C. KGGF ak 1000 2 Coffeyville, Kans. KOW ae 1000 San Jose, Calif. TIGA z 30 1014 Cartago, C. R. WHN ae 1000 N (2.5) Columbia, S. C. WNAD ae 1000 Z (1) Norman, Okla. XEAF z 250 Nogales, Sonora XEU ak 250 Vancour, Veracruz, Ver.
	TIGA z 30 1014 Cartago, C. R. WHN ae 1000 New York, N. Y.
CFAC ak 100 F Calgary, Alta. CFCH ak 100 F North Bay, Ont.	WIN ae 1000 New York, N. Y. WIS ae 1000 N (2.5) Columbia, S. C. WNAD ae 1000 2 (1) Norman, Okla.
CFLC ae 100 Prescott, Ont.	WNAD ae 1000 2 (1) Norman, Okla. XEAF z 250 Nogales, Sonora
CHNS as 1000 F Halifay N S	XEU ak 250 Veracruz, Ver.
CKPC ae 100 F Brantford, Ont.	
CKPC ae 100 F Brantford, Ont. CKPR ak 100 F Fort William, Ont. KGBZ ak 1000 2 (2.5) York, Neb.	1020 kilocycles 293.9 meters
KGBZ ak 1000 2 (2.5) York, Neb. KMA ak 1000 2 (2.5) Shenandoah, Iowa	-
KROW ak 500 (1) Oakland, Calif.	KYW ak 10000 R Philadelphia, Pa. XEJ ak 1250 Juarez, Chih.
WBRC ak 1000 C Birmingham, Ala. WDBJ ae 1000 C Roanoke, Va.	ALS AL 1200 Suarcz, Chin.
Walls at 1000 G Roamone, va.	1030 kilocycles 291.1 meters
940 kilocycles 319.0 meters	
3	CFCN ak 10000 F Calgary, Alta. CKLW ae 5000 C Windsor, Ont. CMCY ak 1000 Havana, Cuba XEB ak 10000 Mexico City, D. F.
CMBC de 195 Havana, Cuba CMKM z 100 Manzanillo, Cuba	CKLW ae 5000 C Windsor, Ont. CMCY ak 1000 Havana, Cuba
CMKM z 100 Manzanillo, Cuba KOIN ak 1000 C (5) Portland, Ore.	XEB ak 10000 Mexico City, D. F.
VOAS ak 100 St. John's, Nfld.	
WAAT ae 500 D Jersey City, N. J.	1040 kilocycles 288.3 meters
WAVE ak 1000 N Louisville, Ky.	_
WCSH ae 1000 R (2.5) Portland, Maine WDAY ae 1000 N (5) Fargo, N. D.	CMGH ak 15 Matanzas, Cuba KRLD ae 10000 C Dallas, Texas
WDAY ae 1000 N (5) Fargo, N. D. WHA ak 2500 D Madison, Wis.	KRLD ae 10000 C Dallas, Texas
WDAY ae 1000 N (5) Fargo, N. D. WHA ak 2500 D Madison, Wis. XEFO ak 5000 Mexico City, D. F.	KWJJ ak 500 Portland, Ore. WKAR ak 1000 D East Lansing, Mich.
	WKAR ak 1000 D East Lansing, Mich. WTIC ak 50000 R Hartford, Conn.
950 kilocycles 315.6 meters	,,,
350 Kilocycles 515.0 Hickers	1050 kilocycles 285.5 meters
CRCS ak 100 F Chicoutimi, Que.	constant of the state of the st
CRCS ak 100 F Chicoutimi, Que.  KFWB ak 1000 (2.5) Hollywood, Calif.  KHSL z 250 DP(5) Chico, Calif.  KMBC ae 1000 C Kansas City, Mo.  VONF ak 5000 P.(5) Wichington D. C.	CFCO ak 100 F Chatham, Ont. CRCK z 1000 F Quebec, Que. KFBI ak 5000 Dn Abilene, Kans.
KMBC ae 1000 C Kansas City, Mo.	KFBI ak 5000 Dn Abilene, Kans.
VONF ak 5000 St. John's, Nfld.	KNX ak 50000 Hollywood, Calif.
WRC ae 500 R (1) Washington, D. C.	
	1060 kilocycles 282.8 meters
960 kilocycles 312.3 meters	CLEAN TOO TOO TOO THE COLO
	CMK ae 1500 Havana, Cuba KTHS ae 10000 N Hot Springs, Ark.
CKY ak 15000 F Winnipeg, Man. CMCD ah 180 Havana, Cuba	KTHS ae 10000 N Hot Springs, Ark. VOAC z 40 1065 St. John's, Nfld.
CMJL z 50 Camaguey, Cuba	WBAL ae 10000 B Baltimore, Md.
XEAM z 50 Nuevo Laredo, Tams.	WJAG ak 1000 D Norfolk, Neb.
XEAW ak 10000 Reynosa, Tams.	XEA ak 125 Guadalajara, Jal.

1070 kilocycles	280.2 meters Sagua la Grande, C.	WWVA ak 5000 1C XED ck 500 XEFL z 5000 P	Wheeling, W. Va. Guadalajara, Jal. Tijuana, B. C.
KJBS ak 500 Dn WCAZ dk 100 D WDZ ak 100 D	San Francisco, Cálif. Carthage, Ill. Tuscola, Ill. Cleveland, Ohio	1170 kilocycles	256.3 meters
WTAM ck 50000 R 1080 kilocycles	277.6 meters	CMBD z 163 WCAU ae 50000 C	Havana, Cuba Philadelphia, Pa.
WBT ae 50000 C	Charlotte, N. C.	1180 kilocycles	254.1 meters
WCBD ak 5000 1Dny WMBI ac 5000 1Dn XEMA z 50	Waukegan, Ill. Chicago, Ill. Tampico, Tams.	CMJO ak 50 KEX ak 5000 2N KOB ae 10000 2 VE9EK ak 10 1185	Clego de Avila, Cuba Portland, Ore. Albuquerque, N. M. Montmagny, Que.
1090 kilocycles	275.1 meters	WDGY ak 1000 D (5) WINS ae 1000	Minneapolis, Minn. New York, N. Y.
KMOX ak 50000 C	St. Louis, Mo.	WMAZ ak 1000 XEFA z 500	Macon, Ga. Mexico City, D. F.
1100 kilocycles	272.6 meters	1190 kilocycles	252.0 meters
CRCV ak 1000 F KGDM ak 1000 D KWKH ae 10000 C TIRCA ak 500 WLWL ae 5000 1 WPG ak 5000 1C	Vancouver B. C. Stockton, Calif. Shreveport, La. San Jose, C. R. New York, N. Y. Atlantic City, N. J. Mexico City, D. F.	HIJ z 15 1195 WATR ak 100 D WOAI ak 50000 N WSAZ ak 1000	Santo Domingo, D. R. Waterbury, Conn. San Antonio, Texas. Huntington, W. Va.
WPG ak 5000 1C XEFG ak 250 1105	Mexico City, D. F.	1200 kilocycles	<b>249.9</b> meters
1110 kilocycles	270.1 meters	CHAB ak 100 F CKTB ak 100 F CMCJ ak 500	Moose Jaw, Sask. St. Catharines, Ont.
CMCO z 150 KSOO ak 2500 Dn	Havana, Cuba Sioux Falls, S. D. Richmond, Va.	KADA ak 100 D	Havana, Cuba Ada, Okla. Jonesboro, Ark.
WRVA ae 5000 N XELO z 10000	Piedras Negras, Co.	KFJB ak 100 (.25)	Marshalltown, Iowa
1120 kilocycles	267.7 meters	KGDE ak 100 (.25)   KGEK ak 100	Nampa, Idaho Grand Junction, Col. Fergus Falls, Minn. Sterling, Colo. Los Angeles, Calif.
CHLP z 100 CHSJ ae 100 F	Montreal, Que. St. John, N. B.	KGFJ ae 100 KGHI ak 100 (.25) KMLB ak 100	Los Angeles, Calif. Little Rock, Ark. Monroe, La. Marshfield, Ore.
CKOC ae 500 F (1) CKX ak 100 F	Hamilton, Ont. Brandon, Man.	KOOS ae 100 (.25)	Marshfield, Ore.
CMGF ak 100 KFIO ak 100 D	Matanzas, Cuba Spokane, Wash.	KSUN ck 100 D KVOS ak 100 KWG ak 100 C	Lowell, Ariz. Bellingham, Wash
K ESC 90 1000 9	Los Angeles Calit.	KWG ak 100 C WABI ak 100	Stockton, Calif. Bangor, Maine
KRKD ae 1000 a (2.5) KRSC ck 100 D	Los Angeles, Calif. Seattle, Wash.	WAIM 7 100 P	Anderson, S. C.
WDEL ak 250 (.5)	Seattle, Wash. Wilmington, Del. Milwaukee, Wis.	WBBZ ak 100 WBNO ck 100 1	Ponca City, Okia.
WISN ak 250 (1) WMFH z 500 DP	Milwaukee, Wis.	WCAT ak 100 D	New Orleans, La. Rapid City, S. D. Burlington, Vt.
WTAW ae 500	Boston, Mass. College Station, Tex.	WCAX ak 100	Burlington, Vt. Janesville, Wis.
		WCLO ak 100 WFAM ak 100 8	Janesville, Wis.
1130 kilocycles	265.3 meters	WFBE ak 100 (.25)	South Bend, Ind. Cincinnati, Ohio
	Clego de Avila, Cuba	WHBC ak 100 2 WHBY ak 100 (.25)	Canton, Ohio Green Bay, Wis. Utica, N. Y.
KSL ae 50000 C	Salt Lake City, Utah	WIBX ak 100 (.3) C	Utica, N. Y.
WJJD ak 20000 Dn	Chicago, III.	WIL ak 100 (.25)	St. Louis, Mo.
WOV ag 1000 D	New York, N. Y.	WJBC ak 100 6 WJBL ae 100 6	Bloomington, Ill. Decatur, Ill.
1140 kilocycles	263.0 meters	WJBW ak 100 1	New Orleans, La.
1140 Knocycles	205.0 Meters	WKBO ak 100 3 (.25) WKJC ae 100 3 (.25)	Harrisburg, Pa. Lancaster, Pa.
CMBG z 325	Havana, Cuba	WLVA ak 100 (.25)	Lynchburg, Va.
KVOO ak 25000 1N WAPI ae 5000 1N	Tulsa, Okla. Birmingham, Ala.	13/34/DC -1. 100	Lapeer, Mich. Columbus, Ga.
WAPI ae 5000 1N	birmingnam, Au.	WRBL ak 100 WWAE ae 100 8	Columbus, Ga.
1150 kilocycles	260.7 meters	WWAE ae 100 8 10-AK ak 15 10-BP ak 25	Hammond, Ind. Stratford, Ont. Wingham, Ont.
CMJF z 200	Camaguey, Cuba		
WHAM ae 50000 B XEH ak 250	Camaguey, Cuba Rochester, N. Y. Monterrey, N. L.	1210 kilocycles	247.8 meters
XEWZ z 100	Mexico City, D. F.	CHNC ak 100 F	New Carlisle, Oue.
4460411		CJCU z 50	New Carlisle, Que. Aklavik, N. W. T. Prince Albert, Sask.
1160 kilocycles	258.5 meters	CKBI ak 100 F CKCH ak 100 F	Prince Albert, Sask.
WOWO ae 10000 1C	Fort Wayne, Ind.	CKMC ak 50	Hull, Que. Cobalt, Ont,

CMHI ak	150		Santa Clara, Cuba	WXYZ	ak	1000		Detroit, Mich. Mexico City, D. F. Leon, Guan.
KASA ck	100		Elk City, Okla.	XEAI XEKL	2	100		Mexico City, D. F.
KDLR ak	100		Devils Lake, N. D. Klamath Fails, Ore.	XEKL	z	500		Leon, Guan.
KKII at	100		Klamath Fails, Ore,	XELA	Z	50		Saltillo, Coah.
KFOR ak	100	(.25)C	Lincoln, Neb.					•
KFPW ak	100		Fort Smith, Ark.	1250	1-:1	00376	100	239.9 meters
KFVS ae	100	6 (.25)	Cape Girardeau, Mo.	1230	KII	ocyc	162	233.3 IIIetel 8
KFXM ak	100	9 ` ′		CMCG	z	162	1255	Havana, Cuba
KFXM ak KGY ak	100		San Bernardino, Cal. Olympia, Wash. Eureka, Calif. Garden City, Kans. Ardmore, Okla. Pasadena, Calif. Shreveport, La. Hilo. Hawaii	CMKC	z	150		Santiago, Cuba
KIEM ak	100	P	Eureka, Calif.	KEOX	ae	1000		Long Beach, Calif.
KIUL z	100	P	Garden City, Kans.	WCAL	ah	1000	2 (2.5)	Long Beach, Calif. Northfield, Minn.
KIUO z	100	DP	Ardmore, Okla.	WDSU	ak	1000	C `	New Orleans, La.
KPPC ak	50	9	Pasadena, Calif.	WHBI	ak	1000	a (2.5)	Newark, N. J.
KPPC ak KWEA z	100		Shreveport, La.	WLB	ak	1000	2	Minneapolis, Minn. Newark, N. J.
KWFV z	100			WNEW	ae	1000	a (2.5) 2 (5)	Newark, N. J.
KWTN ak	100		watertown, S. D.	WTCN	ak	1000	2 (5)	Minneapolis, Minn.
WALR ak	100		Zanesville, Ohio					
WBAX ae WBBL ak	100	1	Wilkes Barre, Pa.	1260	1-:1	OCTO	100	238.0 meters
WBBL ak	100	S	Richmond, va.	1200	KII	ocyc	163	200.0 Hierers
WBRB ak	100	3	Wilkes Barre, Pa. Richmond, Va. Red Bank, N. J.	CFRN	ak	100		Edmonton, Alta.
WCOL ak	100	4	Columbus, Ohio	KGVO	ak	1000		Edmonton, Alta. Missoula, Mont.
WCRW ae	100	6 (.25)	Chicago, Ill.	KOIL	ak	1000	B (2.5)	Council Bluffs, Iowa Port Arthur, Texas
WEBO ae WEDC ae	100 100	4	Chicago III	KPAC	ak	500	D `	Port Arthur, Texas
WEDC ae WFAS ak	100	3	White Plaine N V	KRGV	ak	500		Weslaco, Texas
WGBB ae	100	3	Freenort N V	KUOA	ak	1000	Ď	Favetteville, Ark.
WGCM ae	100	(.25)	Mississippi City	KVOA	ak	500		Tucson, Ariz
WGNY ak	100	2	Chester N V	whio	ae	1000	R	Dayton, Ohio
WHBF ak	100	(.25)	Harrisburg, III. Chicago, III. White Plains, N. Y. Freeport, N. Y. Mississippl City, Chester, N. Y. Rock Island, III.	WNBX	ak	1000	D	Tucson, Ariz Dayton, Ohio Springfield, Vt. Savannah, Ga.
WHBU ak	100	(.25)	Anderson, Ind.	WTOC	ae	1000	C	Savannah, Ga.
WIBU ak	100	(.25)	Anderson, Ind. Poynette, Wis. Gadsden, Ala.					
WJBY ak	100	(120)	Gadsden, Ala.	1270	kil	OCVO	rles	236.1 meters
WJEJ ah	100	Ď	Hagerstown, Md. Lansing, Mich. Akron, Ohio	1270	1/11	CCy		DOULT ITTECCTS
WJIM z	100	(.25)	Lansing, Mich.	CMCP	z	150		Havana, Cuba
WJW ak	100	•	Akron, Ohio	CMHD	dk	250		Caibarien, Cuba
WKOK ak	100	1	Sunbury . Pa.	HIX	ak	1000	2D.	Santo Domingo, D.R.
WMBG ak WMFG z	100	C (.25)	Richmond, Va.	KGCA	ak	100	2D	Decorah, Iowa Seattle, Wash. Colorado Spgs., Colo.
WMFG z	100	P	Hibbing, Minn.	KOL	ae	1000	C (2.5)	Seattle, Wash.
WMFN z	100	P	Richmond, Va. Hibbing, Minn. Clarksdale, Miss.	KVOR	ae	1000	C (2.5) C 2D	Colorado Spgs., Colo.
WOCL ak	50		Jamestown, N. Y.	KWLC	ak	100 500	2D	Decorah, Iowa Grand Rapids, Mich.
WOMT ae	100	<u>.</u>	Manito woc. Wis.	WASH	ak			Grand Rapids, Mich.
				TYPETE		500	<b>a</b> .	D-141 M.d
WOMT ae WPAX ae	100	D	Jamestown, N. Y. Manitowoc, Wis. Thomasville, Ga.	WFBR	ae	500	R	Baltimore, Md.
WSBC ae	100	D 4		WFBR WJDX	ae ae	500 1000	R N (2.5)	Baltimore, Md.
WSBC ae WSIX ak	100 100	4		WFBR WJDX	ae ae ak	500 1000 500	R N (2.5) a	Baltimore, Md.
WSBC ae WSIX ak WSOC ak	100 100 100			WFBR WJDX WOOD XEG	ae ae ak z	500 1000 500 500	R N (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C.
WSBC ae WSIX ak WSOC ak WTAX ak	100 100 100 100	4 N (.25)	Chicago, III. Spring field, Tenn. Charlo tte, N. C.	WFBR WJDX WOOD XEG XFB	ae ak z ak	500 1000 500 500 1000	R N (2.5) a 	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.
WSBC ae WSIX ak WSOC ak WTAX ak XEE z	100 100 100 100 50	4 N (.25)	Chicago, III. Spring field, Tenn. Charlo tte, N. C.	WFBR WJDX WOOD XEG XFB	ae ak z ak	500 1000 500 500 1000	R N (2.5) a 	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.
WSBC ae WSIX ak WSOC ak WTAX ak XEE z XEFV ak	100 100 100 100 50 100	4 N (.25)	Chicago, III. Spring field, Tenn. Charlo tte, N. C.	WFBR WJDX WOOD XEG	ae ak z ak	500 1000 500 500 1000	R N (2.5) a 	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters
WSBC ae WSIX ak WSOC ak WTAX ak XEE z	100 100 100 100 50	4 N (.25)		WFBR WJDX WOOD XEG XFB	ae ak z ak	500 1000 500 500 1000	R N (2.5) a 	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters
WSBC ae WSIX ak WSOC ak WTAX ak XEE z XEFV ak XETH ak	100 100 100 100 50 100	4 N (.25)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM	ae ak z ak kil kil	500 1000 500 500 1000 1000 1000 500	R N (2.5) a  cles	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden N. I
WSBC ae WSIX ak WSOC ak WTAX ak XEE z XEFV ak	100 100 100 100 50 100	4 N (.25)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue. 245.8 meters	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP	ae ak z ak Kil ae ae ae	500 1000 500 500 1000 1000 1000 500 500	R N (2.5) a  cles (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden N. I
WSBC ae WSIX ak WSOC ak WTAX ak XEE z XEFV ak XETH ak	100 100 100 100 50 100	4 N (.25)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue. 245.8 meters	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD	ae ak z ak Kil ae ae ae	500 1000 500 500 1000 1000 1000 500 500	R N (2.5) a  cles (2.5) 1 1 C (5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden N. I
WSBC ae WSIX ak WSOC ak WTAX ak XEE XEFV ak XETH ak  1220 kil CMJE Z KFKU ae	100 100 100 100 50 100 100 OCYC	4 N (.25)  cles	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue. 245.8 meters	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD WIBA	ae ak z ak Kil ae ae ae ae ae	500 1000 500 500 1000 1000 500 500 1000	R N (2.5) a  cles (2.5) 1 1 C (5) N	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden N. I
WSBC ae WSIX ak WSOC ak WTAX ak XEE XEFV ak XETH ak  1220 kil CMJE Z KFKU ae	100 100 100 100 50 100 100 OCYC	4 N (.25)  cles  a S2	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue. 245.8 meters Camaguey, Cuba/ Lawrence, Kas. Soattle Wash.	WFBR WJDX WOOD XEG XFB  1280  KFBB WCAM WCAP WDOD WIBA WORC	ae ak z ak Kil ae ae ae ae ae	500 1000 500 500 1000 1000 500 500 1000 1000 500	R N (2.5) a  cles (2.5) 1 1 C (5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass.
WSBC ae WSIX ak WSOC ak WTAX ak XEEY ak XETH ak  1220 kil CMJE z KFKU ae KTW ak KWSC ae	100 100 100 100 50 100 100 OCYC 50 1000 1000	4 N (.25)  cles  a S2 2 (2)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue. 245.8 meters Camaguey, Cuba/ Lawrence, Kas. Soattle Wash.	WFBR WJDX WOOD XEG XFB  1280  KFBB WCAM WCAP WDOD WIBA WORC WRR	ae ak z ak Kil ae ae ae ae ae ae ae	1000 500 500 1000 1000 1000 500 500 1000 500 5	R N (2.5) a  cles (2.5) 1 1 1 C (5) N C	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas. Texas
WSBC ak WSOC ak WSOC ak XEE z XEFV ak XETH ak 1220 kil CMJE KFKU ac KTW ak KWSC ac	100 100 100 100 50 100 100 50 1000 1000	4 N (.25)  cles  a S2 2 (2) D	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton N. Y.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDAP WDAP WDAP WDAP WORC WRR WTNJ	ae ak z ak kil ae ae ae ae ae ak ak	1000 500 500 1000 1000 1000 500 500 1000 1000 500 5	R N (2.5) a  cles (2.5) 1 1 C (5) N	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas. Texas
WSBC ac WSC ak WSOC ak WTAX ak XEE z XEFV ak XETH ak 1220 kil CMJE z KFKU ac KTW ac KWSC ac WCAD ak WCAE ak WCAE ak	100 100 100 100 50 100 100 0CYC 50 1000 1000 1000 1000	4 N (.25)  cles  a S2 2 (2) D R	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton N. Y.	WFBR WJDX WOOD XEG XFB  1280  KFBB WCAM WCAP WDOD WIBA WORC WRR	ae ak z ak kil ae ae ae ae ae ak ak	1000 500 500 1000 1000 1000 500 500 1000 500 5	R N (2.5) a  cles (2.5) 1 1 1 C (5) N C	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass.
WSBC ae WSIX ak WSOC ak WTAX ak XEEV z XEFV ak 1220 kil CMJE z KFKU ae KTW ak KWSC ae WCAD ak WCAE ak	100 100 100 50 100 100 100 CCYC 50 1000 1000 1000 1000	4 N (.25)  cles  as 2 (2) D R C (2.5)	Chicago, fill. Spring field, Tenn. Charlotte, N. C. Spring field, Ill. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX	ae ak z ak kil ae ae ae ae ae ak ak ak z	500 1000 500 500 1000 1000 500 500 1000 500 5	R N (2.5) a  cles (2.5) i i C (5) N C	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.
WSBC ak WSOC ak WSOC ak XEE z XEFV ak XETH ak 1220 kil CMJE z KFKU ac KTW ak KWSC ac WCAE ak WCAE ak WDAE ac WCAD ak	100 100 100 50 100 100 0CYC 50 1000 1000 1000 1000 1000 1000	4 N (.25)  cles  a S2 2 (2) D R	Chicago, fill. Spring field, Tenn. Charlotte, N. C. Spring field, Ill. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX	ae ak z ak kil ae ae ae ae ae ak ak ak z	500 1000 500 500 1000 1000 500 500 1000 500 5	R N (2.5) a  cles (2.5) i i C (5) N C	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.
WSBC ae WSIX ak WSOC ak WTAX ak XEEV z XEFV ak 1220 kil CMJE z KFKU ae KTW ak KWSC ae WCAD ak WCAE ak	100 100 100 50 100 100 100 CCYC 50 1000 1000 1000 1000	4 N (.25)  cles  as 2 (2) D R C (2.5)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton N. Y.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAP WDOD WIBA WORC WRR WTNJ XEMX	ae ae ae ae ae ak ak z	1000 5000 5000 5000 10000 10000 10000 10000 5000 5000 5000 12	R (2.5) a cles (2.5) 1 1 C (5) N C 1 A	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters
WSBC ak WSOC ak WSOC ak XEE z XEFV ak XETH ak  1220 kil CMJE z KFKU ac KTW ak KWSC ac WCAD ak WCAE ak WDAE ak WDAE ak XETF z	100 100 100 50 100 100 100 0 50 1000 1000 1000 1000 1000 1000	4 	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX 1290 KDYL	ae ae ae ae ae ae ak ak z	500 500 500 500 1000 1000 500 1000 500 5	R (2.5) a cles (2.5) 1 1 C (5) C 1 A cles N	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters
WSBC ak WSOC ak WSOC ak XEE z XEFV ak XETH ak  1220 kil CMJE z KFKU ac KTW ak KWSC ac WCAD ak WCAE ak WDAE ak WDAE ak XETF z	100 100 100 50 100 100 100 0 50 1000 1000 1000 1000 1000 1000	4 	Chicago, fill. Spring field, Tenn. Charlotte, N. C. Spring field, Ill. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD WIBA WRR WTNJ XEMX 1290 KDYL KLCN	ae a	1000 5000 5000 10000 10000 5000 5000 10000 5000 5000 10000 5000 10000 5000 10000 10000 10000 10000 10000 10000	R (2.5) a cles (2.5) 1 C (5) N C I A Cles	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark.
WSBC ae WSIAX ak WSOC ak WTAX ak XEEV ak XEFV ak 1220 kil CMJE z KFKU ae KTW ak KWSC ae WCAD ak WCAE ak WCAE ak WCAE ak WCAE ak XETF z	100 100 100 100 100 100 100 1000 1000	4 N (.25)  Cles  a S2 2 (2) D R G (2.5) Ba(5)  Cles	Chicago, III. Spring field, Tenn. Charlotte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOOD WIBA WORC WRR WTNJ XEMX 1290 KDYL KLCN	ae a	500 1000 500 500 1000 1000 500 1000 500 5	R (2.5) a eles (2.5) 1 1 C (5) C I A eles N D C (5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas
WSBC ak WSOC ak WSOC ak XEE z XEFV ak XETH ak 1220 kil CMJE z KFKU ak KWSC ac WCAD ak WCAE ak WCAE ak WCAE ak WCAE ak WCAE ak WCAE ak TENERAL AC WCAE AK COOC ak	100 100 100 100 50 100 100 0 50 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	4 N (.25)  cles  a \$2 2 (2) D R C (2.5) Ba(5)  cles	Chicago, III. Spring field, Tenn. Charlotte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters	WFBR WJDX WOOD XEG 1280 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX 1290 KDYL KLCN KTRH WEBC	ae ae ak ae ae ae ae ae ae ak ak z	500 1000 500 500 1000 1000 500 500 1000 500 5	R (2.5) a eles (2.5) 1 1 C (5) C I A eles N D C (5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F. 232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior. Wis.
WSBC ae WSIX ak WSOC ak WTAX ak XEEFV ak 1220 kil CMJE KFKU ae KTKW ak KWSC ae WCAD ak WCAD ak WCAD ak WCAD ak CJOC ak	100 100 100 100 100 100 100 1000 1000	4 N (.25)  Cles  a S2 2 (2) D R G (2.5) Ba(5)  Cles	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba	WFBR WJDX WOOD XEG XFB 1280  KFBB WCAM WCAP WDODD WIBA WORR WTNJ XEMX  1290  KDYL KLCN KTRH WEBS	ae ae ak Z ak Kil ae ae ae ae ae ak z kil ak z ak z ak ae ae ak z	500 1000 500 1000 1000 500 500 500 1000 500 5	R (2.5) a cles (2.5) i C (5) N C cles N C (2.5) N C (2.5) N C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F. 232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior. Wis.
WSBC ak WSOC ak WSOC ak XEEV ak XEEV ak 1220 kil CMJE ae KTW ak KWSC ak WCAD ak WCAD ak WCAD ak WCAD ak WCAD ak CJOC ak CMCB ak KGBX	100 100 100 100 100 100 100 100 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	4 N (.25)  cles  a S2 2 (2) D R C (2.5) Ba(5)  cles	Chicago, III. Spring field, Tenn. Charlotte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOOD WIBA WORC WRN WTNJ XEMX 1290 KDYL KLCN KLCN KLCN KLCN KURN WEBC WJAS WNBZ	ae ae ak z ak ak z ak ae	500 1000 500 500 1000 1000 1000 500 1000 500 5	R (2.5) a eles (2.5) 1 1 C (5) C I A eles N D C (5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F. 232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior. Wis.
WSBC ae WSIX ak WSOC ak WTAX ak XEE z XEFV ak 1220 kil CMJE z KFKU ae KTW ak WCAD ak WCAD ak WCAD ac WCAD ak CDOC ac CMCB ak KGBX ak KGBX ak	100 100 100 100 50 100 100 100 1000 100	4 N (.25) cles s2 2 (2(2) D R C (2.5) Ba(5) cles F (.5)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M.	WFBR WJDX WOOD XEG XFB 1280  KFBB WCAM WCAP WDODD WIBA WORR WTNJ XEMX  1290  KDYL KLCN KTRH WEBS	ae ae ak Z ak Kil ae ae ae ae ae ak z kil ak z ak z ak ae ae ak z	500 1000 500 1000 1000 500 500 500 1000 500 5	R (2.5) a cles (2.5) i C (5) N C cles N C (2.5) N C (2.5) N C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas
WSBC ae WSIX ak WSOC ak WTAX ak XEEV ak XEFV ak 1220 kil CMJE ae KTW ak KWSC ae WCAD ak WCAE ak WCAE ak WCAE ak CAC ak CAC ak CAC ak KGBX ak KGGM ak KGGM ak	100 100 100 100 100 100 100 100 1000 1000 1000 112 1000 112 500 250 250 1000	4 N (.25)  cles  a S2 2 (2) D R G (2.5) Ba(5)  cles F  (.5)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif.	WFBR WJDX WOOD XEG XFB 1280  KFBB WCAM WCAP WDODD WIBA WORC WRR WTNJ XEMX  1290  KDYL KLCN KTRH WEBC WJAS WNBZ WNEL	ae ae ak kil ae ak ak z ak z	500 1000 500 500 500 1000 1000 1000 500 1000 500 5	R (2.5) a cles (2.5) i 1 C (5) N C i A cles N D C (5) N (2.5) N (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.
WSBC ae WSIX ak WSOC ak WTAX ak XEE z XEFV ak XETH ak  1220 kil CMJE z KFKU ae KTWS ae WCAD ak WCAD ak WDAE ae WRAEN ak WDAE ae WREN ak KGEN ak KGGM ak KGGM ak KYA ae	100 100 100 100 50 100 100 100 500 1000 1000 1000 12 0CYC 100 1100 1000 1100 1000 1100 1000 1100 1000 1100 1000 1000	4	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind.	WFBR WJDX WOOD XEG XFB 1280  KFBB WCAM WCAP WDODD WIBA WORC WRR WTNJ XEMX  1290  KDYL KLCN KTRH WEBC WJAS WNBZ WNEL	ae ae ak kil ae ak ak z ak z	500 1000 500 500 500 1000 1000 1000 500 1000 500 5	R (2.5) a cles (2.5) i 1 C (5) N C i A cles N D C (5) N (2.5) N (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.
WSBC ae WSIX ak WSOC ak WTAX ak XEEY ak 1220 kil CMJE z KFKU ae KTW ak KWSC ae WCAD ak WCAD ak WCAE ac WREN ak WDAE ac WREN ak KGAE KGBX ak KGBX ac WFBM ac Ac WFBM ac WFBM ac Ac WFBM ac Ac WFBM ac	100 100 100 100 100 100 100 100 1000 1000 1000 1000 1000 112 500 112 500 1000 112 500 1000 1100 1000 1100 1000	4 N (.25)  cles  a S2 2 (2) D R G (2.5) Ba(5)  cles F  (.5)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDODD WIBA WOOD WIBA WTR WTN XEMX 1290 KDYL KLCN KTRH WEBC WJAS WNBZ WNEL 1300	ae ak z ak ak z kil ak z ak ak kil	500 1000 500 500 500 1000 1000 1000 500 5	R (2.5) a cles (2.5) 1 C (5) N C I A cles N C (5) N C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.
WSBC ae WSIX ak WSOC ak WTAX ak XEEY ak 1220 kil CMJE z KFKU ae KTW ak KWSCAD ak WCAD ak WCAD ak WCAD ak WCAE ak WCAD ak KGBX ak KGGM ak KGBX ak KGGM ak	100 100 100 100 100 100 100 1000 1000	4 N (.25) cles a S2 2 (2) D R C (2.5) Ba(5) cles F (.5) N C C (2.5)	Chicago, III. Spring field, Tenn. Charlotte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOOD WIBA WORR WTNJ XEMX 1290 KDYL KLCN KTRH WEBC WJAS WNBZ WNEL 1300 CMKJ	ae ak z kil ak z ak z ak z ak kil z	500 1000 500 500 500 1000 1000 1000 500 1000 500 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	R (2.5) a cles (2.5) i	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba
WSBC ae WSIX ak WSOC ak WTAX ak XEEY ak 1220 kil CMJE z KFKU ae KTW ak KWSCAD ak WCAD ak WCAD ak WCAD ak WCAE ak WCAD ak KGBX ak KGGM ak KGBX ak KGGM ak	100 100 100 100 100 100 100 1000 1000	4 N (.25) cles a S2 2 (2) D R C (2.5) Ba(5) cles F (.5) N C C (2.5)	Chicago, III. Spring field, Tenn. Charlotte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOD WIBA WRR WTNJ XEMX 1290 KDYL KLCN KTRH WEBC WJAS WNBZ WNEL 1300 CMKJ HIZ	ae ak kil ae ae ae ae ae ae ae ak kil ak zak ae k	500 1000 500 500 500 1000 1000 1000 100	R (2.5) a cles (2.5) i	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver. 234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F. 232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R. 230.6 meters Guantanamo, Cuba Santo Domingo, D. R.
WSBC ae WSIX ak WSOC ak WTAX ak XEEV ak XETH ak 1220 kil CMJE z KFKU ae KTW ak WCAD ak WGAD ak KGBX ak	100 100 100 100 100 100 100 100 1000 1000 1000 1000 112 500 112 500 1000 112 500 1000 10	4 N (.25) cles s2 2 (2) D R C (2.5) Ba(5) cles F (.5) C (2.5) cles	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.  241.8 meters	WFBR WJDX WOOD XEG XFB 1280  KFBB WCAM WCAP WDODD WIBA WORR WTNJ XEMX  1290  KDYL KLCN KTRH WEBC WJAS WNBZ WNEL  1300  CMKJ HIZ KALE	ae a	500 1000 500 500 500 1000 1000 1000 500 5	R (2.5) a cles (2.5) 1 1 C (5) N C C (5) N C C (5) N C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore.
WSBC ae WSIX WSOC ak WTAX As XEFY ak 1220 kil CMJE Z KFKU ae KTW ak KWSC ae WCAD ak WCAE ak KGBX ak	100 100 100 100 100 100 100 1000 1000	4 N (.25) cles a S2 2 (2) D R C (2.5) Ba(5) cles F (.5) N C C (2.5)	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.  241.8 meters	WFBR WJDX WOOD XEG 1280 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNI XEMX 1290 KDYL KLCN KTRH WEBC WJAS WNBZ WNBL 1300 CMKJ HIZ KALE KALE KFAC	ae a	500 1000 500 500 1000 1000 1000 1000 500 5	R (2.5) a cles (2.5) 1 1 C (5) N C C (5) N C C (5) N C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore.
WSBC ae WSIX ak WSOC ak WTAX ak XEEV ak XETH ak 1220 kil CMJE z KFKU ae KTW ak WCAD ak WFEM ak XETF z 1230 kil CJOC ak KGBX ak KGBX ak KYA ae WFBM ak XETJ ak 1240 kil CJCB ak CGMCB ak CGMCB ak CGMCB ak KGBX ak KYA ae WFBM ac CMCB ak CGMCB ak CGM	100 100 100 100 100 100 100 100 1000 1000 1000 1000 112 0Cy( 100 100 112 50 1000 112 50 1000 1000 10	4 N (.25) cles s2 2 (2(2) D R C (2.5) Ba(5) cles F C (2.5) N C C (2.5) Eles F	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.  241.8 meters	WFBR WJDX WOOD XEG XFB 1280  KFBB WCAM WCAP WDODD WIBA WORR WTNJ XEMX 1290 KDYL KLCN KTRH WEBC WJAS WNBZ WNEL 1300  CMKJ HIZ KALE KFAC KFAC KFAC	ae a	500 1000 500 500 500 1000 1000 1000 500 5	R (2.5) a cles (2.5) 1 1 C (5) N C C (5) N C (2.5) C (2.5) C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore.
WSBC ae WSIX ak WSOC ak WTAX ak XEEY ak XETH ak 1220 kil CMJE ZKFKU ak KWSCA ae WCAD ak WCAE ak WCAE ak WCAE ak WCAE ak WCAE ak WCAE ak KGBX ak KGBX ak KGGM ak KGBX ak KGGM ak KGA ae WFAC AC MCB ak KGBX ak KGA ae WFAC AC MCB ak KGBX ak KGGM ak KGBX ak KGGM ak KGA ae WFAC AC MCB Ak KGA ae WFAC AC A	100 100 100 100 100 100 100 100 1000 1000 1000 1000 112 0Cy( 100 100 112 50 1000 112 50 1000 1000 10	4 N (.25) cles a 2 2 (2) R C (2.5) Ba(5) cles F C (2.5) N C C (2.5) N C C (2.5) N C C (2.5) In C C C (2.5) In C C C (2.5) In C C C C C C C C C C C C C C C C C C C	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.  241.8 meters	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOOD WIBA WORR WTNJ XEMX 1290 KDYL KLCN KTRH WEBC WJAS WNBZ WNEL 1300 CMKJJ HIZ KALE KFAC KFH KFJR	ae ak zak kil ak zak ae kil zak kil zak ak kil zak ae kil zak ae kil zak ak kil zak ak a	500 1000 500 500 500 1000 1000 1000 500 1000 500 1000	R (2.5) a cles (2.5) i 1 C (5) N C cles N D C (5) N (2.5) N (2.5) C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore.
WSBC ae WSIX WSOC ak WSAX ak XEE ZEFV ak 1220 kil CMJE z KFKU ae KTWSC ae WCAD ak WDAE ae WCAD ak WDAE ae WREN ak WDAE ae WREN ak WDAE ae WREN ak WDAE ae WREN ak T230 kil CJOC ak CMCB ak KGBX ak KGGX ak KYA WNAC ak XEFJ ak 1240 kil CJCMB ak CGMB ak KYA WNAC ak XEFJ ak 1240 kil CJCMB ak KGGU ak KGGU ak KGGU ak KGGU ak	100 100 100 100 100 100 100 1000 1000	4 N (.25) cles s2 2 (2) R C (2.5) Ba(5) cles F (.5) C (2.5) C (2.5) cles F	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.  241.8 meters	WFBR WJDX WOOD XEG 1280 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX 1290 KDYL KLCN KTRH KUCH KUCH KUCH KUCH KUCH KUCH KUCH KUC	ae a	500 1000 500 500 500 1000 1000 1000 500 5	R (2.5) a eles (2.5) 1 C (5) N C I A eles N D C (5,5) C (2.5) C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore.
WSBC ae WSIX ak WSOC ak WTAX ak XEEV ak XEEV ak XETH ak 1220 kil CMJE z KFKU ae KTWC AE WCAD ak WCAD ak WCAD ak WCAD ak WCAD ak WCAD ak KGBX ak KGBX ak KYA WFBM ae WNAC XEFJ ak 1240 kil CJCB ak KGCM ak KYA ae WNAC XEFJ ak 1240 kil CJCB ak KGCM ak KYA ae WFBM ae WNAC XEFJ ak 1240 kil CJCB ak KGCM ak KYA ae WKATAT ak KGCU ak KLPM ak KTAT ak	100 100 100 100 100 100 100 100 1000 1000 1000 1000 112 500 112 500 112 500 1000 10	4 N (.25) cles S2 2 (2(2) D R C (2.5) Ba(5) cles F Cles F cles F cles	Chicago, III. Spring field, Tenn. Charlo tte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.  241.8 meters	WFBR WJDX WOOD XEG XFB 1280 KFBB WCAM WCAP WDOOD WIBA WORC WTNJ XEMX 1290 KDYL KLCN KJCH WEBC WIAS WNBZ WNEL 1300 CMKJ HIZ KALE KFAC KFAC KFJR WBBR WEVD	ne n	500 1000 500 500 500 1000 1000 1000 500 1000 500 1000	R (2.5) a cles (2.5) 1 1 C (5) N C cles N O (2.5) D C (5) N (2.5) D C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore. Los Angeles, Calif. Wichita, Kans. Portland, Ore. Brooklyn, N. Y.
WSBC ae WSIX WSOC ak WSAX ak XEE ZEFV ak 1220 kil CMJE z KFKU ae KTWSC ae WCAD ak WDAE ae WCAD ak WDAE ae WREN ak WDAE ae WREN ak WDAE ae WREN ak WDAE ae WREN ak T230 kil CJOC ak CMCB ak KGBX ak KGGX ak KYA WNAC ak XEFJ ak 1240 kil CJCMB ak CGMB ak KYA WNAC ak XEFJ ak 1240 kil CJCMB ak KGGU ak KGGU ak KGGU ak KGGU ak	100 100 100 100 100 100 100 1000 1000	4 N (.25) cles s2 2 (2) R C (2.5) Ba(5) cles F (.5) C (2.5) C (2.5) cles F	Chicago, III. Spring field, Tenn. Charlotte, N. C. Spring field, III. Durango, Dgo. Juarez, Chih. Puebla, Pue.  245.8 meters Camaguey, Cuba/ Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fia. Lawrence, Kas. Veracruz, Ver.  243.8 meters Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.	WFBR WJDX WOOD XEG 1280 1280 KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX 1290 KDYL KLCN KTRH KUCH KUCH KUCH KUCH KUCH KUCH KUCH KUC	ae a	500 1000 500 500 500 1000 1000 1000 500 5	R (2.5) a eles (2.5) 1 C (5) N C I A eles N D C (5,5) C (2.5) C (2.5) C (2.5) C (2.5)	Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.  234.2 meters Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.  232.4 meters Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.  230.6 meters Guantanamo, Cuba Santo Domingo, D. R. Portland, Ore.

