

JANUARY 1939

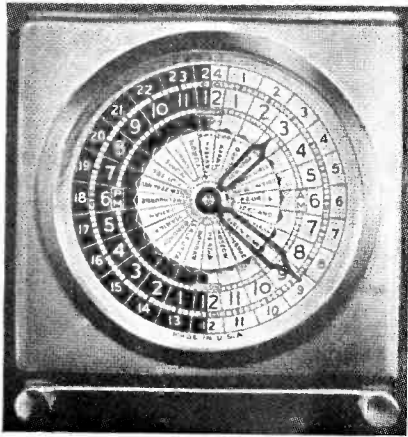
RA **D** **IO** **IN** **D** **EX**

The All-Wave Radio Log Authority



25^c

Broadcasting Stations Around The World
All North American Stations With
Sunday Time on the Air
How to Dial Foreign Stations
Aerial Troubles Solved



THE CLOCK THAT CAN BE SET AT ANY OF THE WORLD'S 24 TIME ZONES

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

Actual size is 5 1/4 inches high by 4 3/4 inches wide.

Modernistic Design of Brushed Brass

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

For AC 110-120 volts, 60 cycles.
Also available in same style case in spring-driven model at \$4.95. We pay the postage.

\$5.95

What DXers Have Always
Wished For!

THE ELECTRIC WORLD-
TIME CLOCK

RADEX, 362 Cedar Lane, Teaneck, N. J.

Applications to the FCC

(Only applications which are set for hearing are shown in this list.)

KAND, Corsicana, Tex., CP 250 w. days (E).
KEX, Portland, Ore., CP change freq. to 1160, unlt'd. (E).
KEEL, Denver, Colo., CP day pwr. of 1 kw. (E).
KFJZ, Ft. Worth, Tex., CP change freq. to 930, pwr. to 500 w. unlt'd. (E).
KGNO, Dodge City, Kans., CP 500 w. (E).
KRKO, Everett, Wash., CP 100 (.25) unlt'd. (E).
KRSC, Seattle, Wash., CP change pwr. to 500 w. Amended for 1 kw. (E).
KVOD, Denver, Colo., CP 630 kcs., 1 kw. (C).
WBXX, New York, N. Y., CP 5 kw. (C)
WDEL, Wilmington, Del., CP 1000 w. (E)
WGRC, New Albany, Ind., CP 800 kcs., 250 w. unlt'd. (E).
WIP, Philadelphia, Pa., CP 5 kw, and move xmitter to Brooklawn, N. J. (E).
WIRE, Indianapolis, Ind., CP 5 kw. (E)
WIS, Columbia, S. C., special exp. authority for new satellite station at Sumter, S. C., 500 kcs., 10 to 100 w. from LS to sunrise. (F)

WJRD, Tuscaloosa, Ala., mod. of lic. for 100 (.25) unlt'd. (E).

WLAC, Nashville, Tenn., CP for 50 kw. (E).
WMBC, Detroit, Mich., CP 1420 kcs., 250 w. unlt'd. (E).

WMBR, Jacksonville, Fla., CP 1120 kcs., 500 (1). (E).

WRAW, Reading, Pa., CP 250 w. (E).
WSFA, Montgomery, Ala., CP 1410 kcs., 1 kw. unlt'd. (E).

WSJS, Winston Salem, N. C., CP 100 (.25) (E).

WTET, Philadelphia, Pa., mod. of lic. to share with WHAT (E).

WITMV, E. St. Louis, Ill., mod. of lic. for 250 w. (E).

WTOL, Toledo, Ohio, mod. of lic. to work unlt'd. hours. (E).

NEW, Akron, Ohio, Summit Radio Corp., 1530 kcs., 1 kw. unlt'd. (E).

NEW, Ashland, Wis., CP 1310 kcs., 100 (.25) (E).

NEW, Brunswick, Ga., CP 1420 kcs., 100 (.25) (E).

NEW, Cleveland, Ohio, Cuyahoga Valley Brdcastg. Co., CP 1500 kcs., 100 w. days (E).

NEW, Ely, Wyo., Eastern Nev. Brdcastg. Co., CP 1500 kcs., 100 w. days. (E).

NEW, Everett, Wash., Cascade Brdcastg. Co.,

(Continued on page 54)

(E) indicates the application is set for hearing before an Examiner. (C) indicates it is set for hearing before the Commission, freq. (Frequency); mod. (modification); lic. (license); pwr. (power); unlt'd. (unlimited time); ltd. (limited time); CP (construction permit); hrs. (hours); xmitter (transmitter); exp. (experimental); LS (local sunset).

The New SCOTT PHANTOM

A Super-efficient De Luxe, Custom-Built 19 Tube Receiver which reaches a degree of tonal perfection and world-wide reception range, unapproached, we believe, by any other Radio in the world today!

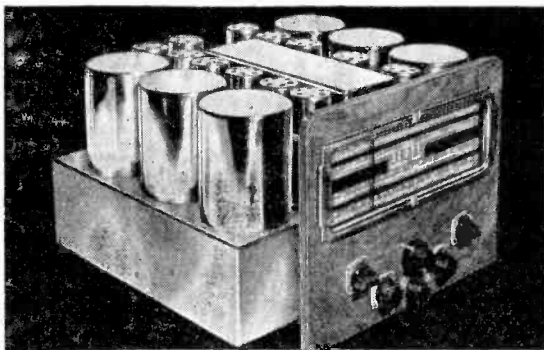


"Cabled advice has just been received that Scott Receivers won the Diplome D'Honneur at the Paris International Exposition, in competition with the leading radio receivers of Europe and America.

"At the Centennial Celebration of the America Patent System held in Washington, D. C., over 1,500 of America's leading scientists and business leaders gathered to see demonstrations of latest developments in science. I am pleased that a Scott Radio Receiver was chosen to demonstrate, before this distinguished gathering, the perfection that has been attained in High Fidelity Reproduction.

"Because of their high degree of efficiency, tonal perfection and precision, Scott Radio Receivers have been purchased by the U. S. Bureau of Standards at Washington; Royal Canadian Mounted Police; Broadcasting Companies, Govt. agencies, famous artists and musicians, scientists and critical listeners in America and 153 foreign countries. Until you have actually heard a custom-built SCOTT, it is impossible to realize the tremendous difference there can be in Radio Receivers."

PRESIDENT



Once you hear the new SCOTT PHANTOM you are sure to agree that this precision instrument has little in common with the ordinary radio sold in retail stores. The proud owner of this remarkable receiver enjoys not only the thrilling experience of practically noise free world-wide reception, but revels in a beauty of tone, a wealth of power, and has at his command a degree of Selectivity and Sensitivity such as the ordinary set owner would say were impossible!

A FEW SENSATIONAL FEATURES

Overall Fidelity practically twice the range of ordinary radios (30 to 8500 cycles) ● Razor-Sharp Selectivity from 3.4 KC for DX, to 12.5 KC for high Fidelity Reproduction ● New automatic noise limiter ● New Scott Super Double-Doublet Antenna System. Usable Sensitivity so great even finest laboratory equipment can hardly measure extremely weak signals tuned in and amplified by this receiver ● Three stage I. F. Amplifier ● New circuit arrangements practically eliminate tube hiss ● 3 times as powerful, without distortion, as ordinary radio ● Scott Needle Scratch Suppressor eliminates needle scratch at normal volume for record reproduction.

GUARANTEED 5 YEARS

The Scott Phantom is hand crafted with micrometer precision from finest quality parts by the same experienced technicians who have been building world-famous Scott Receivers for 15 years.

30 DAYS HOME TRIAL

Listen to the Scott Phantom critically in your own home for 30 days (American purchasers only). You be the judge. NOT SOLD THRU STORES. Mail coupon NOW for all the facts.

MAIL THE COUPON FOR SPECIAL OFFER



E. H. SCOTT RADIO LABORATORIES, INC.

4424 Ravenswood Avenue, Dept. 15A9, Chicago, Illinois

Please send all facts and special offer on the new Scott Phantom

Name

Street

City..... State.....

STUDIOS: New York . Detroit . Buffalo . Chicago . Los Angeles



RADIO IN DEX

Reg. U. S. Patent Office



FIFTEENTH YEAR

NUMBER 125

PAGE TAYLOR

Editor

ASSOCIATE EDITORS

B. FRANCIS DASHIELL

Technical

CARLETON LORD

Broadcast

RAY LAROCQUE

Shortwave

CONTENTS

PAGE

Cover Girl—Thomasine Birch, on the BNC Breakfast Club Program.....	
THIS HOBBY CALLED DXING.....	5
TURNER DIAL DISCUSSES ANTENNAS, <i>by B. Francis Dashiell</i>	13
HIGH FREQUENCY GLOBE TROTTING, <i>by Ray LaRocque</i>	20
SWL TRADING POST.....	27
THE PICTURE GALLERY.....	28
QUESTIONS AND ANSWERS, <i>by B. Francis Dashiell</i>	29
HAM HUNTING, <i>by Hugh Hunt</i>	30
AMATEUR CALLS HEARD.....	33
WITH THE STATION HUNTERS, <i>by Carleton Lord</i>	34
WHAT'S ON THE AIR TONIGHT.....	41
STATIONS 'ROUND THE WORLD.....	48
TWENTY STENTORS, <i>Shortwave Stations</i>	50
APPLICATIONS TO THE FCC.....	53
MONTH'S CHANGES IN STATION DATA.....	54

See Subscription Blank on Page 96.

Published monthly except July and August by

THE RADEX PUBLISHING CO.

362 Cedar Lane

Teaneck, New Jersey

Subscriptions in the United States and Possessions and in Canada, \$1.75 per year; all other countries, \$2.25 per year. Single copies, 25 cents. Entered as second-class matter Aug. 30, 1938, at the Post Office at Teaneck, N. J., under the Act of March 3, 1879; additional entry as second-class matter at Passaic, N. J. All manuscripts submitted are at the authors' risk, and will not be returned unless accompanied by Teaneck, N. J.

sufficient postage. Copyright, 1938, by the Radex Publishing Co., 362 Cedar Lane,

PRINTED IN THE U.S.A.

FOR SALE AT YOUR NEWSSTAND

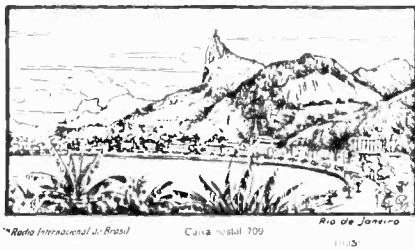
GREETINGS FROM JAPAN

We are very much pleased in verifying your reception of JOQK on
 Wave 19, 25.9, and from your further DX concerns.
 All things will be true. Give your
 name for the
 of the post.

JOQK

NIIGATA

The Radio Engineering Station JOQK,
 Civil Managers.



*Radio Internacional do Brasil
 Caixa Postal 709
 Rio de Janeiro
 1105

Greetings from
 America's Year-Round Playground

6-26-38

RADIO STATION

WKAT

MIAMI BEACH
 FLORIDA

1st Dec. 8/37

5:00 AM - 5:20 AM
 Russell R. Bennett

Polskie Radio Warszawa
 5 Miodowicka St.

SPW

Poland

TNX QSL Daily 73%

Mr. Arthur Rankins

We are pleased to verify your report of
 reception of ZIK2 on 11.11.37

ZIK 2

GOVERNMENT RADIO STATION
 BELIZE, BRITISH HONDURAS
 10400 Kc. 25-31 W. 200 W.

THE PIONEER SHORT WAVE STATION OF THE WEST

Verifies Your Reception Report of March 10, 1938

W6XKG 25,950 Kc. **BEN S. McGLASHAN, Owner**
 1417 South Figueroa Street, Los Angeles, Calif.

KGfJ 1200 Kc.

**AROUND THE WORLD
 BY RADIO**

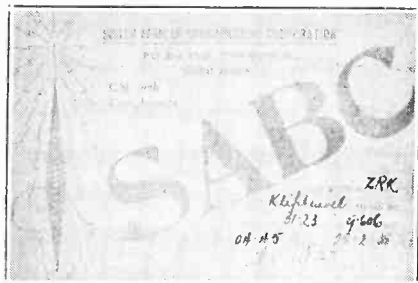
Verification cards from four continents are shown here. Reading down, they are: JOQK, broadcast band station in Niigata, Japan; SPW, shortwave station in Warsaw, Poland; W6XKG, high frequency station in Los Angeles.

Right hand column: PRF5, s.w. station in Rio de Janeiro; WKAT, broadcast station in Miami Beach, Fla; ZIK2, shortwave station in Belize, British Honduras.

Some Hard Ones . . .



This is the old-type QSL card used by the Indian shortwave stations, on which the famous "Gateway of India" is illustrated. Present veries are generally in letter-form, bu new QSL cards are being prepared. Several of the Indian stations are now being heard, but perhaps the best of them are VUD3, Delhi, 15160 kcs., and VUD2 on 9590. These stations are operated by All India Radio of the Government of India. (Courtesy of D. H. Dussek).



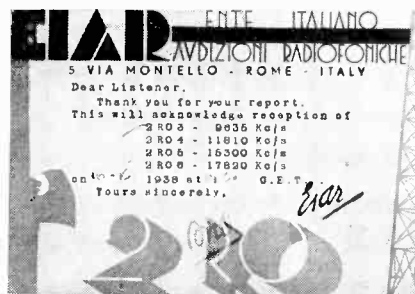
From Rome comes this red, lilac and black QSL cards, acknowledging reception of 2RO, the easily heard Italian station. EAIR are the initials of the company operating the station, Ente Italiano Audizioni Radiofoniche. No shortwave listener should have difficulty in verifying this station. (Courtesy of J. R. Hahn).

A rare verification is this one from ZNB, a shortwave station located in Mafeking, in the Bechuanaland Protectorate of South Africa. The background is red, the printing black, and the border is red, white and blue. The frequency is 5900 kcs., and it is sometimes heard in the afternoons. (Courtesy of J. E. Gardner).



. . . and Some Easy Ones

The letters SABC are the initials for the South African Broadcasting Corporation, the operators of some very fine, regularly-heard shortwave stations in Johannesburg, Capetown and Pretoria. This card verifies reception of ZRK, Capetown, on 9606 kcs. All these stations announce as Johannesburg, which is the point of origin of most of the programs. (Courtesy of Capt. E. N. Massey)



This Hobby Called DXing

An outline of The Art of Tuning and The Art of Hearing, wherein the new tuner for distance will find many facts which will aid him in the enjoyment of the full possibilities of his radio receiver. In short, we present herewith "The Art of Tuning in a Nutshell".

"THE world is full of people and things," says Colonel Stoopnagle. And with your radio set you can reach out to listen to those people, regardless of where they are, and hear about the things that they are doing. Your radio receiver is your first row seat at the Italian opera or a London concert; it will take you to the Spanish war front, or to a cricket match in Australia. In the comfort of your own living room you can follow explorers from Greenland to darkest Africa; set your clock by Big Ben; get your news from Delhi; samisen songs from Tokyo, and setting up exercises from Johannesburg.

DXing, like many other hobbies, has many subdivisions. There are some who tune only the broadcast band, others who tune the shortwaves, some who prefer the amateurs, and many who tune on all the bands, but regardless of whatever part of the vast radio spectrum has aroused your interest, there are thrills galore awaiting you. Let us learn how to cash in on this fun.

The modern radio receiver is designed so that no previous experience or special skill is required to operate it successfully, but its full possibilities can be enjoyed only if one is reasonably familiar with the general characteristics of transmission on the high frequencies.

Shortwave transmission and reception is not governed by fixed laws of nature, but by many flexible conditions over which man has no control.

The sun and sun spots, as well as layers of ionized particles in the earth's outer atmosphere have their effects, as well as the differences in seasons and the times of day.

Operators of broadcasting stations are familiar with most of the vagaries of reception, and broadcasts are planned on frequencies and with directional aerials which assure dependable reception regardless of the season. A study of the schedules of the British Broadcasting Corporation stations, for example, will show that their higher frequencies are used in the summer time, and as winter comes the higher frequencies are discontinued and lower ones substituted. This is because it has been found that reception near six megacycles (a comparatively low frequency) is best in the winter time, when darkness covers the entire path between transmitter and receiver. Fifteen megacycles, on the other hand, being a high frequency, is exceptionally good in the summer and comparatively poor in the winter.

It has also been found that the higher frequencies are better in the day time, and that lower frequencies have to be employed at night for good reception.

Skip Distance

Transmitted signals of any frequency are known to divide into two components, the "ground" wave and the "sky" wave. The former remains close to the earth's surface and provides reliable service only over short distances from the station. The sky

wave, however, travels into the higher layers of the atmosphere and is reflected back to the earth's surface at a considerable distance from the station. The sky wave does not return within the area covered by the ground wave, and the region between the area covered by the ground wave and that covered by the sky wave is known as the "skip distance," a dead-spot region within which reception is impossible or unsatisfactory.

The length of the skip distance varies with the frequency of the broadcasting station. Thus it has been learned that reception on six megacycles is most reliable when the station is at least 300 miles or more away, and good reception is enjoyed on this band from great distances when a large part or all of the path of the transmission lies in darkness.

Stations near nine to ten megacycles in frequency are most reliable when heard over distances greater than 800 miles. Good reception in this band, from distant stations, is possible both in the daytime and at night.

For favorable reception on eleven megacycles the stations should be at least a thousand miles away. This band is best during the daytime but distant stations can be heard until midnight, especially in the summer time.

A distance of 1500 miles between transmitter and receiver is most satisfactory for reception on fifteen megacycles. Daytime is most favorable for their transmission.

The Units

The units of measurement of frequencies, wavelengths, and power are frequently used in RADEX, and a

knowledge of these units is indispensable.

Radio waves travel with the speed of light, which is 186,000 miles per second, or 299,820,000 meters per second. By the "frequency" of a station we mean the number of pulsations which that station produces within one second. The speed of radio is so great, however, that "cycles" are produced by the millions and it is more convenient for us to use terms which are multiples of a cycle. These terms are the "kilocycle," which is equal to 1000 cycles, and the "megacycle," which is equal to 1,000,000 cycles, or 1000 kilocycles. A frequency of 1,000,000 cycles can therefore be expressed as 1000 kilocycles or 1 megacycle.

The correct abbreviation for the kilocycle is kc-s, which really means "kilocycles per second." A unit called the Hertz is sometimes used (usually in Europe) which includes the time element; a kilohertz (abbreviated kHz) is a kilocycle per second.

The abbreviation for megacycles is megs. When megacycles are shown, they can be converted into kilocycles by changing the decimal point to a comma. Ex: 5.900 megs. — 5,900 kcs.

The wavelength of a station is the length, in meters, of each cycle. The use of the term "wavelength" and its measurement, "meters," is nearly obsolete, especially in this country, and is avoided in RADEX.

The amount of power that a station uses is expressed in watts, and 1000 watts is a kilowatt,

Call Letters

All the countries in the world use call letters which consist of certain groups of letters which have been allotted to them by international agree-

ments. Thus the country in which a radio station is located can always be known by the initial letters of the call sign.

The International Prefixes

Afghanistan	YAA-YAZ	Dominican Republic	Netherlands	PAA-PIZ
Alaska	K7		HIA-HIZ	Netherland East Indies
Albania	ZAA-ZAZ	Ecuador	HCA-HCZ	PKA-POZ; YBA-YHZ
Algeria	F	Egypt	STA-SUZ	Newfoundland VOA-VOZ
Andorra	PX	Ethiopia	I	New Hebrides YJA-YJZ
Angola	CR6	Fiji Islands	VPA-VSZ	New Zealand ZKA-ZMZ
Antigua	VP2	Finland	OFA-OHZ	Nicaragua YNA-YNZ
Argentina	LOA-LWZ	France	F; TKA-TZZ	Norway LAA-LNZ
Ascension	ZD8	French Indo-China	F	Panama HPA-HPZ
Australia	VHA-VMZ	Germany	D	Paraguay ZPA-ZPZ
Azores	CT2	Great Britain	G; M	Persia EPA-EQZ
Bahamas	VPA-VSZ	Greece	SVZ-SZZ	Peru OAA-OCZ
Bahrain Island	VS8	Guatemala	TGA-TGZ	Philippines KA
Belgium	ONA-OTZ	Haiti	HHA-HHZ	Poland SOA-SRZ
Bolivia	CPA-CPZ	Hawaii	K6	Puerto Rico W
Brazil	PPA-PYZ	Honduras	HRA-HRZ	Portugal CSA-CUZ
British Guiana	VPA-VSZ	Hedjaz	HZA-HZZ	Roumania YOA-YRZ
British India		Hong Kong	VPA-VSZ; ZBA-ZJZ	Salvador YSA-YSZ
	VTA-VWZ; XYA-XZZ			Siam HSA-HSZ
British Malaya		Hungary	HAA-HAZ	Spain EAA-EHZ
	VPA-VSZ; ZBA-ZJZ	Iceland	TFA-TFZ	Surinam PZA-PZZ
Bulgaria	LZA-LZZ	India	VTA-VWZ	Sweden SAA-SMZ
Canada	CFA-CKZ; CYA-CZZ; VAA-VGZ; VXA-VYZ	Iraq	YIA-YIZ	Switzerland HBA-HBZ
		Irish Free State	EIA-EIZ	Turkey TAA-TCZ
Ceylon	VTA-VWZ	Italy	I	
Chile	CAA-CEZ	Japan	J	Union of South Africa
China	XGA-XUZ	Kenya	VPA-VSZ	ZSA-ZUZ
Colombia	HJA-HKZ	Latvia	YLA-YLZ	
Costa Rica	TIA-TIZ	Liberia	EIA-ELZ	U. S. S. R. R; U
Cuba	CLA-CMZ; COA-COZ	Lithuania	LYA-LYZ	United States K; N; W
Curacao	PJA-PJZ	Luxembourg	LXA-LXZ	Uruguay CVA-CXZ
Czechoslovakia	OKA-OLZ	Madagascar	F	Vatican State HVA-HVZ
Danzig	YMA-YMZ	Mexico	XAA-XFZ	Venezuela YVA-YWZ
Denmark	OUA-OZZ	Morocco	CNA-CNZ	Yugoslavia YTA-YUZ

The Spanish Alphabet

A knowledge of the Spanish alphabet is very helpful in identifying the many Spanish-speaking stations which are heard. It may look difficult, to read it as printed on the next page, but

it is really very easy to understand the letters when pronounced in Spanish, and many shortwave listeners agree that, manytimes, the call letters are more easy to understand accurately in Spanish than in English.

A—ah	H—ah-chay	O—oh	U—oo
B—bay	I—ee	P—pay	V—vay
C—say	J—ho-tah	Q—koo	W—doo-ble-vay
D—day	K—kah	R—air-ray	X—ek-key
E—ay	L—el-lay	S—ess-say	Y—yay
F—ef-fay	M—em-may	T—tay	Z—zed
G—hay	N—en-nay		

The Spanish numerals, also very important, are:

1—oo-no	4—koo-ah-tro	7—say-tay	10—dee-ayth
2—dose	5—theeng-ko	8—oh-cho	
3—trace	6—sase	9—noo-ay-ve	

Requesting Verifications

Nearly all radio stations welcome reports of reception from their listeners, and usually acknowledge these reports with verifications, which may be letters or cards. This practice started years ago when listeners had to have something tangible from a radio station in order to prove to their skeptical friends that the broadcaster had actually been heard. Now-a-days one's friends are not as skeptical as they used to be, because the possibilities of long distance reception are fairly well known to most persons, but the practice of collecting cards has continued, and this hobby in itself is considered by many to be as interesting as the actual logging of the stations.

Among radio fans verifications are known by many names, such as "veries," "confirmations," or "QSL's." Amateurs frequently call them "wall-paper" because they are used to decorate the walls of the radio den.

It should not be necessary to state that DXers should never request a verification from a station until the station has been positively identified.

When writing to radio stations, it is necessary to give two different kinds of information. First, the re-

port should include enough information about the program heard to enable the station to recognize its program, and second, as much technical information as possible should be submitted so that the report will be of some value to the station operators. Data on weather conditions, signal strength and interference, to mention only a few things, are important to engineers, as through such information they are able to study their transmission effects. Many times such information has been very helpful in pointing out how transmission may be improved.

In fulfilling the first requirement (program details) listeners are cautioned to be as accurate as possible in reporting time. The time should be correct to the half minute, or even the quarter minute, if possible. When reporting to stations in the United States, it is always a good idea to convert the time to the standard time used at the stations. When reporting to stations in South America, Eastern Standard Time, is generally understood. Regardless of what time is used in the report, however, the reporter should be sure to mention it.

When sending reports to countries overseas, the listener should convert

his time to the time used at the transmitter, or if that is not possible, he should convert to Greenwich Mean Time.

Greenwich Mean Time is the time system in which noon occurs at the time the sun passes over the meridian of Greenwich, England, and the standard times of nearly every locality in the world are calculated to agree with Greenwich in minutes and seconds, and to differ in hours only by whole hours. While the true sun time of New York City, for example, is 4 hours and 56 minutes slower than Greenwich, the standard time (EST) is exactly five hours slower

than GMT. Since Greenwich has been adopted as the standard international time, it is universally understood, and your report expressed in GMT will be comprehended, regardless of the country to which it might be sent.

The table printed below shows the differences in time between the various zones in use in North America, and GMT.

The names of all musical numbers recognized should be given, and unfamiliar musical items can be described, as "fox trot," "tenor solo," "stringed instruments," etc. Whenever possible the names of advertisers

Time Conversion Table

EST 24-hr. Clock	EST	CST	MST	PST	GMT
0000.....	Midn't	11 pm	10 pm	9 pm	0500
0100.....	1 am	Midn't	11 pm	10 pm	0600
0200.....	2 am	1 am	Midn't	11 pm	0700
0300.....	3 am	2 am	1 am	Midn't	0800
0400.....	4 am	3 am	2 am	1 am	0900
0500.....	5 am	4 am	3 am	2 am	1000
0600.....	6 am	5 am	4 am	3 am	1100
0700.....	7 am	6 am	5 am	4 am	1200
0800.....	8 am	7 am	6 am	5 am	1300
0900.....	9 am	8 am	7 am	6 am	1400
1000.....	10 am	9 am	8 am	7 am	1500
1100.....	11 am	10 am	9 am	8 am	1600
1200.....	Noon	11 am	10 am	9 am	1700
1300.....	1 pm	Noon	11 am	10 am	1800
1400.....	2 pm	1 pm	Noon	11 am	1900
1500.....	3 pm	2 pm	1 pm	Noon	2000
1600.....	4 pm	3 pm	2 pm	1 pm	2100
1700.....	5 pm	4 pm	3 pm	2 pm	2200
1800.....	6 pm	5 pm	4 pm	3 pm	2300
1900.....	7 pm	6 pm	5 pm	4 pm	2400
2000.....	8 pm	7 pm	6 pm	5 pm	0100
2100.....	9 pm	8 pm	7 pm	6 pm	0200
2200.....	10 pm	9 pm	8 pm	7 pm	0300
2300.....	11 pm	10 pm	9 pm	8 pm	0400
2400.....	Midn't	11 pm	10 pm	9 pm	0500

For times throughout the entire world consult the RADEX Time Converter.

QSA and R Codes

The R code describes the volume with which a signal is heard.

- R1 is a signal that is barely perceptible.
- R2 is a very weak signal.
- R3 is a weak signal.
- R4 are signals of fair volume.
- R5 are fairly good signals.
- R6 are good signals.
- R7 are moderately strong signals.
- R8 are strong signals.
- R9 are extremely strong signals.

The QSA Code is used to describe the understandability of a station's signal.

- QSA1 is a signal that is unreadable.
- QSA2 is one that is barely perceptible. A word can be understood now and then.
- QSA3 is understandable with difficulty.
- QSA4 is a signal that can be understood with practically no difficulty.
- QSA5 is perfectly understandable.

Some persons describe radio signals further by employing the S and X symbols, S to indicate fading and X to indicate static, in this manner:

- S is slight fading.
 - SS is deep fading.
 - SSS is a complete fadeout.
 - R is rapid fading (fluttering).
 - X is slight static.
 - XX is bad static.
 - XXX is very heavy static.
- The letter N indicates that either fading or static was not present.

These symbols are written like this:

- (a) QSA5, R7/S/XX
- (b) QSA4, R7/N/N

Example (a) means that the station had a perfectly understandable signal at moderately strong volume, with slight fading and bad static. Example (b) means the station was easily understandable at quite strong volume, no fading and no static being present.

sponsoring programs should be mentioned, and all announcements should be transcribed, as nearly verbatim as possible.

The Signal Data

That the report may be of some value to the station it is necessary that the writer mention, truthfully, how well the station is heard, describing volume by the R Code, quality by the QSA Code, and hazards, such as interference, static or fading, by the S, X and N symbols. These codes are shown in the next column.

Prepaid Postage

When writing to overseas stations it is customary to enclose return postage in the form of International Reply Coupons. These can be procured for nine cents each from any post office, and can be exchanged in any country which is a member of the International Postal Union for postage stamps sufficient to mail a first class letter to this country.

When buying Reply Coupons, be sure that they are correctly postmarked in the circle on the left side of the coupon.

For the convenience of DXers, there has recently been inaugurated a return postage bureau, from which unused postage stamps of many foreign countries may be purchased. Those who are interested can obtain more information by writing to the Return Postage Bureau, 85 Francisco Ave., Rutherford, N. J.

PART TWO

The Broadcast Band

The reception of a foreign station on the standard broadcast band is undoubtedly the greatest of all radio thrills. It is an achievement comparable to a hole in one on the golf

course or a homer with the bases loaded, on the diamond. While foreign reception is admittedly difficult, it IS possible, and nearly all listeners have a few potential South Americans, trans-Pacifcs or trans-Atlantics playing on their aerials during the course of a winter season.

It goes without saying that highly efficient equipment is a primary requisite for foreign reception. The average set of eight, ten or twelve tubes can do wonders if it is properly aligned, if its tubes are in perfect condition and if it is fed by a good aerial. Of course, if the best possible results are expected and the expense is of no moment, the highly sensitive laboratory-built receivers offer the best possibilities for real DX reception.

A signal from a foreign station is very insignificant and unobtrusive after it has travelled a few thousand miles. As a rule the DXer has to fight quite a battle before capturing his station. He has to be the personification of patience and perseverance. He must know how, where and when to tune.

Undoubtedly the best method of tuning is that which is described as "spot tuning." Here the DXer makes out a list of five or six powerful stations which he wants to hear. Considering the season of the year and the time of day, he picks the broadcasters which are known to be on the air and which should be heard in his location. Then he dials the frequency of the first station and listens. If nothing is heard after waiting a few minutes, he goes on to the second station, and so on down the list. A station may be heard the first time, but if not, the skilled DXer will return time after time to the selected frequencies. Sev-

eral nights, or even several weeks of this kind of tuning may pass before the first foreign station is heard, but the real test of a DXer's ability is his willingness to continue under even the most discouraging circumstances.