NADEX BI FREQUENCIES					
WHAZ ae 500 WIOD ae 1000	1 Troy, N. Y. N Miami, Fla.	WDRC ae WSAI ak WTAQ ae	1000 1000 1000	C (2.5) R (2.5) 1	Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis.
1310 kilocycl	les 228.9 meters	1240 1-9	:1	1	222 7
CTTCTT 1 FA	Charlottetown P.R.I.	1340 ki	посус	ies	223.7 meters
CIVI - 100	Kirkland Lake, Ont	KFPY ak	1000	C	Spokane, Wash. Huron, S. D. Dodge City, Kans. Pensacola, Fla.
CJLS z 100	Yarmouth, N. S. F Quebec, Que.	KGDY ak		D	Huron, S. D.
CKCV ak 50 KCRJ ak 100	D Jerome, Ariz.	KGNO ak WCOA ak	500	C (1)	Penyacola Fia
KFBK ak 100	D Jerome, Ariz. C Sacramento, Calif. Dublin, Texas Greenville, Texas (.25) Oklahoma City, Ok. (.25) Lubbock, Texas (.25) Lubbock, Texas	WFEA ae		Ğ (1)	manchester, N. H.
KFPL dkh 100	Dublin, Texas	WSPD ae	1000	C (2.5)	Toledo, Ohio Orizaba, Ver.
KFPM ae 15 KFXR ak 100	Greenville, Texas	XFD z	250	• • • •	Orizaba, Ver.
KFXR ak 100 KFYO ak 100	(.25) Oklahoma City, Ok. (.25) Lubbock, Texas				
KGCX ak 100		1350 ki	ilocyc	100	222.1 meters
KCEZ at 100	Kalispell, Mont. Kearney, Neb. (.25) Yakima, Wash.	1	-	103	
KGFW ak 100	(.25) Kearney, Neb.	CMCA z	435	(2.5)	Havana, Cuba Bolse, Idaho
KIT ak 100 KIUJ z 100	Santa Fe. N. Mex.	KIDO ak KWK ak		B (5)	St. Louis, Mo.
KMED ck 100	Santa Fe, N. Mex. (.25) Medford, Ore.	WAWZ ae	500	i (i)	Zarephath, N. J.
KRMD ak 100	Shreveport, La. P Rochester, Minn.	WBNX ae	250	1	Zarephath, N. J. New York, N. Y.
KROC z 100	P Rochester, Minn.	1			
KTSM ak 100 KXRO ak 100	El Paso, Texas	1360 ki	ilocyc	les	220.4 meters
	Aberdeen, Wash. Laurel, Miss.	1300 K	Hocyc	100	220.1 IIICCCIG
WBEO ae 100		CMJH ak		• • • •	Ciego de Avila, Cuba
	(.25) Terre Haute, Ind.	KGER ak		11 73 To	Long Beach, Calif.
WDIE AL IO	Wilkes Barre, Pa. Joliet, Ill.	KGIR ak WCSC ae		N (2.5)	Butte, Mont.
WCLS ae 100 WCMI z 100	DP Ashland, Ky.	WCSC ae		(1) C (5)	Charleston, S. C. Syracuse, N. Y.
WDAH ak 100	S El Paso, Texas	WGES ae	500	1	Cnicago, iii.
WEBR ae 100	(.25) Buffalo, N. Y.	WQBC ak	1000	D	Vicksburg, Miss. South Bend, Ind.
WEXL ak 50 WFBG ae 100	3 Altoona, Pa.	WSBT ak	5,00	1	South Bend, Ind.
WEDE on 100	Flint, Mich.	10701			010.0
WGH ae 100	(.25) Newport News, va.	1370 k	ilocyc	eies	218.8 meters
WHAT ak 100	4 Philad elphia, Pa.	1	-		
WJAC ae 100 WLBC ak 50	Johnstown, Pa. 6 (.1) Muncle, Ind.	CKCW z	100 30	F	Moncton, N. B. Cardenas, Cuba
WLNH ak 100	D Laconia, N. H. Auburn, N. Y. D Plattsburg, N. Y.	CMGE z KCRC ak		2 (.25)	Enid, Okla.
WMBO ak 100	D Auburn, N. Y. Plattsburg, N. Y.	KELD z	100	P `	El Dorado, Ark. Bakersfield, Calif.
WMFF Z 100	(.25) C New Bedford, Mass.	KERN ak		• • • • •	Bakers field, Calif.
WOI 99 100	(.25) A Washington, D. C.	KFGO ak KFJM ak		(.25)	Boone, Iowa Grand Forks, N. D. Fort Worth, Texas Longview, Texas Tucson, Ariz. Oklohema City, Ok
WRAW ak 100	Reading, Pa. Knoxville, Tenn.	KFJZ ae	100		Fort Worth, Texas
WROL ak 100		KFRO z	100	D <sub>2</sub>	Longview, Texas
WSAJ ae 100 WSGN ak 100	(.25) Grove City, Pa. Birmingham, Ala.	KGAR ae KGFG bk		(.25) 2	Oklahoma City, Ok.
WSJS ak 100	(.25) Birmingham, Ala. C Winston-Salem, N.C. P Tallahassee, Fla.	KGFL ak		4	Roswell, N. M.
WTAL z 100	P Tallahassee, Fla.	KGKL ak	100	(.25)	San Angelo, Texas Clovis, N. M.
WTEL ah 100	4 Philadelphia, Pa. (.25) Jackson, Tenn.	KICA ak	100	4 (.25)	Clovis, N. M.
WTJS ak 100 WTRC ak 50	6 (.1) Elkhart, Ind.	KLUF 2 KMAC ak	100 10 <b>0</b>	5	Galveston, Texas
XEAJ z 15	Cazaca, Camp.	KONO ak	100	_	San Antonio, Texas San Antonio, Texas
XEC z 50	Tijuana, B. C.	KRE ak	100	(.25)	Berkeley, Calif.
XECW z 10 XEFC ak 100	(.25) Jackson, Tenn. 6 (.1) Elkhart, Ind. Cazaca, Camp. Tijuana, B. C. Mexico City, D. F. Merida, Yuc.	KRKO ak	50 100	D D	San Antonio, Texas San Antonio, Texas Berkeley, Calif. Everett, Wash. Salem, Ore. Walla Walla, Wash.
XEFW ak 250	Merida, Yuc. Tampico, Tams.	KSLM z			Waila Walla, Wash.
XELM Z 15	Mineral del Monte	KVI. ak	100	i	Kansas City, Mo. Sheridan, Wyo. Albany, N. Y. Dothan, Ala.
XETB z 125	Torreon, Coah.	KWKC z KWYO ak	100		Kansas City, Mo.
XEX ak 125	Monterrey, N. L.	KWYO ak WABY ak	100 100	<u>.</u>	Sneridan, Wyo.
1220 1-11	1 227 1 mast one	WAGF ak		A (.25)	Dothan, Ala.
1320 kilocyc	eles 227.1 meters	WBTM ak	100	(.25) (.25) A	Danville, Va.
CMCK z 100	P Havana, Cuba	WCBM ae		(.25) A	Baltimore, Md.
CMOX z 250	P Havana, Cuba Havana, Guba Pueblo, Colo. C Honolulu, T. H. Idaho Falls, Idaho	WDAS ae		(.25) C	Fort Wayne Ind
KGHF ak 500	C Pueblo, Colo. Honolulu, T. H.	WHBQ ak			Memphis, Tenn.
KGMB ak 250 KID ae 250	(.5) Idaho Falls, Idaho	WHDF ak	100	(.25) (.25)	Memphis, Tenn. Calumet, Mich. Jackson, Mich. Atlanta, Ga. Lowell, Mass.
KRNT ak 500	C (.5) Des Moines, Iowa	WIBM ak		(.25)	Jackson, Mich.
WADC ae 1000	C (2.5) Akron, Ohio York, Pa. N New Orleans, La.	WJTL ae WLLH ak		( 25)	Atlanta, Ga.
WORK ak 1000 WSMB ak 1000	N New Orleans, La.	WMBR ak		(.25) C	Jacksonville, Fla.
MONID BE 1000		WMFD z	100	DP	Wilmington, N. C.
1330 kilocyc	eles 225.4 meters	WMFO z	100	DP	Decatur, Ala.
-		WOC z WPAY ak WPFB ak	100 100	$\mathbf{c}$	Davenport, Iowa Portsmouth, Ohio
CMHK z 250 KGB ac 1000	Cruces, Guba	WPFR ak	100		Hattlesburg, Miss.
KGB ag 1000 KMO ak 250	C (2.5) San Diego, Calif. Tacoma, Wash. 1C (2.5) Sioux City, Iowa	WQDM ae	100	D	St. Albans, Vt.
KSCJ aj 1000	1C (2.5) Sioux City, Iowa	WRAK ak		<b>(.25)</b>	Williamsport, Pa.