For a more complete discussion on the Art of Tuning and the Art of Hearing, readers are referred to the October, 1938, issue of this magazine.

The Right Seasons

In general, listeners find reception of South Americans best during October, November, February and March. Most frequently heard are stations in Argentina, Brazil, Colombia and Venezuela.

During these months, DXers can usually start dialing for South Americans at sundown, and for the next couple hours reception is at its peak. From the list of the world's stations, printed in this issue, listeners can select a few of the most powerful South



A very up-to-date looking building houses the transmitting equipment of JQAK, in Dairen, on the Kwantung Peninsula in Manchukuo. This photograph was received with a verification of reception of JDY, the shortwave station in Dairen. 9925 kcs. It is owned by the Manchuria Telephone & Telegraph Co., Sohtokugai 3, Dairen. (Courtesy of Jim Walker).

American stations for their initial attempt. As soon as night falls they might turn to 1190 for the 30 kilowatt LS2 in Buenos Aires. Listeners at a distance from Cleveland should not have much difficulty in hearing the 50 kilowatt LR1 on 1070 between nightfall and the time that WTAM begins to come through. Many tuners report that 7 kw LS4 on 670 is easy to hear before WMAQ comes through, and LR5 on 830 is often heard between the time that WRUF signs off and KOA starts to come through.

Down Under

The Australian and New Zealand stations are heard during the same months as the South Americans—namely, October, November, February and March. On the west coast they are heard during the mid-winter months as well.

The New Zealand stations usually begin to come in at about 4 o'clock in the morning, Eastern Standard Time, and the Australians start about an hour later. On a morning when conditions are favorable it is a relatively easy matter to log a few of the more powerful "Aussies" and "Zedders." Stations which have actually been heard in this country are shown in the world list in this issue of RADEX. By picking a few high powered ones, such as the 60 kw 2YA on 570, and ten kilowatts 2CR on 550, 1YA on 650, 3YA on 720, and 4YA on 790, the DXer will be able to "size up" reception conditions for the morning. If he finds that the New Zealand "big boys" are coming through, he can then try for some of the big Aussies.

The best Australian stations to start with are 4QN on 630, 5CK on 640,

2CO on 670, 7NT on 710, 5CL on 730, 4QG on 800, and several others.

Trans-Atlantics

The European station start to come through during November and continue through December and January. These signals are not as strong as South Americans, but they do make a good showing along the Atlantic seaboard, particularly in the Middle Atlantic and New England states, and in the Maritime Provinces. Further west the signals ebb out gradually, although DXers in Ohio, Indiana and Illinois frequently report good results.

During the season some Europeans may be heard as early as 4:30 pm EST, along the eastern seaboard. Between 5 and 6 their signals reach a peak, which is maintained until their sign-off, which is usually about 7 o'clock. As the signal strength of our own stations is gaining during this time, there is but a relatively short period during the evening when Europeans may be heard. The best time to log the Europeans, however, is during the morning, after about 1:30 am. The Italian stations generally start between 1:30 and 2:30 am, as well as the big French stations.

Some of the best stations to try for in the morning are the Germans, such as Stuttgart on 574, Vienna on 592, Cologne on 658, Berlin on 841 and Breslau on 950. The best time to commence would be about 1 o'clock, and if European reception is good that morning, at least one of the Germans should be heard. Along towards two o'clock try the French stations. Strasbourg on 859, Toulouse on 913, Rennes on 1040 and Bordeaux on 1077 are especially recommended.

TURNER DIAL DISCUSSES GOOD ANTENNAS

••• By B. Francis Dashiell

TUNER DIAL was thoughtful as he drove into the garage after a spin through the country. This Sunday afternoon had been restful to him, for the Christmas rush at Higrade Radio demanded long busy hours every day. The ride in the bright December sun and sharp air gave him opportunity to relax. But, like a true radio man, he glanced up and around at the roofs of the homes he passed, looking for the tell-tale antenna that would indicate the ownership of a radio receiver.

The aerials he saw, however, helped to renew his belief that anything must be satisfactory to most radio listeners, when it came to antennas.

He had long since learned that people usually gave little thought to the antenna to which their radio was attached. And he imagined that, in very many cases, expensive radio sets were poorly connected to a piece of wire that was thrown out of a window and strung up to some convenient tree or part of the house.

Of course, he knew that any good radio would bring in signals from afar with amazing energy merely by using a short length of loose wire for an aerial. But such was not good practice if the best reception was desired, and very

often it was the cause for a fine radio being blamed for inefficiency. Turner Dial resolved that, after Christmas, he would make a drive for new antennas. He would feature a window display of modern antenna kits with the advice: "Treat That New Christmas Radio To A Good Antenna!"

Both Turner Dial and his young assistant, Bill Wood, arrived together at the shop the next morning. The charwoman had opened up as usual, and now was busy dusting and polishing the new 1939 receivers that stood in a long row down one side of the store. "Good morning, Maggie," greeted Turner, as he cast a quick glance around that everything was in order.

"Mist Turner," grinned Maggie, as her white teeth flashed into view. "Somelady bin a-trying to git you-all. She gonna call back agin."

"Starting early!" commented Bill Wood under his breath, as he looked over the service department and the jobs to be done in the few days remaining before Christmas. Although people were buying new sets for the holiday, a goodly number were having theirs fixed up so Christmas programs and winter radio reception would be at



their best. "Sensible people," added Bill to himself.

The telephone rang sharply. Turner, who was up front looking over the mail which had just arrived, gave it no heed. Bill Wood answered. "This is Mrs. Snappe," advised a sharp and provoked feminine voice. "I have all kinds of trouble with my radio. Can you fix it?"

Bill was full of breakfast and youthful ego. "Yes'm!" he replied. "We can fix anything about a radio on a minute's notice!" But, seeing Turner give him a severe look, he hedged. "That is," Wood added, "if the radio is not too far gone and is worth repairing."

"Young man!" snapped Mrs. Snappe, "I want you to know this is a new radio! It worked terribly on Saturday night. One moment it was weak and the next it was loud, and it made awful scratching noises. I haven't dared to use it since."

"Yes Mrs. Snappe," said Bill. "We are busy just now, but some one will try to get out today and look at the set. I think it can be fixed without much work."

Turner Dial approached his desk. "What's it all about?" he asked. Bill repeated the conversation. "Humph!" grunted Turner. "I know her, so I'll go out there today. She'll be right on my heels if I don't."

The morning passed with the usual routine and the sale of one new receiver. After lunch, Turner came back to the service bench. "Say, Bill!" he called. "I'll deliver this set, and then

drop in and look at Mrs. Snappe's radio." In a short time Turner drove up to the house. "I'd like to examine the radio," he said, when Mrs. Snappe opened the door. "Well, it seems to work fine just now," she remarked. "I turned it on a moment ago. I can't understand it!"

The radio was still working and Turner thought it sounded about perfect. He knew it to be a good reliable receiver. "Seems o.k." declared Turner, and by now he felt certain the trouble was not in the set. It usually did not take long for him to make a quick examination in order to diagnose radio symptoms. His suspicions were elsewhere. Checking the ground and lead-in wires he saw they were good. The clamp to the radiator was tight, and the window strip lead-in was making good contact with the wires indoors and out.

"May I go to the roof? I would like to see the antenna." Turner followed as Mrs. Snappe led the way. The house was a semi-detached type with a flat tin roof over the rear. As Dial climbed out through the small hatchway only a glance was needed to see that the aerial, which was loosely attached to the chimney, sagged perilously close to the tin of the roof beneath. The lead-in dropped over the side of the brick wall, and helped to pull down the antenna wire. "What a mess!" growled Turner. "But just what I expected." He returned downstairs. "Where did you get that antenna you have on the roof?" he asked Mrs. Snappe.

"Well," answered the lady, "its been up there several years. I used it with the old set I had. A man who works around the neighborhood put it

**THE IMPROVED RADEX
WILL HELP YOUR FRIENDS TOO!
WILL YOU PLEASE HELP BY
TELLING THEM ABOUT IT?—The Editor**

up for me. He said he knew all about such things, and I paid him plenty, too."

"Here's what is wrong," began Turner. "That aerial isn't any good. I could patch it up a bit, but its not wise. In the first place it was stuck up there without any idea of mechanical or electrical efficiency. I've seen hundreds just like it; the country's full of 'em. But its a shame to hook a good new radio, like yours, up to such a system."

"But it has always worked, and I know it works right now," protested Mrs. Snappe with some heat. "I don't see why you are trying to make me take another so as to be under more expense."

"That antenna," insisted Turner Dial, "is loose and weak. It sags and is not insulated. The wire is thin and badly joined. Lots of people believe that any kind of an aerial will do. Of course, they work, but can't be depended upon. The reception from a good scientific antenna will surprise you, and give you results that you haven't believed possible up to now. And it will cut down noise from automobiles and other sources."

"I'll take your word for it, Mr. Dial," agreed Mrs. Snappe. "Go ahead, if the cost is not too much. I thought that man had given me a good job. Wait until I see him!"

"Thank you," replied Dial. "We'll come out tomorrow and put it up. I guarantee you won't know this radio after we do the job."

It was some time before Bill Wood had opportunity to ask about Mrs. Snappe's radio. "It was the antenna," explained Turner. "It's a mess. It swayed in the wind and caused sharp

fading, and when it touched the tin roof and the loose lead-in flapped back and forth against the wall, she heard those loud cutting-on-and-off noises. There are none worse, as you know! Remember how the wind blew on Saturday night when it cleared up and turned colder after that rain. Any bad aerial would be a mess of junk after that! We'll put up a new one tomorrow."

Bill Wood knew that aerials must be kept as far as possible from tin roofs and brick walls, and that the wires must be tight so that abnormal swaying in the strong winter winds will be prevented. On apartments, where numbers of antennas are erected, they must not swing toward each other or touch together. That would cause severe fading, noise, or even the pick-up from what is being tuned in on a neighbor's radio.

Early the next morning the two men were on their way to Mrs. Snappe's. Two fir poles, each 10 feet long and 1½ inches square, were carried along. Two 1-inch pieces 5 feet long and 6 inches wide were placed across each other at right angles and nailed to one end of the pole. Then four thin braces, about 5 feet long, were nailed from the ends of the cross pieces to the four sides of the pole. The pole then would stand alone and erect upon its base. The bracing held the upright firmly. The two poles then were set upon the flat roof with the two wires of a doublet stretched between. Two brace wires held back against the pull of the antenna, and were tied to hooks screwed into the edge of the roof. The lead-in from the center of the antenna hung gracefully, and was tied to an insulator on the end of a short support

that projected over the edge of the roof. The lead-in dropped down, and was carried around to the window by long stand-off insulators screwed into small blocks which were nailed to the mortar between the bricks of the wall. "There!" remarked Bill Wood. "All up in an hour! We're getting good at this sort of thing!" And, knowing that his part of the work was done, Bill returned to the store to open it.

Turner connected the lead-in to the receiver, and switched on the power. "That sounds just fine!" exclaimed Mrs. Snappe excitedly. Station after station came in as Turner swung the dial. On the short-wave bands a number of stations came in fine, and although automobile traffic was steady, only occasionally was the static of a motor heard. "Can't get rid of all of 'em," commented Turner.

Back in the store a loud bumping noise at the door attracted Bill Wood's attention. Customers had been coming and going, but none had announced themselves with such authority. Wood hastily stepped in that direction where a portly man was trying to squeeze his stomach and a radio cabinet through the door at the same time. "Let me help," volunteered Bill Wood.

"I'm in now," puffed the stout customer. "What shall I do with this?" And he placed the cabinet on the floor with a loud thud.

"What is it you wish?" asked Bill. "Want to trade it in on a new set, or is it a repair job?"

"I want it fixed!" growled the man. "Noise, noise, noise! That's all I hear!" The man glared at Wood, and added: "My name's Miller. I was told to look up Turner Dial. Mr. White sent me."

"He's out just now," said Bill. "Let me help you." And taking the set up Wood led the way back to the service bench. He plugged the set in and soon had it operating. As far as he could tell it sounded as good as could be expected. The stout owner dropped in to a nearby chair.

"Why, it works fine now!" he said, as his face grew red. "It has made nothing but noise all the time, and now it's perfect. I give up!"

Bill Wood began to tune in stations. The volume was turned up all the way. He shook the cabinet. Tubes were pushed this way and that. The speaker cone underwent a vigorous probing. There simply was not any noise. But Wood remembered what had happened at Mrs. Snappe's. "Where do you live?" he asked of Mr. Miller.

"Oh, I live in the Chile Apartments," answered that portly individual. "On the fourth floor, and I have a good noiseless antenna, too. But it doesn't do any good!"

Wood turned off the set. "This seems to be good," he said. "The noise must come from your antenna or the locality. Those apartments sometimes play havoc with radios. We'll be glad to come up and help you out."

Just then Turner Dial came in, and Bill Wood explained what happened. "I think you're right, Bill," said Turner. "I'll be in and see you this afternoon," he added. Mr. Miller picked up his radio and struggled out.

When Turner arrived at the Chile Apartment Building he found plenty of noise in Miller's radio. A whining sound—one that commenced with a knock or click and ended the same way—kept coming in at irregular intervals. "That," commented Dial, "is

the noise of the elevator motor and switches up on the roof. But that grating and grinding noise is something else."

Turner went on to explain that electrical devices all had characteristic noises. Motors, as a rule, give whining, buzzing, humming, or whirring sounds which reach a steady pitch very quickly. Many a.c. motors, however, are silent in the radio receiver. Sounds which crack, pop, snap and sputter, come from nearby power lines, street cars, bad connections within or without the radio itself, and elevator controls as they are turned on or off. Electric switches in the house and different devices always pop sharply in the radio. But here also was another noise which sputtered and crackled at irregular intervals. "That must be a bad connection in the antenna," said Turner. "Let's go up on the roof."

The two men took the elevator and then climbed a short stairway up through the elevator pent house on the roof. "Here is my aerial," said Mr. Miller proudly. "I put it up myself!"

"It looks good," declared Turner Dial, as he checked it over. "It's too close to the motor house. Look inside! See how those motors are sparking, and watch the switches flash! Those sparks are radio waves, and every antenna picks up some of the energy. That commutator should be cleaned up and new brushes installed. If you stop the sparking you can stop the radio energy that is being broadcast. A system of filters connected to these switches and motors will do the work. Of course, you can't do it, for it's the owner's job. But its not so expensive."

Turner reached up and loosened one end of the horizontal doublet wire.

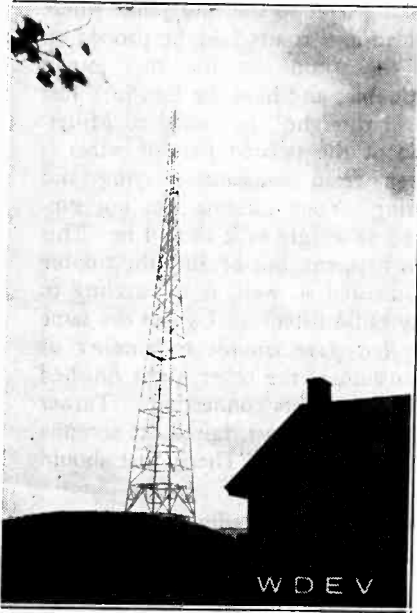
Walking over to the mid point where the lead-in was attached, he probed up into the strain insulator that joined the doublet and held the lead-in. "Just what I thought," he called to Miller. "One of the twisted pair of wires is broken from constant swaying and twisting. Your antenna was not supported as snugly as it should be. This often happens, but because the trouble is concealed so well, it is puzzling to many radio listeners. I guess the same gale that gave trouble to another of my customers the other night finished this wire and its connection." Turner made a new contact, raised the antenna and made it fast. "There, that should do," he said.

Downstairs the radio worked much better, since the cutting off and grinding noises had ceased entirely. "That clears up one kind of noise, but does not help the elevator interference," Turner said. "You might try a filter unit between your radio and the wall socket. That holds back any noise surges that try to come to the radio through the house wiring." Just then a violent roaring sound burst forth from the speaker. It lasted a few seconds, but was repeated a few times. "What on earth is that?" asked Dial. "Have you heard it before?"

"It's a new one on me," said Mr. Miller excitedly.

"Sounds like an X-ray, or some similar medical instrument," commented Turner. "Have you a dentist or doctor nearby?"

"I don't know of any," said Miller, as he picked up the telephone. "Hello!", he called to the building operator. "Do we have a doctor's or dentist's office in the apartment?" Miller listened, and his face grew red.



The aerial tower of WDEV, in Waterbury, Vermont. This is the tallest tower in New England, being 435 feet in height. The transmitter is in the building to the right, which is on Blush Hill, near Waterbury. (Courtesy of Francis Coradetti).

Then he gulped, and hung up. "Now what do you think?" he stammered toward Turner. "A dentist just moved in, and he is opening for business today!"

Turner looked at Mr. Miller with great pity. "Brother, you are having hard luck," he said. "But that X-ray won't be running so much; only when he is taking pictures. Your worst trouble is in that elevator setup. Your antenna takes care of other interference. Unfortunately, there are thousands of people like you living under these same conditions. But many modern apartments now take care of

their electrical interference, and if your owner is broadminded, he'll get a competent electrician to put an end to this nuisance. Certainly it must be annoying everybody in the building!"

Back at Higrade Radio Sales and Service Bill Wood was lecturing learnedly to several prospects. One man, however, raised the question of static and noise. "Everywhere I go," he complained, "my friends have all-wave sets and also a nice lot of noise. What about that?"

Turner Dial entered just in time to hear Bill optimistically dismiss the speaker's objection. "Just put up a noise-reducing antenna system, and you won't have any noise!" Turner stopped in his tracks.

"Mister," he declared. "There isn't any true noise-eliminating antenna. I've found that out. But there are a great many that stop practically all noise, as far as we are concerned. You can't take out one hundred percent of all the man-made static interference that a big, sensitive radio is bound to pick up. It's wise to use a good antenna with a good radio, for then you'll get a lot of pleasure and entertainment, as well as DX reception, and the noise won't bother very much unless you live in a hot-bed of electrical machines. Static noise is just a part of our civilization, unless we live way off in the open country and use battery radios. Even then, atmospheric static will get us. You can't get away from it! But we are doing something about it!"

Turner Dial then and there was settling down to business, and getting his prospect in shape for the signing on the dotted line! The telephone rang, and Bill Wood answered.

"Boss!" he called. "It was Mrs.

Snappe. She said to tell you that the new antenna is a wow! Said all the noise has gone and it's working fine. She never knew a radio could be so quiet and powerful on distant stations!"

Dial turned to his customers. "There you are, Sir," he announced with pride. "It just goes to prove, since you've picked out that fine radio in front of you, that you'll need one of our special noiseless antennas to go with it!

Next month Turner Dial will explain why some stations come in at two places on the dial. Everyone who has been bothered by stations which have been heard off their proper dial setting should read this story in the February issue.

New Honors For Scott Radios

Mr. E.H. Scott, of the E. H. Scott Radio Laboratories, Inc. announces receipt of cabled advice from the Paris International Exposition that Scott Receivers won the Diplome D'Honneur at the Exposition in competition with the leading radio receivers of Europe and America.

At the Centennial Celebration of the American Patent System held in the Auditorium of the National Academy of Science, Washington, D.C. recently, over 1,500 of the leading scientists and business leaders in the nation gathered to see a demonstration of the latest developments in science. A Scott Radio Receiver was chosen to demonstrate, before this distinguished assemblage,

the perfection that has been attained in High Fidelity reproduction.

Mr. Scott informs us that Scott Radio Receivers, because of their high degree of efficiency and precision, have been purchased by the U.S. Bureau of Standards at Washington, D.C., the Royal Canadian Mounted Police, Ottawa, the African Broadcasting Company at Durban, South Africa; the Belgium Broadcasting Company at Antwerp, Belgium; the Icelandic State Broadcasting Service at Reykjavic, Iceland; the Norwegian Broadcasting Company at Oslo, Norway; the Director of Radio Communications at Montevideo, Uruguay; the Radio Communication office at Buenos Aires, Argentine; the Government of Australia; the Government of Bolivia; and the Government of Porto Rico.

J. L. M., Estelline, Tex.: I have a Silvertone battery set using 9 tubes. It stays normal for a few minutes and then drops to low volume, but it has been gradually falling off in power and now is weaker than it used to be.

Answer: In a battery set this trouble should bring suspicion on the batteries. Failing batteries always bring weaker signals. A rest over night, for instance, gives the batteries a chance to recuperate, and the set will be strong for a few minutes after it is turned on, then it will quickly grow weaker. This action is seldom noticed in the volume control unit, or the resistors and condensers. However, if the batteries are good and strong, have the units of the set tested, one by one, and check the tubes.

**THE IMPROVED RADEX
WILL HELP YOUR FRIENDS TOO!
WILL YOU PLEASE HELP BY
TELLING THEM ABOUT IT?—The Editor**

HIGH FREQUENCY GLOBE TROTTING

● ● ● By RAY LA ROCQUE

AY we pause, now, as we enter our first Christmas season with RADEX to extend a few wishes for good cheer, good fortune, and, of course, good DX to our friends old and new. Our "old mill" could not pound out any more sincere wordage than our hope that the joy and gladness of the Yuletide Season will endure throughout the coming year and the many years that will succeed it.

Inaugurating, as we promised last month, our "Report-o-meter" we will precede it with a few explanatory remarks on how the meter operates and the purpose it is to serve. The meter will register one point for the first report from a reader on a change in frequency, location, call letters, or schedule. One extra point will be given for the interval signal used by the station and another if the report includes various peculiarities of the programs which may tend to help identify the station. On reports of new stations one point will be awarded for each of the particulars mentioned in the preceding sentence. Points are awarded only for the first report on any change or new station.

This month's "Report-o-meter" represents all the reports used in compiling the current edition of SHORTWAVES IN REVIEW as well as the SCOOP BOX reports of last month's RADEX. Reports which reach us in time for the SCOOP BOX count double!

Each month the "Report-o-meter" will record the first five highest scorers among the RADEX reporters. The top scorer will receive a rating of 100% and the percentages of the others will be computed on his score. Here they

are! This month's "Report-o-meter" reporters:

REPORT-O-METER

Robert Skyten, E. Brookfield, Mass.	100%
Anthong C. Tarr, (R274), Seattle, Wash.	46%
Jack Wells, Phenix City, Ala.	26%
Elvyn Barker, Portland, Me.	19%
Carl & Anne Eder (R184-5), Willmar, Minn.	15%

MEGACYCLE BREVITIES

Carlos Ramirez G., shortwave editor of Radio Guia, besides owning and operating GM2AR, is one of Cuba's most prominent and active shortwave DXers. He has won several DX contests in Latin American countries, one which got him the position he now holds with Cuba's most popular radio magazine. . . A suggestion from Paul Russnak, Jr. deserves the "cake" this month. He suggests for those who have difficulty in keeping awake late evenings, that they tune to ZRH from 11:45 p.m. to 12:15 a.m. for the setting up exercises, and that they do likewise. . . The H.M.S. Milford, a naval vessel that cooperated in installing and testing a receiving set on Tristan da Cunha, has reported excellent reception of Daventry and of other broadcast programmes in the island. As a result, the loneliness of Tristan da Cunha has been considerably relieved. The Rev. H. Wilde, chaplain of the "World's Loneliest Island", took the set back with him when he returned after his leave last year. . . It W9XAA's application is a success they will receive a grant which will allow the removal of the station from Chicago to Salt Lake City and an increase in power from 500 to 10000 watts. . .

QUOTE AND UNQUOTE

Victor J. Balt, Aurora, Illinois: "I'd

like to know what station was on about 41500 kcs. on November 1 at 10:39 a.m. When I tuned them they had a program similar to the Movietone News that we hear at the movies and they continued with descriptions and habits of geese, American ducks, and penguins. Program was concluded at 11:20. All talking was in English. Voice sounded like a GS announcer. I would appreciate it if anyone could tell me what station it was."

Chester Roman, Chicago, Illinois: "Numerous stations have been heard on 3420 kcs. giving locations only, being heard at 8:45, 9:00, 10:00, 10:15, and 10:45 p.m. CST. The names are: Gallenburg, Brighton City, Bunker Hill, Cape Cove, Rich Mountain, Canterbirches, Spruce Mountain, Pointree, Shuckstag, Hazeltree, Mt. Sterling, Twenty Mile, and Irox."

Capt. E. N. Massey, Sweetwater, Tennessee: "Last night around 10:15 p.m. I picked up a very weak station between GSB and W2XAF. By just turning the dial the slightest hair mark, interference from one or the other appeared. Two selections distinguished were a part of 'Merry Widow Waltz', and a French song that was sung by Anna Held in 'The Great Zigfield.' The song was 'It is Thrilling to be Married'. TPB-13 is listed on 9520 kcs., but I don't think it transmits at that time and besides is powerful enough to hold its own against GSB which is lower power!"

Edward Hirsch (R281), St. Albans, New York: "On October 10, 12:50 p.m. I heard a station on 12700 kcs. broadcasting facsimile. Can anyone identify it?"

C. J. Fern, Jr., Lihue, Kauai, T. H.: "Here's how I go about hocking a

station: "Looking through September RADEX I find notes from Alan Breen to the effect that Radio Hanoi II is on from midnight to 2:30 a.m. EST. I turn to 11890 kcs., find the station active. A French lady announcer. Then I look through June RADEX and find TPB7 the only other French station near that frequency. However, I have never gunned for him so I stick till next time signal to find out who he is. But, doggonnit, I never find out that particular night due to CQ from OM's Schick which he uses to give me time signals near bedtime. However, I resolve to try again next night hoping for the best. Next night I hook him, and copy about 1/2 hour of program—never less. If I get his call I scribble something like this on a piece of paper 4 1/2 by 30 that runs down the wall of ye inner sanctum: (This one for CXA-8) CXA-8 9640/122 1330-1830. The 122 after the frequency is the reading on the band spread dial. The time is based on the 24 hour clock—Hawaiian Standard Time."

Philip L. Craig, Waterville, Maine: "Can anyone identify these stations: CZ7J, CZ2T, CZ2S, CZ2R, CZ9U in Canada; and CMTC, WYD, and VP5TV!"

Robert Skyten, East Brookfield, Massachusetts: "What station is heard after VK3ME signs off on 9510 kcs? In fact they begin to QRM the Australian long before the station closes down."

Isaac T. Davis, Elkhart, Texas: "What shortwave station is causing much QRM to ZBW on the 9 megacycle band in the hours between 6 a.m. and 8 a.m.?"

ULTRA HIGH

W1XOJ on 43000 kcs. in Boston,

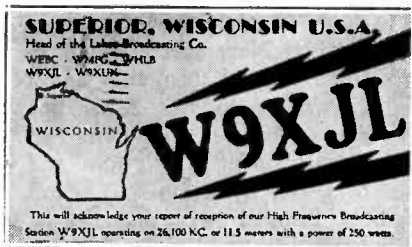
Mass, is the Yankee Network's newest representative on these bands and will soon be heard testing with 100 watts pending final erection of the 400 watt equipment. (RX).

W4—on 31600, 35600, 38600, or 41000 kcs. in Nashville, Tenn. This is a new construction permit for ultra high frequency broadcast station issued to the owners of WSM. For assignment of call letters and definite information as to the channel that ultimately will be used, read our ultra high items each month.

W8XNU on 25950 kcs. is being heard with a good signal. They work in the daytime and from 6-11 p.m. They relay the programs of WSAI and solicit reports from listeners. (Bonnell-Ohio, and Barker-Maine).

W9XA on 26500 kcs. in Kansas City, Mo. is heard from 2-4 p.m. with R3-5 signal. They promise to QSL all reports that are received. The station is unique in that, among the ultra high frequency broadcasters, it is perhaps the only one that is not in any way connected with a standard broadcast station. The station is privately owned by the Commercial Radio Equipment Company of that city, has many of its own programs and picks up non-commercial programs from KSL, WLW, or the local KITE! W9XA's channel is a clear one at present and DXers within range of its signal should have no difficulty in finding W9XA! (Gilbert Harris., and RL-Mass.)

W9XUP on 25950 kcs. in Minneapolis, Minnesota is plenty tired of being hashed up by QRM from other stations on that over-crowded channel and is seeking permission to change to 26150 kcs. (RL-Mass.)



Five different colors adorn this QSL card from W9XJL, the ultra high frequency station of The Head of the Lakes Broadcasting Company. W9XJL transmits on 26100 kcs. with a power of 250 watts. (Courtesy of Merton M. Hiatt).

France is operating a television station atop the Eiffel Tower—1000 feet above ground. The power is 32 kilowatts for video transmission and 17 kilowatts on audio or voice transmission. The station operates visually on 7.5 meters and vocally on 8.75 meters. (Jack Wells-Ala.)

VERI NEWS AND NEW VERIES

ZBW-3 at Hong Kong is now verifying reports of reception. I received three verification cards in one mail dated on a February transmission. (Satterthwaite-Calif.)

JVN verified report of Jack Wells, Phenix City, Alabama with one of the new JZ station cards. The card shows the Nazaki transmitters and the antenna arrays. The card is brown with black print. Veri message is on the reverse side.

YCP on 9120 kcs. at Bandoeng, Java verifies with black on buff card. Verification is signed by Ir. L. F. J. Verboeket, Java Wireless Stations, Bandoeng, Java, N. E. I. (Wells-Ala.)

SHORTWAVES IN REVIEW Australia

VLR-3 on 11880 kcs. in Melbourne, Australia signed off at 3 a.m. and an-

nounced that he would be on the air again in fifteen minutes on 9580 kcs. (Skyten-Mass.)

Azores

CT2AJ on 4002 kcs. at Ponta Delgada was heard on a Wednesday evening with a good signal (R7) at 6:30 p.m. signing off at 7 p.m. with the Portuguese National Anthem. (Skyten-Mass.)

Canada

Kenora, Ontario: "Our public phone circuit operates transmitters for use from Kenora and Sioux Lookout on 5815, 4880, and 3300 kcs., while Red Lake and Pickle Lake use 5715, 4580 and 3015 kcs. By this system we can connect anyone on the telephone systems of these northern communities with the local telephone system in either Kenora or Sioux Lookout and, of course, thence by ordinary means to any part of the world. We also have an aircraft circuit and this transmitter is left on 5420 kcs. all the time and is remotely controlled from the aircraft company offices downtown by means of which they can speak to their planes in flight from their own desks. Lastly, there is our local phone circuit and this transmitter operates on 2898 and 3430 kcs. and communicates with small stations used in camps, lumber camps, and mines, etc., and can also connect them into the telephone system the same as the public phone circuit. A speech scrambler is on hand in case any strictly private conversation is being transmitted!" (Dept. of Lands and Forests of Ontario via C. Roman-III.)