. INDEA DI I	ICE QUENCIES ,
WRDO ae 100 Augusta, Maine	WEED ak 100 3 Rocky Mount, N. C.
WRJN ak 100 Racine, Wis. WSVS ak 50 D Buffalo, N. Y.	WEHC ae 100 3 (.25) Charlottesville, Va.
WRDO ae         100         Augusta, Maine           WRJN ak         100         Racine, Wis.           WSVS ak         50         D         Buffalo, N. Y.           XEFZ         ae         100         Mexico City, D. F.           VEI         ab         Mexico City, D. F.	WEHS ak 100 a Cicero, III.
XEFZ ae 100 Mexico City, D. F. XEI ak 125 Morelia, Mch.	WELL ak 100 Battle Creek, Mich. WGPC ak 100 Albany, Ga.
ALI ak 125 Morena, Mcn.	WGPC ak 100 Albany, Ga. WHDL ak 100 D Olean, N. Y.
XEZZ z 100 San Luis Potosi, SLP z 100 DP Astoria, Ore.	WHFC ae 100 a Clcero, Ill.
Z 100 Di Astoria, Ore.	WILM at 100 2 Wilmington Del.
1380 kilocycles 217.3 meters	WJBO z 100 Baton Rouge, La.
1380 kilocycles 217.3 meters	WJMS ak 100 Ironwood, Mich.
CMBX ak 171 Havana, Cuba	WKBI ak 100 a. Cicero, Ill.
CMJC z 150 Camaguey, Cuba	WLAP ak 100 (.25) Lexington, Ky. WLBF ak 100 Kansas City, Kans.
KOH ak 500 C Reno, Nev.	WLBF ak 100 Kansas City, Kans. WLEU z 100 P (a25) Erie, Pa.
KOV ak 500 2 Pittsburgh, Pa.	WLEU z 100 P (a25) Erie, Pa. WMAS ak 100 C (.25) Springfield, Mass.
WALA ae 500 C(1) Mobile, Ala. WKBH ae 1000 LaCrosse Wis.	WMAS ak
WKBH ae 1000 LaCrosse Wis. WMFE z 250 PD New Britain, Conn.	WMBC ae 100 (.25) Detroit, Mich. WMBH ak 100 (.25) Joplin, Mo.
WSMK ak 200 C Dayton, Ohio	WMFJ z 100 P Daytona Beach, Fla.
Wolfie and Down of Dayton, Onto	WMFJ z 100 P Daytona Beach, Fla. WNRA ak 100 D Muscle Shoals, Ala.
1390 kilocycles 215.7 meters	WPAD ak 100 (.25) Paducah, Ky.
1390 KHOCYCIES 213.7 IIIECEIS	WPRP z 100 P (.25) Ponce, P. R. WWC z 1000 P Spartanburg, S. C.
CJRC ck 100 F Winnipeg, Man.	XFAZ Z Z Z Guaniuata Cta
HIH ak 15 1395 San Ped, de Macoria, DR	XEFB ak 100 Monterrey, N. L z 100 P Parkersburg, W. Va.
KLRA ae 1000 C (2.5) Little Rock, Ark.	z 100 P Parkersburg, W. Va.
KOY ae 500 (1) Phoenix, Ariz.	
WHK as 1000 C (2.5) Cleveland, Ohio	1420 1-111 200 74
1400 1-111 214 24	1430 kilocycles 209.7 meters
1400 kilocycles 214.2 meters	CMJP ak 75 Moron, Cuba
KLO ae 500 C Ogden, Utah KTUL ak 500 C Tulsa, Okla. TGX ak 150 Guatemala City. Gt.	CMJP ak 75 Moron, Cuba KECA ak 1000 (5) Los Angeles, Calif.
KLO ae 500 C Ogden, Utah	VCNE at 1000 D Neath Diete Nat
KLO ae 500 C Ogden, Utah KTUL ak 500 C Tulsa, Okla.	KGNF ak 1000 D North Platte, Neb. WBNS ae 500 C (1) Columbus, Ohio WHEC ae 500 C (1) Rochester, N. Y. WHP ak 500 C (1) Harrisburg, Pa.
TGX ak 150 Guatemala City, Gt.	WHEC se 500 C(1) Rochester N. V.
WADD at 500 2 Reachive N V	WHP ak 500 C(1) Harrisburg, Pa.
TGX ak 150 Guatemala City, Gt. WARD ak 500 2 Brooklyn, N. Y. WBBC ae 500 2 (1) Brooklyn, N. Y. WIRE ak 500 N (1) Indianapolis, Ind.	WNBK ae 500 (1) Memphis, Tenn.
WIRE ak 500 N (1) Indianapolis, Ind. WLTH ak 500 2 Brooklyn, N. Y.	WOKO ae 500 C(1) Albany, N. Y.
WBBC ae 500 2 (1) Brooklyn, N. Y. WIRE ak 500 N (1) Indianapolis, Ind. WLTH ak 500 2 Brooklyn, N. Y. WVFW ak 500 2 Brooklyn, N. Y.	
77 T 17 MR 000 2 D100MyM, 11. 1.	11110 leileorrolee 200 2 mantene
	1440 KHOCVCIES 200.2 meters
1410 1-111 212 6	1440 kilocycles 208.2 meters
1410 kilocycles 212.6 meters	l ·
•	KDFN ak 500 Casper, Wyo. KLS ae 250 D Qakland, Calif.
CKFC ak 50 5 Vancouver, B. C.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas
CKFC ak 50 5 Vancouver, B. C.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro. N. C.
CKFC ak 50 5 Vancouver, B. C.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. WCBA aj 500 a Allentown, Pa. WMBD ae 500 C (1) Peoria, Ill.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) Amarillo, Texas WAAB ak 500 C Boston, Mass.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. WCBA aj 500 a Allentown, Pa. WMBD ae 500 C (1) Peorla, Ill. WSAN aj 500 a Allentown, Pa.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) Amarillo, Texas WAAB ak 500 C Boston, Mass.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. WCBA aj 500 a Allentown, Pa. WMBD ae 500 C (1) Peoria, Ill.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) Amarillo, Texas WAAB ak 500 C Boston, Mass. Bay City, Mich. CMDAC ae 1000 1 (2.5) Amarillo, Texas	KDFN ak
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) Amarillo, Texas WAAB ak 500 C Boston, Mass. Bay City, Mich. CMDAC ae 1000 1 (2.5) Amarillo, Texas	KDFN ak
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) Amarillo, Texas WAAB ak 500 C Boston, Mass. Bay City, Mich. CMDAC ae 1000 1 (2.5) Amarillo, Texas	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. Allentown, Pa. WGBA aj 500 a Allentown, Pa. XEFI ae 250 Chihuahua, Chih. 1450 kilocycles 206.8 meters
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) Amarillo, Texas WAAB ak 500 C Boston, Mass. WBCM ae 500 4 Sheboygan, Wis. WHIS ak 250 2(.5) Bluefield, W. Va. WROX ae 250 2 (.5) Bluefield, W. Va. WROX ak 500 4 Rockford, Ill.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. Allentown, Pa. WMBD ae 500 C (1) Peoria, III. WSAN aj 500 a Allentown, Pa. XEFI ae 250 Chihuahua, Chih.  1450 kilocycles 206.8 meters CFCT ae 75 Victoria, B. C.
CKFC         ak         50         5         Vancouver, B. C.           CKMO         ag         100         5F         Vancouver, B. C.           CMCR         z         122         Havana, Cuba           KABB         ak         500         C         Boston, Mass.           WBCM         ae         500         L         Bay City, Mich.           WDAG         ae         1000         1 (2.5)         Amarillo, Texas           WHBL         ae         500         4         Sheboygan, Wis.           WHIS         ak         250         2 (.5)         Bluefield, W. Va.           WRBX         ae         250         2 (.5)         Roanoke, Va.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. WCBA aj 500 a Allentown, Pa. WMBD ae 500 C (1) Peoria, Ill. WSAN aj 500 a Allentown, Pa. XEFI ae 250 Chihuahua, Chih.  1450 kilocycles 206.8 meters CFCT ae 75 Victoria, B. C. CHGS ae 50 F Summerside, P.E.I.
CKFC         ak         50         5         Vancouver, B. C.           CKMO         ag         100         5F         Vancouver, B. C.           CMCR         z         122         Havana, Cuba           KAAB         ak         500         C         Boston, Mass.           WBCM         ae         500         L         Bay City, Mich.           WDAG         ae         1000         1 (2.5)         Amarillo, Texas           WHBL         ae         500         4         Sheboygan, Wis.           WRBX         ae         250         2 (.5)         Roanoke, Va.           WROK         ak         500         4         Roanoke, Va.           WRSFA         ak         500         C (1)         Montgomery, Ala.	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. WCBA aj 500 a Allentown, Pa. WMBD ae 500 C (1) Peoria, Ill. WSAN aj 500 a Allentown, Pa. XEFI ae 250 Chihuahua, Chih.  1450 kilocycles 206.8 meters CFCT ae 75 Victoria, B. C. CHGS ae 50 F Summerside, P.E.I.
CKFC         ak         50         5         Vancouver, B. C.           CKMO         ag         100         5F         Vancouver, B. C.           CMCR         z         122         Havana, Cuba           KAAB         ak         500         C         Boston, Mass.           WBCM         ae         500         L         Bay City, Mich.           WDAG         ae         1000         1 (2.5)         Amarillo, Texas           WHBL         ae         500         4         Sheboygan, Wis.           WRBX         ae         250         2 (.5)         Roanoke, Va.           WROK         ak         500         4         Roanoke, Va.           WRSFA         ak         500         C (1)         Montgomery, Ala.	KDFN ak 500   Casper, Wyo.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba MABB ak 500 C Boston, Mass. Boston, Mass. Boston, Mass. WHBL ac 500 4 SWHBL ac 250 4 SWHBL ac 250 2 (.5) WROK ak 500 4 WROK ak 500 4 Rockford, Ill. WSFA ak 500 C (1) Montgomery, Ala.	KDFN ak 500   Casper, Wyo.
CKFC ak 50 5 Vancouver, B. C. Vancouver, Concouver, C. Vancouver, C. Vancouver, Concouver, C. Vancouver, C. Vancouv	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. Allentown, Pa. WMBD ae 500 C (1) Peoria, III. Allentown, Pa. XEFI ae 250 Chihuahua, Chih.   1450 kilocycles   206.8 meters
CKFC ak 50 5 Vancouver, B. C. Vancouver, Concouver, C. Vancouver, C. Vancouver, Concouver, C. Vancouver, C. Vancouv	KDFN ak 500   Casper, Wyo.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba KGRS ae 1000 1 (2.5) Manarillo, Texas Boston, Mass. Boston, Mass. WDAG ae 1000 1 (2.5) By City, Mich. Amarillo, Texas Sheboygan, Wis. WHBL ae 500 4 Sheboygan, Wis. WRBX ae 250 2 (.5) Bluefield, W. Va. WROK ak 500 4 Rockford, Ill. WSFA ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters CKGB ak 100 F Toronto, Ont. CMCI 2 30 Colon, Cuba	KDFN ak
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba KGRS ae 1000 1 (2.5) Manarillo, Texas Boston, Mass. Boston, Mass. WDAG ae 1000 1 (2.5) By City, Mich. Amarillo, Texas Sheboygan, Wis. WHBL ae 500 4 Sheboygan, Wis. WRBX ae 250 2 (.5) Bluefield, W. Va. WROK ak 500 4 Rockford, Ill. WSFA ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters CKGB ak 100 F Toronto, Ont. CMCI 2 30 Colon, Cuba	KDFN ak 500 Casper, Wyo. KLS ae 250 D Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. Allentown, Pa. WMBD ae 500 C (1) Peoria, III. Allentown, Pa. XEFI ae 250 Chihuahua, Chih.   1450 kilocycles   206.8 meters
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba KGRS ae 1000 1 (2.5) Manarillo, Texas Boston, Mass. Boston, Mass. WDAG ae 1000 1 (2.5) By City, Mich. Amarillo, Texas Sheboygan, Wis. WHBL ae 500 4 Sheboygan, Wis. WRBX ae 250 2 (.5) Bluefield, W. Va. WROK ak 500 4 Rockford, Ill. WSFA ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters CKGB ak 100 F Toronto, Ont. CMCI 2 30 Colon, Cuba	KDFN ak 500 Casper, Wyo. Oakland, Calif. KXYZ ak 1000 Houston, Texas WBIG ae 500 C (1) Greensboro, N. C. Allentown, Pa. WMBD ae 500 C (1) WSAN aj 500 a Allentown, Pa. XEFI ae 250 Chihuahua, Chih.  1450 kilocycles 206.8 meters CFCT ae 75 Chihuahua, Chih. Summerside, P.E.I. Summerside, P.E.I. Shreveport, La. Cleveland, Ohio WGAR ak 500 B (1) WHOM ae 250 Jersey City, N. J. WSAR ae 250 Fall River, Mass. WTF1 ak 500 Fall River, Mass. Athens, Ga.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. Vancouver, C	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. Vancouver, College Bouton, Custon, College Bouton, Custon, College Bouton, Custon, Cu	KDFN ak 500   Casper, Wyo.
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. Vancouver, B. Cuch Councer, Cuch Pavers, Cuch P	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. Vancouver, B. Cuch Councer, Cuch Pavers, Cuch P	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. Vancouver, B. C. Vancouver, B. C. CMCR 2 122 Havana, Cuba Amarillo, Texas Boston, Mass. Boston, Mass. Bay City, Mich. Amarillo, Texas Sheboygan, Wis. WhBL ae 500 4 Sheboygan, Wis. WHIS ak 250 2 (.5) Bluefield, W. Va. WRBX ae 250 2 (.5) Roanoke, Va. WROK ak 500 4 Rockford, Ill. WSFA ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters  CKGB ak 100 Timmins, Ont.  CKNC ak 100 F Toronto, Ont.  CKNC ak 100 San Antonio, Texas KABC ak 100 San Francisco, Cal. KGGC ak 100 San Francisco, Cal. KGGC ak 100 San Francisco, Cal. KGGC ak 100 San Francisco, Cal.	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba MABA ak 500 C Havana, Cuba Boston, Mass. Boston, Mass. Bay City, Mich. Amarillo, Texas Boston, Mass. Bay City, Mich. Amarillo, Texas Sheboygan, Wis. WHBL ac 500 4 Sheboygan, Wis. WRBX ac 250 2(.5) Roanoke, Va. WROK ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters  CKGB ak 100 Timmins, Ont. Toronto, Ont. CMG1 z 30 Colon, Cuba KABR z 100 D Aberdeen, S. Dak. KBPS aj 100 4 Portland, Ore. KCMC ak 100 Texarkana, Ark. KFIZ ak 100 Fond du lac, Wis. KGGF ak 100 San Francisco, Cal. KGIW ak 100 P (.25) Las Vegas, Ney.	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba MAB ak 500 C Bay City, Mich. Mass. Boston, Mass. Boston, Mass. Bay City, Mich. Amarillo, Texas Sheboygan, Wis. WHBL ae 500 4 Sheboygan, Wis. WHBX ak 250 2(.5) Bluefield, W. Va. WRBX ae 250 2(.5) Bluefield, W. Va. WROK ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters  CKGB ak 100 Timmins, Ont. CMGI z 30 Colon, Cuba KABR z 100 D Aberdeen, S. Dak. KBPS aj 100 4 Portland, Ore. KCMC ak 100 San Antonio, Texas KABC ak 100 San Shawnee, Okla. KGFF ak 100 Shawnee, Okla. KGFF ak 100 San Francisco, Cal. KGIW ak 100 I Alamosa, Colo. KGIW ak 100 P(.25) KIDW z 100 P	KDFN ak 500
CKFC ak 50 5 CKMO ag 100 5F CKMO ag 100 5F CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) WAAB ak 500 C WBCM ae 500 Bay City, Mich. WDAG ae 1000 1 (2.5) WHBL ae 500 4 WHIS ak 250 2(.5) WROK ak 500 4 WSFA ak 500 C (1) WSFA ak 500 C (1)  Montgomery, Ala.  1420 kilocycles  CKGB ak 100 San Antonio, Texas KABC ak 100 San Antonio, Texas KABC ak 100 San Antonio, Cras KABR z 100 D KABR z 100 Trimmins, Ont. CKMC ak 100 F CMGI z 30 Colon, Cuba KABR z 100 San Antonio, Texas KABC ak 100 San Antonio, Texas KABC ak 100 Fond du Lac, Wis. KGFC ak 100 San Francisco, Cal. KGGW ak 100 San Francisco, Cal. KGGW ak 100 San Francisco, Cal. KGIW ak 100 I Alamosa, Colo. KIIN z 100 P Pecos, Texas Eugene, Ore.	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. Vancouver, B. Cubs Amarillo, Texas Boston, Markle, W. Markle, Vancouver, Markle, Vancouver	KDFN ak 500
CKFC ak 50 5 Vancouver, B. C. CKMO ag 100 5F Vancouver, B. C. CMCR 2 122 Havana, Cuba Amarillo, Texas Boston, Mass. Bay City, Mich. Amarillo, Texas Boston, Mass. Bay City, Mich. Amarillo, Texas Boston, Mass. Bay City, Mich. Amarillo, Texas Sheboygan, Wis. WHBL ac 500 4 Sheboygan, Wis. WRBX ac 250 2(.5) Roanoke, Va. WROK ak 500 C (1) Montgomery, Ala.  1420 kilocycles 211.1 meters  CKGB ak 100 Timmins, Ont. CMGI z 30 Colon, Cuba KABR z 100 D Aberdeen, S. Dak. KBPS aj 100 4 Portland, Ore. KCMC ak 100 Texarkana, Ark. KFIZ ak 100 Fond du lac, Wis. KGFF ak 100 Fond du lac, Wis. KGFF ak 100 San Francisco, Cal. KGIW ak 100 I Alamosa, Colo. KGIW ak 100 I Alamosa, Colo. KGIW ak 100 I Alamosa, Colo. KGIW ak 100 P (.25) KIDW z 100 P Pecos, Texas KORE ac 100 P Lewiston, Idaho Yuma, Arlz.	KDFN ak 500
CKFC ak 50 5 CKMO ag 100 5F CKMO ag 100 5F CMCR z 122	KDFN ak 500
CKFC ak 50 5 CKMO ag 100 5F CKMO ag 100 5F CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) WAAB ak 500 C WBCM ae 500 Bay City, Mich. WDAG ae 1000 1 (2.5) WHBL ae 500 4 WHIS ak 250 2(.5) Bluefield, W. Va. WROK ak 500 C (1) WSFA ak 500 C (1) WSFA ak 500 C (1) WSFA ak 500 C (1)  Montgomery, Ala.  1420 kilocycles  CKGB ak 100 Timmins, Ont. CKNC ak 100 F Toronto, Ont. CKNC ak 100 F Toronto, Ont. CMGI z 30 Colon, Cuba KABC ak 100 San Antonio, Texas KABC ak 100 San Antonio, Texas KABC ak 100 San Antonio, Texas KABC ak 100 Fond du lac, Wis. KFIZ ak 100 Fond du lac, Wis. KGFF ak 100 San Francisco, Cal. KGGC ak 100 San Francisco, Cal. KGIX ak 100 I Alamosa, Colo. KGIX ak 100 P (.25) KIDW z 100 I Lamar, Colo. KUMA ak 100 Eugene, Ore. KRLC z 100 P Pecos, Texas KMBG z 100 P Lewiston, Idaho KWBG z 100 L (25) Portland, Ore.	KDFN ak 500
CKFC ak 50 5 CKMO ag 100 5F CKMO ag 100 5F CMCR z 122 Havana, Cuba KGRS ae 1000 1 (2.5) WAAB ak 500 C WBCM ae 500 Bay City, Mich. WDAG ae 1000 1 (2.5) WHBL ae 500 4 WHIS ak 250 2(.5) Bluefield, W. Va. WRBX ae 250 2(.5) Roanoke, Va. WROK ak 500 4 WSFA ak 500 C (1) Montgomery, Ala.  1420 kilocycles  CKGB ak 100 F CKNC ak 100 F CMGI z 30 Colon, Cuba KABC ak 100 San Antonio, Texas KABC ak 100 San Antonio, Texas KABC ak 100 San Antonio, Texas KABC ak 100 Fond du Lac, Wis. KGFF ak 100 Fond du Lac, Wis. KGFF ak 100 San Francisco, Cal. KGGW ak 100 San Francisco, Cal. KGIW ak 100 San Francisco, Cal. KGIW ak 100 San Francisco, Cal. KGIW ak 100 P KGGC ak 100 P KORE ae 100 P KROR ae 100 P KWACO ak 100 C WACO ak 100 C WACO AR 100 C WACO TEXAS	KDFN ak 500
CKFC ak 50 5 CKMO ag 100 5F CKMO ag 100 5F CMCR 2 122 Havana, Cuba MABA ak 500 C WBCM ae 500 Bay City, Mich. WHAGA ae 1000 1 (2.5) WHBL ae 500 4 WHIS ak 250 2(.5) WROK ak 500 C (1) WSFA ak 500 C (1)  Montgomery, Ala.  Vancouver, B. C. Vanacuter Vanacuter Versal Marsh, Colo Vancouver, B. C. Vanacuter Versal Marsh, Cuba Vancouver, B. C. Vancouver, B. C. Vanacuter Vancounder Value Amarillo, Texas Shebogan, Wis. Botter Vancounder Value Amarillo, Texas Shebogan, Wis. Botter Vancounder Value Amarillo, Texas Shebogan, Wis. Botter Vancounder Value Amarillo, Texas Shebogan Value Value Amarillo, Texas Shebogan Value Value Value Value Vancounder Value Valu	KDFN ak 500
CKFC ak 50 5 CKMO ag 100 5F CKMO ag 100 5F CMCR z 122	KDFN ak 500

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. A American.

ALABAMA	Hot Springs	Modesto	Pueblo
Birmingham	KTHS 1060 10000 N	KTRB 740 250	KGHF 1320 500
WAPI 1140 5000 N	Jonesboro	Oakland 250	Sterling 500
WBRC 930 1000 C	KBTM 1200 100	KLS 1440 250	KGEK 1200 100
WSGN 1310 100	Little Rock	KLX 880 1000	
Decatur	KARK 890 250	KROW 930 1000	CONNECTICUT
WMFO 1370 100	KGHI 1200 100	Pasadena	Bridgeport
Dothan	KLRA 1390 1000 C	KPPC 1210 50	WICC 600 500 C
WAGF 1370 100	Pine Biuff	Sacramento	Hartford
Gadsden	KOTN 1500 100	KFBK 1310 100 C	WDRC 1330 1000 C
WJBY 1210 100			WTIC 1040 50000 R
Mobile	Texarkana KCMC 1420 100	San Bernardino KFXM 1210 100	New Britain
WALA 1380 500 C	CALIFORNIA	San Diego	WMFE 1380 250
	Bakersfield	KFSD 600 1000 N	New Haven
Montgomery WSFA 1410 500 C			WM FI 900 500
			Storrs
Muscle Shoals WNRA 1420 100		San Francisco	WCAC 600 500
	Berkeley KRE 1370 100	KFRC 610 1000 C	Waterbury
ALASKA		KGGC 1420 100	WATR 1190 100
Anchorage	Beverly Hills	KGO 790 7500 N KJBS 1070 500	W1XBS 1530 1000 A
KFQD 780 250	KMPC 710 500		
Juneau	Burbank	KPO 680 50000 N	DELAWARE
KINY 610 250	KELW 780 500	KTAB 560 1000	Wilmington
Ketchikan	Chico	KYA 1230 1000 N	WDEL 1120 250 A
KGBU 900 500	KHSL 950 250	San Jose	WILM 1420 100
ARIZONA	El Centro	KQW 1010 1000	DISTRICT OF
ANIZONA	KXO 1500 100	Santa Ana	COLUMBIA
Ioromo			COLUMBIA
Jerome	Eureka	KREG 1500 100	Washington
KCRJ 1310 100	KIEM 1210 100	KREG 1500 100 Santa Barbara	
KCRJ 1310 100 Lowell	KIEM 1210 100 Fresno	KREG 1500 100 Santa Barbara KDB 1500 100 C	Washington WJSV 1460 10000 C
KCRJ 1310 100 Lowell KSUN 1200 100	KIEM 1210 100 Fresno KMJ 580 1000 C	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton	Washington WJSV 1460 10000 C WMAL 630 250 B
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500	KIEM 1210 100 Fresno KMJ 580 1000 C	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N	KIEM 1210 100 Fresne KMJ 580 1000 C Glendale KIEV 850 250 Hollywood	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Proscott KPJM 1500 100	KIEM 1210 100 Fresne KMJ 580 1000 C Glendale KIEV 850 250 Hollywood	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KNX 1050 50000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRG 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnosville
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000 KGER 1360 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Donver KFEL 920 500	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Gainesville WRUF 830 5000
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000 KGER 1360 1000 Los Angeles	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 KLZ 560 1000 C	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnesville WRUF 830 5000 Jacksonville
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 Long Beach KFOX 1250 1000 LGER 1360 1000 LOS Angoles KECA 1430 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Donver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnesville WRUF 830 5000 Jacksonville WJAX 900 1000 N
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000 KGER 1360 1000 Los Angoles KECA 1430 1000 KFAC 1300 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Proscott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 Long Beach KFOX 1250 1000 Long Beach KFOX 1250 1000 KGER 1360 1000 'Los Angeles KECA 1430 1000 KFAC 1300 1000 KFI 640 50000 N	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 C COLORADO Alamosa KGIW 1420 100 C Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnosville WRUF 830 5600 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Milami
KCRJ 1310 100 Loweli KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100 El Dorado	KIEM 1210 100  KmJ 580 1000 C  Glendale KiEV 850 250  Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 KMTR 1350 1000 KGER 1360 1000  Los Angeles KECA 1430 1000 KFAC 1300 1000 KFAC 1300 1000 KFAC 1300 1000 KFAC 1100 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500 Grand Junction	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Miami WIOD 1300 1000 N
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100 El Dorado KELD 1370 100	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000 KGER 1360 1000 - Los Angeles KECA 1430 1000 KFAC 1300 1000 KFA 1300 1000 KFG 1120 1000 KFG 1120 1000 KFG 1120 1000 KFYD 1000 250	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500 Grand Junction KFXJ 1200 100	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Gainesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Miamil WIOD 1300 1000 N WQAM 560 1000 C
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100 EI Dorade KELD 1370 100 Fayetteville	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 Long Beach KFOX 1250 1000 LOS Angeles KECA 1430 1000 KFAC 1300 1000 KF1 640 50000 N KFSG 1120 1000 KFYD 1000 250 KGFJ 1200 100	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Donver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500 Grand Junction KFXJ 1200 100 Greeley	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Miami WIOD 1300 1000 N WQAM 560 1000 C Orlando
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100 EI Dorado KELD 1370 100 Fayetteville KUOA 1260 1000	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000 KGER 1360 1000 KFAC 1300 1000 KFAC 1300 1000 KFI 640 50000 N KFIC 640 50000 N KFYD 1000 250 KGFJ 1200 1000 KGFJ 1200 1000 KHJ 900 1000 C	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Donver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500 KYOD 920 500 Grand KFXJ 1200 100 Grosley KFKA 880 500	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Gainesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Miami WIOD 1300 1000 N WQAM 560 1000 C Orlande WDBO 580 1000 C
KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 KTAR 620 1000 N Prescott KPJM 1500 100 Tucson KGAR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100 EI Dorado KELD 1370 100 Fayetteville KUOA 1260 1000 Fort Smith	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 Long Boach KFOX 1250 1000 Long Boach KFAC 1300 1000 KF1 640 50000 N KF1 640 50000 N KFSG 1120 1000 C KGFJ 1200 1000 C KHJ 900 1000 C KRKD 1120 1000	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO  Alamossa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500 Grand Junction KFXJ 1200 100 Groeley KFKA 880 500 Lamar	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Galnesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Milami WIOD 1300 1000 N WOAM 560 1000 C Orlando WDBO 580 1000 C Pensacola
CRJ   1310   100   Lowell   KSUN   1200   100   Phoenix   KOY   1390   500   KTAR   620   1000 N   Prescott   KPJM   1500   100   Tucson   KGAR   1370   100   KVOA   1260   500   Yuma   KUMA   1420   100   ARKANSAS   Blytheville   KLCN   1290   100   EI Dorado   KELD   1370   100   Fayetteville   KUOA   1260   1000   1000   EU DORAGE   1000   EU DORAG	KIEM 1210 100 Fresno KMJ 580 1000 C Glendale KIEV 850 250 Hollywood KFWB 950 1000 KMTR 570 1000 KMTR 570 1000 KNX 1050 50000 Long Beach KFOX 1250 1000 KGER 1360 1000 KFAC 1300 1000 KFAC 1300 1000 KFI 640 50000 N KFIC 640 50000 N KFYD 1000 250 KGFJ 1200 1000 KGFJ 1200 1000 KHJ 900 1000 C	KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 1000 KWG 1200 100 C COLORADO Alamosa KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Donver KFEL 920 500 KLZ 560 1000 C KOA 830 50000 N KPOF 880 500 KVOD 920 500 KYOD 920 500 Grand KFXJ 1200 100 Grosley KFKA 880 500	Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Daytona Beach WMFJ 1420 100 Gainesville WRUF 830 5000 Jacksonville WJAX 900 1000 N WMBR 1370 100 C Miami WIOD 1300 1000 N WQAM 560 1000 C Orlande WDBO 580 1000 C

St. Petersburg	Jollet	Conden Otto	•
St. Petersburg WSUN 620 1000 N	WCLS 1310 100	Garden City KIUL 1210 100	Lowell WLLH 1370 100
Tallahassee	Peorla	Hutchinson	New Bedford
WTAL 1310 100	WMBD 1440 500 C	KWBG 1420 100	WNBH 1310 100 C
Tampa WDAE 1220 1000 C	Quincy WTAD 900 500	Kansas City WLBF 1420 100	Springfield WBZA 990 1000 B
GEORGIA	Rockford	Lawrence	WMAS 1420 100 C
Albany	WROK 1410 500	KFKU 1220 1000	Worcester
WGPC 1420 100	Rock Island	WREN 1220 1000 B	WORC 1280 500 C
Athens WTFI 1450 500	WHBF 1210 100 Springfield	Manhattan KSAC 580 500	WTAG 580 500 R
Atlanta	WCBS 1420 100	Topeka	MICHIGAN
WGST 890 500 C	WTAX 1210 100	WIBW 580 1000 C	Battle Creek
WJTL 1370 100	Tuscola	Wichita	WELL 1420 100
WSB 740 50000 N Augusta	WDZ 1070 100 Urbana	KFH 1300 1000 C	Bay City WBCM 1410 500
WRDW 1500 100	WILL 580 1000	Ashland	Calumet
Columbus	Waukegan	WCMI 1310 100	WHDF 1370 100
WRBL 1200 100	WCBD 1080 5000	Covington	Detroit
Griffin WKEU 1500 100	INDIANA	WCKY 1490 5000 B	WJBK 1500 100 WJR 750 10000 B
Macon	Anderson WHBU 1210 100	Lexington WLAP 1420 100	WMBC 1420 100
WMAZ 1180 1000	Elkhart	Louisville	WWJ 920 1000 R
Rome	WTRC 1310 50	WAVE 940 1000 N	WXYZ 1240 1000
WRGA 1500 100	Evansville	WHAS 820 50000 C	East Lansing WKAR 1040 1000
Savannah WTOC 1260 1000 C	WGBF 630 500 Fort Wayne	Paducah WPAD 1420 100	Filnt
Thomasville	WGL 1370 100 C	LOUISIANA	WFDF 1310 100
WPAX 1210 100	WOWO 1160 10000 C	Baton Rouge	Grand Rapids
HAWAII	Gary	WJBO 1420 100	WASH 1270 500 WOOD 1270 500
Hilo	WIND 560 1000	Lake Charles	WOOD 1270 500 Ironwood
KWFV 1210 100	Hammond WWAE 1200 100	KPLC 1500 100	WJMS 1420 100
Honolulu KGMB 1320 1000 C	Indianapolis	Monroe KMLB 1200 100	Jackson
KGU 750 2500 N	WFBM 1230 1000 C	New Orleans	WIBM 1370 100
IDAHO	WIRE 1400 500 N	WBNO 1200 100	Kalamazoo WKZO 590 1000
Boise	Muncle WLBC 1310 50	WDSU 1250 1000 C	Lansing
KIDO 1350 1000	Richmond	WJBW 1200 100 WSMB 1320 1000 N	WJIM 1210 100
Idaho Falls KID 1320 250	WKBV 1500 100	WWL 850 10000	Lapeer
KID 1320 250 Lewiston	South Bend	Shreveport	WMPC 1200 100 Marquette
KRLC 1420 100	WFAM 1200 100 WSBT 1360 500 C	KRMD 1310 100	WBEO 1310 100
Nampa	Terre Haute	KTBS 1450 1000 N KWEA 1210 100	Muskegon
KFXD 1200 100	WBOW 1310 100	KWKH 1100 10000 C	WKBZ 1500 100
Pocatello KSEI 890 250	West Lafayette	MAINE	Royal Oak WEXL 1310 50
Twin Falls	WBAA 890 1000	Augusta WRDO 1370 100	MINNESOTA
KTFI 1240 1000	IOWA Ames	Bangor	Fergus Falls
ILLINOIS	WOI 640 5000	WABI 1200 100	KGDE 1200 100
Bloomington	Boone	WLBZ 620 500 C	Hibbing
WJBC 1200 100	KFGQ 1370 100	Portland WCSH 940 1000 R	WMFG 1210 100 Minneapolis
Carthage WCAZ 1070 100	Cedar Rapids WMT 600 1000 B	WCSH 940 1000 R Presque Isle	WCCO 810 50000 C
Chicago	WMT 600 1000 B Council Bluffs	WAGM 1420 100	WDGY 1180 1000
WAAF 920 500	KOIL 1260 1000 B	MARYLAND	WLB 1250 1000
WBBM 770 50000 C	Davenport	Baltimore	WTCN 1250 1000
WCFL 970 1500 B	WOC 1370 100 C	WBAL 1060 10000 B WCAO 600 500 C	Moorhead KGFK 1500 100
WCRW 1210 100 WEDC 1210 100	Decorah KGCA 1270 100	WCBM 1370 100 A	Northfield
WENR 870 50000 N	KWLC 1270 100	WFBR 1270 500 R	WCAL 1250 1000
WGES 1360 500	Des Moines	Cumberland	Rochester
WGN 720 50000	KRNT 1320 500 C	WTBO 800 250	KROC 1310 100
WJJD 1130 20000	WHO 1000 50000 R	Frederick WFMD 900 500	St. Paul KSTP 1460 10000 N
WLS 870 50000 N WMAQ 670 50000 N	Iowa City WSUI 880 500	Hagerstown	MISSISSIPPI
WMBI 1080 5000	Marshalitown	WJEJ 1210 100	Clarksdale
WSBC 1210 100	KFJB 1200 100	MASSACHUSETTS	WMFN 1210 100
Cicero	Shenandoah	Babson Park	Hattlesburg
WEHS 1420 100 WHFC 1420 100	KFNF 890 500	WBSO 920 500	WPFB 1370 100
WHFC 1420 100 WKBI 1420 100	KMA 930 1000 Sioux City	Boston WAAB 1410 500 C	Jackson WJDX 1270 1000 N
Decatur	KSCJ 1330 1000 C	WBZ 990 50000 B	Kosciusko
WJBL 1200 100	KANSAS	WEEI 590 1000 R	WHEF 1500 100
East Dubuque	Abilene	WHDH 830 1000 A	Laurei
WKBB 1500 100	KFBI 1050 5000	WMEX 1500 100 A WMFH 1120 500	WAML 1310 100
East St. Louis WTMV 1500 100	Coffeyville KGGF 1010 1000	WM FH 1120 500 WNAC 1230 1000 C	Meridian WCOC 880 500
Harrisburg	Dodge City	Fall River	Mississippi City
WEBQ 1210 100	KGNO 1340 250	WSAR 1450 250	WGCM 1210 100

Vicksburg	Camden	Saranac Lake	OKLAHOMA
WQBC 1360 1000	WCAM 1280 500	WNBZ 1290 100	Ada
MISSOURI	Jersey City	Schenectady	KADA 1200 100
Cape Girardeau	WAAT 940 500	WGY 790 50000 R	Ardmore
KFVS 1210 100	WHOM 1450 250	Syracuse 1000 G	KIUO 1210 100
Columbia KFRU 630 500	Newark WHBI 1250 1000	WFBL 1360 1000 C	Elk City
KFRU 630 500 Jefferson City	WNEW 1250 1000 A	WSYR 570 250 B	KASA 1210 100 Enid
WOS 630 500	WOR 710 50000	Troy WHAZ 1300 500	KCRC 1370 100
Joplin 550	Red Bank	Utica	Norman
WMBH 1420 100	WBRB 1210 100	WIBX 1200 100 C	WNAD 1010 1000
Kansas City	Trenton	White Plains	Oklahoma City
KMBC 950 1000 C	WTNJ 1280 500 A	WFAS 1210 100	KFXR 1310 100
KWKC 1370 100	Zarephath	Woodside	KGFG 1370 100
WDAF 610 1000 R	WAWZ 1350 500	WWRL 1500 100	KOMA 1480 5000 C
WHB 860 1000	NEW MEXICO		WKY 900 1000 N
W9XBY 1530 1000 St. Joseph	Albuquerque	NORTH CAROLINA	Ponca City WBBZ 1200 100
KFEQ 680 2500	KGGM 1230 250	Asheville	Shawnee
St. Louis	KOB 1180 10000	WWNC 570 1000 N	KGFF 1420 100
KFUO 550 500	Clovis KICA 1370 100	Charlotte WBT 1080 50000 C	Tuise
KMOX 1090 50000 C	Roswell	WSOC 1210 100 N	KTUL 1400 500 C
KSD 550 1000 R	KGFL 1370 100	Durham	KVOO 1140 25000 N
KWK 1350 1000 B	Santa Fe	WDNC 1500 100 C	OREGON
WEW 760 1000	KIUJ 1310 100	Greensboro	Astoria
WIL 1200 100 1500 100	NEW YORK	WBIG 1440 500 C	1370 100
Springfield	Albany	Raleigh	Corvaills
KGBX 1230 500	WABY 1370 100	WPTF 680 1000 N	KOAC 550 1000
KWTO 560 1000	WOKO 1430 500 C Auburn	Rocky Mount WEED 1420 100	Eugene KORE 1420 100
	WMBO 1310 100	Wilmington	Klamath Falls
MONTANA Billings	Binghamton	WMFD 1370 100	KFJI 1210 100
KGHL 780 1000 N	WNBF 1500 100 C	Winston-Salem	Marshfield
Butte	Brooklyn	WSJS 1310 100 C	KOOS 1200 100
KGIR 1360 1000 N	WARD 1400 500	NORTH DAKOTA	Medford
Great Falls	WBBC 1400 500	Bismarck	KMED 1310 100
KFBB 1280 1000	WBBR 1300 1000 WCNW 1500 100	KFYR 550 1000 N	Portland KALE 1300 500 C
Kalispeli KGEZ 1310 100	WCNW 1500 100 WLTH 1400 500	KDLR 1210 100	KALE 1300 500 C KBPS 1420 100
KGEZ 1310 100	WMBQ 1500 100	Fargo	KEX 1180 5000 N
KGVO 1260 1000	WVFW 1400 500	WDAY 940 1000 N	KFJR 1300 500
Wolf Point	Buffalo	Grand Forks	KGW 620 1000 N
KGCX 1310 100	WBEN 900 1000 R	KFJM 1370 100	KOIN 940 1000 C
NEBRASKA	WEBR 1310 100 WGR 550 1000 C	Mandan KGCU 1240 250	KWJJ 1040 500 KXL 1420 100
Clay Center	WGR 550 1000 C WKBW 1480 5000 C	KGCU 1240 250 Minot	Salem 1420 100
KMMJ 740 1000	WSVS 1370 50	KLPM 1240 250	KSLM 1370 100
Kearney	Canton		PENNSYLVANIA
KGFW 1310 100	WCAD 1220 500	оню	Allentown
KFAB 770 10000 C	Chester	Akron	WCBA 1440 500
KFOR 1210 100 C	WGNY 1210 100	WADC 1320 1000 C WJW 1210 100	WSAN 1440 500
Norfolk	Elmira WESG 850 1000	WJW 1210 100 Canton	Altoona WFBG 1310 100
WJAG 1060 1000	Freeport	WHBC 1200 100	Clarion
North Platte	WGBB 1210 100	Cincinnati	WWPA 850 250
KGNF 1430 1000	Jamestown	WFBE 1200 100	Erie
Omaha WAAW 660 500	WOCL 1210 50	WKRC 550 1000 C	WLEU 1420 100
WAAW 660 500 WOW 590 1000 R	Long Island City	WLW 700 500000 N	Glenside
Scottsbluff	W2XR 1550 1000	WSAI 1330 1000 R	WIBG 970 100
KGKY 1500 100	New York WABC 860 50000 C	Cleveland WGAR 1450 500 B	Greensburg
York	WBNX 1350 250	WHK 1390 1000 C	WHJB 620 250 Grove City
KGBZ 930 1000	WBOO 860 50000	WJAY 610 500	WSAJ 1310 100
NEVADA	WEAF 660 50000 R	WTAM 1070 50000 R	Harrisburg
Las Vegas	WEVD 1300 1000	Columbus	WHP 1430 500 C
KGIX 1420 100	WFAB 1300 1000	WAIU 640 500	WKBO 1200 100
Reno	1111111 1000 1000		Mandatan.
KOH 1380 KOOC	WHN 1010 1000	WBNS 1430 500 C	Hazieten
KOH 1380 500 C	WHN 1010 1000 WINS 1180 1000	WCOL 1210 100	WAZL 1420 100
KOH 1380 500 C NEW HAMPSHIRE	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B	WCOL 1210 100 WOSU 570 750	WAZL 1420 100 Johnstown
KOH 1380 500 C NEW HAMPSHIRE Laconia	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000	WCOL 1210 100 WOSU 570 750 Dayton	WAZL 1420 100 Johnstown WJAC 1310 100
KOH 1380 500 C NEW HAMPSHIRE Laconia WLNH 1310 100	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster
KOH 1380 500 C  NEW HAMPSHIRE  Laconia  WLNH 1310 100  Manchester	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 1000	WCOL 1210 100 WOSU 570 750 Dayton	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1500 100
KOH 1380 500 C  NEW HAMPSHIRE  Laconia  WLNH 1310 100  Manchester  WFEA 1340 500 C  Portsmouth	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 1000 WOV 1130 1000	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1500 100 WKJC 1200 100
KOH 1380 500 C NEW HAMPSHIRE Laconia WLNH 1310 100 Manchester WFEA 1340 500 C Portsmouth WHEB 740 250	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMGA 570 500 WNYC 810 1000 WOV 1130 1000	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C Portsmouth WPAY 1370 100 Toledo	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1500 100 WKJC 1200 100 Philadelphia KYW 1020 10000 R
KOH 1380 500 C  NEW HAMPSHIRE  Laconia  WLNH 1310 100  Manchester  WFEA 1340 500 C  Portsmouth  WHEB 740 250  NEW JERSEY	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WMYC 810 1000 WOV 1130 1000 Olean WHDL 1420 100 Plattsburg	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C Portsmouth WPAY 1370 100 Toledo WSPD 1340 1000 C	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1500 100 WKJC 1200 100 Philadelphia KYW 1020 10000 R WGAU 1170 50000 C
KOH 1380 500 C NEW HAMPSHIRE Laconia WLNH 1310 100 Manchester WFEA 1340 500 C Portamouth WHEB 740 250 NEW JERSEY Asbury Park	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 1000 WOV 1130 1000 Olean WHDL 1420 100 Plattsburg WMFF 1310 100	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C Portsmouth WPAY 1370 100 Tolede WSPD 1340 1000 C Youngstown	WAZL 1420 Johnstown WJAC 1310 Lancaster WGAL 1500 100 WKJC 1200 100 Philadelphia KYW 1020 10000 R WCAU 1170 50000 C WDAS 1370 100
KOH 1380 500 C  NEW HAMPSHIRE Laconia WLNH 1310 100 Manchester WFEA 1340 500 C Portsmouth WHEB 740 250 NEW JERSEY Asbury Park WCAP 1280 500	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 1000 WOV 1130 1000 Olean WHDL 1420 100 Plattaburg WMFF 1310 100 Rochester	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C Portsmouth WPAY 1370 100 Tolede WSPD 1340 1000 C Youngstown WKBN 570 500 C	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1500 100 WKJC 1200 100 Philadelphia KYW 1020 10000 R WCAU 1170 50000 C WDAS 1370 100 WFIL 560 1000 B
KOH 1380 500 C  NEW HAMPSHIRE  Laconia  WLNH 1310 100  Manchester  WFEA 1340 500 C  Portamouth  WHEB 740 250  NEW JERSEY  Asbury Park  WCAP 1280 500  Atlantic City	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 1000 WOV 1130 1000 Olean WHDL 1420 100 Plattaburg WMFF 1310 100 Rochester WHAM 1150 50000 B	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C Portsmouth WPAY 1370 100 Toledo WSPD 1340 1000 C Youngstown WKBN 570 500 C Zanesville	WAZL 1420 Johnstown WJAC 1310 Lancaster WGAL 1500 WKJC 1200 Philadelphia KYW 1020 10000 R WCAU 1170 50000 R WDAS 1370 100 WFIL 560 1000 B WHAT 1310 100
KOH 1380 500 C NEW HAMPSHIRE Laconia WLNH 1310 100 Manchester WFEA 1340 500 C Portsmouth WHEB 740 250 NEW JERSEY Asbury Park WGAP 1280 500	WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 1000 WOV 1130 1000 Olean WHDL 1420 100 Plattaburg WMFF 1310 100 Rochester	WCOL 1210 100 WOSU 570 750 Dayton WHIO 1260 1000 R WSMK 1380 200 C Portsmouth WPAY 1370 100 Tolede WSPD 1340 1000 C Youngstown WKBN 570 500 C	WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1500 100 WKJC 1200 100 Philadelphia KYW 1020 10000 R WCAU 1170 50000 C WDAS 1370 100 WFIL 560 1000 B

WPEN 920 250	WREC 600 1000 C	VIRGINIA	LaCrosse
WRAX 920 250	Nashville	Arlington	WKBH 1380 1000
WTEL 1310 100	WLAC 1470 5000 C	NAA 690 1000	Madison
Pittsburgh KDKA 980 50000 B	WSM 650 50000 N	Charlottesville WEHC 1420 100	WHA 940 2500 WIBA 1280 1000 N
KDKA 980 50000 B KOV 1380 500	Springfield WSIX 1210 100	Danville	Manitowoc
WCAE 1220 1000 R	TEXAS	WBTM 1370 100	WOMT 1210 100
WJAS 1290 1000 C	Amarillo	Lynchburg	Milwaukee
WWSW 1500 100	KGRS 1410 1000	WLVA 1200 100	WISN 1120 250 C
Reading	WDAG 1410 1000	Newport News	WTMJ 620 1000 N
WEEU 830 1000	Austin	WGH 1310 100	Poynette
WRAW 1310 100	KNOW 1500 100	Norfolk	WIBU 1210 100
Scranton	Beaumont	WTAR 780 500 N	Racine
WGBI 880 500	KFDM 560 500	Petersburg	WRJN 1370 100
WQAN 880 250	College Station	WPHR 880 500	Sheboygan
Sunbury	WTAW 1120 500	Richmond	WHBL 1410 500
WKOK 1210 100	Corpus Christi	WBBL 1210 100	Stevens Point
Wilkes-Barre	KGFI 1500 100	WMBG 1210 100 C	WLBL 900 2500
WBAX 1210 100	Dallas	WRVA 1110 5000 N	Superior
WBRE 1310 100	KRLD 1040 10000 C	Roanoke	WEBC 1290 1000 N
Williamsport	WFAA 800 50000 N	WDBJ 930 1000 C	WYOMING
WRAK 1370 100	WRR 1280 500	WRBX 1410 250	Casper
York	Dublin	Staunton	KDFN 1440 500
WORK 1320 1000	KFPL 1310 100	WSVA 550 500	Sheridan
PORTO RICO	El Paso	WASHINGTON	KWYO 1370 100
Ponce	KTSM 1310 100	Aberdeen	CANADA
WPRP 1420 100	WDAH 1310 100	KXRO 1310 100	ALBERTA
San Juan	Fort Worth	Bellingham	Calgary
WKAQ 1240 1000	KFJZ 1370 100	KVOS 1200 100	CFAC 930 100 F
WNEL 1290 500	KTAT 1240 1000 C	Everett	CFCN 1030 10000 F
RHODE ISLAND	WBAP 800 50000 N	KRKO 1370 50	CJCJ 690 100 F
Providence WEAN 780 500 C	Galveston KLUF 1370 100	Olympia	Edmonton ,
	KLUF 1370 100 Greenville	KGY 1210 100	CFRN 1260 100
WJAR 890 500 R WPRO 630 250 A	KFPM 1310 15	Pullman	CJCA 730 1000 F
SOUTH CAROLINA	Houston	KWSC 1220 1000	CKUA 580 500
Anderson	KPRC 920 1000 N	Seattle KJR 970 5000 N	Lethridge
WAIM 1200 100	KTRH 1290 1000 C		CJOC 1230 100 F
Charleston	KXYZ 1440 1000	KOL 1270 1000 C KOMO 920 1000 N	BRITISH COLUMBIA
WCSC 1360 500	Longview	KPCB 710 250	Chililwack CHWK 780 100 F
Columbia	KFRO 1370 100	KRSC 1120 100	CHWK 780 100 F Kamloops
WIS 1010 1000 N	Lubbock	KTW 1220 1000	CFJC 880 100 F
Greenville	KFYO 1310 100	KVL 1370 100	Kelowna
WFBC 1300 1000	Pecos	KXA 760 250	CKOV 630 100 F
Spartanburg	KIUN 1420 100	Spokane	Trail
WSPA 920 1000 WWC 1420 1000	Port Arthur KPAC 1260 500	KF1O 1120 100	CJAT 910 250 F
	San Angelo	KFPY 1340 1000 C	Vancouver
SOUTH DAKOTA	KGKL 1370 100	KGA 1470 5000 N	CJOR 600 500
Aberdeen KABR #1420 100	San Antonio	KHQ 590 1000 N	CKCD 1010 100
Brookings	KABC 1420 100	KMO 1330 250	CKFC 1410 50
KFDY 780 1000	KMAC 1370 100	KMO 1330 250 KVI 570 1000 C	CKMO 1410 100 F
Huron	KONO 1370 100	Walla Walla	CKWX 1010 100 F
KGDY 1340 250	KTSA 550 1000 C	KUJ 1370 100	CRCV 1100 1000 F
Pierro	WOAI 1190 50000 N	Wenatchee	CFCT 1450 75
KGFX 630 200	Tyler	KPO 1500 100	MANITOBA 75
Rapid City	KGKB 1500 100	Yakima	Brandon
WCAT 1200 100	Waco	KIT 1310 100	CKX 1120 100 F
Sloux Falls	WACO 1420 100 C	WEST VIRGINIA	Winnipeg
KSOO 1110 2500	Weslaco	Bluefield	CJRC 1390 100 F
Vermillion	KRGV 1260 500	WHIS 1410 250	CKY 960 15000 F
KUSD 890 500	Wichita Falls	Charleston	NEW BRUNSWICK
Watertown	KGKO 570 500 C	WCHS 580 500	Fredericton
KWTN 1210 100	UTAH	Fairmont	CFNB 550 1000 F
Yankton	Ogden	WMMN 890 250	Moncton
WNAX 570 1000 C	KLO 1400 500 C	Huntington	CKCW 1370 100 F
TENNESSEE	Salt Lake City	WSAZ 1190 1000	St. John
Bristol	KDYL 1290 1000 N	Parkersburg	CHSJ 1120 100 F
WOPI 1500 100	KSL 1130 50000 C	1420 100	N. W. TERRITORY
Chattanooga	VERMONT	Wheeling	Aklavik
WDOD 1280 1000 C	Burlington	WWVA 1160 5000 C	CJCU 1210 50
Jackson	WCAX 1200 100	WISCONSIN	NOVA SCOTIA
WTJS 1310 100	Rutland	Eau Claire	Glace Bay
Knoxville	WSYB 1500 100	WTAQ 1330 1000	VAS 685 2000
WNOX 560 1000 C	St. Albans	Fond du Lac	Halifax
WROL 1310 100	WQDM 1370 100	KFIZ 1420 100	CHNS 930 1000 F
Memphis WHBO 1370 100	Springfield	Green Bay	Sydney
WMC 780 1000 N	WNBX 1260 1000	WHBY 1200 100	CJCB 1240 1000 F
WNBR 1430 500	Waterbury WDEV 550 500	Janesville WCLO 1200 100	Wolfville CKIC 1010 50
	11.DE1 330 300	WOLO 1200 100	CWIG 1010 90

Yarmouth CJLS 1310 100	Regina	XEFO 940 5000	CMJK 760 150
	CHWC 1010 500 F	XEFZ 1370 100	CMJL 960 50
ONTARIO Brantford CKPC 930 100 F	CKCK 1010 500 F Saskatoon CFQC 840 1000 F	XEK 990 100 XELC 740 100 XEMX 1280 12	Cardenas CMGE 1370 30
Chatham	Yerkton	XEN 710 1000	Clego de Avila
CFCO 1050 100 F	CJGX 630 500 F	XEO 940 5000	CMJH 1360 50
Cobalt	NEWFOUNDLAND	XEP 840 500	CMJI 1130 45
CKMC 1210 50	St. John's	XETW 820 500	CMJO 1180 50
Fort William	VOAC 1065 40	XEW 890 50000 XEWZ 1150 100	Clenfuegos CMHJ 1180 100
Hamilton	VOGY 840 400	XEXX 845 500	CMHW 810 100 Colon
CHML 1010 50 F	VONF 950 5000	XEYZ 780 10000	CMGI 1420 30
CKOC 1120 500 F	VOWR 681 500	XFX 610 1000	
Kingston	MIQUELON	DURANGO	CMHK 1330 250
CFRC 1510 100	St. Plerre	Durango	
Kirkland Lake	FQN 609 250	XEE 1210 50	Guantanamo
CJKL 1310 100		Mineral del Monte	CMKJ 1300 20
CFPL 730 100 F	CENTRAL	XELM 1310 15	Havana
	AMERICA	GUANJUATO	CMAF 730 250
North Bay CFCH 930 100 F	COSTA RICA	Guanjuato	CMBC 940 195 CMBD 1170 163
Ottawa	Cartago	XEAZ 1420 7	CMBG 1140 325
	TIGA 1014 30	Leon	CMBS 770 130
CRCO 880 1000 F	San Jose TICR 912 75	XEKL 1240 500 JALISCO	CMBX 1380 171
Prescott	TIFB 714 30	Guadalajara	CMBZ 1000 120
CFLC 930 100	TIGP 800 75	XEA 1060 125	
St. Catharines CKTB 1200 100 F	TIRCA 1100 500	XED 1160 500	CMC 835 500 CMCA 1350 435
Sault Ste. Marie CJIC 890 100	TISO 550 250	MICHOACAN	CMCB 1230 112
	TIVL 835 30	Morella	CMCD 960 180
Stratford	GUATEMALA	XEI 1370 125	CMCF 815 250
	Guatemala City	NUEVO LEON	CMCG 1255 162
10-AK 1200 15	TGW 565 10000	Monterrey	CMCJ 1200 500
Sudbury	TGX 1400 150	XEFB 1420 100	
CKSO 780 1000	EL SALVADOR	XEFJ 1230 100	CMCN 1500 162
	San Salvador	XEH 1150 250	CMCO 1110 150
CKGB 1420 100 Toronto	RDN 680 500	XET 690 500	CMCP 1270 150 CMCQ 680 250
CFRB 690 10000 C	MEXICO	XEX 1310 125 PUEBLA	CMCR 1410 122 CMCU 1280 152
CKNC 1420 100 F	AGUASCALIENTES Aguascallentes	Puebla XETH 1210 100	CMCW 750 117
CRCT 840 5000 N	XFC 810 350	SAN LUIS POTOSI	CMCY 1030 1000
Waterloo	Baja California	San Luis Potosi	
CKCR 1510 100	Agua Callente	XEZZ 1370 100	CMK 1060 1500
Windsor	XEBC 730 5000		CMOA 790 72
CKLW 1030 5000 C	Ensenada	SONORA	CMOK 1470 184
CRCW 600 1000 F		Nogales	CMOX 1320 250
Wingham	XEG 1270 500	XEAF 1010 250	CMQ 840 500
	Mexicali	TAMAULIPAS	CMW 600 1000
PRINCE EDWARD	XEAA 920 200 XEAO 560 250	Nuevo Laredo XEAM 960 50	CMX 920 650
ISLAND	Tijuana	XEFE 920 250	Holquin
Charlottetown	XEC 1270 50 :	XENT 910 60000	CMKF 1460 30
CFCY 630 1000 F	XEFL 1160 5000	Reynosa	Manzanillo
CHCK 1310 50	XEMO 865 2500	XEAW 960 10000	CMKM 940 100
Summerside CHGS 1450 50 F	XEOK 765 2500	Tampico	Matanzas CMGC 1400 100
QUEBEC	CAMPECHE	XEFW 1310 250	CMGF 1120 100
Chicoutimi	Cazaca	XEMA 1080 50	CMGH 1040 15
CRCS 950 100 F	XEAJ 1310 15	XES 990 250	Moron
	CHIHUAHUA	VERACRUZ	CMJP 1430 75
Hull	Chihuahua	Jalapa	Sagua la Grande
CKCH 1210 100 F	XEFI 1440 250	XFB 1270 250	
Montmagny	Juarez	Orizaba	San Spiritus
VE9EK 1185 10	XEFV 1210 100	XFD 1340 350	
Montreal CFCF 600 400 N	XEJ 1020 1250	Veracruz	CMHB 1240 30 Santa Clara
CHLP 1120 100	COAHUILA	XETF 1220 12	CMHI 1210 150
	Piedras Negras	XEU 1010 250	Santiago
CRCM 910 5000 F	XELO 1110 10000 XEPN 590 50000	YUCATAN Merida	CMKC 1250 150
New Carlisle CHNC 1210 100 F	Saltille	XEFC 1310 100	DOMINICAN
	XELA 1240 50	XEZ 630 500	REPUBLIC
Quebec CHRC 580 100 F	XEOX 640 250	WEST INDIES	San Pedro de Marcoris
CKCV 1310 50 F CRCK 1050 1000 F	XETB 1310 125	CUBA	HIH 1395 15 Santo Domingo
SASKATCHEWAN	D. F. Mexice City	Caibarien CMHD 1270 250	HIJ 1195 15
Moose Jaw	XEAI 1240 100	Camaguey,	HIX 1270 1000
CHAB 1200 100 F	XEB 1030 10000	CMJC 1380 150	HIZ 1300 10
CJRM 540 1000 F	XECW 1310 10	CMJE 1220 50	HAITI
Prince Albert	XEFA 1180 500	CMJF 1150 200	Port ou Prime
CKBI 1210 100 F	XEFG 1100 250	CMJG 1010 50	Port-au-Prince HHK 920 1000