Chile

CB970 on 9730 kcs. at Valparaiso is being heard evenings. They use a bugle call and chimes for identification. (Keirstand-Mass.)

Colombia

A complete shuffling of call letters and frequencies among the Colombians on the 4 megacycle band has caused a great deal of confusion. We've been diving into the mixup almost nightly and straining our favorite ear to gather the following which may be a little incorrect in spots but it will serve 'till a more official list is available:

HJ1ABB on 4785 kcs. from 6-11 p.m.

HJ1ABE on 4830 kcs. from 6-10:30 p.m.

HJ2BAC on 4815 kcs. from 5-10 p.m. was formerly HJ2ABC.

HJ2BAJ on 4865 kcs. from 10:30 a.m. to 2 p.m., and 5-11 p.m. was formerly HJ3ABD.

HJ3CAF on 4855 kcs. from 6-11 p.m. except Sun. was formerly HJ3ABF

HJ3CAH on 4895 kcs. from 11:30 a.m. to 2 p.m., 6-11 p.m. was formerly HJ3ABH.

HJ3CAX on 5990 kcs. from 10:30 a.m. to 2 p.m. and 5:30-11:30 p.m. was formerly HJ3ABX.

HJ6ABH on 4875 kcs. now having shifted from 4760.

HJ7GAB on 4775 kcs. from 6-10:45 p.m. was formerly HJ7ABB.

Czechoslovakia

OFFICIAL PRAGUE SCHEDULE

For North America:

OLR5A on 15230 kcs. and OLR4A on 11840 kcs. daily except Sun. and Mon. from 7:50 p.m. to 10:55 p.m. and news in Czech on Sat., and Sun., at 5 p.m.

For South America:

OLR5A on 15230 kcs. and OLR4A 11840 kcs. daily from 5:55 p.m. to 8:55 p.m.

For Europe:

OLR4A on 11840 kcs. from 1:55 p.m. to 4:30 p.m. daily and on OLR3A 9550 kcs. Monday; OLR5A on 15230 kcs. Tuesday; OLR2A on 6010 kcs. Wednesday and Thursday; and OK1MPT on 5145 kcs. Friday—all from 4:40 to 5:10 p.m. (RX)

Denmark

OZF on 9520 kcs. broadcasts from 8 p.m. to 9:30 p.m. directed to South America and East Asia; and from 9:30 -11 p.m. directed to North America. (Satterthwaite-Calif.)

Ecuador

HCJB at Quito (frequency not given) broadcasts a special program in English directed to the listeners of all English speaking nations which is very interesting. The program is slated to start at ten o'clock and DXers are advised to listen for an interesting broadcast. (Craig-Maine)

Finland

OFE on 11780 kcs. has been heard in the mornings, coming in with a good signal, until 12:05 p.m. when they sign off. (Skyten-Mass.)

France

TPB-3 on 17810 kcs. now operates from 9:30-11 p.m. for the East and Far-East.

TPB-6 on 11718 kcs. operates from 7 p.m. to 9:15 p.m. for South America.

TPB-7 on 11885 kcs. operates from 9:30 p.m. to midnight for North and Central America.

TPB-11 on 15130 kcs. operates from 2 a.m. to 5 a.m. and on 9550 kcs. from 11:15 p.m. to 6 p.m. for Africa and Eastern Mediterranean.

TPA-2 on 15243 kcs. operates from 6 a.m. to 11 a.m. for the East and Far East.

TPA-3 on --885 kcs. operates from

2-10 a.m., 11:15 p.m. to 6 p.m. for Africa.

TPA-4 on 11718 kcs. operates from 7 p.m. to 9:15 p.m. and from 9:30 p.m. to midnight for America.

Germany

DJE on 17760 kcs. has a new schedule from 12:05-5:50 a.m., 6-7:30 a.m.

DJR on 15340 kcs. now operates 12:05-11 a.m., 11:10 a.m. to 12:25 p.m., 4:50-10:50 p.m.

DJZ on 11810 kcs. at Vienna, Germany replacing OER operates 7:15-10:50 p.m.

DJX on 9675 kcs. at Vienna, Germany—another OER replacement operates from 11:30 a.m. to 4:25 p.m.

DJN on 9450 kcs. now operates from 12:05-11 a.m., 4:50-10:50 p.m. Other DJ's remain on the same schedule as last month. (RX)

DZB on 10042 kcs. is heard with a musical program at 4:50 p.m. on Sundays with CW interference. (R281-N.Y.)

Guatemala

TG-1 on 1310 kcs. and TG-2 on 6190 kcs. (Also TG-3 on 2140 kcs.) are transmitting daily from 5:30 to 8 a.m. and from 4 till 9 p.m. A Special DX program is transmitted for all DXers throughout the world each Sunday morning from 1-3 a.m.

Announcements are in English between each musical number. On this program letters from listeners are answered via the airwaves. In reporting any of these stations, it is not necessary to include any return postage as the stations verify gratis! (Parfitt-Ohio and RL-Mass.)

Holland

PCJ on 15220 kcs. is heard on Tuesdays. The schedule is actually

from 3-4:30 a.m. and the program is easily heard as well as easily identified as all announcements are in English. (Barker-Maine)

PHI on 11730 kcs. has been heard at 6:15 p.m. with R9 signal broadcasting simultaneously with PCJ on 9590 kcs. (This on Wednesday.) (Skyten-Mass.)

India

VUD-3 on 15160 kcs. at Delhi comes on the air an hour later now. Broadcasts start at 9:30 p.m. each evening. At 10:10 p.m. the English news broadcast is heard. Station usually has a good signal, but fades very rapidly. Before the news comes on the air native songs and music are featured. (Skyten-Mass. and Wells-Ala.)

VUD-2 on 4995 kcs. and the other on 9590 kcs. come on the air at 7:30 a.m. with chimes and the clock striking the hour which is followed by news in English. The 60 meter station is R6 and the other R9! Numerous other India stations have been heard on the 60 meter band, but as yet none of them have been definitely identified. (Skyten-Mass.) A tip for those who wish to copy veri material from these stations. There is a half hour English program from 7-7:30 a.m. each Thursday. The program consists of greetings to children having Birthdays, musical selections dedicated to them. You'll find this more dependable than the news at 10:10 p.m. as the stations usually have faded greatly by that time. (R184/5-Minn.)

Italy

12RO-4 on 11810 kcs. replaces 12RO-3 on the programs in the afternoon and evening. The American Hour program to North American is still heard on 12RO-3 on 9635 kcs. (Skyten-Mass.)

Japan

JVH on 14600 kcs. is heard often late in the evenings. No English programs have been heard. (Skyten-Mass.)

Java

PMN on 10260 kcs. and YDC on 15150 kcs. are heard daily. They come on the air at 6 p.m. A music box tune is played before opening programs. The signal is fairly good. (Skyten-Mass.)

Nicaragua

YNRF on 8580 kcs. in Managua, Nicaragua is reported operating on this channel as well as on 6760 kcs. as of last month. (NNRC Bulletin)

Norway

LKC on 9530 kcs. was heard on a Sunday morning from 2:36 to 2:56 a.m. when they disappeared, the program consisting of setting up exercises conducted by a man and a lady. Musical accompaniment furnished background for the program. (R184/5-Minn.)

Philippine Islands

KZIB on 9510 kcs. relaying the 900 kcs. station in Manila is heard every morning after VK3ME signs off. It reaches an easy R8 at 8 a.m. and is one of the easiest stations to hear. (Davis-Texas)

Portugal

CSW on 9940 kcs. in Lisbon can be heard from 6 p.m. to 9 p.m. when they sign off. They are almost always R9! No announcements are made in English, but they play some classical music that everyone can identify and if you listen closely you can hear them announce: "Emisora Nacional." (R7-Pa. 1)

Sweden

SM5SX on 15155 kcs. is constantly heard well in the afternoons. They sign off around 5 p.m. (Skyten-Mass.)

Switzerland

HBL on 9345 kcs. at Geneva, Switzerland is now heard Sunday evenings on the program to North America from 7-7:45. The signal is perfect. This program was previously heard over HBO on 11402 kcs. (Skyten-Mass.)

Tangier International Zone

CN1AF on 14130 kcs. and 14278 kcs. is said to be broadcasting irregularly for the Spanish Nationalists. CN1AF ordinarily is a ham, but F8UE says he is BC and handles extensive rebel traffic. This station (CN1AF) is located in Tangier International Zone, North Africa. QRA is Sources No. 19, Tangier. It is usually heard at 5 p.m. with good signal. (Wells-Ala.)

Turkey

TAP on 0465 kcs., "Radio Ankara" is heard every afternoon with good signals. Announcements are in English. The station signs off a few minutes before 5 p.m. (Skyten-Mass., Trubee-N.J.) Actual schedule is from 3-5 p.m. as announced over the air. (RL-Mass.)

Union of South Africa

ZRK on 9610 kcs. broadcasts physical exercises nightly except Saturday from 11:45 p.m. to midnight. At this time cathedral bells are heard and the time is given via 'pips' as "5 a.m. GMT." Then follows the news until 12:05 a.m. From then the physical exercises are resumed. The remainder of the program consists of march selections till sign-off at 12:45 a.m. (Wells-Ala.)

ZRK on 6097.5 kcs. at Klipheuvall is heard when reception is good during the afternoon until 4 p.m. when they sign off. (Skyten-Mass.)

Uruguay

CXA-8 on 9640 kcs. in Colonia,

announces their schedule as 7 p.m. to midnight. (R211-Hawaii 2)

U. S. A.

The U. S. Immigration Border Patrol now operates on the following radio stations on the southern border. All stations operate on 4617 kcs. as well as the frequency following the call: KYZA (2630) El Paso, Texas; KYZC (2118) Chula Vista, Calif.; KYZD (2182) Del Rio, Texas; KYZE (2118) El Centro, Calif.; KYZF (2630) Alpine, Texas; KYZG (2630) Tucson, Ariz.; KYZK (2182) McAllen, Texas; KYZL (2182) Laredo, Texas. (RX via C. Roman-III.)

WMI, Lorain County Radio Corp., Lorain, Ohio gives weather reports on 2550, 6470, and 11370 kcs. at 11 a.m. and 10 p.m. (Danielson-Nebr.)

WWTK "Bullion Depository" on 2442 kcs. called WPDE at Louisville, and Fort Knox Exchange at 9:45 p.m. (CST) regarding a message they received and asked them to report by phone. (Roman-III.)

W2XE on 21515 kcs. has been granted another extension of its permission to operate on this off channel frequency pending definite arrangements for elimination of sideboard interference on European transmissions. (RX)

W2XE on 6120, 11830, and 15270 kcs. at present has been granted the additional frequencies of 6170 kcs., 9650, 7830 kcs., and 21570 kcs. Along with this grant the frequencies 9590, 17760, and 21520 kcs. have been deleted! (RX)

W2XE on 9650 kcs. is now broadcasting from 6:30-11 p.m. (Wells-Ala. and Skyten-Mass.)

W8XAL on 6060, 9580, 11870, and 15270 kcs., has been granted a

couple of new channels: 17760 kcs., and 21650 kcs. (RX)

W9XDH on 12862 kcs. of the Press Wireless, Inc. at Elgin, Illinois was heard with musical program from 12:15-12:30 p.m. Very strong signal. (R281-N.Y.)

U. S. S. R.

RKI on 7540 kcs. is broadcasting along with RAN from 7-9:15 p.m. (Danielson-Nebr. and Skyten-Mass.)

Another Soviet station heard in the afternoon on 14760 kcs. is as yet unidentified. (Skyten-Mass.)

RGK on 14270 kcs. location unknown appears to be a regularly operating Soviet station. A power of 15 kilowatts is used. (R118-Eng. 1)

RV-96 on 6812 kcs. at Khabarovsk, U.S.S.R. appears to have taken the place of old RV-15. They are heard from 2:30-10:30 a.m. (RL-Mass.)

Another Russian station at same location as RV-96 seems to be on 6055 kcs. and call may be RFN. (RL-Mass.)

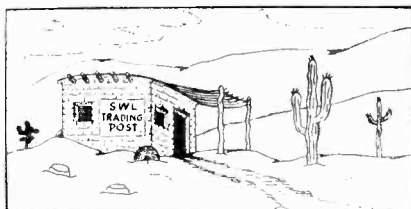
Vatican City

HVJ on 6030 kcs. has been heard in the afternoon at 3:17 p.m. when the station signed off. Signal was very good. (Skyten-Mass.)

The Reporters

- R7, Pa. 1—A. M. Hankins, Latrobe, Pa.
 R9, Mo. 1—Walter V. Scholz, Webster Groves, Mo.
 R23, Ill. 4—Richard Wright, Chicago, Ill.
 R24, Ill. 5—Wm. J. Wood, Jr., Oak Park, Ill.
 R118, England 1—D. H. Dussek, Alton, England.
 R133—Carl Forestieri, Bronx, New York, N. Y.
 R184—Carl Eder, Willmar, Minn.
 R185—Anne Eder, Willmar, Minn.
 R211, Hawaii 2—C. J. Fern, Jr., Lihue, Kauai, T. H.
 R220.—Albert Pickering, West Medway, Mass.
 R281—Ed Hirsch, St. Albans, N. Y.
 Victor J. Balt, Aurora, Ill.

Elvyn Barker, Portland, Maine.
 Walter R. Bonnell, Cincinnati, Ohio.
 Philip L. Craig, Waterville, Maine.
 Edward Danielson, Pawnee, Nebr.
 Isaac T. Davis, Elkhart, Texas.
 A. V. Deterly, Baton Rouge, La.
 Gilbert Harris, Easthampton, Mass.
 Enrique Hidalgo, Cienfuegos, Cuba.
 Richard Holland, Gonic, N. H.
 Curtis F. Keirstead, Framingham, Mass.
 Capt. E. N. Massey, Sweetwater, Tenn.
 Carlos Ramirez, Havana, Cuba.
 Chester Roman, Chicago, Ill.
 Harold Satterthwaite, Los Angeles, Calif.



M. A. Adkins, 19 Nanticoke Ave., Union, N. Y. (Correspondence).

Richard J. Winne, 10 Elmhurst Ave., Stop 39 Schenectady Road, Albany, N. Y. (correspondence and SWL cards).

John L. Tate, 612 Halifax St., Petersburg, Va. (SWL cards).

John Raposa, Jr., 161 Pearl St., Fall River, Mass. (SWL cards).

Merlin N. Steen, Route 6, Decorah, Iowa (SWL cards).

Vince & Marie Stasen, 5347 Priscilla St., Philadelphia, Pa. (SWL cards).

Roger Mais, 132 E. 8th St., Mishawaka, Ind. (SWL Cards).

Alfred E. Arnold, 159 Oakland St., Springfield, Mass. (SWL Cards).

Edward Hirsch, St. Albans, L.I., N. Y. (SWL cards).

S. Schmuch, 73 Thorndike, E. Cambridge, Mass. (Correspondence with near-by short-wave listeners).

Jack Kenneally, 112-86 Mayville St., St. Albans, N. Y. (SWL cards).

Dxers' Picture Gallery

O. INGMAR OLESON



O. INGMAR OLESON

STARTING his DXing activities back in 1922, and experimenting with radio since the days of the coherer, is the record of O. Ingmar Oleson of Ambrose, North Dakota. The receiver in use now is a 1932 Scott De Luxe receiver with 140 feet of antenna. He considers a long, inverted "L" antenna superior to a duplex, even for shortwave work, but he insists the antenna should be tuned for best results.

This night owl tunes the broadcast band and the shortwaves. On the broadcast band he is the possessor of verifications from Australia, New Zealand and South America, but so far has not been able to log any European or Asiatic stations. His verification from LR5, "Radio Excelsior" in Buenos Aires, is shown in the photo.

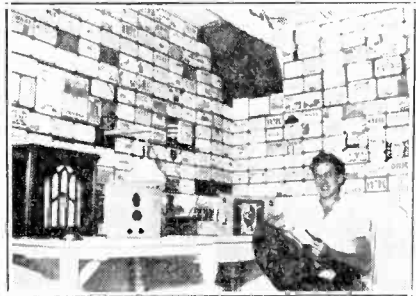
Mr. Oleson says he is a member of "most clubs," but mentions only The Radex Club (R89, N. Dak. 1), and the Quixote Radio Club. He does not exchange SWL cards, but would appreciate correspondence from users of Scott, Masterpiece or Midwest receivers. He would especially appreciate reports of reception of Norwegian stations.

ARTHUR B. JOHNSON

A DXer since 1929, Arthur B. Johnson of Fort Hamilton, N. Y. has been tuning on all bands years after year since then. He has been reading RADEX since April of 1932, and has every copy published since then, all neatly bound in permanent volumes.

This DXer does not keep a log of the stations heard, but has a record only of those verified. His verified log now stands at 769 stations on the standard broadcast band, 573 stations on the shortwaves, and 1394 amateur stations. He has verified 91 countries, and has verified all continents 21 times.

The receivers used in the Johnson shack are a Midwest 18 tube receiver with a 2-stage preselector, a Cosman Communications type receiver, and a 7-tube Philco. He is a member of the Universal DX Club, being an Executive Secretary in that organization.



ARTHUR B. JOHNSON

NEWSSTAND BUYERS

If your newsdealer is unable to supply you with your copy of RADEX you may obtain the issue you want by using the order form on page 96 of your last copy.

QUESTIONS and ANSWERS

A. P., East Liverpool, Ohio: I have a 10-tube all-wave radio which has no automatic control. Can I add such a control? The tubes are 56's, 57's and 58's, in all but the final power stage, which is a 2A5.

Answer: It is not practicable to add automatic volume control to your set. If your set used a twin-diode second detector, such as a 6H6G, or if one could easily be used in the place of the type 57, we believe an a.v.c. system might be installed. But when circuit changes are serious, we cannot recommend such action.

S. S., E. Cambridge, Mass.: How can I use headphones on my Zenith 6S330?

Answer: By using the phone adapter advertised in these columns. Or by attaching the phones to the two flexible wires coming from the voice coil on the apex of the speaker cone to the output terminals of the output transformer. If the volume is turned down, the speaker will be nearly silenced, or a small snap-switch can be placed in one of the flexible voice-coil leads between the headphone contact and the coil on the cone.

H. L.; Washington, D. C.: On an old set I once increased the signal strength and got many extra stations by connecting the antenna to grip-cap of the detector tube. Why was that?

Answer: Something was wrong with your set. A break existed between the antenna circuit and the first detector, or otherwise the full signal energy would have been transmitted to the grid of the first detector without the need for a direct contact to its grid-cap on top. The antenna and r.f. coils were likely at fault, and a careful test of all parts of the r.f. circuit will disclose an open circuit, or lack of voltage to one of the elements of the r.f. tube.

P. L. C., Waterville, Me.: My Fairbanks-Morse 1937 radio has worked nicely until a new volume control was installed. Now it has a scratchy noise which can not be eli-

minated until the volume is turned down to bass position.

Answer: Do you mean volume control or tone control? In either case a bad control will be noisy. But the noise might be in the speaker if the cone is not properly centered, and high notes cause it to vibrate faster and move farther toward the field magnet, where it strikes. Other sources may be in some of the resistor or condenser units, but it is unlikely.

A. J. S., San Pedro, Calif.: I am using a 78-foot antenna (including leadin) for all-wave reception on my Philco 116. Is there any other aerial you recommend?

Answer: Your aerial might be better if the 78 feet were in the flat top, and the leadin additional. However, a 60-foot doublet, insulated in the middle, and attached to two twisted down leads 50-feet long, is about as satisfactory as any, and also has the advantage of cutting out many electrical noises.

J. R. W., Washington, D.C.: My Bosch 620 radio was broad on the broadcast band, and I hauled it around to 8 different servicemen. A new oscillator coil improved the broadcast reception but threw the short waves off their dial settings, and caused double-spot tuning in many places. What shall I do?

Answer: There is a saying that too many cooks spoil the soup. Now that all these servicemen have worked on your set, replacing coils and this and that, it is likely that its own mother would not know it. So, why not ship it back to the factory, where they know all about it and have the proper parts to put back in again? Write to the United American Bosch Corp., 3664 Main St., Springfield, Mass., and get their advice about shipping the set to them. But, you must remember, all high-fidelity sets tune broadly. They have to, so that all the audio frequencies can pass through. With the congested wave bands this condition is not at all satisfactory on the broadcast band. If you sharpen reception too much the tone will be impaired somewhat.

HAM HOUNDING . . .

●●● By HUGH HUNTEM

GREETINGS brother ham-hounders. Because of your numerous cards and letters, requesting an amateur column, we of RADEX present "Ham-Hounding", which will henceforth be a monthly feature of this magazine.

For the benefit of those who are interested in reporting what they are accomplishing on the amateur bands, we will answer the question of Dick Winnie, Albany, N. Y., who states, "Could you please give me full particulars on how to go about sending in a report on the amateurs heard during the month?" In our opinion, the most important things regarding a novel amateur "catch" are the station's call letters, location of the station, frequency on which the station was heard and the time of day the station was received. In addition one might also include whether or not the station is known to verify, the language spoken by the operator or, briefly, anything which might interest the reader.

FORECAST

During the month of January we advise our readers to concentrate on South African and Asiatic stations. The South Africans are best heard in the afternoons from 2:00 to 4:30 pm (EST) and from 10:30 pm to 1:00 am. The Asians may be logged between 5:00 and 9:30 am.

European, North African and Australian reception, on the whole, is very poor during January but the South Americans are quite good between 6:00 pm and midnight and the North Americans, of course, may be heard most any hour of the day.

As our space is limited it is impossible for us to list, individually, every



This station, designed and built by Coto-Celi Co., has been a gift from three manufacturers who have donated tools and equipment: Ammonium, Arner, Long Green, Ampere Electronic, Maxwell Research, Oliver Edge Co., Cornwall Mfg. Co., Coto-Celi Co., Kappan Transformer Co., Omega Mfg. Co., Par-Metal Products, Parro-Quam Corp., Pioneer Transistor Corp., RCA Radiotrons, E. M. Magnet Co., Shure Bros., Triplet, Wallace Storage Battery Co.



From Pitcairn Island, a tiny dot in the South Pacific, comes this interesting card. Pitcairn is two miles long and a mile wide, with lofty cliffs rising a thousand feet from the water's edge. There are about 200 inhabitants, most of whom can trace their lineage to the nine original English settlers from the famous ship "Bounty." The station is VR6AY, operated by Andrew Young. (Courtesy of Capt. E. N. Massey.)

amateur who has been or may be heard. We feel that information pertaining to stations in seldom heard countries is of the greatest value to the reader. Therefore, we are giving special attention to stations which might possibly enable our readers to log new countries. This month the emphasis is on South Africa and Asia.

South Africa.

KENYA—VQ4KTB, 14.02 megs. This station is known to verify. Send re-

ports to A. F. Moy, Box 928, Nairobi. MADAGASCAR—FBSAH, 14.38 meg. Has been putting out a very nice signal according to Elmer Wokaty of Fairview Village, Ohio. This station is usually heard before the ZS stations become strong at around 10:00 pm. For confirmation, address reports to Dr. Estrade Fils, 1 Av. Grandidier, Tananarive.

NORTHERN RHODESIA—The two most consistent signals from this seldom-heard country are those of VQ2HC, 14.31 meg. (QRA is W. H. Christie, Box 27, N'Kana) and VQ2PL, 14.14 and 14.35 meg. The latter is anxious to receive reports on his signals. Report to Peter L. Lowth, Rhodesian Railways Telegraph Office, Livingstone.

MOZAMBIQUE—CR7AK is reported operating on the high frequency side of the 20 meter band. Whether or not this station will QSL is a mystery but if you're willing to take a chance, send your reports to Leopoldo Feuillerade, Incomati Estates, Xinavane, Lourenco Marques.

REUNION ISLAND—If you desire a card from the "Vanilla Islands" look for FR8VX on the high frequency side of the 20 meter band. He has several crystals and most frequently operates on either 14.35 meg. or 14.46 meg. The station's operator is none other than Prince Vin-San whose QRA is 67 rue Sainte-Anne, Saint Denis.

SOUTHERN RHODESIA—Three consistent signals are being heard from this country. They are ZE1JB, 14.11 meg., operated by R. A. Hill, Red House, Fife Av., Salisburg; ZE1JR, 14.09 meg., J. M. Davidson, Box 870, Salisburg; and ZE1JX, 14.03

megs., G. E. F. Dicks, Shangani. Of these, ZE1JR has the best signal but, unfortunately, he is a bit stingy with his QSL card. We suggest that those needing S. Rhodesia, send ZE1JR a self-addressed, stamped international reply card along with your reports, so that he need merely sign it and drop it in the mail.

SOUTHWEST AFRICA—ZS3F who operates on 14:08 meg. is the only amateur on 'phone in this country. He also is well known for not QSLing reception reports. As in the case of ZE1JR, we advise the use of a return card. This station's QRA is Gerald W. de Haas, Box 358, Windhoek.

Asia

BALUCHISTAN—Several have reported VU2AU owned by F. J. Towell, The Arsenal, Quetta, as operating on the high frequency side of 20. We know nothing of this station's verification policy but urge anyone hearing VU2AU to report as this certainly is an unusual country.

BURMA—This country has two stations which have been heard in almost every section of the United States. They are XZ2DY, 14.25 and 14.36 meg., owned by F. J. Mustill, Minto Lodge, Maymyo; and XZ2EZ, 14.35 meg., operated by Khin Maung Bo, 82 Inya Rd., University P. O., Rangoon. Both stations confirm reports of reception.

CEYLON—VS7GL, 14.11 meg., puts a very consistent signal into North America with his 25 watts input power. The owner is always pleased to receive reports from listeners and QSLs rapidly. His QRA is G. H. FEDERATED MALAY STATES—The best bet is VS2AE who operates on 14.11 meg. Several listeners have reported

receiving his card. Reports should be sent to R. O. Williams, Southern Kinta Consolidated Ltd., Kampar, Perak.

FRENCH INDO CHINA—If you want a card from this country look for F18AC around 14.05 megs. The congenial operator, Rene Lebon, is always glad to receive reports and always send his QSL card! His QRA is Box 13, Hanoi (Tonkin).

SIAM—HS1BJ, to our knowledge, is the only 20 meter phone in this rarely heard country. The operator has several frequencies but is usually on 14.07 megs. Fortunately HS1BJ confirms all reception reports. The QRA is Sangiem Powtongsook, Radio Technical Section, Post and Telegraphs, Bangkok.

STRAITS SETTLEMENTS—We elect VS1AI, 14.11 megs., as the outstanding station in this locality and again we are glad to state that several listeners have reported receiving cards from VS1AI. The QRA is Archibald Maxwell, 38 Cairnhill Rd., Singapore.

SUMATRA—PJ4JD, 14.09 and PK4KS, LF, are our nominations as the best Sumatra 'phones. The QRAs are J. A. den Duytsen, Klappa, Kampit, Billiton and; Tan Koon San, Pangkal Pinang, respectively. The former has QSLd for many listeners but we have no available information concerning the latter's policy.

While we are on the subject of Asiatic stations, we deem it a good idea to insert a list of stations which have QSLd, for an International Reply Coupon, to Don Martinez of San Francisco, Calif. during 1937-38. This list will undoubtedly cause many of our eastern readers to turn a bit green with envy.

BURMA—XZ2EZ.

CHINA—XU6TL, XU8RB, XU8RJ.
FEDERATED MALAY STATES—VS2AE, VS2AK.

FRENCH INDO CHINA—F18AC.

HONG KONG—VS6AG.

JAPAN—J2MI, J2NF, J2KG, J2KJ, J3FI, J6DP, J7CR.

JAVA—PK1JR, PK1R1, PK1VM, PK1ZZ, PK2AY, PK3CD, PK3WI.

MOLUCCAS—PK6CI.

PHILIPPINES—KA1DT, TA1FH, KA1HS, KAIME (Rarely QSLd), KA1YL, KA1ZL, KA2OV.

SIAM—HS1BJ.

SUMATRA—PK4JD.

HERE AND THERE

Saint Lucia in the British West Indies is a new country for most of us at which to shoot. Listen around 6:30 am in the vicinity of 14.10 megs. and quite likely you will hear either VP2LB or VP2LC. Contrary to what has appeared in many publications, these are actually different stations. Miss Marie L. Devaux, operator of VP2LC writes that she and VP2LB, Louis Devaux, are cousins, and that each own and operate their own stations. Miss Devaux QSLd in one month's time.

Those of you who have not already reported CN1AF had better do so in a hurry for we understand that the Transmitter is soon going to operate on a different frequency as a sw broadcast station for Tangiers and will not likely return to the amateur bands.

Danzig, another rarely heard country, is reported to have several stations operating on 20 meters. A British listener reports that YM4AA has been heard on the low frequency side of the band. The QRA of this station is Gerhard Bussler, Rimrottstr. 12, Danzig.

Robert Hatches of Richmond, Va reports an unusual station on cw which might interest a few of our

readers. The call is AH2BU and is located on the Annobon Islands (Spanish) which are located in The Gulf of Guinea off of the west coast of Africa. We certainly hope that this station decides to go on 'phone.

D. H. Dussek of England sends the following: The Oxford Expedition to Greenland is operating a transmitter on wavelengths of 20 and 80 meters under the call sign OX7OU. Reports should be sent to Mr. Andrew Croft, Leckhampton House, Cambridge, England. Tnx for the tip OM.

ODDS 'N ENDS

OZ5CN writes that the Danish Shortwave Society has 1500 members and that 400 are licensed to transmit.

Argentine amateur stations have very high power. LU4BC runs 2800 watts and LU4CZ has a trifle more than two kilowatts.

Amateur Radio stations are prohibited in Bulgaria.

Cuba is said to have about 300 amateur stations. Their principal or-

ganization is the Radio Club de Cuba, Lealtad 136, Habana.

The amateur in Guatemala pays a yearly fee of 15 quetzals for the privilege of operating a station. One quetzal equals one U. S. dollar.

Amateur radio activities are prohibited in Palestine, according to the American Consulate General in Jerusalem.

LU8AB states that all aliens have had their amateur licenses taken away. From now on only citizens of the Argentine may operate stations.

FINIS

Well, brother Ham Hounders, we trust that this article has been of interest to you. Let us know what you want and we will do our best to oblige. So until next month-happy hunting!

Amateur Calls Heard

The names and addresses of persons reporting stations shown in this list are indicated by small letters following the call signs. Key to the small letters is given at the end of the column. Stations are listed only if reported by more than one listener.

10 Meters

CN8AV (bk); CO2WM (ho); CT1ZZ (k); EI8J (k); EI9J (p); FA8CF (kp); G8AG (k); F8RR (k); GM5KJ (b); GM6RG (bk); GM8RJ (k); GW5KJ (k); GW8HI (k); G2CG (b); G2HK (k); G2IS (bk); G2PU (k); G2VG (k); G2WD (k); G5BJ (bk); G5BM (p); G5LI (p); G5LJ (bk); G5LU (k); G5NI (bk); G5QI (k); G5SA (k); G5VM (k); G5ZN (k); G5ZT (k); G6BW (p); G6CL (bk); G6CU (k); G6CW (k); G6DH (p); G6DT (bk); G6JL (k); G6LK (k); G6PC (o); G6PW (b); G6PY (b); G6PY (b); G6TL (k); G6VK (b); G6WT (bk); G6WU (k); G6WV (b); G6WX (bk); G8BM (b); G8DM (k); G8GX (k); G8MU (k); G8MX (bk); G9OK (k); G8QX (k); G8SA (b); G2TD (bk); G8TX (k); H17G (p); HR4AF (p); K4FAB (p); K5AN (k); K6MVX (a); K6OJI (ao); K6QM (a); K6PCF (o); LA4K (k); LU1DJ (kp); LU4BC (k).

ON4IW (k); PAOFB (k); PY1AZ (k); TG9AA (akp); TG9BA (k); TI2RC (p); TI3AV (k); VE2IN (o); VE2KX (o); VE3AIN

RADIO AMATEUR CALL BOOK

LATEST EDITION

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

We pay the postage.



\$1.25

RADEX

362 Cedar Lane,
TEANECK, N. J.

(o); VE3KD (o); VE4BQ (o); VE4LO (o);
 VK2GU (a); VK2HF (a); VK4JP (a); VP3AA
 (p); YV2AQ (o); YV5AA (z); YV5ABF (k);
 YV5AE (k); ZE1JR (k); ZE1JZ (p); ZL2BE
 (k); ZS6DW (k); ZS6DY (k).

20 Meters

CE3BK (ai); CN1AF (bn); CN8AV (gi);
 CN8BA (hm); CN8MA (cm); CN8MU (jmp);
 CO2GO (cm); CO2JJ (jm); CO2LY (gm);
 CO2OK (im); CO2RG (lm); CO2RR (glm);
 CO2SV (cm); CO2WL (lm); CO2WM (egm);
 CO6OM (cgilm); CO7AS (lmq); CO7CX (ci);
 CO7VP (cgim); CR7AU (d); CT1AY (cijmp);
 EA9AH (il); E16G (ij); GA3HC (n); F3CP
 (bm); F3MN (bi); F3OX (ij); F8KI (bj);
 F8SC (bi); GM8MN (jmp).

G2TR (jm); G3BM (ej); G5BJ (jm); G5IO
 (ej); G5ML (ijm); G5NI (ij); G6BW (jm);
 G6IA (ci); G8CL (gf); HC1PZ (ai); HI2B
 (acdghimp); HH4AS (cghimp); HH5PA
 (aegimq); HI3N (acgilp); HI5X (eghm); HI7G
 (agip); HK1AH (lm); HK3CG (gmp); HK3CL
 (aci); HK3CO (il); HK3PL (gl); HK4AG (bi);
 HR5C (ag); KA1ME (bn); KA7EF (ai);
 K4FAY (agim); K4FRC (gb); K5AF (cgb);
 K5AH (acip); K6GAS (ll); K60JI (bij);
 LA8C (n); LU4BC (ai); LU4CZ (ai); LU7BK
 (c); LU8AB (agi); LU8AC (gi); NY2AE (ci).

OA4AI (ai); ON4VK (jm); OQ5AA (i);
 OZ9Q (n); PK6XX (adi); PY2AK (ci);
 PY3AW (ci); SU1RD (bn); TG9AA (cp);
 TG9BA (acdeilp); TG9FN (gb); TI1AF (am);
 TI2AV (cghilp); TI2FV (acb); TI2LR (im);
 TI2RC (acgilp); TI3AV (abo); VK2NS (ij);
 VK2UC (aip); VK3BZ (jp); VK3EH (ij);
 VK4JP (jlp); VO2N (jl); VP1BA (acbil);
 VP3AA (abcgilp); VP5BR (gb); VP6FO
 (acdghi); VP6LN (bl); VP7NH (im); VP7NS
 (acgilim); VP9G (ebi); VP9L (efgi); XE1G
 (ip); XE1GF (fp); XE1HR (cb); XE1Q
 (fgip); XE2IK (efghimp); XE2JY (cfm);
 XE3AR (fghq); XE3AX (cip); XU6TL (n);
 YV1AA (gi); YV4AE (acgilp); YV4AF
 (ip); YV4AN (acmp); YV5ABF (cgilmp);
 YV1AA (gi); YV4AE (acgilp); YV4AF
 (ip); YV4AN (acmp); YV5ABF (cgilmp);
 YV5ABQ (acmp); YV5ABY (algi); YV5AE
 (bg); YV5AK (mp); ZS1AX (ail); ZS2N
 (abi); ZS2X (ail); ZS3F (o); ZS4H (cb);
 ZS6BR (bi); ZS6DG (d); ZS6DW (abil);
 ZS6DY (bi).

The Reporters

- (a) Al Bettinger, Omaha, Nebr.
- (b) Eric Butcher, San Juan, Puerto Rico.
- (c) Robert Davidson, Newark, N. J.
- (d) C. J. Fern, Jr., Iihue, Hawaii.
- (e) A. M. Hankins, Latrobe, Pa.
- (f) Lewis R. Hill, Maywood, Ill.
- (g) Edward Hirsch, St. Albans, N. Y.
- (h) Jack Kenneally, St. Albans, N. Y.
- (i) E. A. Knoff, Canton, Ohio.
- (j) J. F. Morris, Toronto, Ont., Canada.
- (k) James W. Newman, New Toronto, Ont., Canada.
- (l) Martin J. Olthoff, Independence, Kans.
- (m) S. Schmuck, E. Cambridge, Mass.
- (n) Jack Siringer, Lakewood, Ohio.
- (o) Stanley Troth, Phillips, Texas.
- (p) Walter E. Welch, Lynn, Mass.
- (q) Wm. J. Wood, Jr., Oak Park, Ill.

With the

WITH the approach of the New Year, listeners on the North American continent turn into the stretch of the current DX season. The erratic reception of the fall months has been replaced by sturdier signals carried through cold, mid-winter nights. The DX horizon has receded before the straining ears of the mid-night marauders, while new and distant stations gladden the hearts of DXers.

At a time when listeners begin to pass judgment on reception in general and the current season in particular, it appears that conditions have been generally favorable. The pre-season forecast of better things for DXers seems to have been accurate. Probably due to a decline in sunspot activity, static has been lighter than in recent years and signals have shown greater carrying power.

Reports from readers, augmented by personal observations, indicate that trans-continental reception of low-powered stations once more is possible for most listeners. Trans-oceanic stations appear to be coming through with strength comparable to the banner years of 1933-34. In short, it looks as though we are in the middle of a bang-up season.

"Reception has been fine of late," asserts J. T. Lippincott, East Vassalboro, Mass. "Late-afternoon TA's heard during the past week include Rome on 713, Spain on 731, Toulouse on 776 and 913, Scotland on 767, Leipzig on 785, Lyons on 648 and Nice on 1185. The two Toulouse stations were easily logged at 6 p.m.

Station Hunters

●●● By CARLETON LORD

EST. The TP's have been coming through very well, with the most recent catches including 2YA, 4QN, 5CK, 2 NR, 3YA, 2BL, 4YA, 4QG, 2YC (must be heard prior to 5 a.m. due to XERA), 2GB, 2GZ, 2KY, 2CA, 3LK, 2ZB, 2HD, 2NC, 2SM, 2LF, 2KO, 3ZB, 2MG (a new station), 7UV, 3CV, 2AY and 2 BE. I believe many others could have been heard, as they were all over the dial, but I could not take time to hear them all and get material for veries at the same time.

"South Americans heard include LR5, LR6, LS2 and possibly LS8 on 1150; PRES on 980 logged through KDKA; HJ3ABD very good on 1104, OAX4A on 854, YV5RS on 1317, YV1RK on 1250 and CX28 on 1090. Out in Hawaii, KGMB an KGU have been heard quite easily, with KGU R4 as early as 2:30.

"Long wave reception has been very regular. Only once in my last 18 tries have I missed Reykjavik on 208 kcys. Signals are often heard R5-6 as early as 5 p.m., and I can really enjoy the music for its own sake when the signal gets up to R8-9. Hilversum is next best, being heard as early as 4:30 or so. Paris on 182 is quite good. On October 22nd, reception was particularly good, with Moscow on 172 coming in with exceptional strength. They opened with the Internationale at four o'clock and then broadcast their English program for an hour. Droitwich on 200 is quite good at times. Others heard include Lahti on 166, Berlin on 191, Motala, Sweden, on 216, Warsaw on 224, Luxembourg on 232 and Kalundborg on 240."

How many other Radexers have tried their hand at European reception on the long waves?

"DX is picking up," proclaims John J. Oskay, R.F.D. 1, Box 179, New Brunswick, N. J., "and the nights are now swell for listening. During one recent early-evening session, I heard ZNS, CMCY, CMQ, TIPG, CMCD, CMCG, CMGH, CMCF, CMW, CMX, CMBC, CMBY, LR4, CMBZ, CMBX, CMJI, CMHJ, LS2, CMCO, WKAQ, CMHD, CMCU, WNEL, CMOX, CMGE, CMCX, CMKR, CMCQ, CMOA and CMKF. From across the Pacific, I have heard 2YA, 1YA, 2NR, 3YA, 2BL, 3GI, 4YA, 2YC, 2GB, 2GX, 4BC, 6ML and 2KY. Many South American and West Indian stations are over-riding the locals. Latest among the new catches are WTOL, WBRK, KDNT, KPAB, WGIL, WOMI, LS2, CMCY, CMCG, CMHD, CMKR, KRSC, W DAN,



The laughing notes of the kookaburra, illustrated on this card, identify the transmissions of Australia's station VK2ME in Sydney. The Australian stations are not difficult to hear, and every DXer should have one of these pretty, three-color cards in his collection. (Courtesy of D. H. Dussek).

WPIC, 2NR, YV5RQ, CMJA, CX26 and PRG2."

"Since my last report, I have received a veri from WABI," advises Richard Wright, 5762 Harper Ave., Chicago, "so now Nevada is the only state not verified. The log now stands at 582, with KGMB and CBR the latest catches. Some of the better stations heard on my six-tube Silvertone are ZNS, TGW, KGU, WPRP, WPRA, WKAQ, WNEL, CHSK, XEP and CRCV. Reception so far hasn't been bad, although we haven't had enough cold weather for real DX. Incidentally, when I reported to XEAW with a U.S. card, all filled in for them to sign and return, the president of the station, Sr. Rodriguez, sent me a personal letter."

News of the Stations

The recent switch in frequencies by the Cuban stations caught many DXers behind the proverbial eight-ball. Spanish-speaking stations are usually hard enough to identify with a correct listing, so a general re-allocation had a lot of listeners guessing for a time. Latest reports indicate that most of the stations have settled on or near the frequencies listed in this issue.

Most frequently reported are CMCY on 590, CMCD on 630, CMCU on 780, CMGH on 790, CMCF on 810, CMW on 880, CMOA on 910, CMBZ on 940, CMCK on 970, CMQ on 1010, CMJI on 1130, CMBC on 1140, CMHJ on 1160, CMCO on 1200, CMHD on 1270, CMCG on 1290, CMBQ on 1320, CMGE on 1370, CMKR on 1400, CMCQ on 1410, CMBY on 1440, CMKF on 1460, CMCX on 1470, CMOX on 1500 and CMBF on 1560.

Keeping pace with the Cubans, stations in Mexico have undergone not a few changes. Latest additions to the roster are XERC, Mexico City, 870 kcys, 500 watts; XECA, Tampico, Tamps., 1230 kcys, 250 watts; and XEDR, Guaymas, Son., 1490 kcys, 100 watts. A number of power boosts have been granted, including XETB from 125 to 500 watts and XEW from 50 to 100 KW, while several stations have reduced wattage.

A Mexican mystery which has a lot of DXers guessing concerns the identity of the station, or stations, on 1150 kcys. According to reports, listeners have heard the calls XEC, XECL and XEL, all announced on this frequency. Bill Cunningham, Pasadena, Calif., advises that XEL has moved to that frequency from 1100, and that XECL has switched from 1230 to 960, while the latest report from Mexico indicates that XEC remains on 1150. This will be an interesting problem for DXers, and perhaps we'll have the answer next issue.

Bill Cunningham also relays a few Canadian changes. CRCY at Toronto has changed call to CBY, remaining on 960 with 100 watts power. CKPR, Fort William, Ont., has boosted its power to 1000 watts on 580 kcys., while CHNC, New Carlisle, Que., is due to change from 960 to 610 kcys.

From Australia, we are advised that 3LO, Melbourne, 770 kcys, is planning to open its new 10-KW transmitter in the very near future. According to the N.Z.DX R.A., 3LO and 3AR (620 kcys) will be moved to the same location and will transmit simultaneously on one antenna on their present frequencies.

Two new Aussies to go on the air soon are 4AT, Atherton, on 680 kcys, and 2CY (location unknown) on 850 kcys. When 2CY opens, 5RM, the 1000-wattter at Renmark, S.A., will move to 810 kcys. 7ZR, Hobart, Tas., power unknown, is now on the air with regular schedule.

From New Zealand, it is reported that 2YB, 760 kcys, 100 watts, at New Plymouth will move shortly to 860 kcys, while 2ZH at Napier, now on 820 kcys with 65 watts power, will change to 760 kcys.

In the United States, the FCC continues to grant construction permits. Latest stations to come on the air with regular daily schedules include WHMA, Anniston, Ala., 1420 kcys, 100 watts; WDAN, Danville, Ill., 1500 kcys, 250 watts; WPIC, Sharon, Pa., 780 kcys, 250 watts; WKST, New Castle, Pa., 1250 kcys, 250 watts; and WIBC, Indianapolis, Ind., 1050 kcys, 1000 watts. Due around December 1st, but as yet unreported, is KRBM, Bozeman, Mont., 1420 kcys, 100 watts.

Schedules of a few of these newies are known. WPIC operates from 6:30 a.m. to 5:45 p.m., EST; WKST from 7 a.m. to 5:45 p.m., EST; and WIBC from 7 a.m. to 6 p.m., EST, weekdays, and 9 a.m. to 6 p.m., Sundays. Reports indicate that requests for veries from WIBC, when addressed to Bob Longwell, receive prompt attention.

Tips and Specials

A number of Latin American stations have been heard during early morning hours. On several Tuesday mornings, LR6, the 26-KW Buenos Aires station on 870 kcys, has been heard with excellent strength. Sunday morning dialers report reception of PRG2, Sao Paulo, Brazil, 10 KW, 1040 kcys; YV1RF, Maracaibo, Vene-

zuela, 1 KW, 1120 kcys; and HJ1ABR, Cartagena, Colombia, 1400 kcys, power unknown. Two Central Americans—TIPG at San Jose, Costa Rica, 625 kcys, 2000 watts, and TGQ at Quezaltenango, Guatamala, 1450 kcys, 200 watts—have also been heard on Sunday mornings.

Early evening DXers have found occasional nights when a number of prominent South American stations break through the barrier of domestic broadcasters and offer targets for the listener who wants to bolster his log of SA's. Most prominent of these are LS10, Buenos Aires, 590 kcys; PRH2, Porto Alegre, Brazil, 600 kcys; LS4, Buenos Aires, 670 kcys, frequently heard in back of WMAQ; PRA8, Pernambuco, Brazil, 720 kcys; LR10, Buenos Aires, often breaking through WGY on 790; LR5, Buenos Aires, heard before KOA gets too strong on 830 kcys; OAX4A, Lima, Peru, with a swell signal on 850; LR6, Buenos Aires, pushing WENR-WLS into the background on 870; LR2, Buenos Aires, 910; LR3, Buenos Aires, with 31 kilowatts doing things to the jumble on 950; LR4, Buenos Aires, overriding WBZ on 990; PRB9, Sao Paulo, Brazil, blasting through WHO on 1000 kcys; CP4, La Paz, Bolivia, and PRG2, Sao Paulo, Brazil, ganging up on WTIC and KRLD on 1040; LR1, Buenos Aires, using its 50-KW to shame WTAM on 1070; PRG9, Sao Paulo, Brazil, on 1100; LS2, Buenos Aires, with 30-KW of dynamite on 1190; PRA9, Rio de Janeiro, with 25-KW on 1220; and PRG3, Rio de Janeiro, with 25-KW on 1280.

Other South Americans available the careful dialist include HJN, Bogota, Colombia, 680 kcys; YV5RQ,

Caracas, Venezuela, on 882; YV5RA, Caracas, on 960; YV1RB, San Cristobal, Venezuela, on 980; HJ3ABE, Bogota, Colombia, on 1200; and HJ1ABR, Cartagena, Colombia, on 1400.

A grand opportunity to log the 5000-watt PRF3, Sao Paulo, Brazil, 960 kcys, will be offered on January 22nd, when the station will broadcast from 3 to 4 am, EST, for the NRC and NNRC. Officials of these two clubs have undertaken to clear the channel for this program, and it's an odds-on bet that PRF3 will be entered in many logs.

Other DX programs of note for January include CKBI, Prince Albert, Sask., 1210 kcys, January 7th from 2 to 3 a.m., EST; XET, Monterrey, N.L., 690 kcys, January 1st, midnight to 1 a.m., EST; CFJC, Kamloops, B.C., 880 kcys, January 8th, 3 to 4 a.m., EST; CKCV, Quebec, P.Q., 1310 kcys, January 12th, 3 to 4 a.m., EST; CHLT, Sherbrooke, Que., 1210 kcys, January 14th, 3 to 4 a.m., EST; CFAC, Calgary, Alta., 930 kcys, January 15th, 4 to 5 a.m., EST; CHRC, Quebec, P.Q., 580 kcys, January 15th, 2 to 3 a.m., EST; and TG1, Guatemala City, 1310 cys, January 22nd, 3 to 4 a.m., EST. Of these, the XET, CFAC and TG1 programs were arranged by the IDA, while the balance are the work of the CPC of the NRC.

A little early, but the IDA advises of a program from YSS at San Salvador, 638 kcys, for 1 to 2 a.m., EST, on March 20th. That's one worth remembering!

Director Harry E. Varrelman calls attention to the twice-weekly NNRC broadcasts over WOR's experimental station W2XJI on 26.3 megacycles.

The 15-minute broadcasts take place at 8 p.m., EST, Tuesday evenings and midnight Friday to 12:15 a.m., EST, Saturday morning.

Latest DX from tips will be featured and the programs should be of interest to all midnight marauders.

Frequency Check Changes

The December RADEX included a list of the monthly FCC frequency check broadcasts. Following are additions to this schedule:

Second Monday: 3:00-3:15 a.m., EST, WBRK, Pittsfield, Mass., 1310 kcys; 3:25-3:40 a.m., EST, WHAI, Greenfield, Mass, 1210 kcys; 4:00-4:15 a.m., EST, KQRS, Rock Springs, Wyo., 1370 kcys; and 7:05-5:20 a.m., EST, KGLU, Safford, Ariz., 1420 kcys.

Second Tuesday: 4:15-4:30, WTAQ, Green Bay, Wis., 1330 kcys.

Second Friday: 3:55-4:10, KWJB, Globe, Ariz., 1210 kcys.

Second Saturday: 4:10-4:25, KUTA, Salt Lake City, 1500 kcys; 4:25-4:40, KYSM, Mankato, Minn., 1500 kcys; and 4:50-5:05, WSLI, Jackson, Miss., 1420 kcys.

A complete schedule of the frequency checks, including these and subsequent changes, will appear in the February issue.

Daytime Reception

Judging from recent reports, a lot of Radexers are becoming quite interested in daytime DXing. Fully realizing that such reception is definitely limited, many listeners nevertheless are starting out to see how many stations can be logged in a few hours while the sun is shining.

"I read with real interest in the November RADEX," remarks Kenneth R. Leu, of Rockford, Ill., "what

some of the boys are doing in the line of daylight DX. So yesterday morning I decided to give it a whirl. Starting at 9:30 a.m., I went right through the broadcast band, from 550 to 1500 kcys, and tuned in 106 stations on 93 out of 96 channels. The only three bands failing to produce a station were 730, 960 and 990. Of the 106 stations heard, 91 could be identified, and WOAI and CBL were the most distant. I think that is a pretty fair record for a warm and sunny October morning (October 28th)."

"Tried my luck in daytime DXing," recalls Edward Hirsch, St. Albans, L.I., N.Y., "using a 3-year-old six-tube Monarch. Between 2 and 4:25 p.m., EST, I had excellent signals from WEEU, WGY, WMCA, WIP, WFAF, WICC, WFIL, WOR, WJZ, WNYC, WABC, WGBI, WJAR, WELI, WPEN, WAAT, WIMG, KDKA, WBZ, WHN, WTIC, WTAM, WBT, WBAL, WPG, WOV, WWVA, WINS, WCAU, WGBB, WNEW, WFBR, WEVD, WDRC, WBNX, WAWZ, WBBC, WBRY and WQXR. The temperature was 72° and I was able to take down a full report on all of the stations. I wouldn't say that it was an excellent record, but at least it satisfied my curiosity as to what could be heard. Let's hear from other Radexers on this angle of DXing!"

"The other day I tried to see how many stations I could hear between 9 and 10 a.m., EST," declares Hank Hendrickson, Jr., McGregor, Iowa. "Using a six-tube Air Castle battery receiver, with an inverted-L antenna, I logged 66 stations between 550 and 1530 kcys. They were.

KATE, KDKA, KFAB, KFEQ, KFJB, KFKU, KFNF, KFRU, KITE, KMA, KMBC, KMMJ, KMOX, KRNT, KROC, KSCJ, KSO, KSOO, KSTP, KWK, WAAW, WBBM, WCAL, WCBD, WCCO, WCFL, WDAF, WDGY, WEAU, WEBC, WENR, WFBM, WGN, WHA, WHIO, WHIP, WHO, WIBA, WIBW, WIND, WIRE, WISN, WJAG, WJJD, WJR, WKBB, WKBH, WLBL, WLS, WLW, WMAQ, WMBD, WMBL, WMT, WNAX, WOI, WOW, WOWO, WREN, WROK, WSM, WSUI, WTAM, WTCN, WTMJ and WWJ. The weather was cloudy and the temperature was about 35 degrees."

"Noticing that several Radexers reported on daytime DXing in the November issue, I want to throw in my bit," exclaims D. S. Barnes, Chicago, Illinois. "Besides the local stations, the following were heard this afternoon (October 23rd) between 3 p.m. and 3:30 p.m., CST: WKRC, KSD, WIBW, WKZO, WMT, WDAF, WCLE, WTMJ, WGBF, WHKC, WLW, WJR, WEW, WCCO, WTAD, WHA, WHO, WDZ, KYW, CKLW, WTAM, WCAZ, KMOX, WISN, WOWO, WFBM, WHIO, WASH, WIBA, WHBL, WCLS, WTAQ, WSPD, WRJN, WIRE, WROK, WBNS, WKBZ and KITE. A little later, about 5 p.m., such stations as WPG, WBAP, KTHS, WSB, KDKA, WTIC, KVOO, WHAM, KOB and others could be heard."

Because of the freakish behavior of signals during daytime hours, it is probably impossible to say just what can and cannot be heard. However, overlooking the case of the Kansas City "DXer" who reported Moscow at high noon one Christmas day some years ago, there is no doubt but what exceptional records can be made in daylight.

Purely out of curiosity, the writer turned on his Scott 23-tuber at 11 a.m., EST, on December 1st. The location was just a block from one of Philadelphia's busiest thoroughfares, the day was clear, the temperature was around 30°, and the ground was covered with six inches of snow.

Three hours later, a total of 94 stations on as many channels had been logged, and for each station there was sufficient program data to merit a verification. For the most part, the results were about as expected, although a few decent catches were recorded.

For purposes of comparison, the stations were classed according to distance, and the results are interesting:

Local stations: WFIL, WIP, WPEN, WIBG, KYW, WCAU, WCAM, WTEL and WDAS.

Less than 50 miles distant: WEEU, WDEL, WEST, WSNJ, WILM, WCBA and WGAL.

50 to 100 miles (including Metropolitan New York and Baltimore): WMCA, WCAO, WEAJ, WOR, WJZ, WNYC, WABC, WAAT, WHN, WBAL, WPG, WOV, WINS, WNEW, WFBR, WBBR, WORK, WAWZ, WLTH, WHP, WHOM and WQXR.

(Please turn to page 94)

NRI Observes Anniversary

TWENTY-FIVE years ago the National Radio School came into existence. In an upstairs back room a young Electrical Engineer, James E. Smith, began teaching "wireless" to a class of four men.

In those days, the public, (and prominent scientists too), thought of Radio as a plaything—a passing fad—saw no possible future for it. So when Mr. Smith formed a school to give radio instructions by mail to men who could not attend resident classes—well, folks said they were plain crazy. But time has answered these skeptics and critics.

Today we know radio as a \$912,000,000 industry employing 345,000 people. An industry which daily reaches into the lives of 72,520,000 listeners. And today, upon the occasion of its Twenty-fifth Anniversary, the National Radio Institute holds its position as the pioneer and largest radio home study school in the world. It has trained hundreds of men to enter the various branches of radio, and has successful graduates in every state of the U. S., the provinces of Canada and in many foreign countries.

N. R. I. has developed a course of training which is authoritative, efficient and up-to-date. The staff of over 120 persons carries out its work in a modern three story, air-conditioned building. Over 20,000 letters from students and graduates requesting technical information are answered every year. Over 225,000 lessons are graded every year. In the files are diagrams and technical data on over 13,000 radio receivers, all available for use by N. R. I. students and graduates.

NOTICE TO RADEX READERS

Should your newsdealer at any time be unable to supply you with a copy of RADEX you may obtain the issue you want by using the order form on page 96 of your last copy.

WHAT'S ON THE AIR TONIGHT

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

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

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

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

To learn which stations broadcast the various network programs in your locality, look up your own, or neighboring, city, in the Index by Locations, commencing on page 76.

SUNDAY

E-11:30 am, C-10:30, M-9:30, P-8:30
 E-10:30 am, C-9:30, M-8:30, P-7:30
 C—Major Bowes' Family
 Entire Network except Pacific Network first half hour; full network last half hour.

E-noon, C-11:00, M-10:00, P-9:00
 B—Radio City Music Hall
 To Blue network and Canadian National network
 E-12:30, C-11:30, M-10:30, P-9:30

C—Salt Lake City Choir
 Available to full network.

E-2:00, C-1:00, M-noon, P-11:00
 B—RCA Magic Key
 CBF CBL CFCF CMQ KANS
 KARK KARK KDKA KDDL KECA
 KERN KEX KPBK KPDM KPFD
 KPYR KGA KJR KLO KMA KMPD
 KMI KOA KOAM KOB KOIL
 KPFA KRIS KSEI KSO KSOO
 KTRK KTBS KTFI KTHS KTMS
 KPSM KVOO KWG KWK KXYZ
 WABY WAGA WALA WAVE
 WBAL WBOW WBRE WBZ WRZA
 WCOL WOSC WCSH WDAY WDSU
 WEAN WERC WEBR WENR
 WTAA WFCB WFPA WFIL WFLA
 WGLA WGRF WHAM WHK WIBA
 WICC WIOD WIRE WIS WJAX
 WJBO WJDX WJTN WJZ WKY
 WLEU WLW WMAL WMFF WMPX
 WMT WOAI WOOD WORK WOWO
 WPTF WREN WROL WRTD WRSN
 WSGN WSM WSOC WSPD WSUN
 WSTR WTAR WTCN WTMJ WWNC
 WXYZ

E-3:00, C-2:00, M-1:00, P-noon
 C—Philharmonic Symphony
 To entire network, and 6 Canadian National and French networks

E-4:00 pm, C-3:00, M-2:00, P-1:00
 M—Benay Venuta's Program
 WOR to Full Network

E-4:30 pm, C-3:30, M-2:30, P-1:30
 M—Court of Human Relations
 WCAE WGN WOR WSAI WSTR

E-5:00 pm, C-4:00, M-3:00, P-2:00

B—Metropolitan Opera Auditions
 WJZ WBZ WBZA WEAN WICC
 WFIL WBAL WMAL WSYR
 WHAM WEHR KDKA WHK WSPD
 WXYZ WOWO WENR KWK WTAR
 WJAX WIOD WWNC WSB WBRC
 WJDX WMT WTCN KSO KOIL
 WCKY WRTD WJTN WSMB WAVE
 WSMY KVOO WKY KTBS KTHS
 KPRC WOAI KFEL WFLA-WSUN
 KLO KGO KECA KJR KEX WRAP
 KGA

E-5:30 pm, C-4:30, M-3:30, P-2:30
 R—Spelling Bee
 WFAF WNAZ WTIC WJAR WTAG
 WKSH KYW WDEL WFBR WRC
 WGY WBN WCAE WTAM WLW
 WRE WMAQ KSD WWJ KSTP
 WHO WOW WDAF

C—Ben Bernie: Lew Lehr
 WABC WADC WOKO WCAO WEEL
 WGR WBBM WKRC WGAR KINT
 WJR WDRC WFPM KMBC WHAS
 KFAB WCAU WJAS WPRO KMOX
 WFBL WJSV WHEC WISN WCCO
 KRIL KTRH KOMA WJNO KPSA
 KWCH KTUL WGST WAPI WREC
 WLAC WML WBT WRVA WTOG
 WMBR WQAM WDBO WDAE

E-6:00 pm, C-5:00, M-4:00, P-3:00
 C—Silver Theater: Helen Hayes

WABC WOKO WCAO WEEL
 WKBW WBBM WKRC WGAR
 KINT WJR WDRC WFPM KMBC
 WHAS KFAB WCAU WJAS WPRO
 KMOX WJSV WADC WBSN WHIO
 WHEC WISN WBT WJNO WGST
 WREC WWL KVI KRLL KTRH
 KOMA KPSA KTUL WMBR WQAM
 WDBO WDAE KCAC CFCF WCCO
 KLZ KSL KNX KOIN KSPD KIRO
 KPFF and Canadian Broadcasting Corporation.