	CFAC 930 100 Calgary, Alta.		CJOR 600 500 Vancouver, B. C. G. C. Chandler, Hotel Grosvenor
	Calgary Herald, Southam Bldg.		CJRC 1390 100 Winnipeg, Man.
	CFCF 600 400 Montreal, Que. Mt. Royal Hotel	1	Royal Alexandra Hotel
<u> </u>	CFCH 930 100 North Bay, Ont.		CJRM 540 1000 Moose Jaw, Sask.
1	Capitol Theatre Bldg.		311 Main St. No.
	CFCN 1030 10000 Calgary, Alta.		CKAC 730 5000 Montreal, Que.
1	Toronto Gen. Trust Bldg.	1	980 St. Catherine St. W.
	CFCO 1050 100 Chatham, Ont.		CKB 1 1210 100 Prince Albert, Sask.
	Wm. Pitt Hotel		Canada Bldg.
	CFCT 1450 75 Victoria, B. C.		CKCD 1010 100 Vancouver, B. C.
	620 View St.		142 Hastings St. W.
	CFCY 630 1000 Charlottetown, P.E.I.		CKCH 1210 100 Hull, Que.
	143 Great George St.		Standish Hall Hotel
1	CFJC 880 100 Kamloops, B. C.		CKCK 1010 500 Regina, Sask. 1853 Hamilton St.
	Wilcox-Hall Bidg.   CFLC 930 100 Prescott, Ont.		
	Hoy Bidg., 307 George St.	ł	CKCL 580 100 Toronto, Ont.
	CFNB 550 1000 Fredericton, N. B.		444 University Ave. CKCO 1010 100 Ottawa, Ont.
	York St.	1	272 Somerset St. W.
	CFPL 730 100 London, Ont.		CKCR 1510 100 Waterloo, Ont.
-	Richmond St.	1	24 King St. So.
	CFQC 840 1000 Saskatoon, Sask.		CKCV 1310 50 Quebec, Que.
ĺ	216 First Ave., No.		254 Ave. Marguerite
	CFRB 690 10000 Toronto, Ont.		CKCW 1370 100 Moncton, N. B.
	37 Bloor St. W.		Moncton Brdcstg. Co., Ltd.
	CFRC 1510 100 Kingston, Ont.		CKFC 1410 50 Vancouver, B. C.
	Queens University CFRN 1260 100 Edmonton, Alta.		Hemlock & 12th Ave.
	Birks Bldg.		CKGB 1420 100 Timmins, Ont. R. H. Thompson, Press Bidg.
	CHAB 1200 100 Moose Jaw, Sask.		= -
1	Grant Hall Hotel	1	CKIC 1010 50 Wolfville, N. S. Acadla University
	CHCK 1310 50 Charlottetown, P.E.I.		CKLW 1030 5000 Windsor, Ont.
1	36 Upper Hillsboro St.		Guaranty Trust Bldg.
	CHGS 1450 50 Summerside, P. E. I.		CKMC 1210 50 Cobalt, Ont.
1	190 Water St.	1	R. L. MacAdam
	CHLP 1120 100 Montreal, Que.		CKMO 1410 100 Vancouver, B. C.
-	Sun Life Bidg.		1604 Bekins Bldg.
	CHML 1010 50 Hamilton, Ont. 47 Main St. E.		CKNC 1420 100 Toronto, Ont. 805 Davenport Road
	CHNC 1210 100 New Carlisle, Que.	L	CKOC 1120 500 Hamilton, Ont.
1	Gaspesian Radio Brdcstg. Co.		Wentworth Bldg.
	CHNS 930 1000 Hallfax, N. S.		CKOV 630 100 Kelowna, B. C.
	Lord Nelson Hotel	1	Okanagan Broadcasters, Ltd., Box 243
	CHRC 580 100 Quebec, Que.		CKPC 930 100 Brantford, Ont.
	CHRC, Ltd., Victoria Hotel	l	Arcade Bldg.
	CHSJ 1120 100 St. John, N. B.		CKPR 930 100 Fort William, Ont.
	Admiral Beatty Hotel CHWC 1010 500 Regina, Sask.		Roya Edward Hotel
	Williams Building		CKSO 780 1000 Sudbury, Ont.
	CHWK 780 100 Chilliwack, B. C.		W. E. Mason, Grand Theatre Bldg.  CKTB 1200 100 St. Catharines, Ont.
	Wellington Ave.		E. T. Sandell, Welland House
	CJAT 910 250 Trail, B. C.	-	CKUA 580 500 Edmonton, Alta.
	Kootenay Brdestg. Co.		University of Alberta.
	CJCA 730 500 Edmonton, Alta.		CKWX 1010 100 Vancouver, B. C.
	10122—100A St.		HotelGeorgia
	CJCB 1240 1000 Sydney, N. S.		CKX 1120 100 Brandon, Man.
1	318 Charlotte St.		Rosser Ave.
	CJCJ 690 100 Calgary, Alta.		CKY 960 15000 Winnipeg, Man.
	New Albertan Bldg.		Sherbrooke St.
	CJCU 1210 50 Aklavik, N. W. T.		CMAF 730 250 Havana, Cuba
	Dr. J. A. Urquhart, Dept. of Interior		1 y 8 Rept. Miramar
	CJGX 630 500 Yorkton, Sask.		CMBC 940 195 Havana, Cuba
	188 Grain Exchange Bldg. (Winnipeg)		Domingo Fernandez, Maximo Gomez No. 139
	CJIC 890 100 S. Ste. Marle, Ont.		CMBD 1170 163 Havana, Cuba
	Windsor Hotel		Luis Perez Garcia
	CJKL 1310 100 Kirkland Lake, Ont.		CMBG 1140 325 Havana, Cuba
	O. J. Thorpe		John L. Stowers, Hospital No. 100
	CJLS 1310 100 Yarmouth, N. S. Laurie L. Smith, Grand Hotel		CMBS 770 130 Hayana, Cuba
	•		Calzada y H. St., Vedado
	CJOC 1230 100 Lethbridge, Alta. Marquis Hotel		CMBX 1380 171 Havana, Cuba Alberto Alvarez, San Miguel 194

CMBY 640 125 Havana, Cuba	CMJI 1130 45 Ciego de Avila, Cuba
Infanta 132 esq-Jevellar	Gilberto Gessa Lopez, Independencia 95
CMBZ 1000 120 Havana, Cuba Manuely G. Salas, San Rafael No. 14	CMJK 760 150 Camaguey, Cuba Cla. Nacional de Radio, Finlay No. 3
CMC 835 500 Hayana, Cuba	CMJL 960 50 Camaguey, Cuba
Aguila y Dragones	Enrique Artime, Cuba No. 27
CMCA 1350 435 Havana, Cuba	CMJO 1180 50 Clego de Avila, Cuba
Galiano No. 102	Jose M. Rey .C. Central & Maceo
CMCB 1230 112 Havana, Cuba	CMJP 1430 75 Moron, Cuba
O'Reilly y Aguacate	Cesar Canall, Callejas No. 28 CMK 1060 1500 Havana, Cuba
CMCD 960 180 Havana, Cuba Calle G y 25, Vedado	Hotel Plaza
CMCF 815 250 Havana, Cuba	CMKC 1250 150 Santlago, Cuba
Raoul Karman, Rayo No. 67	J. A. Saco , Alta 23
CMCG 1255 162 Havana, Cuba	CMKF 1460 30 Holquin, Cuba
Malecon No. 340 Altos	Libertad esq. Arias CMKJ 1300 20 Guantanamo, Cuba
CMCJ 1200 500 Havana, Cuba	Luis Morlote, East Giro 11
Rafael Rodriquez, Estevez No. 4 CMCK 1320 100 Havana, Cuba	CMKM 940 100 Manzanillo, Cuba
Manuel Autran G., Vedado	Jesus Armeste, Merchant y P. Figuerado
CMCN 1500 162 Havana, Cuba	CMOA 790 72 Havana, Cuba
Reina y Ave. Buen Ritiroe. Marianao	Juan Fernandez, Aguiar 126, Altes CMOK 1470 184 Havana, Cuba
CMCO 1110 150 Havana, Cuba	Rafael Valdez, Marques Gonzales 52
Oficios 116 CMCP 1270 150 Havana, Cuba	CMOX 1320 250 Havana, Cuba
CMCP 1270 150 Havana, Cuba Calzada de Luyane No. 132	10 entre 17 y 19, Vedado
CMCQ 680 250 Havana, Cuba	CMQ 840 500 Havana, Cuba
Vista Alegre No. 80, Vibora	25 Numero 445, Vedado
CMCR 1410 122 Havana, Cuba	CMW 600 100 Havana, Cuba Paseo de Marti 103
Milagros No. 35, Vibora	CMX 920 650 Havana, Cuba
CMCU 1280 152 Havana, Cuba San Francisco No. 13, Vibora	Casa "Lavin," Ave. dela Republica 99A
CMCW 750 117 Havana, Cuba	CRCK 1050 1000 Quebec, Que.
Galiano y San Lazaro Sts.	Chateau Frontenac Hotel
CMCX 660 250 Havana, Cuba	CRCM 910 5000 Montreal, Que. 1231 St. Catherine St. W.
Maceo No. 7, Guanbacoa	CRCO 880 1000 Ottawa, Ont.
CMCY 1030 1000 Havana, Cuba Manuel D. Autran, Calle G 215, Vedado	Chateau Laurier Hotel
CMCG 1400 100 Matanzas, Cuba	CRCS 950 100 Chicoutimi, Que.
Independencia No. 56	4 Rue Larouche
CMGE 1370 30 Cardenas, Cuba	CRCT 840 5800 Toronto, Ont. 805 Davenport Road
Genaro Sebater, Cespedes No. 180 CMGF 1120 100 Matanzas, Cuba	CRCV 1100 1000 Vancouver, B. C.
G. Betancourt No. 51	C. N. R. Station Bldg.
CMGH 1040 15 Matanzas, Cuba	CRCW 600 1000 Windsor, Ont.
B. Byrne No. 113	Guaranty Trust Bldg.
CMGI 1420 30 Colon, Cuba	FQN 609 250 St. Pierre, Miq.
Armando Linanza, Marti No.35	ANNEX AND ADDR BOTH OF BUILDING HOLDS
CMHA 1070 50 Saguala Grande, Cuba Abelardo Menocal, Carrillo No. 1	HHK 920 1000 Port-au-Prince, Halti Haltian Government
CMHB 1240 30 San Spiritus, Cuba	HIH 1395 15 San Pedro de M.,D.R
Independencia No. 33	Domingo Dominguez
CMHD 1270 250 Calbarien, Cuba	HIJ 1195 15 Santo Domingo, D. R.
Manuel Alvarez, M. Escobar 17	Tuto Baez , Hostos 34 HIX 1270 1000 Santo Domingo, D. R.
CMHI 1210 150 Santa Clara, Cuba Lavis y Paz, Independencia No. 34	HIX 1270 1000 Santo Domingo, D. R. J. R. Saladin, Director General
CMHJ 1180 100 Cienfuegos, Cuba	HIZ 1300 10 Santo Domingo, D. R.
Romoualde Ugalde, Sta. Elena 104	Abbes and Garcia
CMHK 1330 250 Cruces, Cuba	KABC 1420 100 San Antonio, Texas
Heredia No. 61	Texas Theatre Bldg.
CMHW 810 100 Clenfuegos, Cuba	KABR 1420 100 Aberdeen, S. Dak. Aberdeen Broadcast Co.
Arguelles No. 200 CMJC 1380 150 Camaguey, Cuba	KADA 1200 100 Ada, Okia.
Cisneros y G. Gomez	C. C. Morris
CMJE 1220 50 Camaguey, Cuba	KALE 1300 500 Portland, Ore.
Manuel Fernandez, Hnos. Aguere No. 2	Kale , Inc., New Heathman Hotel
CMJF 1150 200 Camaguey, Cuba	KARK 890 250 Little Rock, Ark.
John L. Stowers, Republica No. 88	N. S. L. Bldg.
CMJG 1010 50 Camaguey, Cuba	KASA 1210 100 Elk City, Okla. E. M. Woody, Casa Grande Hotel
Maceo No. 1 CMJH 1360 50 Ciego de Avila, Cuba	KBPS 1420 100 Portland, Ore.
Luis Marauri, H. Castilla 37	E. 12th & Hoyt Sts.

Jay P. Beard   KCMC 1420 100 Texarkana, Ark.   Box 865   KCRC 1370 100 Enid, Okla.   Enid Radiophone Co., Oxford Hotel   Co.   State Base   Co.   Co.   Saxter, Box 176   Co.   Co.   Co.   Saxter, Box 176   Co.   Co	KBTM 1200 100 Jonesboro, Ark.	KFOR 1210 100 Lincoln, Neb.
Box 865   200 E. Anahem St.	Jay P. Beard	Howard Shuman, Hotel Lincoln
MCRC 1370 100 Enid, Okis.   Enid Radiophone Co. O. Mofred Hotel		
KCRJ 1310 100		KFPL 1310 100 Dublin, Texas
Chas. C. Robinson, Drawer D.  KDB 1590 1000 Santa Barbara, Calif. 15-17 E. Haley St.  KDPN 1440 500 Casper, Wyo.  Donald Levis Hathaway  KDRA 980 5000 Pittsburgh, Pa.  Hotel Win. Fenn  Hotel Win. Fenn  MCLR. 1001 Win. Fenn  MCLR. 1001 Win. Fenn  MCLR. 1001 Win. Fenn  MCLR. 1002 1000 Santa Lake City, Utah Eara Thompson Bidg.  KECA 1432 1000 Los Angeles, Calif.  KECA 1432 1000 Los Angeles, Calif.  KELD 1370 100 El Dorado, Ark.  KELD 1370 100 El Dorado, Ark.  KELD 1370 100 Burbank, Calif.  KERN 1370 100 Burbank, Calif.  KFBL 200 1000 Creat Falls, Mont.  Buttery Broadcast., Inc.  KFBL 1200 1000 Abliene, Kans.  Box 345  KFBL 1200 1000 Broadings, S. D.  KFBL 1200 1000 Broadings, S. D.  KFBL 1200 1000 Broadings, S. D.  KFRW 1310 100 Grant Falls, Mont.  KFRW 1310 100 Grant Falls, Mont.  KGA 1470 5000 Spokane, Wash.  KGA 1470 500 Spokane, Wash.  KGB 1330 1000 San Bernarding, Colif.  KGBW 130 100 Grant Falls, Mont.  KGBW 130 100 Stockton, Calif.  KGBW 130		
15-17 E. Haley St.   Goldman Hotel	Chas. C. Robinson, Drawer D.	· · · ·
KPFN 1440 500 Casper, Wye, Donald Lewis Hathaway   KDKA 380 50000 Pittaburgh, Pa.   Hotel Wm. Penn   KDLR 1210 100 Devil's Lake, N. D.   KDLR, Inc., 1025 3rd Street   KDVL 1290 1000 Salt Lake City, Utah   Ears Thompson Bidg.   KFGC 310 1000 San Francisco, Calif.   1000 Van Nessa Ave.   KFRC 610 1000 Van Cessa Ave.   KFRC 1370 100 Longview, Texas   Voice of Longview   Voice of Longview   Voice of Longview   KFRC 610 1000 Van Cessa Ave.   KFRC 1370 100 Longview, Texas   Voice of Longview   Voice o	15-17 E. Haley St.	THE TENED AND TOTAL STREET, ALKE
MDKA 988 5000   Pittsburgh, Pa.	KDFN 1440 500 Casper, Wyo. Donald Lewis Hathaway	
KPIC \$10 100 Devils Lake, N. D.   KPIC \$10 100 San Francisco, Calif.	KDKA 980 50000 Pittsburgh, Pa.	KFQD 780 250 Ancherage, Alaska
Ezra Thompson Bidg.   Voice of Longylew   Voice of Longylew   Voice of Longylew   KFRO 1370    100   Longylew   KFRU 130    100   Longylew   KFRU 130    100   Longylew   KFRU 130    100   Shope St.   KFRU 130    100   Longylew   Lon	KDLR 1210 100 Devils Lake, N.	D. KFRC 610 1000 San Francisco, Calif.
Ezra Thompson Bidg.   Voice of Longview	KDYL 1290 1000 Salt Lake City,	
1000 8. Hope 8t.		Voice of Longview
T. H. Barton   KELW 780 500 Burbank, Calif.   3702 Magnolia Park Blvd.   KFSG 1120 1000 Los Angeles, Calif.   1100 Glendale Blvd.   KFSG 1310 1000 Bakersfield, Calif.   1100 Glendale Blvd.   KFSG 1300 1000 Lincoln, Neb.   KFAB 770 10000 Lincoln, Neb.   Cornhusker Hotel   KFAB 770 10000 Lincoln, Neb.   Cornhusker Hotel   KFAG 1300 1000 Los Angeles, Calif.   KFVD 1000 250 Los Angeles, Calif.   KFVD 1200 100 Cape Girardeau, Mo.   Oscar C. Hirsch, Box 275		
KELW 780 500 Barbank, Calif. 3702 Magnolia Park Blvd.		
KFRN 1370 100 Bakersfield, Calif.   Eik's Club	KELW 780 500 Burbank, Calif.	KFSG 1120 1000 Los Angeles, Calif.
KEX 1180 5000 Portland, Ore. Oregonian Bildg.   Capter	KERN 1370 100 Bakersfield, Cal	If. KFUO 550 500 St. Louis, Mo.
Corgonian Bidg.   E. L. Cord. 645 S. Mariposa   KFAC 1300 1000 Los Angeles, Calif.   E. L. Cord. 645 So. Mariposa   KFWS 1210 100 Cape Girardeau, Mo. Oscar C. Hirsch, Box 275   Osca		
Cornhusker Hote!  KFAC 1300 1000 Los Angeles, Calif. E. L. Cord. 645 So. Mariposa KFBB 1280 1000 Great Falls, Mont. Buttrey Broadeast., Inc. KFBI 1050 5000 Abliene, Kans. Box 345  KFBK 1310 100 Sacramento, Calif. Sacramento Bee KFDM 360 500 Beaumont, Texas Beaumont Hotel, P. O. Box 2950 KFFL 920 500 Denver, Colo. Albany Hotel KFEQ 370 100 Brookings, S. D. South Dakota State College KFEQ 680 2500 St. Joseph, Mo. Schneider Bidg. KFGQ 1370 100 Boone, Iowa 924 W. 2nd St. KFFI 1300 1000 Wichita, Kans. 124 1/2 S. Market St. KFFI 640 50000 Los Angeles, Calif. 1000 S. Hope St. KFID 1120 100 Spokane, Wash. 213 Riverside Ave. KFID 1120 100 Spokane, Wash. 214 Riverside Ave. KFID 1120 100 Kiamath Falls, Ore. KFJI 1210 100 Kiamath Falls, Ore. KFJI 1210 100 Kiamath Falls, Ore. KFJI 1210 100 Koram Farks, N. D. University of North Dakota KFJI 1300 500 Ortiand, Ore. 622 Lumbermen's Bidg. KFKA 880 500 Greeley, Colo. Box 735 KFKU 1220 100 Lawrence, Kans. University of Kansasa KFKR 880 500 Shenandoah, Iowa  South Dakota Ave. KFKA 1310 100 Grand Jct., Colo. Hillcrest Manor KFXM 1210 100 San Bernardino, Calif. California Hotel KFXM 1210 100 Clahama City, Okia. KFXM 1210 100 Lubbock, Texas KFXR 1310 100 Uklahoma City, Okia. Saramento Bee KFXM 1210 100 Lubbock, Texas Kirksey Bros., Hotel Lubbock KFYR 530 1000 Bismarck, N. D. 2320 Broadway KGA 1370 100 Tucson, Ariz. 142 8. 6th Ave. KGB 1330 1000 San Dlego, Calif. 1012—1st St. KGBU 900 500 Ketchikan, Alaska Mile 5. Wards Cove Rd. KGBX 1230 500 Springfield, Mo. KGBX 1230 100 Vork, Neb. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 405 Princh Factor KFKA 1200 100 Long Seach, Calif. E. E. Kreebach. KGCH 1200 100 Vork, Neb. Le. E. E. Kreebach. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 250 Mandan, N. D. 404 W. Main St. KGCU 1240 100 Vork,		E. L. Cord, 645 S. Mariposa
KFAC 1300 1000 Los Angeles, Calif. E. L. Cord. 645 So. Mariposa   Warner Bros. Motion Pictures, Inc.   Warner Bros. Motion Pictures, Inc.   KFBB 1280 1000 Great Falls, Mont.   Buttrey Broadcast., Inc.   KFBB 1300 5000 Abliene, Kans.   Box 345   KFBK 1310 100 Sacramento, Calif.   Sacramento Bee   KFDM 560 500 Sacramento, Calif.   Sacramento Bee   KFDM 560 500 Seaumont, Texas   Beaumont Hotel, P. O. Box 2950   KFDY 780 1000 Brockings, S. D.   South Dakota State College   KFFY 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Stifkey Bros.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Hightower Bidg.   KFYO 1310 100 Oklahoma City, Okla.   Hig		KFVS 1210 100 Cape Girardeau, Mo.
KFBB 1280 1000 Great Falls, Mont. Buttrey Broadcasts. Inc.   KFBI 1300 5000 Abliene, Kans.   Box 345   KFBK 1310 100 Sacramento, Calif.   Sacramento Bee   KFDM 560 500 Beaumont, Texas   Beaumont Hotel, P. O. Box 2950   KFDY 780 1000 Brookings, S. D.   South Dakota State College   KFDM 560 500 Denver, Colo.   Albany Hotel   KFER 1310 100 Oklahoma City, Okla.   State Many Hotel   KFER 1310 100 Oklahoma City, Okla.   St		iif. KFWB 950 1000 Hollywood, Calif.
KFBI 1050 5000 Abliene, Kans.   Box 345	KFBB 1280 1000 Great Falls, Mo	nt. KFXD 1200 100 Nampa, Idaho
Box 345		
Sacramento Bee   KFDM 580 500 Beaumont, Texas   Beaumont Hotel, P. O. Box 2950   KFDY 780 1000 Brookings, S. D. South Dakota State College   KFYO 1310 100 Lubbock, Texas   KIrksey Bross, Hotel Lubbock   KFYO 1310 100 Lubbock, Texas   KIrksey Bross, Hotel Lubbock   KFYO 1310 100 Lubbock, Texas   KIrksey Bross, Hotel Lubbock   KFYO 1310 100 Lubbock, Texas   KIrksey Bross, Hotel Lubbock   KFYO 1310 100 Lubbock, Texas   KIrksey Bross, Hotel Lubbock   KFYO 1310 100 Bismarck, N. D. 320 Broadway   KFQ 630 250 St. Joseph, Mo. Schneider Bidg.   KFGQ 1370 100 Boone, Iowa   1023 W. Riverside Ave.   KGAR 1370 100 Tucson, Ariz.   142 S. 641 Ave.   KGBR 1330 1000 San Diego, Calif.   1023 W. Riverside Ave.   KGBB 1330 1000 San Diego, Calif.   1021 Lubbock   KGBX 1330 1000 San Diego, Calif.   1022 Hz 8t.   KGBZ 1330 1000 San Diego, Calif.   KGBX 1320 500 Springfield, Mo.   KGBZ 1270 100 Decorah, Iowa   Charles W. Greenley, 201 Water St.   KGCZ 1310 100 Decorah, Iowa   Charles W. Greenley, 201 Water St.   KGCZ 1310 100 Forgus Falls, Minn.   C. L. Jaren   KGDM 1100 1000 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGBZ 1330 1000 Long Seach, Calif.   KGEK 1350 1000 Long Seach, Calif.   KGEK 1350 1000 Long Seach, Calif.   KGER 1350 1000 Long Seach, Calif.		Hillcrest Manor
Beaumont Hotel, P. O. Box 2950   KFDY 780 1000 Brookings, S. D. South Dakota State College   KFEY 920 500 Denver, Colo. Albany Hotel   Michael Milks 9 Bros., Hotel Lubbock   KFYR 550 1000 Bismarck, N. D. 320 Broadway   KFEQ 680 2500 St. Joseph, Mo. Schneider Bidg.   Milks 924 W. 2nd 8t.   KFGQ 1370 100 Boone, Iowa   924 W. 2nd 8t.   KFH 1300 1000 Wichita, Kans.   124 1/2 S. Market 8t.   Milks 924 W. 2nd 8t.   KFI 640 50000 Los Angeles, Calif.   1000 S. Hope 8t.   KFI 120 100 Spokane, Wash.   KGBU 900 500 Ketchikan, Alaska   Mile 5, Wards Cove Rd.   KGBU 900 500 Ketchikan, Alaska   Mile 5, Wards Cove Rd.   KGBX 1230 500 Springfield, Mo.   KGBX 1230 50	Sacramento Bee	California Hotel
KFDY 780 1000 Brookings, S. D. South Dakota State College   KFEL 920 500 Denver, Colo. Albany Hotel   KFEQ 880 2500 St. Joseph, Mo. Schnelder Bldg.   KFEQ 680 2500 Spokane, Wash. 1023 W. Riverside Ave.   KGAR 1370 100 Tucson, Ariz. 142 8. 6th Ave.   KGBR 1330 1000 San Diego, Calif. 1012—1st St.   KGBU 900 500 Ketchikan, Alaska   Mile 5. Wards Cove Rd.   KGBX 1230 500 Springfield, Mo.   KGBZ Broadcasting Co., 715 Grant Ave.   KGBZ Broadcasting Co., 715 Grant Ave.   KGCU 1240 250 Mandan, N. D.   Marshalltown, lowa   KGCU 1270 100 Decorah, lowa   Charles W. Greenley, 201 Water St.   KGCU 1240 250 Mandan, N. D.   WGCCU 1310 100 Wolf Point, Mont.   KGZZ 1310 100 Wolf Point, Mont.   KGZZ 1310 100 Fergus Falls, Minn.   C. L. Jaren   KGDM 1100 1000 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1200 100 Stockton, Calif.   E. F. Peffer, 42 S. Calif. St.   KGEK 1360 1000 Long Seach, Calif.		
KFEL 920 500 Denver, Colo. Albany Hotel     KFEQ 680 2500 St. Joseph, Mo. Schneider Bidg.     KFGQ 1370 100 Boone, lowa 924 W. 2nd St.     KFH 1300 1000 Wichita, Kans.     124 1/2 S. Market St.     KFI 640 50000 Los Angeles, Calif.     1000 S. Hope St.     KFIO 1120 100 Spokane, Wash.     213 Riverside Ave.     KFID 1120 100 Spokane, Wash.     214 Riverside Ave.     KFID 120 100 Fend du Lac, Wis.     18 W. 1st St.     KFJB 1200 100 Wirshalltown, lowa     1603 W. Main St.     KFJI 121 100 Kiamath Falis, Ore.     KFJI 1370 100 Grand Forks, N. D.     University of North Dakota     KFJZ 1370 100 Fort Worth, Texas     KFJZ 1370 100 Los Greeley, Colo.     Box 735     KFKK 880 500 Greeley, Colo.     Box 735     KFKK 1220 1000 Lawrence, Kans.     University of Kansas     KFKR 890 500 Shenandosh, lowa     KFKR 890 500 Shenandosh, lowa     KFKR 1360 1000 Long Seach, Calif.     KGEX 1350 1000 Bismarck, N. D.     1023 W. Riverside Ave.     KGAR 1370 100 Tucson, Ariz.     142 S. 6th Ave.     KGB 1330 1000 San Diego, Calif.     KGBX 1330 1000 San Diego, Calif.     KGBX 1230 500 Springfield, Mo.     KGBX 1200 100 Vork, Neb.     KGBZ Broadcasting Co., 715 Grant Ave.     KGCA 1270 100 Decorah, lowa     Charles W. Greenley, 201 Water St.     KGCA 1270 100 Decorah, lowa     Charles W. Greenley, 201 Water St.     KGCX 1310 100 Wolf Point, Mont.     E. E. Erebsbach.     KGDY 1340 250 Huron. S. D.     Voice of S. D., Inc., 347 Dakota Ave.     KGEK 1200 100 Steckton, Calif.     KGEK 1200 100 Sterling, Colo.     Elmer G. Beehler, 109 W. 2nd St.     KGER 1260 1000 Long Seach, Calif.	KFDY 780 1000 Brookings, S. D	KFYO 1310 100 Lubbock, Texas
Albany Hotel  KFEQ 680 2500 St. Joseph, Mo. Schnelder Bidg.  KFGQ 1370 100 Boone, Iowa 924 W. 2nd St. KFH 1300 1000 124 1/2 S. Market St. KFH 4300 1000 Los Angeles, Calif. 1000 S. Hope St. KFI 640 50000 Los Angeles, Calif. 1010 S. Hope St. KFI 640 50000 Los Angeles, Calif. 1010 S. Hope St. KFI 640 50000 Los Angeles, Calif. 1012—Ist St. KGBU 900 500 Ketchikan, Alaska Mile 5. Wards Cove Rd. KGBX 1230 500 Springfield, Mo. KGBX, 1cc., C. of C. Bidg. KGBZ 930 1000 York, Nob. 18 W. 1st St. KFJB 1200 100 Marshalitown, Iowa 1603 W. Main St. KFJB 1210 100 Kiamath Falls, Ore. KFJI Broadcasters, Inc., Willard Hotel KFJM 1370 100 Grand Forks, N. D. University of North Dakota KFJR 1300 500 Portland, Ore. 622 Lumbermen's Bidg. KFJZ 1370 100 Fort Worth, Texas KFJZ 1370 100 Fort Worth, Texas KKJZ 1370 100 Fort Worth, Texas KKJZ 1370 100 Fort Worth, Texas KKJZ 1370 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Stockton, Calif. E. F. Peffer, 42 S. Calif. St. KGEK 1200 100 Long Seach, Calif.		
Schnelder Bidg.   1023 W. Riverside Ave.		320 Broadway
924 W.2nd St.   142 S. 6th Ave.   142 S. 6th A		
KFH		
KFI	KFH 1300 1000 Wichita, Kans.	KGB 1330 1000 San Diego, Calif.
Mile 5, Wards Cove Rd.		
213 Riverside Ave.   KGBX, Inc., C. of C. Bidg.	1000 S. Hope St.	Mile 5, Wards Cove Rd.
18 W. 1st St.   KGBZ Broadcasting Co., 715 Grant Ave.		
KFJB 1200 100 Marshalltown, lowa 1603 W. Main St.   KFJI 1210 100 Klamath Falls, Ore.   KFJI 1210 100 Klamath Falls, Ore.   KFJI 1210 100 Grand Forks, N. D.   University of North Dakota   KFJR 1300 500 Portland, Ore.   KFJZ 1370 100 Fort Worth, Texas Hotel   KFJX 1370 100 Greeley, Colo.   Box 735		
KFJI 1210 100 Klamath Falls, Ore.   KFJI Broadcasters, Inc., Willard Hotel   404 W. Main St.   404 W	KFJB 1200 100 Marshalltown,	lowa KGCA 1270 100 Decorah, Iowa
KFJM 1370 100 Grand Forks, N. D. University of North Dakota   E. E. Krebsbach.	KFJI 1210 100 Klamath Falls,	Ore. KGCU 1240 250 Mandan, N. D.
KFJR 1300 500 Portland, Ore. 622 Lumbermen's Bldg.   C. L. Jaren   KGDE 1200 100 Fergus Falls, Minn. C. L. Jaren   KGDE 1370 100 Fort Worth, Texas   KGDE 1370 100 Fort Worth, Texas   KGDE 1370 100 Stockton, Callf.   E. F. Peffer, 42 S. Callf. St.   KGDY 1340 250 Huron. S. D.   Voice of S. D., Inc., 347 Dakota Ave.   KGEK 1200 100 Sterling, Colo.   Eimer G. Beehler, 109 W. 2nd St.   KGEK 1360 1000 Long Beach, Callf.   KGE	KFJM 1370 100 Grand Forks, N	. D. KGCX 1310 100 Wolf Point, Mont.
622 Lumbermen's Bldg.   C. L. Jaren		E. E. Krebsbach.
Texas Hotel	622 Lumbermen's Bldg.	C. L. Jaren
Box 735	Texas Hotel	E. F. Peffer, 42 S. Calif. St.
KFKU 1220 1000 Lawrence, Kans.   KGEK 1200 100 Sterling, Colo.   University of Kansas   Elmer G. Beehler, 109 W. 2nd St.   KGER 1360 1000 Long Beach, Calif.		
KFNF 890 500 Shenandoah, Iowa KGER 1360 1000 Long Beach, Calif.	KFKU 1220 1000 Lawrence, Kan	s. KGEK 1200 100 Sterling, Colo.
		owa KGER 1360 1000 Long Beach, Calif.