E-6:30 pm, C-5:30, W-4:30, P-3:30
 C—Billy House; Jack Fulton

WABC WOKO WCAO WEEL
 WKBW WBBM WKRC WGAR
 KINT WJR WDRC WFPM KMBC
 WHAS KFAB WCAU WJAS WPRO
 KMOX WFBL WJSV WADC WBSN
 WHIO WHEC WORB WLBZ WFMN
 WHD WMBD WGT WYAS WYBW
 WIRX WYVA KPH WYAM WCHS
 WBT WBIG WMAZ WPAR WRVA

WDEJ WTOG WJNO WGST WAPI
 WDOO WNOX KLRa WREC WCOG
 WSPA WLAZ WWL KGGM KRLL
 KTRH KOMA KPSA KTUL WMBR
 WQAM WDBO WDAE WOC KDAL
 WMFG KGLR WCCO KSCJ WHLB
 WNAX KYOR KIZ KSL KARM
 KFBB KOY KROY KGAR KNX
 KOIN KSFO KIRO KEPY KYI
 KIIBC KGMB WPG WNBZ WBSG
 WBOA WBRK WSBT WNRX
 WKBN WLDW WDNB WSJS
 WCOA WACO WKBB WTAQ
 WKBH KGVO KOH KWKH

R—A Tale of Today
 RKDKA WFAF WGY WLW WMAQ
 WTC WTAM

R—Jack Benny: Kenny Baker
 WFAF WRC WGY KPBC WOAI
 WSPD WORK WMBG WNAZ WTIC
 WJAR WTAG WCSH KYW WFBR
 WJBN WCAE WTAM WMAQ WWJ
 WJAR WCOL WDEL KSD WLW
 WPTF WSOC KSTP WIS WJAX
 WUNC KTBS KARK KVOO CBL
 GRM WERC WGFV WIOD WSN
 WFLA WGLA WIRE WHO WOW
 WDAF KANS WTMJ WIBA WDAY
 KFPR WAVE WSM WMC WBRC
 WSB WJDX WSMB KGBX WKY
 WSTR WHAM WGL WFEA KELO
 WPOW WCSF WFBC KGNC KRIS
 WFAA

E-7:30 pm, C-6:30, M-5:30, P-4:30

C—"Passing Parade": Oscar Bradley
 WABC WOKO WCAO WEEL WGR
 WKRC WGAR WJR WDRC WFPM
 WHAS WCAU WJAS WPRO WFBL
 WJSV WADC WBSN WHIO WHEC
 WROC WPG WLEZ WNBZ WHIP
 WSBT WMAS WIBX WYVA
 WKBN WBT WDNB WBIG WRVA
 WDBI WTOG WBS WGST WDOO
 WNOX KLRa WREC WAPI WSPA
 WLAZ WWL WCOA WJNO KRLL
 KTRH KPSA KWKH KTUL WACO
 WMBR WQAM WDBO WDAE KLZ
 WCHS

E-8:00 pm, C-7:00, M-6:00, P-5:00

C—Orson Welles—Drama
 Available to full network
 R—Charlie McCarthy; Nelson Eddy
 CFCF CRCT KDWL KFI KFYR
 KGW KIQ KOA KOMO KPO KPRC

KSD KSTP KTAH KTBS KVOO
 KYW WAVE WBEN WCAE WCSH
 WDAF WDAY WDEA WDFB WFAA
 WFBR WFLA WGY WHO WIRA
 WIOD WIRE WIS WJAR WJAX
 WJDX WKY WLW WMAQ WMC
 WNAC WOAI WOV WPTF WRC
 WRVA WSB WSM WSMB WSOB
 WSTN WTAG WTAM WTAR WTIC
 WTMJ WWJ WWNC

E-11:00 pm, C-10:00, M-9:00, P-8:00
 R—Walter Winchell
 WBAF WAKR WSM WMC WSB
 WKY WAVE WBRC WJDX WSMB
 KTBS KPFO WJAX WFLA WWSN
 WIOD KOA KDYL KPO KIDO
 KGW KGO KIQ KFI KGR
 KGHL KTAH KFBK KWG KMJ
 KSEI KERN KPFA KVOO KTFI

WMC WSB WHRC WSMB WAVE
 WSM WROL KPDM KGHX KVOO
 WKY KGNC WFAA KTBS KARK
 WTMJ WIRA WDAY KFYR KSOO

E-8:30 pm, C-7:30, M-6:30, P-5:30
 C—"Dick and Pat"

WABC WOKO WCAO WEEI WGB
 WIBM WKRC WGAR WJR WDRB
 KMBC KFBK WCAU WJAS WPRO
 WFBL WJSV WDAE WHCC WORC
 WLJZ WIHP WMAZ WBT WRVA
 WGST KRNT WFBI WHAS KMFX
 WAPI WREC WLAC KRLL KOMA
 KTSA KWKH KTUL WCOO WNAX
 WTBW

R—The Voice of Firestone
 WBAF WNAC WTIC WJAR WTAG
 WWSH KYW WFBR WRC WGY
 WJBN WCAE WTAM WIOD WCOL
 WIOD WIRE WMAQ KPFC WGL
 WJLW CBL WTMJ WERC WHO
 WOW WDAF WROL WIRA WFAA
 WPTF WSOB WTAR WMC WSB
 WOAI WNAC KVOO WFLA WWSN
 WKY WSMB WAVE KSD WIS
 WSN KANS WJAX WFEA WFCB
 WMBG WDEL WLW KRIS KARK
 KGNC KGBX KSTP WDAY KFYR
 WBRC WJDX KRZY KELO KTBS
 KSOO

E-9:00 pm, C-8:00, M-7:00, P-6:00
 C—Lux Radio Theater

WABC WADC WOKO WCAO WEEI
 WKRB WIBM WKRC WGAR
 KRNT WJR WDRB WFBI KMBC
 WHAS KFAB WCAU WJAS WPRO
 KMOX WFLB WISV WBSN WHIO
 WHCC WORC WISN WMBD WMAS
 WBX KFH WBT WRVA WDBJ
 WGST KLRA WREC WLAC WWL
 QAM WDAE WJNO KCAC CFRB
 KYI KRLL KTRH KOMA KTSA
 KTUL WCOO WNAX KLZ KSL
 KNX KOIN KSPB KIRO KFPY
 and Canadian Broadcasting Corp.

R—Hour of Charm

WBAF WNAC WTIC WJAR WTAG
 WWSH KYW WDEL WBEN WCAE
 WTAM WWJ WLW WIRE WMAQ
 KSD KSTP WHO WOW WDAF
 WTAR WPTF WSOB WWNC WIS
 WFLA WFLA WSN WIOD WAVE
 WSM WMC WBRC WSB WSMB
 WJDX KVOO WKY WFAA KTBS
 KARK KPFC WOAI WTMJ KOA
 KIX KDYL KIDO KGR KPFA
 KGO KECA KJR WFBR WRC WGY
 KGA

E-9:30 pm, C-8:30, M-7:30, P-6:30
 R—The Pall Mall Program

WBAF WNAC WTIC WJAR WTAG
 WWSH KYW WDEL WBEN WRC
 WGY WBEN WCAE WTAM WWJ
 WCKY WIRE WMAQ KSD KSTP
 WIO WOW WDAF WMBG WGL
 WOOD WSYR WHAM WECB
 WTAR WPTF WSOB WWNC WCSB
 WJAX WFLA WSN WIOD WTMJ
 WIRA KOA KDYL KPO KFI KGW
 KGO WGBF KHQ KFBK KFSB
 KWG KMJ KERN

E-10:00 pm, C-9:00, M-8:00, P-7:00
 B—"True or False"

WJZ WBZ WZTA WEAN WICC
 WFLB WBAL WMAL WSYR
 WHAM WEPB DKA WHK WSPD
 WXYZ WQOW WFNH KWK WMT
 WRTN KSO KOIL WREN WLW
 WJTN KVOD KFO KGO KECA
 KFSB KEX KJR KGA CPFC

MONDAY

E-9:00 pm, C-8:00, M-7:00, P-6:00
 C—Ford Symphony Concert

CFRB CKAC KFAB KFBB KFH
 KFPY KGAR KGLO KGVO KIRO
 KLLA KLZ KMBC KMOX KNX
 KOH KOIN KOMA KOY KRFD
 KRNT KSCJ KSPB KSL KTRH
 KTSA KTLB KVI KVOR KWKH
 WABC WIBM WBIG WBNS WBRK
 WBT WCAO WCAU WCOB WCHS
 WCOA WCOG WDAE WDBJ WDMO
 WDOJ WDIC WDEI WFBI WFLM
 WGAR WGBI WGBL WGST WHAS
 WHCC WHIO WHF WHP WISN
 WJAS WJNO WJR WJSV WKRH
 WJBN WKBW WKRC WLAC WLJZ
 WMBD WMBR WMIN WNAX
 WNBZ WNOX WOKO WORC WPHO
 WQAM WREC WRVA WSBT WSPA
 WTAQ WTQC WWL WYVA
 R—Manhattan Merry Go-Round
 CFBC KDYL KFI KFYR KGW
 KHQ KOA KOMO KPO KPFC KSD
 KSP KTBS KTHS KYW WAVE
 WBEN WCAE WCKY WCSI WDAE
 WDAY WFAF WEHC WDEI WFAA
 WFBR WFLA WGY WHO WIRA
 WIOD WIRE WIS WJAR WJAX
 WJDX WKY WMAQ WMC WOAI
 WOW WPTF WRC WRVA WSB
 WSM WSMB WSOB WTAG WTAM
 WTAR WTIC WTMJ WWJ WWNC

E-6:45 pm, C-5:45, M-4:45, P-3:45
 C—Sophie Tucker and Her Show

WCAO WBBM WKRC KRNT
 WFBI KMBC WHAS KFAB KMOX
 WJSV WCHS WMMN WISN WMBD
 WIBM WFH WBT WDNC WBIG
 WMAZ WRVA WDBJ WGST WAPI
 WIOD WNOX KLRA WREC WCOO
 WSPA WLAC WYLL KRLL KTRH
 KOMA KWKH KTUL WDC WFTS
 KDAL WMPG WCCO KSCJ WTLB

B—Lowell Thomas

WJZ WBZ WZTA WBAL WMAL
 WLW KDKA WXYZ WIOD CHL
 WJAX WFLA WSN WTAM WOOD
 WSYR WHAM WEBR WEAN
 WSPD WYTD

E-7:00 pm, C-6:00, M-5:00, P-4:00
 R—Amos 'n' Andy

WBAF WNAC WTIC WJAR WTAG
 WWSH WDEL WMBG KYW WFBR
 WRC WGY WBEN WCAE WTAM
 WWJ KSD KSTP WLW CBL CFM
 E-7:15 pm, C-6:15, M-5:15, P-4:15
 C—"Luna and Abner"

WABC WOKO WEEI WGR WBBM
 WKRC WJR WDRB KFAB WCAU
 WLAS WPRO WFBL WJSV WBSN
 WHIO WHEC WBT WRVA WGST
 WMBR WQAM WDRB WDAE
 WJNO WGAR KRNT WFBI WHAS
 KMOX KLRA WREC WLAC WAPI
 KRLL KTRH KOMA KTSA KTUL
 WCOO

R—Edwin C. Hill

WBAF WNAC WTIC WJAR WTAG
 WWSH KYW WDEL WBEN WCAE
 WTAM WWJ KSD KSTP WLW CBL
 WMBG

E-7:30 pm, C-6:30, M-5:30, P-4:30
 C—Eddie Cantor's Camel Caravan

WABC WADC WCAO WEEI WGR
 WKRC WGAR WJR WDRB KMBC
 WCAU WJAS WPRO WFBL WJSV
 WBSN WHIO WHCC WORC WLJZ
 WNEF WCHS WMIN WHP WGH
 WMAS WNRX WIRX WKRN WTT
 WDNC WBIG WRVA WDRJ WTOG
 WJSV WMBR WQAM WDRB
 WDAE WJNO

E-8:00 pm, 7-7:00, M-6:00, P-5:00
 C—The Monday Night Show

WCAO WKRC WHAS WCAU
 KMOX WJSV WCHS WAIM WRDW
 WBT WDNC WBIG WMAZ WDBJ
 WTOG WGST KLRA KRLL KTRH
 KTSA WACO KDAL WMPG WCOO
 WTLB

R—Al Pearce and His Gang

WBAF WNAC WTIC WJAR WTAG
 WWSH KYW WDEL WBEN WRC
 WGY WBEN WCAE WTAM WWJ
 WLW WSPD WMBG WORK WTAR
 WPTF WSOB WOAI KPFC WFCB
 WGAL WIRE WMAQ KSD KSTP
 WHO WOW WDAF WGBF WBOC
 KELO KANS WJAX WFLA WIBC

E-9:30 pm, C-8:30, M-7:30, P-6:30
 B—Walter Winchell

WJZ WBZ WRVA WBAL WMAL
 WFLB WREN WICC KDKA WHK
 WSYR WTCN WLW WEAN WENR
 WMT WXYZ KSO KWK WOOD
 KOIL WREB WHAM WSPD WJTN

R—Album of Familiar Music

CFBC CRCT KDYL KFI KFBK
 KGW KHQ KOA KOMO KPO KPFC
 KSD KSTP KTBS KYW WAPI
 WBE WBEN WCAE WWSH WDAF
 WDAY WFAF WERC WEEI WFAA
 WFBR WFLA WGY WHO WIRA
 WIOD WIS WJAR WJAX WJDX
 WKY WMAQ WMC WOAI WSB
 WPTF WRC WRVA WSAI WSB
 WSM WSMB WSOB WTAG WTAM
 WTAR WTMJ WWJ WWNC

E-9:45 pm, C-8:45, M-7:45, P-6:45
 B—Irene Rich—Drama

WJZ WBZ WRVA WBAL WMAL
 WEAN WICF WFLB WEPB WXYZ
 WFNH KWK WMT WTCN WHK
 KSO KOIL WSYR WHAM WREN
 KDKA WLW WSPD WJTN

E-10:00 pm, C-9:00, M-8:00, P-7:00
 R—Horace Heidt's Brigadiers

KDYL KECA KEX KFSB KGA
 WERC WFBF WGY WHO WIRA
 WRE JAR WSAI WNAC WOOD
 WOW WRC WSAI WTAG WTAM
 WTIC WTMJ WWJ

C—"Ask-It Basket"

E-7:30 pm, C-6:30, M-5:00, P-4:30
WABC WOKO WCAO WEEI WGR
WBBM WKRC WGAR KRNT WJR
WDRG WFRM KMBC WHAS KFAB
WCAU WJAS WPRO KMOX WFBL
WJSV WADC WBNS WHIO WHIC
WCRB WLIZ WBTV WISN WISD
WBTV WWSA KTHI WBSN WBT
WRVA WJNO WGST WAPI WROC
WWL WNAX KRLL KTRH KOMA
KTSB KWKH WMBR WQAM
WDAE WCOO

E-8:00 pm, C-7:00, M-6:00, P-5:00
C—"Gang Busters"

WABC WOKO WCAO WEEI WGR
WBBM WKRC WGAR KRNT WJR
WDRG WFRM KMBC WHAS KFAB
WCAU WJAS WPRO KMOX WFBL
WJSV WBNS WHIO WHEC WORC
WBTV WWSA KTHI WBSN WBT
WVLA WJNO WGST WAPI WROC
WWL WNAX KRLL KTRH KOMA
KTSB KWKH WMBR WQAM
WDAE WCOO

R-One Man's Family

WEAF WNAC WTIC WJAR WTAG
WCSH KYW WFBR WRC WGY
WREN WCAE WFLM WWSR WYJ
WTAM KSD WHO WOW WDAF
WWNC WLAW WMAQ WJAB WERC
WKY WJIC WSMR WBRC WAVE
KVOO WAOJ KOA KDYL WIS
WIOD WMFG WSOB WTAR WSB
KPRC WJAX KSTP WTMJ WFLA-
WSDN CBL WIRE WDEL WBSN
WCOL WSM CBM WFAA

E-8:30 pm, C-7:30, M-6:30, P-5:30
B—Hobby Lobby

WJZ WBZ WRZA WEAN WICC
WFLI WTRB WMAL WWSR
WHAM WEIR KDKA WHIK WSPD
WXYZ WSAI WJTN WMFF WABY
KOA WLEW WCOL KDYL WBTV
WELL WJIM WJIM KPO KFI
KGW KOMO KHQ WFDF

C—Paul Whitenian's Orchestra

WABC WOKO WCAO WEEI WBBM
WKRC WGAR WJR WDRG KFAB
WCAU WJAS WPRO WFBL WJSV
WBNS WHIO WHEC WORC WLIZ
WNBF WHIP WGBI WMAS WBTV
WCHS WBT WBTV WRVA WDEI
WJNO WWSR WGST WMBR WQAM
WDAE WTCC WDBO WMNN WGR
WDAE WPG WNRX WGH WAIM
WVNC KRNT WFRM WHAS
KMOX WISS WMRD WJRW KFH
WAPI WDDO WNOX KLRA WREC
WCOG WSPA WLAC WWL KMBC
KRLL KTRH KOMA KTSB KWKH
KTUL WACO WOC KDAL WTAQ
WMFG WKRH WCO KSCJ WHLE
WNAX

R—Tammy Dorsey Orchestra

WEAF WNAC WTIC WJAR WTAG
WCSH KYW WDEL WSOB WTAM
WFBR WRC WGY WRN WTAM
WJY WMAQ KSD KSTP WHO
WOW WDAF WMBG WOOD WTAR
WPTF WNNC WIS WJAX WFLA-
WSEN WIOD WAVE WSM WMC
WBRC WSB WLW WIRE WSMR
WKY WFAA KTBS KPRC KARK
E-9:00 pm, C-8:00, M-7:00, P-6:00

C—"Everybody's Music"

Available to full network
R—Town Hall: Fred Allen
WEAF WNAC WTIC WJAR WTAG
WCSH KYW WFBR WRC WGY
WREN WTAM WYJ WMAQ WHO
WOW WDAF WLW WCAE KSD

KARK WIRE WTJW WSMB WFAA
KPRC WOAI WJAB KSTP WAVE
WJAX WFLA-WJUN WIOD WSM
WMO WSR WJDX WKY WDEL
KOA WIS WTAR WSOB WPTF
WLAK

E-9:30 pm, C-8:30, M-7:30, P-6:30
C—Texaco Star Theater

WABC WOKO WCAO WEEI
WBBM WKRC WGAR
KRNT WJR WDRG WFRM KMBC
WHAS KFAB WCAU WJAS WPRO
KMOX WFBL WJSV WADC WBNS
WHIO WHEC WORC WPG WLIZ
WNBF WEOA KPFP WHP WMS
WMBD WGBI WSPD WMS
WBTV WBTV KFH WBDW WCHS
WBT WDCO WBTV WRVA WDBJ
WTOG WJNO WBSI WGST WAPI
WDDO WNOX KLRA WREC WSPA
WLAC WWL KJL KGGM KRLL
KTRH KOMA KTSB KWKH KTUL
WMBR WQAM WDBO WDAE WOC
WKBB KDAL WTAQ WMFG
WKBH WCOO KSCJ WHLE WNAX
KVOI KLZ KSL KARM KFRB
KGYO KOY KGAR KXX KOIN
KSPD KIRO

E-10:00 pm, C-9:00, M-8:00, P-7:00
R—Kay Kyser's Klass

WEAF WNAC WTIC WJAR WTAG
WCSH KYW WFBR WRC WGY
WREN WCAE WFLM WWSR WYJ
WTAM KSD WHO WOW WDAF
WWNC WLAW WMAQ WJAB WERC
WKY WJIC WSMR WBRC WAVE
KVOO WAOJ KOA KDYL WIS
WIOD WMFG WSOB WTAR WSB
KPRC WJAX KSTP WTMJ WFLA-
WSDN CBL WIRE WDEL WBSN
WCOL WSM CBM WFAA

E-10:30 pm, C-9:30, M-8:30, P-7:30
C—"It Can Be Done"

WABC WOKO WCAO WEEI WBBM
WKRC WGAR WJR WDRG KFAB
WCAU WJAS WPRO WFBL WJSV
WBNS WHIO WHEC WORC WLIZ
WNBF WHIP WGBI WMAS WBTV
WCHS WBT WBTV WRVA WDEI
WJNO WWSR WGST WMBR WQAM
WDAE WTCC WDBO WMNN WGR
WDAE WPG WNRX WGH WAIM
WVNC KRNT WFRM WHAS
KMOX WISS WMRD WJRW KFH
WAPI WDDO WNOX KLRA WREC
WCOG WSPA WLAC WWL KMBC
KRLL KTRH KOMA KTSB KWKH
KTUL WACO WOC KDAL WTAQ
WMFG WKRH WCO KSCJ WHLE
WNAX

E-11:00 pm, C-10:00, M-9:00, P-8:00
R—Amos 'n' Andy

See Monday.
E-11:15 pm, C-10:15, M-9:15, P-8:15
R—Edwin C. Hill
See Monday.

THURSDAY

E-6:45 pm, C-5:45, M-4:45, P-3:45
B—Lowell Thomas

See Monday.
E-7:00 pm, C-6:00, M-5:00, P-4:00
B—Easy Aces
See Monday.
R—Amos 'n' Andy
See Tuesday.
E-7:30 pm, C-6:30, M-5:30, P-4:30
C—Joe Penner
WABC WOKO WCAO WEEI WGR
WBBM WKRC WGAR KRNT WJR
WDRG WFRM KMBC WHAS
KFAB WCAU WJAS WPRO KMOX
WFBL WJSV WADC WBNS WHIO
WHEC WORC WHP WISS WMRD

WIBW KFH WKBN WCHS WBT
WRVA WJNO WGST WAPI WNOX
WTRC WLAC WWL WMAS KRLL
KTRH KOMA KTSB KTUL WMBR
WQAM WDBO WDAE WOC WCOO
KSCJ WNAX WGBI

E-8:00 pm, C-7:00, M-6:00, P-5:00
C—Kate Smith Hour

WABC WOKO WCAO WEEI WGR
WBBM WKRC WGAR KRNT WJR
WDRG WFRM KMBC WHAS KFAB
WCAU WJAS WPRO KMOX WFBL
WJSV WADC WBNS WHIO WHEC
WORC WLIZ WLOA WHP WSN
WMBD WBTV KFH WKBN WBT
WRVA WDBJ WJNO WGST WAPI
WDDO WNOX KLRA WREC
WSPA WJAX WWL WNAX KRLL
KTRH KOMA KTSB KWKH KTUL
WACO WMBR WQAM WDBO
WDAE WOC KDAL WTAG WKBH
WCOO KSCJ

R—Rudy Vallee Hour

WEAF WNAC WTIC WJAR WBSN
WVLA WJNO WGST WAPI WNOX
WTRC WLAC WWL WMAS KRLL
KTRH KOMA KTSB KWKH KTUL
WACO WMBR WQAM WDBO
WDAE WOC KDAL WTAG WKBH
WCOO KSCJ

E-8:30 pm, C-7:30, M-6:30, P-5:30
C—Joe Penner: Ben Pollack

KLZ KSL KAHM KXX KOIN
KSPD KIRO KPFP KYI

E-9:00 pm, C-8:00, M-7:00, P-6:00
R—Major Bowes' Amateur Hour

WABC WOKO WCAO WEEI WBBM
WKRC WGAR WJR WDRG KFAB
WCAU WJAS WPRO WFBL WJSV
WBNS WHIO WHEC WORC WLIZ
WNBF WHP WISS WMBD WGBI WMAS
WIBW WJAX WFLA WIOD WAVE
WIRE WSB WSMB WTAM WWJ
KVOO WBPB WSM WMBG WCAE
WDEL WBRG

R—Good News of 1939

WEAF WNAC WTIC WJAR
WTAG WCHS KYW WFBR WRC
WGY WREN WCAE WTAM WWJ
WIRE WMAQ KSD KSTP WHO
WOW WDAF WLAW WSPD WMBR
WYSR WHAM WFEA WBRG
WOOD WDEL WERC WTAR WPTF
WSOB WFBK KPFA WNSC WIS
WJAX WFLA WJUN WIOD WJZ
WSEB WBRD WJDX WSMH WAVE
WSM KVOO WKY WBPB KTRS
KARK KPRC WOAI WTMI WJIA
WDAE WJAX WFLA WIOD WAVE
WJAX WFLA WJUN WIOD WJZ
WSEB WBRD WJDX WSMH WAVE
WSM KVOO WKY WBPB KTRS
KARK KPRC WOAI WTMI WJIA
WDAE WJAX WFLA WIOD WAVE
KFI KGW KOMO KHQ KTAR
KFKR KGW KMI KERN KGIR
KGHL KGNC KTHS CBM CBL

E-10:00 pm, C-9:00, M-8:00, P-7:00
C—"Columbia Workshop"

Available to full network
R—Kraft Music Hall
WEAF WNAC WTIC WJAR WTAG
WCSH WBNS WHIO WGY KYW
WHO WOW WDAF WCAE WTAM
WWJ WLW KSD KEFR WBEBC

WKY KTBS KARK WTMJ WSB
 BAP KPRC WQAI KOMO KOA
 KPO DYI KPI KGW KHQ WIIA
 KSTP KTAZ WJDX WPTF WIS
 WIOD WAVE WTAR WFLA WDAY
 WSM WMX WIRE WMAQ WBRW
 WFBR WJAC WDEL WROL WSMW
 WMBG CBLB CMB CBF WSOB
 WSYR WHAM WFBC KGIR KGIL
 KPFA KTHS WOOD

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

E-11:30 pm, C-10:30, M-9:30, P-8:30
 C—Kate Smith Hour
 KYOR KLZ KSL KFBZ KGVO
 KOY KGAR KARM KNX KOIN
 KSFO KIRO KFPY KVI

FRIDAY

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

C—Sophie Tucker
 See Monday.

E-7:00 pm, C-6:00, M-5:00, P-4:00
 R—Amos 'n' Andy
 See Monday.

E-7:15 pm, C-6:15, M-5:15, P-4:15
 C—'Lum and Abner'
 See Monday.

R—Jimmie Fidler
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WFBR WDEL WRC
 WGY WBNB WCAE WTAM
 E-7:30 pm, C-6:30, M-5:30, P-4:30

C—"Wonder Show"; Jack Haley
 WABC WADC WEEI WGR WBBM
 WKRC WGRG KRNT WJR WDRC
 WFIM WMBC KFAB KMOX WJSV
 WBNS WHIO WHIE WISN WMAJ
 WIBX WYVA KHF WRVA KLIJ
 WREC KRDL KOMA KWKH KTUL
 WOC KGLO WCCO KSCJ

E-8:00 pm, C-7:00, M-6:00, P-5:00
 B—Criminal Histories; Warden Lawes
 WJZ WBZ WMAZ WEAN WIC
 WFIL WBAL WBAL WSYR WHAM
 WERR KDKA WHK WSPD WXXY
 WLS KWK WPT WTCN KSO
 KOIL WREN WSAI WRTD WGL
 WGHF WMC WJTN WSB WBRW
 WJDX WSMW WAVE WSM KXNY
 KGKO KTHS KPO KPI KGW
 KOMO KIQ KYOD

C—"Campana's First Nighter"
 WABC WADC WOKO WCAO WEEI
 WGR WBBM WKRC WGAR KRNT
 WJR WDRC WFIM KMBC WHAS
 KFAB WCAU WJAS WPRO KMOX
 WFBL WJSV WENS WHIO WHIE
 WTLZ WIBW WYVA KRDL KTRH
 KOMA KPSA KWKH KDAL WCCO
 WNAX KLZ KSL KOY KGAR
 WRFI WLAC WWL KNOV WAPI
 WGST WYVA

R—Cities Service Concert
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WFBR WDEL WRC
 WGY WBNB WCAE WTAM WJZ
 WIRE WMAQ KSD KSTP WHO
 WOV WDAF WLW WMBG KANS
 WTAR WPTF WSOB WFBC WIS
 WJAX WFLA WSNW WIOD WMC
 WBRW WFLD WSMW WAVE WSM
 KVOO WKY WRAP KTBS KARK
 KRCR KOA KDYL KPO KPI KGW
 KOMO KIQ WSB

E-8:30 pm, C-7:30, M-6:30, P-5:30
 C—Burns and Allen
 WABC WOKO WCAO WEEI WGR
 WBBM WKRC WGAR KRNT WJR
 WDRC WFIM KMBC WHAS KFAB
 WCAU WJAS WPRO KMOX WFBL
 WJSV WADC WBNS WHIO WHIE
 WORC WFG WLBZ WSRF WMMN
 WHP WISN WMBD WGBI WMAS
 WNBX WIBW WIBX KFH WAIM
 WCHS WBT WDNC WBIG WRVA
 WDEI WTOG WJNO WSJS WGST
 WAPI WDOD WNOX KLRA WRBC
 WCOO WSPA WLAC WWL WGH
 KRDL KTRH KOMA KPSA KWKH
 KTUL WMBR WQAM WDRB
 WDAE WOC KDAL WTAQ WMFG
 WKBI WCCO KSCJ WHLW WYAX
 E-9:00 pm, C-8:00, M-7:00, P-6:00

C—"Hollywood Hotel"
 WABC WOKO WCAO WEEI WGR
 WBBM WKRC WGAR KRNT WJR
 WDRC WFIM KMBC WHAS KFAB
 WCAU WJAS WPRO KMOX WFBL
 WJSV WCAO WBNS WHIO WHIE
 KFH WBT WRVA WGST WNOX
 KLRA WREC WLAC WWL KVI
 KRDL KTRH KOMA KPSA KWKH
 WMBR KCAC CFRB WCCO KIZ
 KSL KNX KOIN KSFO KIRO
 KFPY and Canadian Broadcasting
 Corp.

R—Waltz Time
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WFBR WDEL WRC
 WGY WBNB WCAE WJZ WMAQ WHO
 WOV WDAF KSD WTAM KSTP
 WCKY WIRE WDEL CMB CBF
 WKY

E-9:30 pm, C-8:30, M-7:30, P-6:30
 R—Death Valley Days
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WRC WGY WBNB
 WCAE WTAM WJZ WIRE WMAQ
 KSD WHO WOV WDAF WDEL
 WDEL WFBZ KSTP WLAV

E-10:00 pm, C-9:00, M-8:00, P-7:00
 R—Guy Lombardo Orchestra
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WDEL WFBZ WRC
 WGY WBNB WCAE WTAM WJZ
 WSAI WIRE WMAQ KSD KSTP
 WHO WOV WDAF WBR KANS
 WAVE WSM WMC WBRW WSMW
 WJDX KYOO WKY WFAA KTBS
 KPRC WQAI WTMJ WBA WDAY
 KRCR KOA KDYL KPO KPI KGW
 KOMO KIQ WSB

E-10:30 pm, C-9:30, M-8:30, P-7:30
 R—Jimmie Fidler
 See Tuesday

E-10:45 pm, C-9:45, M-8:45, P-7:45
 R—Uncle Ezra
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WDEL WFBZ WRC
 WGY WBNB WCAE WTAM WJZ
 WIRE WMAQ KSD KSTP WHO
 WOV WDAF WLW WMBG KANS
 WTAR WPTF WSOB WFBC WIS
 WJAX WFLA WSNW WIOD WMC
 WBRW WFLD WSMW WAVE WSM
 KVOO WKY WRAP KTBS KARK
 KRCR KOA KDYL KPO KPI KGW
 KOMO KIQ

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

E-11:30 pm, C-10:30, M-9:30, P-8:30
 C—Burns and Allen
 KCR KIIZ KSI KFBZ KGVO
 KOY KGAR KNX KOIN KSFO
 KIRO KFPY KGMH KHBC

SATURDAY

E-6:00 pm, C-5:00, M-4:00, P-3:00
 R—Kaltenmeyer's Kindergarten
 Available to network

E-7:00 pm, C-6:00, M-5:00, P-4:00
 C—Saturday Night Singing Club
 Available to full network

R—Avalon Time
 WFAF WNAC WVIC WJAR WPTF
 WSOB WFBR WJAR WTAG WCHS
 KYW WDEL WFBZ WRC WGY
 WIRE WMAQ WJAS WTAM WJZ WIRE
 WMAQ WJAX WIS WSCS KSD
 KSTP WHO WOV WDAF WFLA
 WSNW WIOD WAVE WSM WMC
 WBRW WSB WSMW WJDX KVOO
 WKY WBAF KTBS WLW WJAX

E-7:30 pm, C-6:30, M-5:30, P-4:30
 B—Uncle Jim's Question See
 WJZ WBZ WBZA WGY KDKA
 WTAM WMAQ

C—Joe E. Brown
 WABC WOKO WCAO WEEI WGR
 WBBM WKRC WGAR KRNT WJR
 WDRC WFIM KMBC WHAS
 KFAB WCAU WJAS WPRO KMOX
 WFBL WJSV WADC WBNS WHIO
 WHIE WYVA WEOA WHP WISN
 WMBD WIBW KFH WCHS WBT
 WRVA WJNO WGST WAPI WDOD
 WNOX KLRA WREC WLAC WWL
 WDBI KRDL KTRH KOMA KPSA
 KWKH KTUL WMBR WQAM
 WDRB WDAE WOC KGLO WCCO
 KSCJ WYAX

E-8:00 pm, C-7:00, M-6:00, P-5:00
 C—Johnny Presents
 WABC WGAR WJR WDRC KMBC
 KFAB WCAU WJAS WPRO WJSV
 WADC WBNS WHIO WHIE
 WSRF WHP WGBI WYVA WCHS
 WBT WBG WYVA WGST WOKO
 WCAO WBEI WGR WBBM WKRC
 KLRA WCOA WHAS KRNT WFBM
 KMOX WISN KFH WAPI KRDL
 KTRH KPSA WOC WCCO

R—Quaker Party
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WDEL WFBZ WRC
 WGY WBNB WCAE WTAM WJZ
 WIRE WMAQ KSD KSTP WHO
 WOV WDAF WLW WMBG KANS
 WTAR WPTF WSOB WFBC WIS
 WJAX WFLA WSNW WIOD WMC
 WBRW WFLD WSMW WAVE WSM
 KVOO WKY WRAP KTBS KARK
 KRCR KOA KDYL KPO KPI KGW
 WSB

C—"Professor Quiz"
 WABC WADC WOKO WCAO WEEI
 WGR WBBM WKRC WGAR WJR
 WDRC WFIM KFAB WCAU WJAS
 WPRO KMOX WJSV WNL KRNT
 WFBM WHAS WFBL WGBI WTOG
 WAPI KRDL KTRH KPSA WCOO

R—Fred Waring
 WFAF WNAC WVIC WJAR WTAG
 WCHS KYW WDEL WFBZ WRC
 WGY WBNB WCAE WTAM WJZ
 WIRE WMAQ KSD KSTP WHO
 WOV WDAF WSAI CMB CBF
 WTAR WPTF WSOB WFBC
 WJAX WFLA WSNW WIOD WMC
 WBRW WFLD WSMW WAVE WSM
 KVOO WKY WRAP KTBS KARK
 KRCR KOA KDYL KPO KPI KGW
 WSB

E-9:00 pm, C-8:00, M-7:00, P-6:00	WGAR WJR KVI WFRM WHAS	WHIO WHEC WORC WPG WLBS
B—National Barn Dance	KFAB WCAU WJAS KMOX WFBL	WBNF WMBN WHP WISN WMBD
WJZ WBZ WBZA WBAL WMAL	WJSV WBNS WJIEC WMBD	WGHI WSEY WMAZ WIBW WBZZ
WSYR WHAM WTMJ WJIA	WVVA KFH WBT WBIG WRVA	WVVA KFH WCHS WBT WDNB
KDKA WXYZ WFIL WMIC WSE	WTOC WJNO WGST WAPI WLOD	WBIG WRVA WDBJ WTOG WSJG
KTBS WSPD WEAN WTK WSMR	WNOX KLRB WREC WSFA WLAC	WGST KGAR WDOD WNOX KLRB
WOOD WRTD WLAV KARL WBRB	WWL WCOA KFPY KRLD KTRH	WREC WNO WBSA WLAC WWL
WKY WRAP KPIC WQAI WLCS	KOMA K TSA KWKH KTTL	WCOA KGLD KRLL KTRH KOMA
WICC WITN KV00 WEHR WDAY	WMBR WQAM WDBO WDAE WOC	K TSA KWKH KTTL WACO WAPI
WTAR WAVE WERC KFYY KTHS	KLZ KSL KARM KNX KOIN	WMBR WQAM WDBO WDAE WOC
WTCN KWK WMT KSO KOIL	KSFO KIRO	WKBB WTAQ WKRH WCCO KSCJ
WREN WJDX		WNAX KVOR KLZ KSL KPBB
R—Vox Pop	R—America Dances	KOY KOH KNX KOIN KSFO
WEAF WNAC WTIC WJAR WTAG	To Red network	KFPY KVI KGMH WJSV WEOA
WCSH KYW WDEL WFRB WRC	E-10:00 pm, C-9:00, M-8:00, P-7:00	WNBX WCOO
WGY WBNB WCAE WTAM WWJ	C—"Your Hit Parade"	E-11:00 pm, C-10:00, M-9:00, P-8:00
WIRE WMAQ KSD KSTP WOW	WABC WOKO WCAO WEEI	B—National Barn Dance
WDAF WCKY WBRB	WKDW WBBM WKRC	KTAR KGWL KPFA KGRB KOA
E-9:30 pm, C18:30, M-7:30, P-6:30	KRNT WJR WDJC WFBM	KFJ KDYL KGW KOMO KPO
C—Saturday Night Serenade	WHAS KFAB WCAU WJAS	KHQ WHOW KTFI KOB KSEI
WCAO WEHI WKWB WBBM	KMOX WFBL WADC WBNS	

CLASSIFIED INDEX TO CHAIN PROGRAMS

WC indicates West Coast programs. Time is given in Eastern Standard, all P.M. unless otherwise stated.

Comedy

Sun,	5:30 pm, Lew Lehr, CBS
	6:30 pm, Billy House, CBS
	7:00, Jack Benny, Red
	11 pm, Lew Lehr, CBS (WC)
Mon,	7:30, Eddie Cantor, CBS
	8:00, Henry Youngman, CBS
	10:30, Eddie Cantor, CBS (WC)
Tues,	8:30, Parkyakarus, CBS
	10:00, Bob Hope, Red
	10:00, Jerry Colonna, Red
	12:00, Parkyakarkus, CBS (WC)
Wed,	9:00, Fred Allen, Red
Thur,	7:30, Joe Penner, CBS
	8:30, Joe Penner, CBS
	9:00, Frank oMrgan, Fannie Brice, Red
	10:00, Bob Burns, Red
Fri,	7:30, Jack Haley, CBS
Sat,	7:30, Joe E. Brown, CBS
	8:00, Col. Stoopnagle, Red
	11:00, Joe E. Brown, CBS (WC)

Mon,	11:00, Ben Bernie, CBS (WC)
	11:30, Harry Salter, Red (WC)
	8:00, Richard Himber, CBS
	8:00, Carl Hoff, Red
	8:30, Benny Krueger, CBS
	9:00, Phil Spitalny, Red
	9:30, Eddie Duchin, Red
	10:00, Guy Lombardo, CBS
	10:30, Carl Hoff, Red (WC)
Tues,	11:30, Benny Krueger, CBS (WC)
	8:00, Russ Morgan, Red
	8:30, Lud Gluskin, CBS
	8:30, Peter Van Steeden, Red
	9:30, Benny Goodman, CBS
	10:00, Skinnay Ennis, Red
	12:00, Lud Gluskin, CBS (WC)
Wed,	8:30, Paul Whiteman, CBS
	8:30, Tommy Dorsey, Red
	8:30, Harvey Salter, Blue
	9:00, Peter Van Steeden, Red
	9:30, David Broekman, CBS
	10:00, Kay Kyser, Red
	10:30, Frankie Masters, CBS
Thur,	7:30, Ben Pollack, CBS
	8:00, Jack Miller, CBS
	8:00, Rudy Vallee, Red
	8:30, Ben Pollack, CBS
	9:00, Meredith Willson, Red
	10:00, Johnny Trotter, Red
	11:30, Jack Miller, CBS (WC)
Fri,	7:30, Ted Fio Rito, CBS
	8:30, Ray Noble, CBS
	9:00, Victor Young, CBS
	9:00, Abe Lyman, Red
	10:00, Guy Lombardo, Red
	11:30, Ray Noble, CBS (WC)
Sat,	7:00, Saturday Night Swing Club, CBS
	7:30, Harry Sosnik, CBS
	8:00, Russ Morgan, CBS
	8:30, Fred Waring, Red
	9:00, America Dances, Red
	9:30, Gus Haenschen, CBS
	10:00, Hit Parade, CBS
	11:00, Harry Sosnik, CBS (WC)

Concerts

Sun,	12:30 pm, Radio City Music Hall, Blue
	3:00, N. Y. Philharmonic, CBS
	5:00, Metropolitan Opera Auditions, Blue.
	9:00, Ford Sunday Evening Hour, CBS
Mon,	8:30, Alfred Wallenstein, Red
Wed,	9:00, Everybody's Music, CBS
Fri,	8:00, Frank Black, Red

Dance Bands

Sun,	5:30 pm, Ben Bernie, CBS
	6:30, Carl Hohengarten, CBS
	7:00, Harry Salter, Red
	7:00, Phil Harris, Red
	7:30, Oscar Bradley, CBS
	8:00, Robert Armbruster, Red
	9:00, Don Donic, Red
	9:30, Gus Haenschen, Red
	10:00, Horace Heidt, Red

Sat,	7:00, Saturday Night Swing Club, CBS
	7:30, Harry Sosnik, CBS
	8:00, Russ Morgan, CBS
	8:30, Fred Waring, Red
	9:00, America Dances, Red
	9:30, Gus Haenschen, CBS
	10:00, Hit Parade, CBS
	11:00, Harry Sosnik, CBS (WC)

Dialog

- Sun, 8:00 pm, Edgar Bergen, Charlie McCarthy, Red
- Mon, 7:00, Amos 'n' Andy, Red
- 7:15, Lum and Abner, CBS
- 8:30, Pick and Pat, CBS
- 11:00, Amos 'n' Andy, Red (WC)
- 11:15, Lum and Abner, CBS (WC)
- 11:30, Pick and Pat, CBS (WC)
- Tues, 7:00, Easy Aces, Blue
- 7:00, Amos 'n' Andy, Red
- 9:30, Fibber McGee and Molly, Red
- 11:00, Amos n' Andy, Red (WC)
- Wed, 7:00, Amos 'n' Andy, Red
- 7:00, Easy Aces, Blue
- 7:15, Lum and Abner, CBS
- 11:00, Amos 'n' Andy, Red (WC)
- 11:15, Lum and Abner, CBS (WC)
- Thur, 7:00, Amos 'n' Andy, Red
- 7:00, Easy Aces, Blue
- 11:00, Amos 'n' Andy, Red (WC)
- Fri, 7:00, Amos 'n' Andy, Red
- 7:15, Lum and Abner, CBS
- 8:30, Burns and Allen, CBS
- 11:00, Amos 'n' Andy, Red (WC)
- 11:15, Lum and Abner, CBS (WC)
- 11:30, Burns and Allen, CBS (WC)
- Sat, 8:00, Tommy Riggs and Betty Lou, Red

Drama

- Sun, 6:00 pm, Silver Theater, CBS
- 6:30, Tale of Today, Red
- 8:00, Orson Welles, CBS
- 9:45, Irene Rich, Blue
- 11:15, Irene Rich, Blue (WC)
- Mon, 9:00, Lux Radio Theater, CBS
- Tues, 7:30, Helen Menken, Red
- 8:00, Edward Robinson, Claire Trevor, CBS
- 10:00, Jean Hersholt, CBS
- 11:30, Edward Robinson, Claire Trevor, CBS (WC)
- Wed, 8:00, Gang Buster (Phil Lord), CBS
- 8:00, One Man's Family, Red
- Thur, 10:00, Columbia Workshop, CBS
- Fri, 8:00, First Nighter, CBS
- 9:00, Hollywood Hotel, CBS
- 9:30, Death Valley Days, Red
- 10:00, Grand Central Station, CBS
- 12:00, First Nighter, CBS (WC)
- 8:00, Warden Lawes, Blue

News

- Sun, 11:00 pm, Press Radio, Red and Blue
- Fri, 9:30, March of Time, Blue
- Daily except Sunday, 6:00, Press Radio, CBS
- 6:25, Press Radio, Red
- Daily except Saturday and Sunday, 6:45, Lowell Thomas, Blue

Popular Programs

- Sun, 11:30 am, Major Bowes Family, CBS
- 12:30 pm, Salt Lake Tabernacle, CBS
- 1:00, Church of the Air, CBS
- 2:00, RCA Magic Key, Blue
- 4:30, Court of Human Relations, MBS
- 5:00, Spelling Bee, Red
- 6:30, The Laugh Line, CBS
- 7:30, Passing Parade, CBS

- 8:00, Chase and Sanborn Program, Red
- 9:00, Manhattan Merry-Go-Round, Red
- 9:30, Album of Familiar Music, Red
- Mon, 10:00, Horace Heidt's Brigadiers, Red
- 6:45, Sophie Tucker Show, CBS
- 8:00, Monday Night Show, CBS
- 8:00, Al Pearce and Gang, Red
- 8:30, Voice of Firestone, Red
- 9:00, Hour of Charm, Red
- 9:30, Pall Mall Program, Red
- 10:00, Contented Program, Red
- 10:00, True or False, Blue
- 10:30, Al Pearce and Gang, Red (WC)
- 11:30, Voice of Firestone, Red (WC)
- 12:30, Vox Pop, Red (WC)
- Tues, 8:00, Johnny Presents, Red
- 8:30, For Men Only, Red
- 9:00, We, The People, CBS
- 9:00, Vox Pop, Red (WC)
- 10:45, Uncle Ezra, Red
- Wed, 6:45, Sophie Tucker Show, CBS
- 7:30, Ask-It Basket, CBS
- 8:00, Town Hall Tonight, Red
- 8:30, Hobby Lobby, Blue
- 9:30, For Men Only, Red
- 10:30, It Can Be Done, CBS
- 10:30, NBC Minstrel Show, Blue
- Thur, 9:00, Major Bowes' Amateurs, CBS
- 9:00, Major Bowes' Amateurs, CBS
- 9:00, Good News of 1939, Red
- 10:00, Kraft Music Hall, Red
- Fri, 6:45, Sophie Tucker Show, CBS
- 8:00, Cities Serice Concert, Red
- 8:00, Warden Lawes, Blue
- 9:00, Waltz Time, Red
- 9:00, Hollywood Hotel, CBS
- 9:30, Death Valley Days, Red
- 9:30, March of Time, Blue
- 8:00, Johnny Presents, CBS
- 8:30, Professor Quiz, CBS
- 9:00, National Barn Dance, Blue
- 10:45, Uncle Ezra, Red
- 11:00, National Barn Dance, Blue (WC)

Singers

- Sun, 4:00 pm, Benay Venuta, MBS
- 5:30, Manny Prager, CBS
- 6:30, Jack Fulton, CBS
- 7:00, Kenny Baker, Red
- 8:00, Nelson Eddy, Red
- 8:00, Dorothy Lamour, Red
- 9:00, Rachel Carlay, Red
- 9:00, Pierre Le Kreun, Red
- 9:30, Frank Munn, Red
- 9:30, Jean Dickenson, Red
- 9:30, Elizabeth Lennox, Red

(Please turn to page 49)

Stations 'Round the World

FOLLOWING is a selected list of the powerful radio stations of the world. Every station shown in this list has actually been heard in the United States. The power is given in the third column, in kilowatts. For complete lists of broadcasting stations, readers are referred to the following issues of RABEX: Asia, February, 1938; Oceania, September, 1938; South America, October, 1938.

519	50.	Baranowicze, Poland. Testing.	780	JOPK	5	Shizuoka, Japan.
540	RW54	10. Khabarovsk, U.S.S.R.	780	LT1	5.	Rosario, Argentina.
546	120.	Budapest, Hungary	785	120.	Leipzig, Germany.	
550	2CR	10. Cumnook, NSW, Australia.	790	JOGK	10.	Kumamoto, Japan.
556	100.	Beromunster, Switzerland.	790	LR10	11.	Buenos Aires, Argentina.
560	MTCY	10. Shinkyo, Manchuria.	790	4YA	10.	Dunedin, New Zealand.
560	6WA	10. Minding, W.A., Australia.	795	50.	Lwow, Poland.	
565	100.	Athlone, Eire.	800	4QG	2.5	Brisbane, Qsld., Australia.
570	CB57	5. Santiago, Chile.	804	70.	Cardiff, Gt. Britain (Wales Regional).	
570	2YA	60. Wellington, New Zealand.				
574	100.	Stuttgart, Germany.	810	JOIK	10.	Sapporo, Japan.
580	3WA	10. Horsham, Vic., Australia.	830	LR5	29.	Buenos Aires, Argentina.
583	20.	Alpes-Grenoble, France.	830	3GI	7.	Longfield, Vic., Australia.
583	50.	Madona, Latvia.	840	PRH9	5.	Sao Paulo, Brazil.
590	JOAK1	150. Tokyo, Japan.	840	2YC	5.	Wellington, New Zealand.
590	LS10	6. Buenos Aires, Argentina	841	100.	Berlin, Germany.	
582	120.	Vienna, Germany.	850	JBCK	10.	Seishin, Korea.
600	PRH2	25. Porto Alegre, Brazil.	850	OAX4A	10.	Lima, Peru.
601	25.	Rabat, Morocco	850	100.	Sofia, Bulgaria.	
610	CX4	1. Montevideo, Uruguay.	859	100.	Strasbourg, France.	
610	TFC	3.5 Sydney, NSW, Australia.	860	PRA3	2.5	Rio de Janeiro, Brazil.
610	20.	Florence, Italy.	870	JOBK2	10.	Tokyo, Japan.
620	3AR	4.5 Melbourne, Vic., Australia.	870	LR6	26.	Buenos Aires, Argentina.
620	15.	Brussels I, Belgium.	870	2GB	1.	Sydney, NSW, Australia.
620	20.	Cairo No. 1, Egypt.	877	70.	London, Gt. Britain (London Regional).	
625	TIPG	2. San Jose, Costa Rica.				
630	LS3	5. Buenos Aires, Argentina.	880	PRJ3	22.	Bello Horizonte, Brazil.
630	4QN	7. Clevedon, Qsld., Australia.	882	YVSRQ	...	Caracas, Venezuela.
638	120.	Praha No. 1, Czechoslovakia	900	PRB7	5.	Rio de Janeiro, Brazil.
640	5CK	7.5 Crystal Brook, S.A., Australia	904	100.	Hamburg, Germany.	
648	100.	Lyon la Doua, France.	910	JOLK	5	Fukuoka, Japan.
650	1YA	10. Auckland, New Zealand.	910	LR2	12.	Buenos Aires, Argentina.
658	100.	Cologne, Germany.	910	4R5	2.	Rockhampton, Qsld. Australia
668	70.	Manchester, England (North Regional).	913	60.	Toulouse, France.	
		Buenos Aires, Argentina.	920	JQJK	5	Niigata, Japan.
670	LS4	7. Buenos Aires, Argentina.	922	32.	Brno, Czechoslovakia.	
670	PRC5	2. Belem, Brazil.	932	15.	Brussels, Belgium.	
670	2CO	7.5 Corowa, NSW, Australia.	940	JOBK2	10.	Osaka, Japan.
677	100.	Satten, Switzerland.	940	PRF4	10.	Rio de Janeiro, Brazil.
680	HJN	1. Bogota, Colombia.	941	12.	Algiers, Algeria.	
680	PRC2	5. Porto Alegre, Brazil.	950	LR3	31.	Buenos Aires, Argentina.
686	20.	Belgrade, Yugoslavia.	950	2UE	1.	Sydney, NSW, Australia.
690	JOBK1	10. Osaka, Japan.	959	60.	Paris, France, "Poste Parisien".	
695	120.	Paris, France.				
700	2NR	7. Grafton, NSW, Australia	960	PRF3	5.	Sao Paulo, Brazil.
704	55.	Stockholm, Sweden.	960	YV5RA	5.	Caracas, Venezuela.
710	LS1	5. Buenos Aires, Argentina.	977	100.	Belfast, Gt. Britain.	
710	7NT	7. Kelso, Tas., Australia.	980	PRE8	20.	Rio de Janeiro, Brazil.
713	120.	Rome No. 1, Italy.	980	YV1RB	1.	San Cristobal, Venezuela.
720	PRA8	25. Pernambuco, Brazil.	986	50.	Bologna, Italy.	
720	3YA	10. Christchurch, New Zealand.	990	JOCK2	10.	Nagoya, Japan.
730	JOCK1	10. Nagoya, Japan.	990	LR4	16.	Buenos Aires, Argentina.
730	5CL	4. Adelaide, S.O., Australia.	990	2GZ	2.	Orange, NSW, Australia.
731	38.	Turi, Estonia.	995	60.	Hilversum II, Netherlands.	
740	PRA4	10. San Salvador, Brazil.	1000	HJ3ABH	2.	Bogota, Colombia.
740	2BL	3. Sydney, NSW, Australia.	1000	PRB9	10.	Sao Paulo, Brazil.
740	100.	Munich, Germany.	1004	13.5	Bratislava, Czechoslovakia.	
749	100.	Marseille, France.	1005	YV5RG	...	Caracas, Venezuela.
750	LR4	10. Buenos Aires, Argentina.	1013	70.	Davenport, Gt. Britain (Mid-land Regional).	
758	12.	Katowice, Poland.				
760	CB76	10. Valparaiso, Chile.	1020	2KY	1.	Sydney, NSW, Australia.
760	PRA6	10. Sao Paulo, Brazil.	1030	LR9	5.	Buenos Aires, Argentina.
767	70.	Falkirk, Gt. Britain (Scottish Regional).	1031	100.	Konigsberg, Germany.	
		Sendai, Japan.	1040	CP4	10.	La Paz, Bolivia.
770	JOHK	10. Sendai, Japan.	1040	PRG2	10.	Sao Paulo, Brazil.
770	3LO	3.5 Melbourne, Vic., Australia.	1040	5PI	2.	Crystal Brook, S.A., Australia
776	120.	Toulouse, France.	1040	120.	Rennes Bretagne, France.	

1050 JOJG	5	Kagoshima, Japan.	1190 2CH	1.	Sydney, NSW, Australia.
1050	50.	Falkirk, Gt. Britain. (Scottish National).	1195	25.	Frankfort-am-Main, Germany.
1059	20.	Bari, Italy.	1213	60.	Lille, France.
1060 CB106	5.	Santiago, Chile.	1220 PRA9	25.	Rio de Janeiro, Brazil.
1060 JOJG	5	Toyama, Japan.	1220 4AK	2.	Oakey Qsld., Australia.
1060 PRD2	5.	Rio de Janeiro, Brazil.	1222	60.	Rome, Italy.
1070 LRI	50.	Buenos Aires, Argentina.	1230 LS8	15.	Buenos Aires, Argentina.
1077	60.	Bordeaux, France.	1230 2NC	2.	Newcastle, NSW, Australia.
1080 LT3	4.5	Rosario, Argentina.	1260 URA5	5.	Sao Paulo, Brazil.
1100 PRG9	20.	Sao Paulo, Brazil.	1260 3SR	2.	Shepparton, Vic., Australia.
1104	50.	Kuldiga, Latvia.	1270 LS9	6.	Buenos Aires, Argentina.
1110 LS5	5.	Buenos Aires, Argentina.	1270 2SM	1.	Sydney, NSW, Australia.
1113	100.	Praha II, Czechoslovakia.	1280 URG3	25.	Rio de Janeiro, Brazil.
1120 LV5	5.	San Juan, Argentina.	1300 2TM	2.	Tamworth, NSW, Australia.
1120 PRH8	5.	Rio de Janeiro, Brazil.	1310 LS11	10.	La Plata, Argentina.
1120 YV1RF	1.	Maracaibo, Venezuela.	1340 PRE4	5.	Sao Paulo, Brazil.
1120 4BC	1.	Brisbane, Qsld., Australia.	1350 LS6	6.	Buenos Aires, Argentina.
1131	100.	Horby, Sweden.	1360 PRC8	5.	Rio de Janeiro, Brazil.
1150 LR8	7.	Buenos Aires, Argentina.	1393	25.	Lyons, France.
1158	10.	Kosice, Czechoslovakia.	1400 PRD5	5.	Rio de Janeiro, Brazil.
1160 PRH3	5.	Sao Paulo, Brazil.	1410 2KO	5.3	Newcastle, NSW, Australia.
1167	15.	Monte Ceneri, Switzerland.	1411	15.	Pecamp, France (Radio Normandie).
1170 2NZ	2.	Inverell, NSW, Australia.	1450 PRE2	4.	Rio de Janeiro, Brazil.
1185	60.	Nice-Cote d'Azur, France.	1440 LS7	10.	Buenos Aires, Argentina.
1190 LS2	30.	Buenos Aires, Argentina.	1500 CB150	10.	Santiago, Chile.

(Continued from page 47)

Mon,	8:30,	Edward Roecker, CBS
	8:30,	Edward Roecker, CBS
	8:30,	Margaret Speaks, Red
	10:00,	The Lullaby Lady, Red
Tues,	8:30,	Al Jolson, CBS
	8:30,	Martha Raye, CBS
	9:30,	Donald Novis, Red
	12:00,	Al Jolson, CBS (WC)
	12:00,	Martha Raye, CBS (WC)
Wed,	9:30,	Jane Froman, CBS
	9:30,	Kenny Baker, CBS
	10:00,	Virginia Sims, Red
	10:30,	Marion Francis, CBS
Thur,	8:00,	Kate Smith, CBS
	10:00,	Bing Crosby, Red
	11:30,	Kate Smith, CBS (WC)
Fri,	7:30,	Jack Haley, CBS
	7:30,	Virginia Verrill, CBS
	8:00,	Lucille Manners, Red
	8:30,	Tony Martin, CBS
	9:00,	Frances Langford, CBS
	9:00,	Jean Sablon, CBS
	9:00,	Frank Munn, Red
	11:30,	Tony Martin, CBS (WC)
Sat,	9:00,	Henry Burr, Blue
	9:30,	Mary Eastman, CBS
	9:30,	Bill Perry, CBS
	10:00,	Fredda Gibson, Buddy Clark, CBS
	11:00,	Henry Burr, Blue (WC)

Talks

Sun,	9:30,	Walter Winchell, Blue
	11:00,	Walter Winchell, Blue (WC)
Mon,	7:15,	Edwin C. Hill, Red
	11:15,	Edwin C. Hill, Red
Tues,	9:00,	Gabriel Heatter, CBS
	10:30,	Jimmy Fidler, Red
Wed,	10:30,	Edgar A. Guest, CBS
Fri,	7:15,	Jimmy Fidler, Red
	10:30,	Jimmy Fidler, Red (WC)

M. B., North Lawrence, O.: My Philco 38 has been hooked up to use "A" and "B" batteries instead of the power pack. The tuning is broad, selectivity is poor and there is a lot of noise. Short waves do not work. What can I do?

Answer: It is likely that changing the set over might have had some slight influence, but it should not matter whether the current is obtained from batteries or the separate battery-eliminator or power pack. Have you made sure that you are using exactly the same battery power as is furnished by the pack if that were used? If the set is properly adjusted, it should work nicely and tune sharply. A poor oscillator tube (type 1A6) or failure in the "A" and "B" battery will prevent the set from oscillating as it should and put the short-wave band out of commission. The set will need a careful aligning of its tuning units. It has been noted, too, that defective i-f transformer leads give trouble in this set. You might take this up with the Philco factory (Service Department) in Philadelphia, Pa., if you think you cannot obtain first-class service in your vicinity. This is a good set with a high intermediate frequency (470 kcs.) to hold down outside interference to a minimum, but its 5 tubes never can provide the selectivity of a larger set.

Twenty Stentors

LISTED below are the twenty shortwave stations which possessed the loudest voices in each of the Time Zones last month. Arranged according to the number of reports received, this chart can be used by new listeners as a guide to the stations which they are most apt to receive in their own localities. Beginners should not attempt to tune for difficult catches until they become familiar enough with their receivers to bring in these easy-to-get stations regularly.

Best in EST	Best in CST	Best in MST	Best in PST	Best in World *
Paris	Praha	London	London	London
ZRK	VUD3	Paris	Berlin	Berlin
Rome	London	Berlin	VUD3	Malaga
Berlin	Paris	Rome	ZRK	ZIZ
London	Berlin	CSW3	Tokyo	W3XAL
TAP	HP5G	LRX	CFVP	TGWA
Tokyo	RK1	RAN	JFAK	VP3BC
VUD3	SPW	VUD3	PMH	SP48
VUD2	VUD2	XEWW	TAQ	HBO
VLR	TG2X	HCJB	VLR	SP31
VK3ME	Rome	TGWB	XGSA	EAJ43
SPW	ZRK	VLR	PLP	RW96
RW96	Tokyo	COBC	PMN	VUD2
RK1	HP5A	COCQ	RNE	Martinique
RAN	RW96	JIB	EAR	TAP
Praha	HJ3ABD	TAP	VK3ME	TAQ
ORK	TGWA	VK3ME	TAP	ZRK
HH2S	Huizen	EAR	JIB	Rome
HJ2ABJ	HJ1ABP	RNE	VLR	W2XAF
HJ1ABB	CSW3	YDB	RAN	HJ1ABP

*Exclusive of the USA and Canada.

Time is Eastern Standard. Subtract 1 hour for Central, 2 hours for Mountain and 3 hours for Pacific.

Belgrade: Emetteur a Ondes Courtes, Beograd, Yugoslavia. Announces in Serbian, Italian, English, German, Turkish, Hungarian, Albanian, Greek.

YUA, 6100 kcs, 1 kw, 12:45 am-5:30 pm.

Berlin. Deutscher Kurzwellensender, Haus des Rundfunks, Berlin, Charlottenburg 9. Transmitters are at Zeesen. Can be identified by a tune on a music box which precedes each transmission. These stations verify by card for an IRC.