KOTT 4040 400 K III III	
KGEZ 1310 100 Kalispell, Mont. Donald C. Treloar, Box 1	KIDO 1350 1000 Boise, Idaho
KGFF 1420 100 Shawnee, Okla.	KIDW 1420 100 Lamar, Cole.
9th & Bell Sts.	Lamar Broadcasting Co. Boy 688
KGFG 1370 100 Oklahoma City, Okla. Okla. Broadcasting Co., 1113 N. Broadway	KIEM 1210 100 Eureka, Calif.
KGFI 1500 100 Corpus Christi, Texas	Redwood Bucstg. Co., Vance Hotel
Eagle Broadcasting Co., Inc., P.O. Box 1508	KIEV 850 250 Glendale, Calif. Cannon System, Ltd., Glendale Hotel
KGFJ 1200 100 Los Angeles, Calif.	KINY 610 250 Juneau, Alaska
Ben S. McGlashan, 1417 S. Figueroa. KGFK 1500 100 Moorhead, Minn.	Northwest Advertising Co.
722 Center Ave.	KIT 1310 100 Yakima, Wash.
KGFL 1370 100 Roswell, N. M.	109 1/2 E. Yakima Ave.
KGFL, Inc., 507 N. Main St.	KIUJ 1310 100 Santa Fe, N. Mex. J. H. Speck
KGFW 1310 100 Kearney, Neb. Midway Hotel	KIUL 1210 100 Garden City Kans
KGFX 630 200 Plerre, S. D.	Garden City Brdcstg. Co.
Dana McNeil, 510 Summit Ave.	KIUN 1420 100 Pecos, Texas J. H. Hawkins & B. H. Hubbs
KGGC 1420 100 San Francisco, Calif.	KIUO 1210 100 Ardmore, Okia.
230 Eddy St.	Ardmorette Publishing Co.
KGGF 1010 1000 Coffeyville, Kans.	KJBS 1070 500 San Francisco, Calif.
Coffeyville Journal Bldg.	1380 Bush St.  KJR 970 5000 Seattle, Wash.
KGGM 1230 250 Albuquerque, N. M. Franciscan Hotel	KJR 970 5000 Seattle, Wash. Skinner Bldg.
KGHF 1320 500 Pueblo, Colo.	KLCN 1290 100 Blytheville, Ark.
C. P. Ritchie, 113 Broadway	C. L. Lintzenich, Main and Division St.
KGHI 1200 100 Little Rock, Ark.	KLO 1400 500 Ogden, Utah
Arkansas Brdcstg. Co., Marion Hotel KGHL 780 1000 Billings, Mont.	405 — 25th St. KLPM 1240 250 Minet, N. D.
5th & N. Broadway	John B. Cooley, Box 707
KGIR 1360 1000 Butte, Mont.	KLRA 1390 1000 Little Rock, Ark.
KGIR, Inc. ,121 W. Broadway	Arkansas Broadcasting Co., Box 550
KGIW 1420 100 Alamosa, Colo. Leonard E. Wilson, 326 N. Commercial	KLS 1440 250 Oakland, Calif.
KGIX 1420 100 Las Vegas, Nev.	Warner Bros., 2201 Telegraph Ave. KLUF 1370 100 Galveston, Texas
J. M. Heaton, Box 656	KLUF 1370 100 Galveston, Texas Geo. R. Clough, Buccaneer Hotel
KGKB 1500 100 Tyler, Texas	KLX 880 1000 Oakland, Calif.
115 S. College	Tribune Tower
KGKL 1370 100 San Angelo, Texas KGKL, Inc., St. Angelus Hotel	KLZ 560 1000 Denver, Colo. Shirley-Savoy Hotel
KGKO 570 500 Wichita Falls, Texas	
9th St. & Indiana Ave.	Ear   E. May Seed & Nursery Co.
KGKY 1500 100 Scottsbluff, Neb. Hilliard Co., Inc., 1517 1/2 Broadway	W. W. McAllister, Blue Bonnet Hotel
KGMB 1320 1000 Honolulu, T.H.	KMBC 950 1000 Kansas City, Mo.
Honolulu Broadcasting Co Box 2663	Pickwick Hotel
KGNF 1430 1000 North Platte, Neb.	KMED 1310 100 Medford, Ore. Mrs. W. J. Virgin, Sparta Bldg.
Great Plains Broadcasting Co., W. 12th St. KGNO 1340 250 Dodge City, Kans.	KMJ 580 1000 Fresno, Calif.
First Natl. Bank Bldg.	Van Ness & Calaveras Sts.
KGO 790 7500 San Francisco, Calif.	KMLB 1200 100 Monroe, La.
111 Sutter St. KGRS 1410 1000 Amarillo, Texas	Francis Hotel
KGRS 1410 1000 Amarillo, Texas E. B. Gish Bellaire Park	KMMJ 740 1000 Clay Center, Neb. The M. M. Johnson Co.
KGU 750 2500 Honolulu, T. H.	KMO 1330 250 Tacoma, Wash.
Kapiolani at South St.	KMO, Inc., Hotel Winthrop
KGVO 1260 1000 Missoula, Mont.	KMOX 1090 50000 St. Louis, Mo.
Mosbys, Inc., 240 N. Higgins KGW 620 1000 Portland, Ore.	401 S. 12th St. KMPC 710 500 Beverly Hills, Calif.
325 Adler St.	9631 Wiltshire Blvd.
KGY 1210 100 Olympia, Wash.	KMTR 570 1000 Hollywood, Calif.
KGY, Inc., 11th and Capitol Way	KMTR Radio Corp., 915 N. Formosa Ave.
KHJ 900 1000 Los Angeles, Calif.	KNOW 1500 100 Austin, Texas Norwood Building
KHQ 590 1000 Spokane, Wash.	KNX 1050 50000 Hollywood, Calif.
Sprague Ave. & Post St.	West. Broadcast Co., Inc., 1558 N. Vine St.
KHSL 950 250 Chico, Calif.	KOA 830 50000 Denver, Colo.
Golden Empire Brdcstg. Co. KICA 1370 100 Clovis, N. M.	General Electric Co., 1370 Krameria St.
KICA 1370 100 Clovis, N. M. Southwest Broadcasting Co.	KOAC 550 1000 Corvailis, Ore, Oregon State Agricultural College
KID 1320 250 Idaho Falls, Idaho	KOB 1180 10000 Albuquerque, N. M.
Park Ave. & Broadway	Albuquerque Journal, Box 667

KOH 138 440 N. Virg			Radio Service Corp., 141 S. 6th Ave.
KOIL 126	0 1000 Council Bluffs, Iowa	_	KSL 1130 50000 Salt Lake City, Utah
Mona Moto	or Oil Co. `  O 1000 Portland, Ore.		Vermont Bldg.
	, New Heathman Hotel		KSLM 1370 100 Salem, Ore. Oregon Radio, Inc.
KOL 127			KSO 1320 500 Des Moines, Iowa
Northern L			Des Moines Register & Tribune KSOO 1110 2500 Sloux Falls, S. D.
Biltmore Ho	otel		Sloux Falls Brdcst. Assn., Carpenter Hotel
KOMO 92 Skinner Bld			KSTP 1460 10000 St. Paul, Minn.
KONO 137	-		St. Paul Hotel KSUN 1200 100 Lowell, Ariz.
	adcast. Co., St. Anthony Hotel	ļ	Copper Electrical Co., Drawer C
H. H. Hans	0 100 Marshfield, Ore. eth, HallBldg.	'	KTAB 560 1000 San Francisco, Calif. 5th & Mission Sts.
KORE 142	0 100 Eugene, Ore.		KTAR 620 1000 Phoenix, Ariz.
733 Willamet			116 N. Central Ave. KTAT 1240 1000 Fort Worth, Texas
	rdcstg. Corp., Hotel Pines		Ft. Worth Natl. Bank Bldg.
KOY 1396 621 N. Cent			KTBS 1450 1000 Shreveport, La. Box 1642
KPAC 126			KTFI 1240 1000 Twin Falls, Idaho
Port Arthur	r College		Radio Broadcasting Corp., Box 521
KPCB 710 Tower Bldg			KTHS 1060 10000 Hot Springs, Ark. Chamber of Commerce, Box 886
KPJM 1500	0 100 Prescott, Ariz.		KTM 780 500 Los Angeles, Calif.
Scott & Stur KPLC 1500	m, P.O. Box 782 100 Lake Charles, La.		214 S. Vermont St. KTRB 740 250 Modesto, Calif.
Calcasieu B	rdcstg. Co.		McTammany & Bates
KPO 680	0 50000 San Francisco, Calif.		KTRH 1290 1000 Houston, Texas KTRH Broadcasting Co., Rice Hotel
KPOF 880			KTSA 550 1000 San Antonio, Texas
	e, 1845 Champa St.	-	Southwest Broadcasting Co., Plaza Hotel KTSM 1310 100 El Paso, Texas
585 E. Color			P.O. Box 1976
KPQ 1500 KPQ Bldg.	100 Wenatchee, Wash.		KTUL 1400 500 Tulsa, Okia. National Bank of Tulsa Bldg.
KPRC 920	1000 Houston, Texas		KTW 1220 1000 Seattle, Wash.
2204 Shell Blo KQV 1380	dg.		77th Ave. & Spring St.  KUJ 1370 100 Walla Walla, Wash.
	500 Pittsburgh, Pa. casting Co., Investment Bldg.		KUJ, Inc., Marcus Whitman Hotel
KQW 101 (87 E. San An	0 1000 San Jose, Calif.		KUMA 1420 100 Yuma, Ariz. Dr. A. H. Schermann, Box 267
KRE 1370	100 Berkeley, Calif.		KUOA 1260 1000 Fayetteville, Ark.
2345 Channi KREG 1500			KUOA, Inc., Washington Hotel  KUSD 890 500 Vermillion, S. D.
3rd & Sycam			University of South Dakota
KRGV 1260 KRGV Inc.	500 Weslaco, Texas		KVI 570 1000 Tacoma, Wash. W. R. Rust Bldg.
KRKD 1120	1000 Los Angeles, Calif.		KVL 1370 100 Seattle, Wash.
815 Spring A KRKO 1370		$\vdash$	KVL, Inc., 5th and Virginia St.  KVOA 1260 500 Tucson, Ariz.
Lee Mudget	t, 2814 Rucker Ave.		Cons. Natl. Bank Bldg.
KRLC 1420 H. E. Studel	100 Lewiston, Idaho		KVOD 920 500 Denver, Colo. Continental Oil Bldg.
KRLD 1840	10000 Dallas, Texas	$\vdash$	KVOO 1140 25000 Tulsa, Okla.
KRLD Radio	o Corp., Adolphus Hotel  100 Shreveport, La.		Wright Bldg. KVOR 1270 1000 Colorado Spg., Colo.
Jefferson Ho	tel		Mining Exchange Bldg.
KRNT 1320	500 Des Moines, Iowa Register Tribune		KVOS 1200 100 Beilingham, Wash. 115 W. Magnolia St.
	1000 Oakland, Calif.	$\vdash$	KWBG 1420 100 Hutchinson, Kans.
1803 Franklin	n St.	$\vdash$	W. B. Greenwald
Radio Sales C	orp., Washington Athletic Club		KWEA 1210 100 Shreveport, La. Spring & Fannin Sts.
KSAC 580	500 Manhattan, Kans.		KWFV 1210 100 Hilo, Hawaii
KSCJ 1330	of Agriculture 1000 Sloux City, Iowa	$\vdash$	His Broadcasting Co., Ltd. KWG 1200 100 Stockton, Calif.
Perkins Bros	. Co., 415 Douglas St.		Medico-Dental Bldg.
	1000 St. Louis, Mo.		KWJJ 1040 500 Portland, Ore. 622 S. W. Salmon St.
12th & Onve	516.		OZZ D. TT. DAILION DV.

KWK 1350 1000 St. Louis, Mo.	WAAW 660 500 Omaha, Neb.
Thomas Patrick, Inc., Hotel Chase	Omaha Grain Exchange
KWKC 1370 100 Kansas City, Mo.	WABC 860 50000 New York, N. Y.
39th & Main Sts. KWKH 1100 10000 Shreveport, La.	485 Madison Ave. WABI 1200 100 Bangor, Maine
Spring & Fannin Sts.	First Universalist Society Park St.
KWLC 1270 100 Decorah, Iowa Luther College	WABY 1370 100 Albany, N. Y. Strand Theatre Bldg.
KWSC 1220 1000 Pullman, Wash.	WACO 1420 100 Waco, Texas Amicable Bidg.
State College of Washington KWTN 1210 100 Watertown, S. D.	WADC 1320 1000 Akron, Ohlo
Citizens Bank Bldg.	Allen T. Simmons, P. O. Box 29
KWTO 560 1000 Springfield, Mo. KGBX Inc.	WAGF 1370 100 Dothan, Ala. Houston Hotel
KWYO 1370 100 Sheridan, Wyo. Big Horn Brdestg. Co.	WAGM 1420 100 Presque Isle, Me. Aroostook Broadcasting Corp., Main St.
KXA 760 250 Seattle, Wash.	WAIM 1200 100 Anderson S. C.
American Radio Tel. Co., 218 Bigelow Bidg.	Wilton E. Hall
KXL 1420 100 Portland, Ore. KXL Broadcasters, Multnomah Hotel	WAIU 640 500 Columbus, Ohio Deshier-Wallick Hotel
KXO 1500 100 El Centro, Calif.	WALA 1380 500 Mobile, Ala.
F. M. Bowles, Box 140	Battle House
KXRO 1310 100 Aberdeen, Wash.	WALR 1210 100 Zanesville, Ohio First Trust & Savs. Bank Bldg.
KXRO, Inc., Hotel Morck.  KXYZ 1440 1000 Houston, Texas	WAML 1310 100 Laurel, Miss.
Fannin & Rusk Sts.	Southland Radio Corp., Box 26
KYA 1230 1000 San Francisco, Calif. 988 Market St.	WAPI 1140 5000 Birmingham, Ala. Protective Life Bldg.
KYW 1020 10000 Philadelphia, Pa.	WARD 1400 500 Brooklyn, N. Y.
1622 Chestnut Street	427 Flatbush Ave., Ext. WASH 1270 500 Grand Rapids, Mich.
NAA 690 1000 Ariington, Va. United States Navy	Grand Rapids Natl. Bank Bldg.
RDN 680 500 San Salvador, E. S.	WATR 1190 100 Waterbury, Conn.
Republic of El Salvador	WATR Co. Inc. 47 Grand St.
TGW 565 10000 Guatemaia, Gua. Gobierno de Guatemaia	WAVE 940 1000 Louisville, Ky. WAVE, Inc., 1525 Brown Hotel
TGX 1400 150 Guatemala City	WAWZ 1350 500 Zarephath, N. J. Pillar of Fire.
TICR 912 75 San Jose, C. R.	WAZL 1420 100 Hazleton, Pa.
Government of Costa Rica	Hazleton Broadcasting Service, Inc. WBAA 890 1000 West Lafayette, Ind.
11FB 714 30 3an 3036, C. N.	Purdue University
TIGA 1014 30 Cartago, C. R.	WBAL 1060 10000 Baltimore, Md. Lexington Bldg., Amer. Radio News Corp.
TIGP 800 75 San Jose, C. R.	WBAP 800 50000 Fort Worth, Texas
Gonzalo Pinto H. Apt. 225	Blackstone Hotel
TIRCA 1100 500 San Jose, C. R. Perry Girton, Apt. 225	WBAX 1210 100 Wilkes-Barre, Pa. John H. Stenger, Jr., 70 S. Main St.
TISO 550 250 San Jose, C. R.	WBBC 1400 500 Brooklyn, N. Y.
P. F. Saborio, Apt. 1354	552-54 Atlantic Ave.
TIVL 835 30 San Jose, C. R.	WBBL 1210 100 Richmend, Va. 1627 Monument Ave.
VAS 685 2000 Glace Bay, N. S. Canadian Marconi Co., Ltd.	WBBM 770 50000 Chicago, III. WBBM Broadcasting Corp., Wrigley Bidg.
VE9EK 1185 10 Montmagny, Que.	WBBR 1300 1000 Brooklyn, N. Y.
J. A. Marquis, P. O. Box 52	124 Columbia Heights
VOAC 1065 40 St. John's, Nfld.	WBBZ 1200 100 Ponca City, Okla. C. L. Carrell, 407 W. South Ave.
VOAS 940 100 St. John's N. F.	WBCM 1410 500 Bay City, Mich. James E. Davidson, Hotel Wenonah
Ayre & Sons, Ltd., Water St.	WBEN 900 1000 Buffalo, N. Y.
Newfoundland Hotel	WBEN, Inc., Hotel Statler
VONF 950 5000 St. John's N. F.	WBEO 1310 100 Marquette, Mich. 146 W. Washington St.
Dominion Broadcasting Co., Ltd., Box 135  VOWR 681 500 St. John's, N. F.	WBIG 1440 500 Greensboro, N. C.
Wesley United Church, Box 157	Box 408 WBNO 1200 100 New Orleans, La.
WAAB 1410 500 Boston, Mass. 21 Brookline Ave.	Hotel New Orleans
WAAF 920 500 Chicago, III.	WBNS 1430 500 Columbus, O. 33 N. High St.
Palmer House WAAT 940 500 Jersey City, N. J.	WBNX 1350. 250 New York, N. Y.
Bremer Broadcasting Corp., 50 Journal Sq.	260 E. 161st St.