The directions in which the programs are radiated are shown in parentheses: A, Asia; Af, Africa; CA, Central America; NA, North America; SA, South America

DJA, 9560, 12:05-11 am (A); 4:50-10:50 pm (CA).

DJB, 15200 kcs, 8-9 am (CA); 4:50-10:50 pm (NA); Sunday only 11:10 am-12:25 pm (NA).

DJC, 6020, 1-4:25 pm (Af).

DJD, 11770, 11:30 am-4:25 pm (Af); 4:50-10:50 pm (NA).

DJE, 17760, 12:05-5:50 am (A); 6-7:50 am (SA).

DJL, 15110, 12:05-2 am (Af); 8-9 am (NA); 10:35 am-4:25 pm (Af).

DJN, 9540, 12:05-11 am (A); 4:50-10:50 pm (SA).

DJQ, 15280, 12:05-11 am (A); 4:50-10:50 pm (SA). Sunday only, 11:10 am-12:25 pm (SA).

DJR, 15340, 12:05-11 am.

DJX, 9675, 11:30 am-4:25 pm (Af).

DJZ, 11801, 4:50-10:50 pm (NA).

Eindhoven: N. V. Philips' Radio, Eindhoven, Netherlands. Philips' Holland-India Broadcasting Station (PHOHI).

PCJ, 9590, Sun, 2-3 pm; 7:15-8:15 pm; 8:25-10:25 pm; Tues, 1:45-3:40 pm; 7:15-10:30 pm; Wed, 7:15-8:50 pm; Fri, 8-9 pm.

PCJ2, 15220, Tues, 2:-3:30 am;
Wed, 9:30-11:30 am.

PHI, 11730, Mon through Fri, 6:15-6:45 pm; Sat, 7:15-7:45 pm.

PHI2, 17770, Mon through Fri, 7:40-8:55 am; Sun, 6:25-9:40 am.

London: British Broadcasting Corp., London, W1, England. Big Ben strikes the hours. Reports are acknowledged but not positively verified. Transmitters are at Daventry.

GSA, 6050, 12:20-4 pm; 4:15-6 pm.

GSB, 9510, 1:30-4 pm; 4:15-8:30 pm; 9:20-11:20 pm.

GSC, 9580, 4:15-8:30 pm; 9:20-11:25 pm.

GSD, 11750, 3-5:15 am; 10:45 am-noon; 12:20-4 pm; 4:15-8:30 pm; 9:20-11:25 pm.

GSE, 11860, 3:5:15 am; 5:45-8:30 am; 9 am-noon.

GSF, 15140, 3-5 am; 5:45-8:50 am; 9 am-noon.

GSG, 17790, 5:45-8:50 am; 9 am-noon; 12:20-4 pm.

GSH, 21470, 5:45-8:50 am; 9 am-noon.

GSI, 15260, 3-5:15 am; 1:30-4 pm.

GSI, 21530, 5:45-8:50 am; 9-10:30 am.

GSL, 6110, 6-8:30 pm; 9:20-11:25 pm.

GSO, 15180, 3-5:30 am; 9-11 am; 4:15-8:30 pm.

GSP, 15310, 1:45-4 pm.

Malaga, Spain: 7220 and 14440 kcs, near 6:30 pm.

Martinique: "Radio Martinique," Fort de France, Martinique, 9700 kcs. Sign off with Marseillaise. Address, Poste Seri, Boite 136, 1:15-2:45 pm; 7:30-10:30 pm.

Paris: "Paris Mondial," Ministry of Posts, Telegraphs & Telephones, 107 rue de Grenelle, Paris VII, France. Programs open and close with the Marseillaise."

TPA2, 15243, 6-11 pm.

TPA3, 11885, 2-5 am; 11:15 am-6 pm.

TPA4, 11718, 7-9:15 pm; 9:30 pm-midnight.

TPB3, 17810, 9:30-11 am.

TPB6, 11718, 7-9:15 pm.

TPB7, 11885, 9:30 pm-midn't.

TPB11, 9550, 11:15 am-6 pm.

TPB11, 15130, 2-5 am.

Praha: The Czechoslovak Shortwave Station, Fochova Tr. 16.

OLR2A, 6010, 1:55-4:50 pm.

OLR4A, 11840, 4:50-6:30 pm; 7:55-10:50 pm; Sundays, 8:25-10:20 am.

OLR4B, 11760, daily except Sunday, 8:25-10:20 am.

OLR5A, 15230, Sunday, 5:55-8:10 am; daily except Sunday, 4:50-8 am.

Rome: E.I.A.R., 5 Via Montello, Rome, Italy.

ICC, 6355, 3-3:30 pm.

IQY, 11676, 12:10-1 pm; 1-19-1:36 pm; 3-3:30 pm; 4:15-4:55 pm; 6-9 pm.

IRF, 9830, 12:40-1 pm; 3-4:55 pm.

2RO, 11810, 4:40-8:45 am; 10 am-2:55 pm; 3:50-4:05 pm; 5:30-5:55 pm; 7-9 pm.

Tokyo: Broadcasting Corp. of Japan, Hibiya Park, Tokyo.

JVP, 7510, 8-9:30 am.

JZI, 9535, 2:30-4 pm; 4:30-5:30 pm.

JZJ, 11800, 7-7:30 am; 8-9:30 am; 2:30-4 pm; 4:30-5:30 pm; 8-8:30 pm.

CFVP, Calgary, Alta., "The Voice of the Prairies," 6030 kcs.

COBC, Havana, Cuba, "El Progreso Cubano," Apartado 132. 9960 kcs (reported on 9990). Daily, 6:55 am-midn't.

COCM, 9833, Havana, Cuba. Transradio Columbia, 23 No. 1113, Vedado. 8 am to 10:30 pm.

COCO, 6010, Havana, Cuba. Relays CMCK. Luis Casas R., Aptdo 98. 8 am-10 pm.

COCQ, 9670, Havana, Cuba, "de la RCA Victor," Calle 25 No. 225. Noon-10 pm.

CSW, 9940, Lisbon, Portugal, 1-8 pm.

EAR, Madrid, Spain, "The Voice of Republican Spain." Apartado 951. 9860 kcs. At 5:30, 8:30 and 9:40 pm.

HAT4, 9125, Budapest, Hungary, Sun, Wed, 7-8 pm; Sat, 6-7 pm.

HBO, Geneva, Switzerland, "Radio Nations." 11402 kcs. Sun, 1:45-2:30 pm.

- HCJB**, 4107, Quito, Ecuador, 7-8:15 am; 11:30 am-2:30 pm; 4:45-10:15 pm.
- HCJB**, 12450, Quito, Ecuador, 4:30-7:15 pm.
- HJIABP**, 9618, Cartagena, Colombia, Aptdo. 37, 6-10 pm.
- HJ3ABD**, 4840, Bogota, Colombia, Aptdo. 509, 9 am-2 pm; 6 pm-midn't.
- HP5A**, 11700, Panama City, Panama. Radio-Tatro Estrella de Panama, Aptdo. 054. Weekdays 6-10 pm.
- HP5C**, 11780, Janana City, Panama. "Ron Dalley," Box 1121. Daily 6-10 pm.
- JDY**, 9925, Dairen, Kwangtung. Relays JQAK. Daily 7-8 am.
- JFAK** or **JFO**, Itabushi, Taiwan. 9636 kcs. 6-8:30 am.
- JIB**, Taihoku, Taiwan, Relays JFAK. 10535 kcs. 9-10:30 am.
- LRX**, 9660, Buenos Aires, Argentina. "Radio El Mundo" Calls Maipu 555. Daily 10:30 am-12:30 am.
- OFB**, 15190, Lahti, Finland. Weekdays, 5-6:30 am; 10 am-5 pm.
- OFB**, 11780, Lahti, Finland, see OFB.
- OFD**, 9500, Lahti, Finland, see OFB.
- ORK**, Brussels, Belgium. 10330 kcs. 1:30-3 pm.
- OZF**, 9520, Copenhagen, Denmark, 2-6 pm; 10-11 pm.
- PLP**, 11000, Bandoeng, Java, N.E.I. Weekdays, 4:30-10 am.
- PMH**, Bandoeng, Java, N.E.I. 6710 kcs.
- PMN**, Bandoeng, Java, N.E.I. 10260 kcs. 7:30-11 am.
- RAN**, 9595, Moscow, U.S.S.R. Radio Centre, Soliakka 12. Daily 7-9:15 pm.
- RKI**, 7520, Moscow, U.S.R. Radio Centre, Soliakka 12. Daily 7-9:15 pm.
- RNE**, Moscow, U.S.S.R. 12000 kcs. Signs off with the "Internationale." Daily 7-9:15 pm.
- RW96** or **RV96**, Moscow, U.S.S.R. 15180 kcs.
- SPD**, 11535, Warsaw, Poland, 6-9 pm.
- SPW**, 13635, Warsaw, Poland, 6-9 pm
- SP31**, Warsaw, Poland. 9520 kcs. 3-5:30 pm.
- SP48**, Warsaw, Poland. 6140 kcs. 3-5:30 pm.
- TAP**, Ankara, Turkey. 9460 kcs. Tests.
- TAQ**, Ankara, Turkey. 15180 kcs. Tests.
- TGQA**, 6420, Quezaltenango, Guatemala. Sat, 10 pm-1 am Sun; Sun, 1-3 pm; other days, 9-11 pm.
- TCWA**, 9685, Guatemala City, Guat. Radiodifusora Nacional. Verifies free Sun, 7-10:45 pm. Weekdays, 10-11:30 pm.
- TCWA**, 15170, Guatemala City, Guat. Same as above.
- TC2X**, Guatemala City, Guat. Same as above.
- TI4NRH**, 9694, Heredia, Costa Rica. Aptdo. 40. Tues, Thur, Sat, 9-10 pm.
- VK2ME**, 9690, Sydney, Australia. Am? amalgated Wireless, 47 York St. Sun, 1-3 am; 5-11 am.
- VK3ME**, 9510, Melbourne, Australia. Amalgated Wireless, 167 King St. Weekdays 4-7 am.
- VK6ME**, 9590, Perth, Australia. Amalgated Wireless. Weekdays 4-6 am.
- VLR**, 9580, Melbourne, Australia. 3-9:45 am.
- VLR**, Melbourne, Vic., Australia. 11880 kcs. 1-3 am.
- VPD2**, 9530, Suva, Fiji, 5:30-7 am.
- VP3BC**, Georgetown, Brit. Guiana. Crystal Broadcasting Co. 6130 kcs.
- VUB2**, 5905, Bombay, India, 7 am-12:30 pm.
- VUB2**, 9550, Bombay, India, 1-3:30 am; 9:30-11:30 pm.
- VUC2**, 5880, Calcutta, India, 6:30 am-noon.
- VUC2**, 9530, Calcutta, India, 2-4 am.
- VUD2**, 5995, Delhi, India, 7:30 am-12:30 pm.
- VUD2**, 9590, Delhi, India, 1:30-3:30 am; 8:30-11:30 pm.
- VUD3**, 15160, Delhi, India, 7:30 am-12:30 pm.
- VUM2**, 5880, Madras, India, 7 am-12:30 pm.
- W2XE**, New York, N. Y. Columbia Broadcasting Sys., 485 Madison Ave. 6120 kcs: 11:30 pm to 12:30 am. 11830 kcs: Sat and Sun, 6:30-11 pm; Mon through Fri, 6-11 pm. 6120 kcs: Sat and Sun, 8 am to 1 pm; Mon through Fri 7:30 am.
- W3XAL**, New York, N. Y. (Bound Brook, N. J.). National Broadcasting Co., Rockefeller Plaza.

6100 kcs: 9 pm to 1 am.

17780 kcs: 9 am to 9 pm.

W3XAU, Philadelphia, Pa. 1622 Chestnut St.

6060 kcs: Tues, Fri, Sun, 1 pm to midnight; Wed, 1-10 pm.

9590 kcs: Mon, Thur, Sat, 1 pm to 1 am.; Tues, Fri, Sun, midnight to 1 am; Wed, 10 pm to 1 am.

XETA, 11760, Monterrey, N. J., Mexico. Aptdo. 203. Daily 1:30-3:30 pm.

XEWI, 11900, Mexico City, D. F. 9 pm to midnight.

XEWW, 15160, Mexico City, D. F. Aptdo. 2516. 8 pm to 12:30 am.

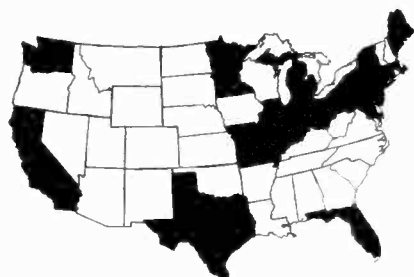
XGSA, Kweiyang, China. 7000 kcs. 8-11:15 am.

ZBW3, 9525, Hong Kong, Box 200. Sun midnight to 1 am; 3-9:30 am. Weekdays 4-10 am.

ZGE, 6200, Kuala Lumpur, Fed. Malay States. Sun, Tues, Fri, 6:40-8:40 am.

ZIZ, Basseterre, St. Kitts. 6380 kcs.

ZRK, 9606, Cape Town, U. of South Africa. P. O. Box 4559, Johannesburg. Sun, 3:30-4:30 am; 8-11:40 am. Weekdays, 11:45 pm to 12:45 am.



The map of the United States which will head this column every month will show RADEX readers and Radex Club Members the extent of the growth of their club each month. In the states which are shown in solid black, there are at least five members of the Club enrolled. Let us see how quickly we can fill in the entire map.

Membership in the RADEX Club is now available to anyone who is interested in DXing. There is no charge, and no obligation. Whether you are a subscriber or a newsstand reader, you can become a member of this club simply by making application on a postal card.

Mr. John Beardall, Manager and Owner of CFCO in Chatham, Ontario, and long a good friend of RADEX, is now an Honorary Member of The Radex Club, and has offered the assistance of his radio station to our Club. Station CFCO, operating on 630 kcs., broadcasts a Radio Club Program every Sunday morning from 10:15 to 10:45 am, EST. This program, an informal chatter period, is dedicated to the interest of better radio, and to the comfort of radio fans. All readers who are within reach of CFCO are urged to tune in this splendid program.

Miss Margaret Bossett (R167) and Catherine Bossett (R452) of 870 Sanford Ave., Irvington, N. J., have announced their wish to launch a local chapter of The Radex Club, and desire DXers in their vicinity to get in touch with them and aid them in the inauguration of this group. There are many reader-members in the Newark-Elizabeth-Irvington section of

Applications to F. C. C.

(Continued from inside front cover)

CP 1420 kcs., 100 (.25) unlt. (E).

NEW, Hastings, Nehr., South Nebr. Brdstg. Co., CP 920 kcs., 1000 (5) unlt. (E).

NEW, Louisville, Ky., Ky. Brdstg. Corp., CP 1210 kcs., 100 (.25) (E).

NEW, Mansfield, Ohio, CP 1370 kcs., 250 w. days (E).

NEW, Metuchen, N. J., Bernard Goldsmith. CP 1420 kcs., 100 w. days (E).

NEW, Norfolk, Va., Colonial Brdstg. Corp., CP 1370 kcs., 100 (.25) (C).

NEW, Ocala, Fla., John T. Alsop, Jr., CP 1500 kcs., 100 w. unlt. (E).

NEW, Phoenix, Ariz., M. C. Reese, CP 1200 kcs., 100 (.25) (E).

NEW, Rockville, Md., Monocacy Brdstg. Co., CP 1140 kcs., 250 w. days (E).

NEW, San Juan, P. R., Enrique Abarca San feliz, CP 580 kcs., 1000 (5) (E).

NEW, Sedalia, Mo., CP 1500 kcs., 100 (.25) unlt. (E).

Jersey and we believe they will welcome this opportunity to gather together and discuss their catches and problems. We believe the idea is a splendid one, and hope that the Misse Bossett will enjoy a hearty response to their plan.

Recommendations to FCC Examiners

KATE, Albert Lea, Minn., rec. grant of appl. for mod. of lic. for 100 (.25) (C).

KEEN, Seattle, Wash., rec. grant of CP for 1420 kcs., 100 (.25).

KOY, Phoenix, Ariz., rec. grant of app. for mod. of lic. for 550 kcs.

WGNY, Newburgh, N. Y., rec. grant of CP for 1220 kcs., 250 w. days.

WHP, Harrisburg, Pa., rec. grant of CP for 1000 (5).

WPRA, Mayaguez, P. R., rec. grant of CP for 780 kcs., 1000 (2.5) (C).

WRBL, Columbus, Ga., rec. mod. of CP for 1330 kcs., 1 kw. (C).

WTAQ, Green Bay, Wis., rec. grant of CP for 1000 (5).

NEW, Atlantic City, N. J., Press Union Pub. Co., rec. grant of CP for 1200 kcs., 100 (.25) unlt'd.

NEW, Denver, Colo., F. W. Meyer, rec. grant of CP 1310 kcs., 100 (.25).

NEW, Emporia, Kans., Emporia Brdcastg. Co., Inc., rec. grant of CP 1370 kcs., 100 w. days.

NEW, Goldsboro, N. C., rec. grant of CP 1370 kcs., 100 w. unlt'd. (C).

NEW, New Bern, N. C., Nathan Frank, rec. grant CP 1500 kcs., 100 w.

NEW, Rock Hill, S. C., rec. grant CP 1500 kcs., 100 w. days.

NEW, St. Petersburg, Fla., Pinellas Brdcastg. Co., rec. grant CP 1370 kcs., 100 (.25) unlt'd.

NEW, Vancouver, Wash., Vancouver Radio Corp., rec. grant CP 880 kcs., 250 w. days.

NEW, Washington, D. C., Lawrence J. Heller, rec. denial CP 1310 kcs., 100 (.25).

The Month's Changes in Station Data

New

540 CBK Saskatoon, Sask.
920 CMHT Trinidad, Cuba
1050 CBA Saskville, N. B.

1100 CMHP Placeas, Cuba
1210 WJLS Bckly, W. Va.
1290 WJHP Jacksonville, Fla.
1370 CFOS Owen Sound, Ont.
1500 KTOH Lihue, Hawaii

Frequency

550 CMBD Havana, Cuba, from 1260
610 CHNC New Carlisle, P. Q., from 960
660 CMCR Havana, Cuba, from 1380
710 CMKS Guantanamo, Cuba, from 960
740 CMJX Camaguey, Cuba, from 830
750 CMKW Santiago, Cuba, from 1350
860 CMJA Camaguey, Cuba, from 1010
910 CMKD Saniago, Cuba, from 1050
930 CMJF Camaguty, Cuba, from 1010
950 CMKL Bayamo, Cuba, from 990
1060 CMHI Santa Clara, Cuba, from 1210
1070 CMJW Camaguey, Cuba, from 1340
1080 CMBX Havana, Cuba, from 1070
1090 CMHA Sagua la Grande, Cuba, from 1070
1210 CMHK Cruces, Cuba, from 1330
1230 CMJE Camaguey, Cuba, from 1220
1240 CMAB Pinar del Rio, Cuba, from 1340
1260 CMJO Havana, Cuba, from 1180
1360 KLPN Minot, N. Dak., from 1240
1420 CMJP Moron, Cuba, from 1430
1420 WBNO New Orleans, La., from 1200
1430 KINY Juneau, Alaska, from 1310
1480 CMHX Cienfuegos, Cuba, from 1300
1500 WHEF Guines, Cuba, from 1540

Power

570 CMCY Havana, Cuba, 15000 from 10000
790 CMGH Matanzas, Cuba, 200 from 250
910 CMOA Havana, Cuba, 250 from 150
1110 CMCJ Havana, Cuba, 200 from 500
1120 CMGF Matanzas, Cuba, 200 from 75
1130 CMJI Ciego de Avila, Cuba, 200 from 150
1380 KQV Pittsburgh, Pa., 1000 from 500
1380 WSMK Dayton, Ohio, 250 from 200

Location

1400 WLTH New York, N. Y., from Brooklyn, N. Y.

Network

620 WLBZ Bangor, Maine, NBC from CBS
830 WEEU Reading, Pa., new Red
1190 KTKC Visalia, Calif., new MBS
1200 CHGB St. Anne de la Pocatiere, P. Q., new CBS
1310 KRRV Sherman, Texas, new MBS
1370 WRDO Augusta, Maine, new NBC
1380 WNBC New Britain, Conn., new Red

Delete

1580 CM9RT Kosiusk, Miss.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES
WITH SUNDAY'S TIME ON THE AIR

KEY TO SYMBOLS

As shown in the Index by Frequencies

Frequencies are given in kilocycles per second, and wavelengths in meters. Night power is shown in watts in third column. Daytime power is shown in parentheses in fourth column, in kilowatts. Thus: (.25) indicates 250 watts. Exact frequencies, when not multiples of ten, are shown in the fourth column.

- Second Column Symbols**
 a Verifies for return postage.
 b Verifies only occasionally.
 c Does not verify.
 d Verifies — no postage required.
 e Verifies for International Reply Coupon
 f Verifies for 10 cents.
 g Card for postage; veri stamp for 10c.
 z No information available.
- Fourth Column Symbols**
 A Status in doubt—in Court.
 B National "Blue" Network.
 C Columbia Network.
 D Daytime only.
 F Canadian Network.
- G** Assigned this frequency but using another under Special Authorization.
H Assigned another frequency —using this one under Special Authorization.
J Assigned lower power but using this power under Special Authorization.
K Licensed for facsimile.
L Limited time.
M Mutual Network.
N National "Red" and "Blue" Networks.
P Has Construction Permit only.
- Q** Station not in use.
R National "Red" Network.
S Sundays only.
Sy Synchronized.
X Has Permit to change power.
Y Has Permit to change location.
Z Has Permit to change frequency.
- a-b-c Small letters show stations using same transmitter.
 1-2-3 Figures denote stations sharing time.
 ... No information.

LS means Local Sunset, and always refers to sunset at the transmitter.

540 kcs. (555.2 m.)



	EASTERN STANDARD	PACIFIC STANDARD
CBK z 50000 P	Saskatoon, Sask.	
CJRM a 1000 F	Regina, Sask.	Noon-12:30 am.
ZNS d 400	Nassau, Bahamas	1:30-1:45 pm; 8:30-9:30 pm.
		(9 am-9:30 pm) (10:30 - 10:45 am; 5:30-6:30 pm)

550 kcs. (545.1 m.)



CFNB a 500 F(1)	Fredericton, N. B.	7 am-11 pm.	(4 am-8 pm)
CMBD z 200	Havana, Cuba		
KFUO a 500 2(1)	St. Louis, Mo.	9:30 am-1:30 pm; 4-5:30 pm; 10:15-11:15 pm.	(6:30-10:30 am; 1-2:30 pm; 7:15-8:15 pm.)
KFYR a 1000 N(5)	Bismarck, N. Dak.	9 am-1 am.	(6 am-10 pm)
KOAC a 1000	Corvallis, Ore.	Silent	(Silent)
KSD a 1000 2R(5)	St. Louis, Mo.		
KTSA a 1000 C(5)	San Antonio, Tex.		
WDEV a 500 D	Waterbury, Vt.	10 am-12:30 pm.	(6:30(7-9:30 am)
WGR a 1000 C(5)	Buffalo, N. Y.	7 am-midnight.	(4 am-9 pm)
WKRC a 1000 C(5)	Cincinnati, Ohio	8 am-2 am.	(5 am-11 pm)
WWSA a 500 D	Harrisonburg, Va.	9:30 am-5 pm.	(6:30 am-2 pm)

560 kcs. (535.4 m.)



KFDM a 500 N(1)	Beaumont, Texas		
KLZ a 1000 C(5)	Denver, Colo.	8:55 am-2 am.	(5:55 am-11 pm)
KSFO a 1000 C(5)	San Francisco, Calif.	9:10 am-3 am.	(6:10 am-midnight)
KWTO a 5000 D	Springfield, Mo.		
WFIL a 1000 BMX	Philadelphia, Pa.	8 am-12:30 am.	(5 am-9:30 pm)
WIND a 1000 (5)	Gary, Ind.	9 5 am.	(6-2 am)
WIS a 1000 N(5)	Columbia, S. C.	8 am-midnight.	(5 am-9 pm)
WQAM a 1000 C	Miami, Fla.	7:45 am-midnight	(4:45 am-9 pm)

570 kcs. (526 m.)



CMCY a 15000	Havana, Cuba		
KGKO a 1000 B(5)	Ft. Worth, Texas		
KMTR a 1000	Los Angeles, Calif.	8 am-2 am.	(5 am-11 pm)
KVI a 1000 C(5)	Tacoma, Wash.	11-3 am.	(8 am-midnight)
WKBN a 500 1C	Youngstown, Ohio		
WMCA a 1000	New York, N. Y.		
WNAX a 1000 C(5)	Yankton, S. Dak.		
WOSU a 750 1(1)	Columbus, Ohio	Silent	(Silent)
WSYR a 1000 Ba	Syracuse, N. Y.	8 am-midnight	(5 am-9 pm)
WSYU a 1000 Qa	Syracuse, N. Y.		
WWNC a 1000 N	Asheville, N. C.	7:30 am-1 am.	(4:30 am-10 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

580 kcs. (516.9 m.)

CFPR	a	50	....	Prince Rupert, B. C.	Silent.	(Silent)
CHRC	a	100	....	Quebec, P. Q.	11:30 am-midnight	(8:30 am-9 pm)
CKCL	a	100	F	Toronto, Ont.	10 am-11:30 pm.	(7 am-7:30 pm)
CKPR	a	1000	....	Fort William, Ont.	1:30 pm-11:30 pm;	(10:30 am-8:30 pm)
CKUA	c	500	....	Edmonton, Alta.	11:15 pm-12:45 am.	(8:15 pm-9:45 pm)
KMJ	a	1000	KN	Fresno, Calif.	11 am-3 am.	(8 am-midnight)
KSAC	a	500	2(1)	Manhattan, Kans.	Silent.	(Silent)
WCHS	a	500	C(1)	Charleston, W. Va.	8:45-1 am.	(5:45 am-10 pm)
WDBO	a	1000	C(5)	Orlando, Fla.	7:30-12:05 am.	(4:30 am-9:05 pm)
WIBW	a	1000	C2(5)	Topeka, Kans.	9 am-1 am.	(6 am-10 pm)
WILL	a	1000	DX	Urbana, Ill.	Silent.	(Silent)
WTAG	a	1000	R	Worcester, Mass.	9 am-midnight.	(6 am-9 pm)
XEMU	z	250	....	Piedras Negras, Coah.		

590 kcs. (508.2 m.)

KHQ	a	1000	R(5)	Spokane, Wash.	11 am-3 am.	(8 am-midnight)
WEEI	a	1000	C(5)	Boston, Mass.	8-1 am.	(5 am-10 pm)
WKZO	a	1000	BDX	Kalamazoo, Mich.	8:15 am-5:15 pm.	(5:15 am-2:15 pm)
WOW	a	1000	R(5)	Omaha, Nebr.	8 am-2 am.	(5 am-11 pm)

600 kcs. (499.7 m.)

CFCF	a	500	BF	Montreal, P. Q.	9 am-11:15 pm.	(6 am-8:15 pm)
CJOR	a	500	....	Vancouver, B. C.	Noon-12:45 am.	(9 am-9:45 pm)
FQN	a	250	609	St. Pierre, Miquelon		
KFSD	a	1000	B	San Diego, Calif.	11 am-3 am.	(8 am-midnight)
WCAO	a	1000	CJ	Baltimore, Md.	8:45 am-midnight.	(5:45 am-9 pm)
WICC	f	500	BM(1)	Bridgeport, Conn.	8-1:30 am.	(5 am-10:30 pm)
WMT	a	1000	BM(5)	Cedar Rapids, Iowa	6:30 am-1 am.	(3:30 am-10 pm)
WREC	a	1000	C(5)	Memphis, Tenn.	7:30 am-1 am.	(4:30 am-10 pm)

610 kcs. (491.5 m.)

CHNC	a	1000	F	New Carlisle, P. Q.	10 am-1:15 am.	(7 am-10:15 pm)
KFAR	z	1000	P	Fairbanks, Alaska		
KFRC	c	1000	M(5)	San Francisco, Calif.		
WCLE	a	500	DM	Cleveland, Ohio	7:45 am to Cleveland SS.	(4:45 am to Cleveland SS)
WDAF	a	1000	R(5)	Kansas City, Mo.	8-1 am.	(5 am-10 pm)
WIOD	a	1000	Na	Miami, Fla.	8 am-midnight.	(5 am-9 pm)
WIP	a	1000	....	Philadelphia, Pa.	7 am-1 am.	(4 am-10 pm)
WMBF	a	1000	Qa	Miami, Fla.		

620 kcs. (483.6 m.)

KGW	a	1000	R(5)	Portland, Ore.	9 am-2 am.	(6 am-11 pm)
KTAR	a	1000	N	Phoenix, Ariz.	9 am-1:15 am.	(6 am-10:15 pm)
KWFT	z	250	(1)P	Wichita Falls, Tex.		
TIPG	z	2000	625	San Jose, Costa Rica		
WFLA	a	1000	Na(5)	Tampa, Fla.	8 am-1 am.	(5 am-10 pm)
WHJB	a	250	CD	Greensburg, Pa.	8 am-5 pm.	(5 am-3 pm)
WLBZ	a	500	MN(1)	Bangor, Maine		
WSUN	a	1000	Na(5)	St. Petersburg, Fla.	11 am-1 am.	(8 am-10 pm)
WTMJ	a	1000	N(5)	Milwaukee, Wis.	7:15 am-1:30 am.	(4:15 am-10:30 pm)

630 kcs. (475.9 m.)

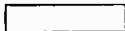
CFCO	a	100	F	Chatham, Ont.	10:15 am-10:30 pm.	(7:15 am-7:30 pm)
CFCY	a	1000	F	Charlottetown, P.E.I.	9 am-11 pm.	(6 am-8 pm)
CJRC	a	1000	F	Winnipeg, Man.	Noon-11:30 pm.	(9 am-8:30 pm)
CKOV	a	100	F	Kelowna, B. C.	Noon-2 am.	(9 am-11 pm)
CMCD	a	15000	....	Havana, Cuba		
KFRU	a	500	1(1)	Columbia, Mo.	8:30 am-6 pm.	(5:30 am-3 pm)
KGFX	a	200	D	Pierre, S. Dak.		
WGBF	a	500	N(1)	Evansville, Ind.	8-1 am.	(5 am-10 pm)
WMAL	a	250	B(5)	Washington, D. C.	7 am-2 am.	(4 am-11 pm)
WPRO	a	500	C(1)	Providence, R. I.	8 am.-midnight	(5 am-9 pm)
XEZ	a	500	....	Merida, Yuc.	10:30 am-4:30 pm.	(7:30 am-1:30 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

640 kcs. (468.5 m.)