	WBOQ 860 50000 New York, N. Y.	WCRW 1210 100 Chicago, III.
	Atlantic Broadcasting Corp.	Clinton R. White, 2756 Pine Grove Ave.
1	WBOW 1310 100 Terre Haute, Ind.	WCSC 1360 500 Charleston, S. C.
	Banks of Wabash, Inc., 19 Beach Block	Francis Marion Hotel
J	WBRB 1210 100 Red Bank, N. J. 63 Broad St.	WCSH 940 1000 Portland, Me. 579 Congress St.
i	WBRC 930 1000 Birmingham, Ala. Bankhead Hotel	WDAE 1220 1000 Tampa, Fla. Tampa Times Co., Tampa Terrace
	WBRE 1310 100 Wilkes-Barre, Pa.	
	Louis G. Baltimore, 16 N. Main	WDAF 610 1000 Kansas City, Mc. 1729 Grand Ave.
<u> </u>	WBSO 920 500 Babson Park, Mass.	WDAG 1410 1000 Amarillo, Texas
	Drawer B	Box 306
-		WDAH 1310 100 El Paso, Texas
1		Box 1976
	Station WBT, Inc., Wilder Bldg. WBTM 1370 109 Danville, Va.	
	Miller Bldg.	WDAS 1370 100 Philadelphia, Pa. WDAS Brdcstg. Co., Inc., Broadwood Hotel
	WBZ 990 50000 Boston, Mass.	WDAY 940 1000 Fargo, N. D.
ł	Hotel Bradford	WDAY, Inc., Black Bldg., 118 Broadway
	WBZA 990 1000 Springfield, Mass.	WDBJ 930 1000 Roanoke. Va.
1.	Hotel Kimbali	Times World Corp., P. O. Box 150
	WCAC 600 500 Storrs, Conn.	WDBO 580 1000 Orlando, Fla.
	Connecticut State College	555 N. Orange Ave.
	WCAD 1220 500 Canton, N. Y.	WDEL 1120 250 Wilmington, Del.
	St. Lawrence University	WDEL, Inc., 10th and King Sts.
	WCAE 1220 1090 Pittsburgh, Pa.	WDEV 550 500 Waterbury, Vt.
	6th Ave. & Smithfield St.	Harry C. Whitehill, Stowe St.
	WCAL 1250 1000 Northfield, Minn.	WDGY 1180 1000 Minneapolis, Minne
	St. Olaf College	Dr. Geo. W. Young, 909 W. Broadway
	WCAM 1280 500 Camden, N. J.	WDNC 1506 100 Durham, N. C.
	City of Camden, City Hall	Washington Duke Hotel
1	WCAO 600 500 Baltimore, Md.	WDOD 1280 1000 Chattanooga, Tenn.
	811 W.Lanvale St.	WDOD Broadcasting Corp., Hotel Patten
	WCAP 1280 500 Asbury Park, N. J.	WDRC 1330 1000 Hartford, Conn.
	Convention Hall	WDRC, Inc., Corning Bldg., 11 Asylum St. WDSU 1250 1000 New Orleans, La.
[	WCAT 1200 100 Rapid City, S. D.	WDSU Inc., Hotel Monteleone
	South Dakota State School of Mines	WDZ 1070 100 Tuscola, III.
ĺ	WCAU 1170 50000 Philadelphia, Pa.	James L. Bush, Star Store Bldg.
	WCAU Broadcasting Co., 1622 Chestnut WCAX 1200 100 Burlington, Vt.	WEAF 660 50000 New York, N. Y.
1	203 College St.	30 Rockefeller Plaza
	WCAZ 1070 100 Carthage, III.	WEAN 780 500 Providence, R. I.
	97 1/2 Adams St.	New Crown Hotel
	WCBA 1440 500 Allentown, Pa.	WEBC 1290 1000 Superior, Wis.
	B. Bryan Musselman, 39-41 10th St.	Spaulding Hotel, Duluth, Minn.
	WCBD 1080 5000 Waukegan, III.	WEBQ 1210 100 Harrisburg, III.
	75 E. Wacker Drive, Chicago	100 E. Poplar St.
i	WCBM 1370 100 Baltimore, Md.	WEBR 1310 100 Buffalo, N. Y.
	Keith Theatre Bldg.	Howell Broadcasting Co., Inc., 735 Main
1	WCBS 1420 100 Springfield, III.	WEDC 1210 100 Chicago, ill.
	WCBS, Inc., 208 1/2 S. 5th.	Emll Denemark, 3860 Ogden Ave.
	WCCO 810 50000 Minneapolis, Minn.	WEED 1420 199 Rocky Mount, N. C.
	Nicollet Hotel	Wm Avera Wynne, Box 221 WEEL 590 1009 Boston, Mass.
	WCFL 970 1500 Chicago, III. 666 Lake Shore Drive	WEEL 590 1008 Boston, Mass. 182 Tremont St.
<del></del>	WCHS 580 500 Charleston, W. Vs.	WEEU 830 1000 Reading, Pa.
	WOBU, Inc., Ruffner Hotel	Berks Broadcasting Co., 533 Penn
	WCKY 1490 5000 Covington, Ky.	WEHC 1420 100 Charlottesville, Va.
	6th & Madison Sts.	7th & Main Sts.
	WCLO 1200 100 Janesville, Wis.	WEHS 1420 100 Cicero, III.
	TTOCO ALOU AUG JAMOSYIIIO, YYIS.	
1	200 E. Milwaukee St.	WEHS, Inc., 6138 W. Cermak Rd.
	200 E. Milwaukee St. WCLS 1310 100 Jollet III.	WELL 1420 ,108 Battle Creek, Mich.
	WCLS 1310 100 Jollet, fil.	WELL 1420 ;100 Battle Creek, Mich. Enquirer News, 38 W. State St.
		WELL 1420 ,106 Battle Creek, Mich. Enquirer News, 38 W. State St. WENR 870 50000 Chicago, III.
	WCLS 1310 100 Jollet, fil. WCLS, Inc., 301 E. Jefferson St.	WELL 1420 .108 Battle Creek, Mich. Enquirer News, 38 W. State St. WENR 870 5000 Chicago, III. 222 N. Bank Drive
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefterson St. WCMI 1310 100 Ashland, Ky. Ashland Broadcasting Co.	WELL 1420 ,108 Battle Creek, Mich. Enquirer News, 38 W. State St. WENR 870 50000 Chicago, III. 222 N. Bank Drive WESG 850 1000 Eimira, N. Y.
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefferson St. WCMI 1310 100 Ashland, Ky. Ashland Broadcasting Co.	WELL 1420 .108 Battle Crock, Mich. Enquirer News, 38 W. State St. WENR 870 50000 Chicago, \$!!. 222 N. Bank Drive WESG 850 1000 Elmira, N. Y. Mark Twain Hotel
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefferson St. WCMI 1310 100 Ashland, Ky. Ashland Broadcasting Co. WCNW 1500 100 Brooklyn, N. Y.	WELL 1420 .108 Battle Creek, Mich. Enquirer News, 38 W. State St. WENR 870 5000 Chicago, iii. 222 N. Bank Drive WESG 850 1000 Elmira, N. Y. Mark Twain Hotel WEVD 1300 1000 New York, N. Y.
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefferson St. WCMI 1330 100 Ashland, Ky. Ashland Broadcasting Co. WCNW 1500 100 Brooklyn, N. Y. Arthur Faske, 1625 Pitkin Ave.	WELL 1420 .108 Battle Creek, Mich. Enquirer News, 38 W. State St. WENR 870 5000 Chicago, III. 222 N. Bank Drive WESG 850 1000 Eimira, N. Y. Mark Twain Hotel WEVD 1300 1000 New York, N. Y. Jewish Dally Forward, Hotel Claridge
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefferson St. WCMI 1330 100 Ashland, Ky. Ashland Broadcasting Co. WCNW 1500 100 Brooklyn, N. Y. Arthur Faske, 1625 Pitkin Ave. WCOA 1340 500 Pensacola, Fla. San Carlos Hotel WCOC 880 500 Meridian, Miss.	WELL 1420 .108 Battle Crock, Mich. Enquirer News, 38 W. State St. WENR 870 50000 Chicago, III. 222 N. Bank Drive WESG 850 1000 Eimira, N. Y. Mark Twain Hote! WEVD 1300 1000 New York, N. Y. Jewish Dally Forward, Hotel Claridge WEW 750 1000 St. Louis, Mo.
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefferson St. WCMI 1310 100 Ashland, Ky. Ashland Broadcasting Co. WCNW 1500 100 Brooklyn, N. Y. Arthur Faske, 1525 Pitkin Ave. WCOA 1340 500 Pensacola, Fla. San Carlos Hotel WCOC 880 500 Meridian, Miss. Box 603	WELL 1420 .108 Battle Creek, Mich. Enquirer News, 38 W. State St. WENR 870 50000 Chicago, \$!!. 222 N. Bank Drive WESG 850 1000 Eimira, N. Y. Mark Twain Hotel WEVD 1300 1000 New York, N. Y. Jewish Daily Forward, Hotel Claridge WEW 760 1000 St. Louis, Mo. St. Louis University, 221 N. Grand Bivd.
	WCLS 1310 100 Jollet, III. WCLS, Inc., 301 E. Jefferson St. WCMI 1330 100 Ashland, Ky. Ashland Broadcasting Co. WCNW 1500 100 Brooklyn, N. Y. Arthur Faske, 1625 Pitkin Ave. WCOA 1340 500 Pensacola, Fla. San Carlos Hotel WCOC 880 500 Meridian, Miss.	WELL 1420 .108 Battle Crock, Mich. Enquirer News, 38 W. State St. WENR 870 50000 Chicago, III. 222 N. Bank Drive WESG 850 1000 Eimira, N. Y. Mark Twain Hote! WEVD 1300 1000 New York, N. Y. Jewish Dally Forward, Hotel Claridge WEW 750 1000 St. Louis, Mo.

	WFAA 800 50000 Dallas, Texas		WHBF 1210 100 Rock Island, III.
ļ	Baker Hotel WFAB 1300 1000 New York, N. Y.		Hotel Harms WHB1 1250 1000 Newark, N. J.
	Fifth Avenue Broadcasting Corp.		100 Shipman St.
	WFAM 1200 100 South Bend, Ind.		WHBL 1410 500 Sheboygan, Wis.
	South Bend Tribune, 225 W. Colfax Ave. WFAS 1210 100 White Plains, N. Y.		Press Publishing Co., Press Bldg. WHBQ 1370 100 Memphis, Tenn.
	Hotel Roger Smith		Brdestg. Sta. WNBQ, Inc. Hotel Claridge
ţ.	WFBC 1300 1000 Greenville, S. C. Imperial Hotel		WHBU 1210 100 Anderson, Ind. Anderson Broadcasting Corp., Box 816
	WFBE 1200 100 Cincinnati, Ohio		WHBY 1200 100 Green Bay, Wis.
	WFBE, Inc . Hotel Sinton		WHBY, Inc., Bellin Bldg.
	WFBG 1310 100 Altoona, Pa. Gable Broadcasting Co. 12th Av. & 18th St.		WHDF 1370 100 Calumet, Mich. Box 643
	WFBL 1360 1000 Syracuse, N. Y.		WHDH 830 1000 Boston, Mass.
	Onondaga Hotel WFBM 1230 1000 Indianapolis, Ind.		Matheson Radio Co., 62 Boylston WHDL 1420 100 Clean, N. Y.
	48 Monument Circle		Exchange Natl. Bank Bldg.
	WFBR 1270 500 Baltimore, Md.		WHEB 740 250 Portsmouth, N. H.
_	7 St. Paul St. WFDF 1310 100 Filmt. Mich.		Box 522, 39 Congress St.  WHEC 1430 500 Rochester, N. Y.
<u> </u>	Union Industrial Bldg.		WHEC, Inc., 40 Franklin St.
	WFEA 1340 500 Manchester, N. H. Carpenter Hotel		WHEF 1500 100 Kosciusko, Miss. 417 W. Adams St.
	WFIL 560 1000 Philadelphia, Pa.		WHFC 1420 100 Cicero, III,
<u></u>	WFIL Broadcasting Co., 801 Market		WHFC, Inc., 6138 W. Cermak Road
1	WFLA 620 1000 Clearwater, Fla. Box 119		WHIO 1260 1000 Dayton, Ohio 39 S. Ludlow St.
	WGAL 1500 100 Lancaster, Pa.		WHIS 1410 250 Bluefield, W. Va.
<b>├</b>	WGAL, Inc., 8 W. King St.		Bland St. WHJB 620 250 Greensburg, Pa.
	WGAR 1450 500 Cleveland, Ohio WGAR Broadcasting Co., Hotel Statler		Penn-Albert Hotel, 128 Pa, Ave.
	WGBB 1210 100 Freeport, N. Y.		WHK 1390 1000 Cleveland, Ohio
$\vdash$	H.H.Carman, 64 S. Grove St.  WGBF 630 500 Evansville, Ind.		WHN 1010 1000 New York, N. Y.
	519 Vine St.		1540 Broadway
	WGBI 880 500 Scranton, Pa. 116 N. Washington Ave.	1	WHO 1000 50000 Des Moines, Iowa Central Brdestg. Co., 914 Wainut St.
	WGCM 1210 100 Mississippi City		WHOM 1450 250 Jersey City, N. J.
<b></b>	Great Southern Golf Club WGES 1360 500 Chicago, III.		2870 Boulevard WHP 1430 500 Harrisburg, Pa.
	128 N. Crawford Ave.		WHP 1430 500 Harrisburg, Pa. WHP Inc., 216 Locust St.
	WGH 1310 100 Newport News, Va.		WIBA 1280 1000 Madison, Wis. 111 King St.
	2813 Washington Ave. WGL 1370 100 Fort Wayne, Ind.		WIBG 970 100 Glenside, Pa.
	F.C. Zieg, 213 W. Main St.		WIBG, Inc., Keswick Bldg.
	WGN 720 50000 Chicago, III. WGN, Inc., Tribune Tower		WIBM 1370 100 Jackson, Mich. WIBM, Inc., 306 W. Michigan Ave.
	WGNY 1210 100 Chester, N. Y.		WIBU 1210 100 Poynette, Wis.
<u> </u>	Peter Goelet (Orange County)		Wm. C. Forrest, R. F. D. No. 3 WIBW 580 1000 Topeka, Kans.
	WGPC 1420 100 Albany, Ga. Rylander Theatre Bldg.		11th & Topeka Blvd.
	WGR 550 1000 Buffalo, N. Y.		WIBX 1200 100 Utica, N. Y. WIBX, Inc., 1st Natl. Bank Bldg.
	Rand Bidg. WGST 890 500 Atlanta, Ga.		WICC 600 500 Bridgeport, Conn.
	Ansley Hotel		Southern Conn. Broadcasting Corp.
	WGY 790 50000 Schenectady, N. Y. 1 River Road		WIL 1200 100 St. Louis, Mo. Melbourne Hotel
	WHA 940 2500 Madison, Wis.		WILL 580 1000 Urbana, III.
	University of Wisconsin WHAM 1150 50000 Rochester, N. Y.		University of Illinois WILM 1420 100 Wilmington, Dei.
	100 Carlson Road		WILM 1420 100 Wilmington, Del. 920 King St.
	WHAS 820 50000 Louisville, Ky.		WIND 560 1000 Gary, Ind.
<b>—</b>	300 W. Liberty St. WHAT 1310 100 Philadelphia, Pa.		504 Broadway WINS 1180 1000 New York, N. Y.
	Public Ledger Bldg.		110 E. 58th St., Hearst Radio, Inc.
	WHAZ 1300 500 Troy, N. Y.		WIOD 1300 1000 Miami, Fla. Herald Bldg., Metropolis Pub Co.
	8th St. WHB 860 1000 Kansas City, Mo.	-	WIP 610 500 Philadelphia, Pa.
	WHB Broadcasting Co., Scarritt Bldg.		Gimbel Bidg.
	WHBC 1200 100 Canton, Ohio Edw. P. Graham, 319 Tusc. St., W.		WIRE 1400 500 Indianapolis.Ind. 540 N. Meridian St.
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WIS 1010 1000 Colu Station WIS, Inc., 1811 Ma		WKOK 1210
WISN 1120 250 MIIW	aukee, Wis.	WKRC 550 1000 Cincinnati, Ohio
123 W. Michigan St., Hears WJAC 1310 100 John		WKRC, Inc., Hotel Alms  WKY 900 1000 Oklahoma City, Okla.
WJAC, Inc., Locust St.	stown, Pa.	Plaza Court Bldg.
WJAG 1060 1000 Norf	olk, Neb.	WKZO 590 1000 Kalamazeo, Mich.
Norfolk Daily News WJAR 890 500 Prov	idence, R. I.	John E. Fetzer, Burdick Hotel WLAC 1470 5000 Nashville, Tenn.
Outlet Co., Weybossett St.		159—4th Ave. No. WLAC Inc.
WJAS 1290 1000 Pitts		WLAP 1420 100 Lexington, Ky.
Chamber of Commerce Blow WJAX 900 1000 Jack	sonville, Fla.	Main & Espianade WLB 1250 1000 Minneapells, Minn.
City of Jacksonville	sonville, Fla.	University of Minnesota
	eland, Ohio	WLBC 1310 50 Muncle, Ind. D. A. Burton, Anthony Bidg.
1224 Huron Road WJBC 1200 100 Bloo	mington, ili,	WLBF 1420 100 Kansas City, Kans.
Kaskaskia Broadcasting Co		WLBF Broadcasting Co., Huron Bldg
WJBK 1500 100 Detr	elt, Mich.	WLBL 900 2500 Stevens Point, Wis. Wisconsin Dept. of Agriculture and Markets
6559 Hamilton Ave.  WJBL 1200 100 Deca	tur 101	WLBZ 620 500 Bangor, Me.
Gushard Bldg.		Maine Broadcasting Co., Inc., 100 Main
	n Rouge, Le.	WLEU 1420 100 Erie, Pa. Leo J. Omelian
Baton Rouge Broadcasting	Orleans, La.	WLLH 1370 100 Lowell, Mass.
C. C. Carlson, Godchaux	Bldg.	Albert S. Moffat, Box D
WJBY 1210 100 Gads Gadsden Broadcasting Co.		WLNH 1310 100 Lecenie, N. H. 523 Main St.
WJDX 1270 1000 Jack		WLS 870 50000 Chicago, III.
Lamar Life Bldg.		1230 W. Washington Bivd.
WJEJ 1210 100 Hage Lovely Dame Bidg.	rstown, Md.	WLTH 1400 500 Brooklyn, N. Y. 305 Washington St.
WJIM 1210 100 Lens	ing, Mich.	WLVA 1200 100 Lynchburg, Ve.
Capital City Brdcstg. Co.		915 Main St. WLW 700 50000 Cincinnati, Ohio
WJJD 1130 20000 Chic WJJD, Inc201 N. Wells S	t.	1329 Arlington St.
WJMS 1420 100 from	wood, Mich.	WLWL 1100 5000 New Yerk, N. Y. 415 W 59th St.
WJMS, Inc., St. James Hot WJR 750 10000 Detre		WMAL 630 250 Washington, D. C.
WJR, Inc., Fisher Bldg.	-	712—11th St., N. W. WMAQ 670 50000 Chicage, III.
WJSV 1460 10000 Wasi Earle Building	hingten, D. C.	Merchandise Mart
WJTL 1370 100 Atlan	nte, Ge.	WMAS 1420 100 Springfield, Mess.
Oglethorpe University WJW 1210 100 Akre	n. Ohle	WMAS, Inc., 70 Chestnut St. WMAZ 1180 1000 Macon, Qa.
WJW, Inc., 41 S. High St.		211 Cotton Ave.
WJZ 760 50000 New 30 Rockefeller Plaza	Yerk, N. Y.	WMBC 1420 100 Detroit, Mich. 7310 Woodward Ave.
WKAQ 1240 1000 San		WMBD 1440 500 Poorle, III.
Radio Corp. of Porto Ric WKAR 1040 1000 East		114 N. Madison St.
Michigan State College	Lansing, Mich.	WMBG 1210 100 Richmond, Va. 914 W . Broad St.
WKBB 1500 100 East	Dubuque, III.	WMBH 1420 100 Jeplin, Me.
Richard W. Hoffman WKBH 1380 1000 LaCr	Wie	1334 Roosevelt St. WMB1 1080 5009 Chicago, III.
WKBH, Inc., 409 Main St.		153 Institute Place
WKBI 1420 100 Clcei		WMBO 1310 100 Auburn, N. Y.
WKBI Inc.,6188 W. Cerm WKBN 570 500 Your	ak Road ngstewn, Ohio	WMBO, Inc. Metcaif Bldg. WMBQ 1500 100 Brooklyn, N. Y.
17 N. Champion St.	-	Paul J . Golihofer, 95 Leonard St.
WKBO 1200 100 Harr Penn Harris Hotel	isburg, Pa.	WMBR 1370 100 Jacksonville, Fig. F. J. Reynolds, Carling Hote!
WKBV 1500 100 Rich	mend, Ind.	WMC 789 1009 Memphis, Tenn.
Knox Radio Corp., Box 30		WMC, Inc., Hotel Gayoso
WKBW 1480 5000 Buffs Rand Bldg.	RIO, N. Y.	WMCA 578 590 New York, NY. 1697 Broadway
WKBZ 1500 100 Musi	kegen, Mich.	WMEX 1500 100 Boston, Mass.
Karl L. Ashbacker & Sons WKEU 1500 100 Griff	In Co.	The Northern Corp., Hotel Manger WMFD 1370 100 Wilmington, N. C.
Radio Station WKEU, 906		WMFD 1370 100 Wilmington, N. C. Richard Austin Dunlea
WKJC 1200 100 Lanc		WMFE 1380 250 New Britain, Conn.
16 W. King St.		William J. Sanders

□ WM	FF 1310 100	Plattsburg, N. Y.		wosu			Columbus, Ohio
	tsburg Broadcast			Ohio Stat			New York, N. Y.
	FG 1210 100 doithe Lakes Br	Hibbing, Minn. destg. Co.	1 1	132 West			New Tork, N. T.
WM	FH 1120 500	Boston, Mass.					Omaha, Neb.
	ph M. Kirby Fl 900 500	New Haven, Conn.					d, 4th and Farnam Fort Wayne, Ind.
	ick J. Goode	New Haven, Com.					., 213 W. Main
		Daytona Beach, Fla.		WPAD 1		100	Paducah, Ky.
	Vright Esch	Otavladela Mice		2201 Bros		100	Thomasville, Ga.
	FN 1210 100 la Brdestg. Corp	Clarksdale, Miss.		H. Wimpy			
WM	FO 1370 100	Decatur, Ala.		WPAY 1		100	Portsmouth, Ohia
	es R. Doss, Jr. MN 890 250	Fairmont, W. Va.		F. P. Mo		250	Philadelphia, Pa.
Wes	Va. Brdestg. (	Corp., 325 Main St.		22nd & W	alnut 8	ts.	
		Lapeer, Mich.		WPFB 1 Forest Br			Hattlesburg, Miss.
WM	iberty St. T 600 1000	Cedar Rapids, Iowa					Atlantic City, N. J.
	el Montrose	•		Convention			Petersburg, Va.
	rookline Ave.	Boston, Mass.					Arts Bidg.
WN	AD 1010 1000	Norman, Okla.		WPRO			Providence, R. I.
	versity of Okiahor	<sup>na</sup> Yankton, S. D.		Cherry & WPRP 1			tg. Co., 15 Chestnut Ponce, P. R.
Hou	seofGurney, inc.	,2nd and CapitalSt.		Julio M.	Conesa		•
WN	BF 1500 100	Binghamton, N. Y.		WPTF 324 Fayer			Raleigh, N. C.
	ngton Hotel BH 1310 100	New Bedford, Mass.		WQAM	560 1	000	Miami, Fla.
251	Union St.						nc., 327 N. E. 1st Ave.
WNI	BR 1430 500	Memphis, Tenn. ng Co., Hotel DeVoy		WQAN Scranton			Scranton, Pa. Penn Ave.
WN:	BX 1260 1000	Springfield, Vt.		WQBC 1	360 1	000	Vicksburg, Miss.
		Corp., 39 Main St. Saranac Lake, N. Y.		Delta Brown			Co:, Hotel Vicksburg St. Albans, Vt.
- Smit	BZ 1290 100 h & Mace, 70 Bro	adway		42 N. Ma	in St.		•
WN	EL 1290 500 1252	San Juan, P. R.		WRAK 1			Williamsport, Pa.
WN	EW 1250 1000	Newark, N. J.		WRAW 1	310	100	Reading, Pa.
Woo	aam Corp., 1060	Broad Knovelle Tenn.		Reading :			g Co.,533 Penn St. Philadelphia, Pa.
WN	OX, Inc., Hotel A	Knoxville, Tenn.		WRAX B	roadca		Co., 217 S. Broad St.
I WNI	DA 1/20 100	Muscle Shoals, Ala. Box 486, Sheffield, Ala.		WRBL 1 Royal Th	200	100	Columbus, Ga.
l wn	YC 810 1000	New York, N. Y.		WRBX 1	410		Roancke, Va.
Cen	tre & Duane Sts.	San Antonio, Texas		P. O. Box	c 2389		
Sout	hland Industries	, Inc., 1038 Navarro		WRC National			Washington, D. C.
wo		Davenport, Iowa		WRDO 1	370	100	Augusta, Me.
wo	ner School of Chi CL 1210 50	Jamestown, N. Y.		WRDO, I			a House Augusta, Ga.
A. E	. Newton, 840 N.	Main St.		Augusta	Brdcstg	. Co	., 309 8th St.
Wo	640 5000 a State College	Ames, Iowa			600 1	000	Memphis, Tenn.
wo	KO 1430 500	Albany, N. Y.		WREN 1	220 1	000	Lawrence, Kans.
wo	KO, Inc., Hotel T	en Eyck		WREN B	rdestg.	Co,	8th and Vermont St.
WO		Washington, D. C. ng Co., Annapolis Hotel		WRGA 1		100	Rome, Ga.
wo	MT 1210 100	Manitowoc, Wis.	1	WRJN 1			Racine, Wis.
	ncis M. Kadow, B DD 1270 500	Sox 326 Grand Rapids, Mich.		Racine B WROK 1			Corp., Hotel Racine Rockford, III.
	nd Rapids Natl.			109 So. W	ater St		•
		Bristol, Tenn.		WROL 1			Knoxville, Tenn. Corp., 524 S. Gay
22nd	l & State Sts. R 710 50000	Newark, N. J.		WRR 1			Dallas, Texas
147	Market St.	•	-	City of I	allas, E	outh	land Life Bldg.
WO	RC 1280 500 ed F. Kleindienst	Worcester, Mass. . 60 Franklin St.		WRUF State Uni			Gainesville, Fia.
wo	RK 1320 1000	York, Pa.		WRVA 1	110 5	000	Richmond, Va.
		o , 15 S. Beaver St.					o., 22nd and Gary St. Cincinnati, Ohio
WO:		Jefferson City, Mo. col, Capitol Bidg.		Crosley I	Radio C	orp.	1329 Arlington
				_			

	WSAJ 1310 100 Grove City, Pa. Grove City College, 418 Poplar St.		WTMJ 620 1000 Milwaukee, Wis. The Journal Co., 333 W. State St.
	WSAN 1440 500 Allentown, Pa. WSAN, Inc., 39 10th St.		WTMV 1500 100 East St. Louis, III. Mississippi Valley Brdcstg. Co.
	WSAR 1450 250 Fall River, Mass.	<b>—</b>	WTNJ 1280 500 Trenton N. J.
	Academy of Music Bldg. WSAZ 1190 1000 Huntington, W. Va.		Trenton Brdcstg. Co., Stacy Trent Hotel WTOC 1260 1000 Savannah, Ga.
	WSAZ, Inc., P. O. Box 729		Savannah Brdcstg. Co., De Soto Hotel
	WSB 740 50000 Atlanta, Ga. Atlanta Journal, 7 N. Forsyth St.		WTRC 1310 50 Elkhart, Ind. Truth Radio Corp., Hote Elkhart
	WSBC 1210 100 Chicago, III. Gene T. Dyer, 1258 S. Michigan Ave.		WVFW 1400 500 Brooklyn, N. Y. Paramount Brdcstg. Co., 1 Nevins St.
	WSBT 1360 500 South Bend, Ind.		WWAE 1200 100 Hammond, Ind.
	South Bend Tribune, 225 W. Colfax Ave. WSFA 1410 500 Montgomery, Ala.		402 Hammond Bldg. WWC 1420 1000 Spartanburg, S. C.
	Jefferson Davis Hotel		Virgil V. Evans, Ravenal & Avant St.
	WSGN 1310 100 Birmingham, Ala. R. B. Broyles, Tutwiler Hote l		WWJ 920 1000 Detroit, Mich. Evening News Assn., 616 Lafayette Blvd.
	WSIX 1210 100 Springfield, Tenn.		WWL 850 10000 New Orleans, La.
	638 Tire & Vulcanizing Co. WSJS 1310 100 Winston-Salem, N. C.	,	Loyola University, Roosevelt Hotel  WWNC 570 1000 Asheville, N. C.
·	Winston-Salem Journal Co., 416 N. Marshall WSM 650 50000 Nashville, Tenn.		Citizen Brdcstg. Co., Inc., Flatiron Bldg.
	301—7th Ave. No.		WWPA 850 250 Clarion, Pa.
	WSMB 1320 1000 New Orleans, La. WSMB, Inc., Malson Blanche Bldg.		WWRL 1500 100 Woodside, N. Y. 4130—58th St.
	WSMK 1380 200 Dayton, Ohlo		WWSW 1500 100 Pittsburgh, Pa. Hotel Schenley
	WSMK Inc., Loew Theatre Bldg. WSOC 1210 100 Charlotte, N. C.		WWVA 1160 5000 Wheeling, W. Va.
	WSOC, Inc., Box 730 WSPA 920 1000 Spartanburg, S. C.		Hawley Bldg. WXYZ 1240 1000 Detroit, Mich.
	VirgilV. Evans, Ravenel and AvantSt.		Madison Theatre Bldg.
	WSPD 1340 1000 Toledo, Ohio Toledo Broadcasting Co.,505 Jefferson		61 Leavenworth St., Amer. Republican, Inc.
	WSUI 880 500 Iowa City, Iowa State University of Iowa		W2XR 1550 1000 Long Island City, N. Y. Scientific Brdcstg. Serv., 41 Park Row, N. Y.
	WSUN 620 1000 St. Petersburg, Fla. Chamber of Commerce		W6XA : 1550 1000 Bakersfield, Calif. Pioneer Mercantile Co.
	WSVA 550 500 Staunton, Va. Marion K. Gilliam		W9XBY1530 1000 Kansas City, Mo. First National Television Inc.
	WSVS 1370 50 Buffalo, N. Y.		XEA 1060 125 Guadalajara, Jal.
	666 E. Deiavan Ave. WSYB 1500 100 Rutland, Vt.		Alberto Palos Souza, Apdo. 197 XEAA 920 200 Mexicali, B. C.
	Philip Weiss Music Co., 80 West St. WSYR 570 250 Syracuse, N. Y.		Carlos Blando, Apto. 42  XEAF 1010 250 Nogales, Son.
	E. Onondaga & S. Warren Sts.		Francisco G. Elias, Hote Central
	WTAD 900 500 Quincy, III. Illinois Brdcstg. Corp., State and 6th		XEAI 1240 100 Mexico City, D. F. Carlos Gonzales Caballero, Insurgentes 366
	WTAG 580 500 Worcester, Mass. 18 Franklin St.		XEAJ 1310 15 Cazaca, Cam. Enrique M. Crihuela, 3a, Guerroro 18
	WTAM 1070 50000 Cleveland, Ohio		XEAM 960 50 Nuevo Laredo, Tams.
	1367 E. 6th St. WTAQ 1330 1000 Eau Claire, Wis.	-	Edificio Banco Longoria XEAO 560 250 Mexicall, B. C.
	Gillette Rubber Co., Hotel Eau Claire		Luis L. Castro, C. Altamirano 156 XEAW 960 10000 Reynosa, Tams.
	WTAR 780 500 Norfolk, Va. WTAR Radio Corp., Wainwright Bldg.		Internacional Broadcasting Co., S. A.
	WTAW 1120 500 College Station, Tex. Agricultura and Mechanical College		XEAZ 1420 7 Guanjuato, Gto. Antonio Zavala, Pasco de la Presa 85
	WTAX 1420 100 Springfield, III.		XEB 1030 10000 Mexico City, D. F. El Buen Tono, S. A., Apdo. 79-44
	WTAX, Inc. 416 E. Capitol Ave. WTBO 800 250 Cumberland, Md.		XEBC 730 5000 Agua Caliente, B. C.
	Associated Brdcstg. Corp., Box 794 WTCN 1250 1000 Minneapolis, Minn.		Alberto V. Aldrete XEC 1310 50 Tiluana, B. C.
	Wesley Temple Bldg.		Luis F. Enciso, Teatro Zaragoza
	WTEL 1310 100 Philadelphia, Pa. Broad & Erie Ave.		XEEW 1310 10 Mexico City, D. F. Maria Elena Bravo de Cordero Ave. Juarez 104
	WTFI 1450 500 Athens, Ga. 133 E. Washington St.		XED 1160 500 Guadalajara, Jal. Cia. Radiofonografica, Apdo. 197
	WTIC 1040 50000 Hartford, Conn.		XEE 1210 50 Durango, Dgo.
	26 Grove St. WTJS 1310 100 Jackson, Tenn.		20 de Nov. i12 (Apdo. 148) XEFA 1180 500 Mexico City, D. F.
	Sun Publishing Co Sun Bldg.		Eduardo Limon Segui, Meditarraneo 236

XEFB 1420 100 Monterrey, N. L.	XEOK 765 2500 Tiluana. L. C.
Jesus Quintanilla, P. O. Box 317	Carlos de la Sierra, Calle 5a 312
XEFC 1310 100 Merida, Yuc. J. Molina Font. Calle 59, 517	XEOX 640 250 Saitilio, Coah. Victoria No. 4, Altos.
XEFE 920 250 Laredo, Tams. R. T. Carranza, Km. 4 Carretera Laredo Mt.	XEP 840 500 Mexico City, D. F. Cia Difusora de Mexico S. A., Rembrandt 11
XEFG 1100 250 Mexico City, D. F. Ricardo Gonzales Montero . Teple 48	XEPN 590 50000 Piedras Negras, Coah. Piedras Negras Brdcstg. Co. Madero 53
XEFI 1440 250 Chihuahua, Chih. Feliciano Lopez Isies, Ap. 157	XES 990 250 Tampico, Tams. Fernando Sada, Box 309
XEFJ 1230 100 Monterrey, N. L. R. Junco de la Vega, P. O. Box 186	XET 690 500 Monterrey, N. L. P.O. Box 203, Hidalgo
XEFL 1160 500 Tijuana, B. C. (P. O. Box 6, San Diego, Calif.)	XETB 1310 125 Torreon, Coah. Jose A. Berumen, R. Corona 317
XEFO 940 5000 Mexico City, D. F. Reforma No. 137	XETF 1220 12 Veracruz, Ver. Jose M. Lopez, Independencia 20
XEFV 1210 100 Jaurez, Chih.	XETH 1210 100 Puebla, Pue.
Cordova & Prieto, Ave. Ferrocaril 104	Ramon Huerta G., Calle 1 7 Oriente 11
J. E. Martinez, Salvador Diaz Miron 6	XETW 820 500 Mexico City, D. F. Rafael M. Pena, Ave. 16 de Sep. 83
XEFZ 1370 100 Mexico City, D. F. Manuel Zetina, Calzada Nonosico 481	XEU 1010 250 Veracruz, Ver. Fernando Pazos Sosa, Independencia 98
XEG 1270 500 Ensenada, B. C. Juan C. Chavez	XEW 890 50000 Mexico City, D. F. P. O. Box 2516
XEH 1150 250 Monterrey, N. L. Tarnava y Cla, P. O. Box 147	XEWZ 1150 100 Mexico City, D. F. Medellin e Insurgentes
XEI 1370 125 Morelia, Mich. Carlos Gutierrez M., F. I. Madero 545	XEX 1310 125 Monterrey, N. L. L. F. Petit Jean, P. O. Box 10
XEJ 1020 1250 Juarez, Chih. Juan G. Buttner, P. O. Box 111	XEXX 845 500 Mexico City, D. F. Av. Pino Suarez 9
XEK 990 100 Mexico City, D. F. Arturo Martinez, Jalapa No. 51	XEYZ 780 10000 Mexico City, D. F. Angel M. Diez, Ave. Juarez 48
XEKL 1240 500 Leon, Guan. 5 de Mayo 26	XEZ 630 500 Merida, Yuc.  Jorge L. Falomeque, Estamores Ctd 214
XELA 1240 50 Saltillo, Coah. Enrique Gomez, Chauhtemos 28 Sur	XEZZ 1370 100 San Luis Potosi, SLP
XELC 740 100 Mexico City, D. F.	Emilio Delgado R. Ave. Chicosein 32
Manuel Valdes Bravo, C. Central 112	XFB 1270 1000 Jalapa, Ver. Gobierno del Estado de Veracruz
XELM 1310 15 Mineral del Monte, Jose Sanchez, Abesolo 1-A Dgo.	XFC 810 350 Aguas callentes, Aga.
XELO 1110 10000 Piedras Negras, Coah. Piedras Negras Brdcstg. Co.	Gobierno de l'Estado de Aguascatientes XFD 1340 350 Orizaba, Ver.
XEMA 1080 50 Tampico, Tams.	Gobierno Estado de Veracruz  XFO 940 5000 Mexico City, D. F.
ManuelM. Pler, Aretsanos 10  XEMO 865 2500 Tijuana, B. C.	Nat. Rev. Party Ave. Morelos 110 XFX 610 1000 Mexico City. D. F.
P. O. Box 202, San Diego, Calif.  XEMX 1280 12 Mexico City. D. F.	Secretaria de Educacion Publica
Alfonzo T. Avales	M. I. Higgins, 151 Ontario St.
XEN 710 1000 Mexico City, D. F. Cerveceria Modelo Ave. Juarez 77	10-BP 1200 25 Wingham, Ont. W. T. Cruickshank, Box 65
XENT 910 60000 Nuevo Laredo, Tams. Box 410, Laredo, Texas	

### 100 Best Shortwave Stations by Call Letters

Frequencies are given in megacycles and the time is Eastern Standard. In this list, the location of the transmitter is given. For a more complete list of the shortwave stations by frequencies, by calls and by countries, see the DX Log of the World.

Amateur phones are heard between CJRO, Middlechurch, Man., 6.150. 1.875 and 2.000 megs. 3.900 and 4.000 megs. 7.000 and 7.300 megs. (Foreign only).

14.150 and 14.250 megs. Broadcast Pickup stations: 1.606; 1.622; 1.646; 2.102; 2.150; 2.190; 2.390.

CJRX, Middlechurch, Man., 11.720. COC, Havana, Cuba, 6.010. 8:30 a.m. to 12:30 p.m.; 4-7 p.m. Sat., 11:30-12:30. COH, Havana. Cuba, 9.500. 5-6; 8-9 p.m. CP5, La Paz, Bolivia, 6.080. 8-9 p.m.

CTIAA, Lisbon, Portugal, 9.590. Tues., Thurs., Sat., 4:30-7 p.m. CTIGO, Lisbon, Portugal, 6.190. Sat., 8-9 p.m.; Tues, Thurs. 7:30-8:15 p.m. 12.330: Sat., Sun., 9-10 a.m.

Zeesen Germany, 9.560. Daily, 8-11:30 a.m.; 5:15-9:15 p.m.

# AROUND the CLOCK

# on the SHORT WAVES

### MIDNIGHT TO NOON (EST)

GMT	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
мѕт	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9;00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	COC DJB DJQ VK2ME W8XK W9XF XEBT	DJB DJQ VK2ME W9XF	GSB GSD	GSB GSD RV15	DJB DJN JVT RVI5 VK2ME VK3LR		DJB DJN GSE GSF JVT JVU LKJ1 RV15 VK2ME VK3LR VK3ME VK3ME VIXK	GSE GSF Pont. Rabat RV15 VE9GW VK2ME VK3LR W1XK W8XK	DJA DJN GSE GSF HAS3 PCJ PHI Pont. Rabat VE9GW VK2ME W1XK W8XK	DJA DJN GSB GSE PCJ PHI Pont. VE9GW W1XK W3XAL W8XK	DJA DJN GSB GSE HVJ PCJ PHI Pont. RNE VE9GW W1XK W8XK	DJA DJN GSB GSE Pont. Rabat. VE9GW W1XK W2XE W8XK W9XAA

#### NOON TO MIDNIGHT (EST)

											_	
GMT	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	1:00	2:00	3:00	4:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	DJC DJD EAQ GSB GSE Pont. VESGW W1XK W2XE W3XAU W8XK W9XAA	W1XK W3XAU	DJC DJD GSB GSD IRO Rabat VE9GW W1XK W2XAD W3XAU W3XAU	RV59 VE9GW W1XK W2XE W3XAL	Pont. Rabat RV59 VE9GW W1XK W2XE	COC COH COH ADJA DJN DJN EAQ GSA GSB HBL HJ1ABB Pont. RV59 VE9GW WIXAL WIXK W3XAU W8XK W9XAA XEBT YV3RC YV3RC YV5RMC	COC CTIAA DJIA DJIN DJC GSA GSC GSC HC2RL HJ1ABB HJ2ABC IRA W1XAL W1XK W2XE W3XAU W3XAU W3XAU W3XAU W3XF XEBT YV2RC YV4RC YV5RMO	HP5B TIXGP3 VE9GW W1XAL W1XK W2XAF W2XAF W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COH CP5 DJA DJN DJC BAT HCJB HIX HJ1ABB HP5B TIGPH VE9GW WIXAL WIXK W2XAF W2XAF W2XAF W2XAF YV2RC YV4RC YV5RMC	HP5B OAX4D PRADO TIGPH VE9GW W1XK W2XAF W2XE W3XAU W8XK W9XF W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX DJC DJN HC2RL HC2ET HP5B OAX4D PRADO TIGPH VE9GW WIXK W2XAF W2XAF W2XXE W3XAU W8XK W9XAA W9XF XEBT YV2RC	CJRO CJRX COC WIXK W3XAU W9XIX W9XAA W9XF

DJB. Zeesen, Germany, 15.200. HBP, Prangins, Switserland, 7.797. IRE, Rome, Italy, 11.810. 9-10 a.m. IS3, Bolling Field, Va., 6.412. 3:45-7:15 a.m.; 12:30-2 a.m. Sat. 5:30-6:15 p.m. HCJB, Quito, Ecuador, 8.200. 8:15-DJC, Zeesen, Germany, 6.020. Noon 12RO, Rome, Italy. to 4:30 p.m.; 5:05-10:45 p.m. 10:15 daily except Monday. 5.550 DJD, Zeesen, Germany, 11.760. Noon HC2ET, Guayaquil, Ecuador, 4.600. 5.725: to 4:30 p.m. Wed., 9:30-11 p.m. R GRO . DJE, Zeesen, Germany, 17.760. Irregularly, Mornings. HC2RL, Guayaquil, Ecuador, 6.659. 9.600: 2:30-5 p.m.; 7:45-9:15 9:14-11:14 p.m.; Sun. Tues. p.m. 5:45-7:45 p.m. DJN, Zeesen, Germany, 9.540. JVE, Nazaki, Japan, 15,660, Phones 3:45-7:15 a.m.; 8-11:30 a.m.; HIH, San Pedro de Macoris, D. R. Java, nights. 5:15-10:45 p.m. 6.810. 4-7:30 p.m. daily, and JVF, Nazaki, Japan, 15.620. Phones DJQ, Zeesen, Germany, 15.280. 12:30-3-4 a.m. Sunday. Dixon, 5-11 p.m. 2 a.m. HIX, Santo Domingo, D. R., 5.948. JVQ, Nasaki, Japan, 7.470. Phone. EAQ, Aranjues, Spain, 9.862. 5:30-Tues, and Fri., 8-10 p.m. JVT, Nazaki, Japan, 6.750: 4-8 a.m. JVU, Nazaki, Japan, 5,790. 4-8 a.m. 7 p.m.; Sat. noon to 2 p.m. HJA2, Bogota, Colombia, 5.825 GBB, Rugby, England, 13.500. Phones HJA3, Barranquilla, Colombia, 12.830 KAY, Manila, P. I., 14.980. Phones Canada HJB, Bogota, Colombia, 14.930. Dixon GBS, Rugby, England, 12.150. Phones HJ1ABB, Barranquilla Colombia, KKH, Kahuku, T. H., 7.520. Phones NV 6.447. 5-10 p.m. Dixon GBU, Rugby, England, 12.240. Phones HJIABG, Barranquilla, Colombia 6.042. 7-10 p.m. KKP, Kahuku, T. H., 16.030. Phones N. Y Dixon. GBW, Rugby, England Phones N. Y. 6-8 p.m. England, 14.440. HJ2ABC, Cucuta, Colombia, 5.975, KNRA, "Seth Parker", 6,160; 6,660; 6-9 p.m. 6.670; 8.230; 8.820; 8.840; 13.200 GSA, Daventry, England, 6.050. HJ3ABD, Bogota, Colombia, 7.406.
"Colombia Broadcasting." 6-9 4:30-5:45 p.m.; 6-8 p.m. KWO, Dixon, Calif., 15.415. Phones GSB, Daventry, England, 9.510. Hawaii and Manila. p.m. daily. 1:15-3:15 a.m.; 9:15 a.m. to HJ4ABE, Medellin, Colombia, 5.900. KWU, Dixon, Calif., 15.355. Phones noon: 1-5:45 p.m. 7-11 p.m. Japan. GSC. Daventry, England, 9.580. HJ4ABL, "Ecos del Occidente." KWX, Dixon, Calif., 7.610. Phones 6-8 p.m. Manizales, Colombia, 6.100. Hawaii. Sat., 11 p.m. to 12:30 a.m. GSD, Daventry . England, 11.750. LCL, Jeloy, Norway, 6.130. 11 a.m. HJ5ABD, Call, Colombia, 6.490. 1:15-3:15 a.m.; 1-4:30 p.m. to 5 p.m. Thurs., Sat., Sun., 7-9 p.m. GSE Daventry. England, 11.860. LKJ1, Jelov. Norway, 9,540, 5-8 a.m. HPF, Panama City , Panama, 14.545. 6-10:45 a.m. Phones Hialeah. OAX4D, Lima, Peru, 5.780. Wed, and GSF, Daventry, England, 15,140. HP5B, Panama City, Panama, Sat., 9-11:30 p.m. 6-9 a.m. 6.030. 7-10:30 p.m. ORK, Ruysselede, Belgium, 10.330. GSL, Daventry, England, 6.110. HP5J, Panama City, Panama, 9.590. 1:30-3 p.m. Tests. 8-11 p.m. Hilversum. Netherlands. Skekesfehevar, PCJ. Hungary. HSJ, Bangkok Slam ,7.980 15.220: 7:30-10 a.m. daily exc. 15.370. Sun., 8-9 a.m. HVJ, Vatican City . 15.120. 5-5:15 HAT, Skekesfehevar, Hungary, 5.400. Tues., Wed. a.m. daily except Sunday. Occasionally from 10-10:30 a.m. Sun., 8-9 p.m. Hilversum. Netherlands. HBL, Prangins, Switzerland, 9.595. IRA, Rome, Italy, 6.070. Mon., 17.775: 7:30-10 a.m. daily exc. Sat. 5:30-6:15 p.m. Wed., Fri., 6-7:30 p.m. Tues., Wed. We Want Your Advice If you, as a friend of RADEX, will check the information below to show your desires, we will greatly appreciate it. In apportioning our space, it would help us materially to know which features appeal most to our readers and those they consider of least importance. Will you mark the items below from one to ten in the order in which you prefer them? The coupon need not be signed. Descriptions of new sets. ☐ Articles on how-to-build. ☐ Photos of radio personalities. Stories about the radio stars. ☐ Letters about DX from our readers.

☐ Pictures\_and-brief sketches of DXers.
☐ Radio problems, questions and answers.
☐ Photos of radio stations and transmitters.
☐ Articles on aerials, grounds, noises, etc.
☐ Stories of new radio devices and improvements.

1.634; 1.642 1.658 1.666 1.674; 1.682; 1.706 1.712 2.382 2.406; 2.444; 2.416 2.422 2.430; 2.442; 2.445; 2.450 2.2458; 2.466; 2.474; 2.445; 2.450 2.452; 2.468; 2.474; 2.450; 2.452; 2.490.  PRADO, Riobamba, Ecuador, 6.618. Thurs., 9-11:30 p.m.  PRFS, Rio de Janeiro, Brazil, 9.505. 5:30-6:15 p.m. Radio Coloniale, Pontolse, France, 11:710; 1:15-5 p.m.; 5:15-9 p.m.; 5:130 p.m.  Rabat, Moreoce, 8.035. Sun, 11 a.m. to noon, 2-7 p.m. 12.830, Sun, 7-9 a.m. RKI, Moscow U.S.S.R., 7.520. Phones USA. RNE, Moscow U.S.S.R., 7.520. Phones USA. RYIS, Khabarovsk, U.S.S.R., 4.273. 3-9 a.m. RKI, Moscow, U.S.S.R., 5.996. 3-6 p.m. TICEY, San Jose, Costa Rica, 5.937. Sun, 1-3 a.m.; other days, 5.937. Sun, 1-3 a	1.632 1.702 1.632 1.638 1.666 1.674: 1.632 1.701 6.712 2.332 2.406: 2.444 2.416 2.422 2.430 2.442; 2.486 2.426 2.488 2.460 2.4744; 2.482; 2.400. 2.78ADO, Riobamba, Ecuador, 6.618. Thurs., 9-11.30 p.m. 2.78F5, Rio de Janeiro, Brazil, 9.505. 5.30-6.15 p.m. 1.00 p.m. to midnight. 11.703: 1.15 a.m. to 5 p.m. 12.830, Sun., 7-9 a.m. 13.9-3 a.m. 1			
TRES, Rio de Janeiro, Brazil, 9.505. 5-30-6-15 p.m. FRES, Rio de Janeiro, Brazil, 9.505. 5-30-6-15 p.m. FRES, Brode Gate, N. J., 4.273. 4-753 8.590: 12.840. Phones Ships. 10 p.m. to midnight. 11-905: 11-15 am. to 5 p.m. 15.243: 7-30-11 am. Rabat, Morocco, 8.035. Sun., 11 am. to noon, 2-7 p.m. 12.830. Sun., 7-9 am. Rabat, Morocco, 8.035. Sun., 11 am. to noon, 2-7 p.m. 12.830. Sun., 7-9 am. RKI, Moscow, U.S.S.R., 7.500. Phones USA. RNE, Moscow, U.S.S.R., 4.273. 3-9 am. RVIS, Kahabarovak, U.S.S.R., 4.273. 3-9 am. RVIS, Catacas Rica, 5.307. Sun., 1-3 am.; other days, 5-820. 7-10 p.m. 12.30 am. 11.780. Sun., noon to 8 p.m.; Mon., Tues., Wed., 2-11 p.m.; Thur., Frl., 5-6 p.m. 17.790. Sun., noon to 8 p.m.; Mon., Tues., Wed., 2-11 p.m.; Thur., Frl., 5-20 p.m. 12.30 am. 11.30 am. 10 9 p.m.; 11.30 am.; 10 9 p.m.; 11.30 am. 10 9 p.m.; 11.30 am.; 10 9 p	### Third p. Br. Price   9.500. 5-30-6-15 p.m.   5-15-6-p.m.   5-15-6-p.	1.682;1.706 1.712 2.382 2.406; 2.414;2.416 2.422 2.430;2.442; 2.450;2.452 2.458;2.466;2.474; 2.482;2.490. PRADO, Riobamba, Ecuador, 6.618.	Dally exc. Sun . 4-8 a.m VK3ME, Braybank . Australia 9.503. Wed., 5-6:30 a.m.; Sat. 5-7 a.m. VUB, Bombay . India, 9.565. Testing Sunday, 7 a.m. WTR, Albrook Field, Canal Zone,	W9XF. Downer's Grove, III., 6.104 Daily exc. Sat. and Sun., 4.33 S. p.m.; 9:30 p.m. to 2 a.n. Sunday, 4:30-7 p.m. and 9 p.n. to 2 a.m. XEBT, Mexico City, D. F., 6.01 Relays XEB, 10 a.m. to 11 p.n. XECW, del Caballero del Santoka
5:30-6:15 p.m. Radio Coloniale, Pontoise, France, 11.710: 1:15-5 p.m.; 6:15-9 p.m.; 10 p.m. to midnight. 11.905: 11:15 am. to 5 p.m. 15.243: 7:30-11 am. to noon 2-7 p.m. Rabat, Morocco, 8.035. Sun., 11 am. to noon 2-7 p.m. 12:830. Sun., 7-9 am. Rabat, Morocco, 8.035. Sun., 11 am. to noon 2-7 p.m. 12:830. Sun., 7-9 am. RXII. Moscow . U.S.S.R. 7.520. Phones USA. RNE. Moscow . U.S.S.R. 4.273. 3-9 am. RY15, Kahabarovak, U.S.S.R. 4.273. 3-9 am. RY59. Moscow, U.S.S.R. 4.273. 3-9 am. RY59. Moscow, U.S.S.R. 4.273. 3-9 am. RY59. Moscow, U.S.S.R. 6.996. 3-6 p.m. TGCM, Guatemala City, Guatemala 5.937. Sun., 1-3 am.; other days, 8-12 p.m. 17:70: 10 p.m. TGPL San Jose, Costa Rica, 6.710. 7-10 p.m. TGPL San Jose, Costa Rica, 6.710. 7-10 p.m. TGPL San Jose, Costa Rica, 6.710. 7-10 p.m. VESGW, Bowmanville, Ont., 6.095. Sun., noon to 8 p.m.; Mon., Tues., wed., 2-11 p.m. Thur., Frl., 1.5210. 10 am. to 5:15 p.m. VESCHX. Halliax, N. S., 6.110. VEL, Selfridge Field, Mich, 6.425. VEZME, Permant Hills, Australia, 9.855. Mid. to 2 am. and 4:30-30. 8-3530 a.m., Sundays only.  INSURE YOUR RADIO ENJOYMENT  The Rader Press. Inc. Hanna Building Cleveland, Ohio. Enclosed find \$	5.30-6.15 p.m. tadio Coloniale, Pontoise, France, 11.710: 1:15-5 p.m.; 5:15-9 p.m.; 10 p.m. to midnight. 11.905: 11:15 am. to 5 p.m.; 5:15-9 p.m.; 15:243: 73-9-130: Sunday. 11:25-24: 73-9-11 am. to noon, 2-7 p.m. to noon, 2-7 p.m. to noon, 2-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Tues, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to noon, 2-7 p.m. to noon, 2-7 p.m. to noon, 2-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Tues, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to noon, 2-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Tues, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:30-9-30: Sunday. 5-7 p.m. to midnight. VEXAL, Boston, Mass., 6.040. Thus, Thurs., 7:40. Thurs., 8-10.40. Thus, Mass., 9.570. 6 a.m. Thus, 11.340. Thus, Mass., 9.570. 6 a.m. Thus, 11.340. Thus, Mass., 9.570. 6 a.m. Thus, 11.340. Scheenetady, N. Y., 15.340. Thus, Sat., 3-4 p.m. Thurs., Sat., 3-4 p.m. Thurs	Thurs., 9-11:30 p.m. PRF5, Rio de Janeiro, Brazil, 9.505.	WOO, Ocean Gate, N. J., 4.273;	Mexico, D. F., 5.980. 11-1
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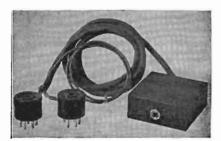
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