KFI f 50000 R
 WGAN a 500 D
 WHKC a 500 ML
 WOI a 5000 D
 XEBX z 250
 YSS a 500

Los Angeles, Calif.
 Portland, Me.
 Columbus, Ohio
 Ames, Iowa
 Sabinas, Coah.
 San Salvador, E. S.

11-3 am.
 8 am-8 pm.
 8:30 am-8:30 pm.
 Usually silent.

(8 am-midnight)
 (5 am-5 pm)
 (5:30 am-5:30 pm)
 (Usually silent)

650 kcs. (461.3 m.)



TIX z 1000
 WSM a 50000 KMN

San Jose, Costa Rica
 Nashville, Tenn.

660 kcs. (454.3 m.)



CMCR z 150
 WAAW a 500 D
 WFAF a 50000 R
 ZEAL z 1000
 XEAO a 250

Havana, Cuba
 Omaha, Nebr.
 New York, N. Y.
 Mexico City, D. F.
 Mexicali, B. Cfa.

9 am-5 pm.
 8 am-1 am.

(6 am-2 pm)
 (5 am-10 pm)

670 kcs. (447.5 m.)



WMAQ c 50000 R
 XELO a 10000

Chicago, Ill.
 Tijuana, B. Cfa.

9 am-2 am.

(6 am-11 pm)

680 kcs. (440.9 m.)



CMHW f 200
 KFEQ a 2500 D
 KPO a 50000 R
 VAS f 2000 685
 VOWR c 500 681
 WLAW a 1000 D
 WPTF a 5000 N

Santa Clara, Cuba
 St. Joseph, Mo.
 San Francisco, Calif.
 Glace Bay, N. S.
 St. John's, Nfld.
 Lawrence, Mass.
 Raleigh, N. C.

8 am-noon; 3 pm-11 pm.
 7 am-1 S.
 Reports at noon and 11 pm.
 8 am to local sunset.
 9 am-11 pm.

(5-9 am; noon-8 pm)
 (4 am-1 S.)
 (Reports at 9 am and 8 pm)
 (5 am to sunset at Lawrence, Mass.)
 (6 am-8 pm)

690 kcs. (434.5 m.)



CMBG a 200
 CFRB a 10000 C
 CJCJ a 100 F
 XET a 5000

Havana, Cuba
 Toronto, Ont.
 Calgary, Alta.
 Monterey, N. L.

10:30 am-midnight
 11 am-1 am.

7:30 am-9 pm)
 (8 am-10 pm)

700 kcs. (428.3 m.)



WLW a 50000 JKMN

Cincinnati, Ohio

8 am-2 am.

(5 am-11 pm)

710 kcs. (422.3 m.)



CMKS a 200
 KIRO a 1000 CHJ
 KMPC a 500 L
 WOR a 50000 KM
 XEQ a 50000

Guantanamo, Cuba.
 Seattle, Wash.
 Beverly Hills, Calif.
 Newark, N. J.
 Mexico City, D. F.

9 am-7 pm.
 9 am-4 am.
 8 am-1:30 am.

(6 am-4 pm)
 (6 am-1 am)
 (5 am-10:30 pm)

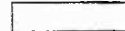
720 kcs. (416.4 m.)



CMK a 250
 TIGH z 600 725
 WGN a 50000 KM
 XEH a 250

Havana, Cuba
 San Jose, Costa Rica
 Chicago, Ill.
 Monterrey, N. L.

730 kcs. (410.7 m.)



CFPL a 100 F
 CJCA a 1000 F

London, Ont.
 Edmonton, Alta.

9 am-3 am.
 11 am-2 am.

(6 am-midnight)
 (8 am-11 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

CKAC	a	5000	C	Montreal, P. Q.	7:30 am-1 am.	(4:30 am-10 pm)
CKPR	a	100	F	Fort William, Ont.	9 am-11 pm.	(6 am-8 pm)
XEPN	a	100000	....	Piedras Negras, Coah.		
740 kcs. (405.2 m.) []						
CMJX	z	200	....	Camaguey, Cuba		
KMMJ	a	1000	D	Clay Center, Nebr.		
KTRB	a	250	D	Modesto, Calif.	9 am-10:30 pm.	(6 am-7:30 pm)
WHEB	a	250	D	Portsmouth, N. H.	8 am to sunset at Atlanta, Ga.	(5 am to Atlanta sunset)
WSB	a	50000	R	Atlanta, Ga.	5:55 am-1 am.	(3:55 am-10 pm)
750 kcs. (399.8 m.) []						
CMBL	z	500	....	Havana, Cuba		
CMKW	a	200	....	Santiago, Cuba.		
KGU	a	2500	LN	Honolulu, Hawaii	11:30 am-4:30 am.	(8:30 am-1:30 am)
WJR	a	50000	C	Detroit, Mich.	7 am-2 am.	(4 am-11 pm)
XEAA	a	200	....	Mexicali, B. Cfa.		
XEAM	z	25	....	Matamoros, Tams.		
760 kcs. (394.5 m.) []						
KXA	a	250	(.5)X	Seattle, Wash.		
WBAL	a	2500	BMSy	Baltimore, Md.	9 pm-1 am.	(6 pm-10 pm)
WCAL	a	1000	2(5)	Northfield, Minn.	Sunrise-LS.	(Sunrise-LS)
WEW	a	1000	D	St. Louis, Mo.	7 am-LS.	(4 am-LS)
WJZ	a	50000	BSy	New York, N. Y.	8 am-1 am.	(5 am-10 pm)
WLB	a	1000	2(5)	Minneapolis, Minn.		
770 kcs. (389.4 m.) []						
KFAB	a	10000	CSyXZ	Lincoln, Nebr.		
WBBM	a	50000	CSy	Chicago, Ill.		
780 kcs. (384.4 m.) []						
CHWK	f	100	F	Chilliwack, B. C.	Noon to midnight	(9 am-9 pm)
CKSO	a	1000	F	Sudbury, Ont.	Noon to midnight	(9 am-9 pm)
CMCU	a	150	....	Havana, Cuba	6:55 am-1 am.	(3:55 am-10 pm)
KEHE	a	1000	(5)	Los Angeles, Calif.		
KFDY	a	1000	D	Brookings, S. Dak.	1:30 pm-3 pm.	(10:30 am-noon)
KFQD	c	250	....	Anchorage, Alaska	11 pm-5 am.	(8 pm-2 am)
KGHL	a	1000	N(5)	Billings, Mont.		
KWLK	a	250	D	Langview, Wash.	11 am to sunset at Longview, Wash.	(8 am to L. S.)
WEAN	a	1000	BM(5)	Providence, R. I.		
WMC	a	1000	R(5)	Memphis, Tenn.	8 am-1 am.	(5 am-10 pm)
WPIC	a	250	D	Sharon, Pa.	8 am to L. S.	(5 am to sunset at Sharon)
WTRAR	a	1000	N	Norfolk, Va.	8:30 am-midnight	(5:30 am-9 pm)
XEN	a	1000	....	Mexico City, D. F.		
790 kcs. (379.5 m.) []						
CMGH	a	200	....	Matanzas, Cuba		
KGO	a	7500	B	San Francisco, Calif.	7 am-1 am.	(3 am-10 pm)
KOAM	a	1000	DN	Pittsburg, Kans.	8:30 am to L. S.	(5:30 am to sunset at Pittsburg)
WGY	a	50000	R	Schenectady, N. Y.	9 am-1 am.	(6 am-10 pm)
800 kcs. (374.8 m.) []						
HIX	a	800	....	Ciudad Trujillo, D. R.		
TIXD	z	1000	....	San Jose, Costa Rica		
WBAP	a	50000	Na	Fort Worth, Tex.	9:30-10:15 am; 11 am-1 pm; 4:30-6:30 pm; 10 pm-1 am.	(6:30-7:15 am; 8-10 am; 1:30-3:30 pm; 7 pm-10 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

WFAA	a	50000	Na	Dallas, Texas	3:30-9:30 am; 10:15-11 am; 1-4:30 pm, 6:30-10 pm.	(5:30-6:30 am; 7:15-8 am; 10 am-1:30 pm; 3:30-7 pm)	
WTBO	a	250	D	Cumberland, Md.	7:30 am-6 pm.	(4:30 am-3 pm)	
310 kcs. (370.2 m.)							
CMCF	a	5000		Havana, Cuba	8 am-midnight.	(6 am-10 pm)	
WCCO	g	50000	C	Minneapolis, Minn.	9 am-1 am.	(5 am-9 pm)	
WNYC	a	1000	D	New York, N. Y.			
XFBZ	a	100		Mexico City, D. F.			
XEDF	a	100		Nuevo Laredo, Tams			
820 kcs. (365.6 m.)							
WHAS	a	50000	C	Louisville, Ky.			
XEBG	z	1000		Tijuana, B. Cfa.			
830 kcs. (361.2 m.)							
KOA	a	50000	R	Denver, Colo.	9 am-2 am.	(6 am-11 pm)	
WEEU	a	1000	DR	Reading, Pa.	8 am-5 pm.	(5 am-2 pm)	
WHDH	a	1000	I.	Boston, Mass.			
WRUF	a	5000	L	Gainesville, Fla.	7 am-6:30 pm.	(4 am-3:30 pm)	
840 kcs. (356.9 m.)							
CBL	a	50000	F	Toronto, Ont.	10:30 am-midnight	(7:30 am-9 pm)	
CFQC	a	1000	F	Saskatoon, Sask.			
VOGY	a	400		St. Johns, Nfld.			
XERA	a	250000		Villa Acuna, Coah.			
850 kcs. (352.7 m.)							
CMCM	a	250		Havana, Cuba			
KIEV	a	250	D	Glendale, Calif.			
WESG	a	1000	CDH	Elmira, N. Y.	9 am to sunset at	(6 am to sunset at	
WKAR	a	1000	DX	E. Lansing, Mich.	New Orleans	New Orleans)	
WWL	a	10000	CX	New Orleans, La.	7 am-5 pm.	(4 am-2 pm)	
860 kcs. (348.6 m.)							
CMJA	a	250		Camaguay, Cuba.			
WABC	a	50000	Ca	New York, N. Y.	7:30 am-1 am.	(4:30 am-10 pm)	
WBOQ	a	50000	Qa	New York, N. Y.			
WHB	a	1000	DM	Kansas City, Mo.			
XEMO	a	5000		Tijuana, B. Cfa.	9:45 am-3 am.	(6:45 am-midnight)	
870 kcs. (344.6 m.)							
WENR	c	50000	Ba	Chicago, Ill.	1 pm-8 pm; 9 pm-2 pm.	(10 am-5 pm; 6 pm-11 pm)	
WLS	a	50000	Ba	Chicago, Ill.	8 am-1 pm; 8-9 pm.	(5 am-10 am; 5-6 pm)	
XEFB	a	200		Monterrey, N. L.			
XERC	z	500		Mexico City, D. F.			
880 kcs. (340.7 m.)							
CBO	a	1000	F	Ottawa, Ont.	10:30 am-midnight.	(7:30 am-9 pm)	
CFJC	a	1000	F	Kamloops, B. C.			
CMW	e	1400	X	Havana, Cuba	10 am-midnight	(7 am-9 pm.)	
KFKA	a	500	2M(1)	Greeley, Colo.	9:30-11 am; 1-2:30-5 pm; 6:30-8:45 pm	(6:30-8 am; 10-11:30 am; 2 pm; 3:30-5:45 pm)	
KLX	a	1000		Oakland, Calif.	10:30 am-2:30 am.	(7:30 am-11:30 pm)	
KPOF	a	1000	2	Denver, Colo.	9:30-11 am; 1-2:30-5 pm; 9:30-11 pm.	(6:30-8 am; 10-11:30 am; 3-4 pm; 6:30-8 pm)	

SUNDAY TIME**Eastern Standard****(Pacific Standard)**

WCOC	a	1000	C	Meridian, Miss.		
WGBI	f	500	C1(1)	Scranton, Pa.	9 am-1 am.	(6 am-10 pm)
WQAN	a	500	1(1)	Scranton, Pa.		
WRNL	a	500	DX	Richmond, Va.	8 am to L. S.	(5 am to sunset at Richmond, Va.)
WSUI	a	500	(1)	Iowa City, Iowa	5-6 pm; 9-10 pm.	(2-3 pm; 6-7 pm)

890 kcs. (336.9 m.)

KARK	a	500	N(1)	Little Rock, Ark.	7 am-1 am.	(4 am-10 pm)
KPNF	a	500	2X(1)	Shenandoah, Iowa	9 am-7:45 pm.	(6:50 am-midnight)
KFPY	a	1000	C(5)	Spokane, Wash.	9:50 am-3 am.	(2-3 pm)
KUSD	a	500	2	Vermillion, S. Dak.	5-6 pm.	(2-3 pm)
WBAA	a	500	(1)	W. Lafayette, Ind.	(Silent)	Silent
WGST	a	1000	C(5)	Atlanta, Ga.		
WJAR	a	1000	R(5)	Providence, R. I.		
WMMN	a	500	CX(1)	Fairmount, W. Va.	9 am-1 am.	(6 am-10 pm)
XEW	a	100000	....	Mexico City, D. F.		

900 kcs. (333.1 m.)

KGBU	a	500	X	Ketchikan, Alaska		
KHJ	a	1000	M(5)	Los Angeles, Calif.	11 am-3 am.	(8 am-midnight)
KSEI	a	250	N(1)	Pocatello, Idaho	9:30 am-1 am.	(6:30 am-10 pm)
WBEN	a	1000	R(5)	Buffalo, N. Y.	7 am-1 am.	(4 am-10 pm)
WELJ	a	500	D	New Haven, Conn.		
WFMD	a	500	D	Frederick, Md.	8:45 am to L. S.	(5:45 am to Sunset at Frederick, Md.)
WJAX	a	1000	N(5)	Jacksonville, Fla.	8 am-midnight	(5 am-9 pm)
WKY	a	1000	N(5)	Oklahoma City, Okla.	7:45 am-1 am.	(4:45 am-10 pm)
WLBL	a	5000	D	Stevens Point, Wis.	Usually silent.	(Usually silent)
WTAD	a	1000	D	Quincy, Ill.	8 am-5:44 pm.	(5 am-2:45 pm)

910 kcs. (329.6 m.)

CBF	a	50000	FN	Montreal, P. Q.		
CIAT	a	1000	F	Trail, B. C.	10 am-2 am.	(7 am-11 pm)
CKY	a	15000	F	Winnipeg, Man.	Noon-1:30 am.	(9 am-10:30 pm)
CMKD	a	1000	....	Havana, Cuba		
CMOA	z	250	....	Havana, Cuba		
XENT	a	150000	....	Nuevo Laredo, Tams.	7 pm-8:15 am.	(4 pm-5:15 am)

920 kcs. (325.9.)

CMHT	z	200	....	Trinidad, Cuba.		
KFEL	a	500	Ma	Denver, Colo.	8 am-2:30 am.	(5 am-11:30 pm)
KOMO	a	1000	R(5)	Seattle, Wash.	11 am-2 am.	(8 am-11 pm)
KPRC	a	1000	R(5)	Houston, Texas	8:30 am-1 am.	(5:30 am-10 pm)
KVOD	a	500	Ba	Denver, Colo.	9 am-12:30 pm; 9:30 pm-2:30 am.	(6-9:30 am; 6:30-11:30 pm)
WAAF	a	1000	D	Chicago, Ill.	6 am-LS.	(3 am-LS)
WORL	a	500	D	Boston, Mass.	8 am to L. S.	(5 am to Sunset at Worcester, Mass.)
WPEN	a	1000	....	Philadelphia, Pa.		
WRAX	a	1000	Q	Philadelphia, Pa.		
WSPA	a	1000	D	Spartanburg, S. C.	8 am to L. S.	(5 am to LS)
WWJ	a	5000	R	Detroit, Mich.		

930 kcs. (322.4 m.)

CFAC	a	1000	F	Calgary, Alta.	9 am-2 am.	(6 am-11 pm)
CFCH	a	100	F	North Bay, Ont.		
CFLC	a	100	....	Prescott, Ont.	7 am-10 pm.	(4 am-7 pm)
CHNS	a	1000	F	Halifax, N. S.	Noon-11:15 pm.	(9 am-8:15 pm)
CKPC	a	100	F	Brantford, Ont.		
CMJF	z	200	....	Camaguey, Cuba		
KMA	a	1000	B(5)	Shenandoah, Iowa		
KROW	a	1000	....	Oakland, Calif.	11 am-4 am.	(8 am-1 am)
WBRC	a	1000	R(5)	Birmingham, Ala.	8 am-1 am.	(5 am-10 pm)
WDBI	a	1000	C(5)	Roanoke, Va.	8 am-midnight	(5 am-9 pm)
XEBH	a	500	....	Hermosillo, Son.	1-3 pm; 9 pm-midnt.	(10am-noon; 6-9pm)

940 kcs. (319 m.)



CMBZ	a	200	.....	Havana, Cuba	7:45 am-1 am.	(4:45 am-10 pm)
KOIN	a	1000	C(5)	Portland, Ore.	11 am-3 am.	(8 am-midnight)
WAAT	a	500	D	Jersey City, N. J.		
WAVE	a	1000	N	Louisville, Ky.	9 am-2 am.	(6 am-11 pm)
WCSH	a	1000	R(2.5)	Portland, Me.	8 am to midnight.	(5 am-9 pm)
WDAY	a	1000	N(5)	Fargo, N. Dak.	7 am-1 am.	(4 am-10 pm)
WHA	a	5000	D	Madison, Wis.	Silent.	(Silent)
WICA	a	250	D	Ashtabula, Ohio	8 am.-L. S.	(5 am to Sunset at Ashtabule, Ohio)
XEFO	a	5000	.....	Mexico City, D. F.		

950 kcs. (315.6 m.)



CBV	a	1000	F	Quebec, P. Q.	Noon-midnight.	(9 am-9 pm)
CJOC	a	100	F	Lethbridge, Alta.	10 am-1:30 am.	(7 am-10:30 pm)
CMKL	z	200	.....	Bayamo, Cuba		
KFWR	a	1000	(5)	Los Angeles, Calif.	11 am-3 am.	(8 am-midnight)
KMBC	a	1000	C(5)	Kansas City, Mo.	6:55 am-1 am.	(3:55 am-10 pm)
WHAL	z	500	DP	Saginaw, Mich.		
WRC	a	1000	R(5)	Washington, D. C.		
WTRY	z	1000	DP	Troy, N. Y.		

960 kcs. (312.3 m.)



CBY	c	100	F	Toronto, Ont.	11 am-midnight	(8 am-9 pm)
CFRN	a	100	F	Edmonton, Alta.	11:30 am-12:30 am.	(8:30 am-9:30 pm)
CRCY	a	100	F	Toronto, Ont.		
XEAW	a	100000	.....	Revnosa, Tams.	5-7:15 am; 7-11 pm.	(2-5:15 am; 4-8 pm)
XECL	z	1000	.....	Mexicali, B. Cfa.		

970 kcs. (309.1 m.)



CMCK	a	5000	.....	Havana, Cuba		
KJR	a	5000	B	Seattle, Wash.	11 am-2 am.	(8 am-11 pm)
WCFL	a	5000	N	Chicago, Ill.		
WIBG	a	100	D	Glenside, Pa.	8:30 am-5 pm.	(5:30 am-2 pm)

980 kcs. (306 m.)



KDKA	b	50000	B	Pittsburgh, Pa.		
XEAC	a	1000	.....	Tijuana, B. Cfa.	1 pm-1 am.	(10 am-10 pm)
XEFE	z	250	.....	Nuevo Laredo, Tams.		

990 kcs. (302.8 m.)



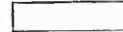
WBZ	a	50000	BSy	Boston, Mass.	8 am-1 am.	(5 am-10 pm)
WRZA	a	1000	BSy	Springfield, Mass.	8 am-1 am.	(5 am-10 pm)
XEFE	z	250	.....	Nogales, Son.	11 am-3 pm; 7 pm-midnight.	(8am-noon; 4-9 pm)
XEK	a	100	.....	Mexico City, D. F.		
XES	a	250	.....	Tampico, Tams.		

1000 kcs. (299.8 m.)



KFVD	a	1000	L	Los Angeles, Calif.	9 am-8:15 pm.	(6 am-5:15 pm)
VOCM	z	200	1006	St. John's Nfld.		
WHO	a	50000	KR	Des Moines, Iowa	9 am-1 am.	(6 am-10 pm)
XEBI	a	25	.....	Aguascalientes, Ags.		

1010 kcs. (296.9 m.)



CHML	a	100	F	Hamilton, Ont.	9:30 am-11:30 pm.	(6:30 am-8:30 pm)
CKCD	a	100	1	Vancouver, B. C.	Silent	(Silent)
CKCK	a	1000	F	Regina, Sask.	10:45 am-2 am.	(7:45 am-11 pm)
CKCO	a	100	F	Ottawa, Ont.	Noon-11:30 pm.	(9 am-8:30 pm)
CKIC	a	50	.....	Wolfville, N. S.		
CKWX	a	100	1	Vancouver, B. C.	Noon-1:45 am.	(9 am-10:45 pm)
CMQ	a	25000	.....	Havana, Cuba		
KGGF	a	1000	2M	Coffeyville, Kans.	11:30 am-10 pm.	(8:30 am-7 pm)
KQW	a	1000	M	San Jose, Calif.	11 am-3 am	(8 am-midnight)
CBV	a	1000	F	Quebec, P. Q.	Noon-midnight.	(9 am-9 pm)
CJOC	a	100	F	Lethbridge, Alta.	10 am-1:30 am.	(7 am-10:30 pm)
CMKL	z	200	.....	Bayamo, Cuba.		

SUNDAY TIME

WHN a 1000 (5)
 WNAD a 1000 2
 WNOX a 1000 C(5)
 XFFQ a 50
 XEJ a 250

1020 kcs. (293.9 m.)

KYW c 10000 R
 WDZ a 250 D
 XEJ a 1000

1030 kcs. (291.1 m.)

CFCN a 10000
 CJBR z 1000 F
 CKLW a 5000 FM
 XEB a 10000

1040 kcs. (288.3 m.)

KRLD a 10000 CX
 KWJJ a 500 H
 KYOS a 250 D
 WTIC a 50000 R

1050 kcs. (285.5 m.)

CBA z 50000 P
 CBN a 5000 FR
 CMCP z 200
 HIT z 50
 KFBI a 5000 L
 KNX c 50000 C
 WEAU a 1000 D
 WIBC a 1000 D

1060 kcs. (282.8 m.)

CMHI z 250
 KTHS a 10000 HN
 VOAC z 40 1065
 WBAL a 10000 BHM
 WJAG a 1000 DH
 W3XJ z 100 P

1070 kcs. (280.2 m.)

CMJW z 200
 KJBS a 500 L
 WCAZ a 100 D
 WTAM a 5000 R

1080 kcs. (277.6 m.)

CMBX a 150
 CMKMM a 100
 WBT a 50000 C
 WCBD a 5000 1L
 WMBI g 5000 1L
 XEBA z 20
 XEBK a 100
 XEDP a 500

1090 kcs. (275.1 m.)

CMHA z 200
 HIN a 740
 KMOX a 50000 C

Eastern Standard

New York, N. Y. 8 am-1 am.
 Norman, Okla. Silent.
 Knoxville, Tenn. 8:30 am-1 am.
 Cananea, Son.
 Veracruz, Ver. 8 am-1 am.

Philadelphia, Pa. 7 am-1:15 am.
 Tuscola, Ill. 7 am-6 pm.
 Juarez, Chih.

Calgary, Alta. 9 am-1:30 pm.
 Rimouski, P. Q.
 Windsor, Ont.
 Mexico City, D. F. 10 am-12:15 am.

Dallas, Texas
 Portland, Ore. 10 am-12:15 am.
 Merced, Calif. 11 am-12:15 am.
 Hartford, Conn. 8:45 am-1 am.

Sackville, N. B.
 Montreal, P. Q.
 Havana, Cuba
 Ciudad Trujillo, D. R.
 Abilene, Kans. 9 am-12:15 am.
 Los Angeles, Calif. 10 am-4 am.
 Eau Claire, Wis.
 Indianapolis, Ind. 9 am-12:15 am.

Santa Clara, Cuba
 Hot Springs, Ark. 9 am-12:15 am.; 9 pm-12:15 am.
 St. John's, Nfld.
 Baltimore, Md. 6 am-9 pm.
 Norfolk, Nebr. 11 am-6:15 pm.
 College Park, Md.

Camaguey, Cuba
 San Francisco, Calif. 1 am-12:15 am.
 Carthage, Ill. 11 am-5 pm.
 Cleveland, Ohio

Havana, Cuba
 Manzanillo, Cuba 6:45 am-midnt.
 Charlotte, N. C.
 Chicago, Ill. 1L
 Chicago, Ill. Noon-5:30 pm.
 Guzman, Jal.
 Nuevo Laredo, Tams.
 Mexico City, D. F.

(Pacific Standard)

(5 am-10 pm)
 (Silent)
 (5:30 am-10 pm)
 (5 am-10 pm)

(4 am-10:15 pm)
 (4 am-3 pm)

(6 am-10:30 pm)
 (7 am-9:15 pm)

(7 am-12:15 pm)
 (7 am-12:15 pm)
 (8 am-12:15 pm)
 (8 am-12:15 pm)

(6 am-10 pm)
 (7 am-1 am)
 (6 am-12:15 pm)

(6 am-12:15 pm); 6-10 pm

(3 am-6 pm)
 (8 am-3:15 pm)

(10 pm-12:15 am.)
 (8 am-2 pm)

(3:45 am-9 pm)
 (9 am-12:30 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

1100 kcs. (272.6 m.)

				[]		
CBR	a	5000	F	Vancouver, B. C.		
CMHP	z	200	....	Placetas, Cuba		
KGDM	f	1000	DM	Stockton, Calif.	9 am-LS.	(6 am-LS)
KWKH	a	10000	CH	Shreveport, La.		
WBIL	a	5000	1	New York, N. Y.		
WPG	a	5000	C1	Atlantic City, N. J.	9 am-8 pm; 9:15 pm-midnight.	(6 am-5 pm; 6:15-9 pm)

1110 kcs. (270.1 m.)

				[]		
CMCJ	a	200	....	Havana, Cuba		
KSOO	a	5000	LN	Sioux Falls, S. Dak.	9 am-L. S.	(6 am-L.S.)
WRVA	a	50000	CM	Richmond, Va.	8:30 am-midnight.	(5:30 am-9 pm)

1120 kcs. (267.7 m.)

				[]		
CBJ	a	100	F	Chicoutimi, P. Q.		
CHLP	a	100	F	Montreal, P. Q.	8 am-11 pm.	(5 am-8 pm)
CHSJ	a	100	F	St. John, N. B.	10 am-11:15 pm.	(7 am-8:15 pm)
CKOC	a	500	F(1)	Hamilton, Ont.		
CKX	a	1000	F	Brandon, Man.	1 pm-12:30 am.	(10 am-10:30 pm)
CMGF	a	200	....	Matanzas, Cuba		
KFIO	a	100	D	Spokane, Wash.		
KFSG	a	500	a(2.5)	Los Angeles, Calif.	9 am-3 am.	(6 am-midnight)
KRKD	a	500	a(2.5)	Los Angeles, Calif.	9 am-4:30 am.	(6 am-1:30 am)
KRSC	a	250	....	Seattle, Wash.		
KTBC	z	1000	DP	Austin, Texas		
WCOP	a	500	D	Boston, Mass.	8 am-L. S.	(5 am-LS)
WDEL	a	250	R(.5)	Wilmington, Del.	9 am-11 pm.	(6 am-8 pm)
WISN	a	250	C(1)	Milwaukee, Wis.	8:30 am-1 am.	(5:30 am-10 pm)
WJBO	a	500	B	Baton Rouge, La.	7:45 am-1 am.	(4:45 am-10 pm)
WTAW	a	500	L	College Station, Tex.		

1130 kcs. (265.3 m.)

				[]		
CMJI	a	200	....	Ciego de Avila, Cuba	Noon-10 pm.	(9 am-7 pm)
KSL	a	50000	C	Salt Lake City, Utah	9 am to Sunset at Salt Lake City.	(6 am to Sunset at Salt Lake City)
WJJD	a	20000	L	Chicago, Ill.	9 am-LS at Salt Lake C.	(6 am-LS at Salt Lake)
WVOV	a	1000	D	New York, N. Y.		
XEJP	z	100	....	Mexico City, D. F.		

1140 kcs. (263 m.)

				[]		
CMBC	a	150	....	Havana, Cuba		
KVOO	a	25000	N	Tulsa, Okla.		
WAPI	a	5000	C	Birmingham, Ala.	9 am-1 am.	(6 am-10 pm)
WSPR	a	500	DM	Springfield, Mass.	8 am to Sunset at Birmingham, Ala.	(5 am to Sunset at Birmingham, Ala.)

1150 kcs. (260.7 m.)

				[]		
CMKG	z	100	....	Santiago, Cuba		
WHAM	a	50000	B	Rochester, N. Y.	7 am-midnight	(4 am-9 pm)
XEBP	z	250	....	Durango, Dgo.		
XEC	a	100	....	Tijuana, B. Cfa.		
XEDW	z	20	....	Minatitlan, Ver.		
XEL	z	250	....	Mexico City, D. F.		

1160 kcs. (258.5 m.)

				[]		
CMHJ	a	100	....	Cienfuegos, Cuba		
WOWO	a	10000	1B	Fort Wayne, Ind.		
WVVA	a	5000	1C	Wheeling, W. Va.		
XEAS	a	100	....	Saltillo Coah.		
XED	c	2500	....	Guadalajara, Jal.	1 pm-1 am.	(10 am-10 pm)
XEP	a	500	....	Juarez, Chih	9 am-2 am.	(6 am-11 pm)

1170 kcs. (256.3 m.)

				[]		
CMBS	a	150	....	Havana, Cuba	10 am-7 pm.	(7 am-4 pm)
WCAU	a	50000	C	Philadelphia, Pa.	9 am-1 am.	(6 am-10 pm)
KEXX	z	1000	....	Mexico City, D. F.		

SUNDAY TIME

Eastern Standard

(Pacific Standard)

1180 kcs. (254.1 m.)

Call Letters	Band	Power	Frequency	Location	Eastern Standard Time	Pacific Standard Time
KEX	a	5000	2B	Portland, Ore.	11 am-3 am.	(8 am-midnight)
KOB	a	10000	2N	Albuquerque, N. Mex.	11 am-1 am.	(8 am-10 pm)
WDGY	a	1000	.....	Minneapolis, Minn.	7 am-7 pm.	(4 am-4 pm)
WINS	a	1000	.....	New York, N. Y.		
WMAZ	a	1000	C(5)	Macon, Ga.	7 am-7 pm.	(4 am-4 pm)

1190 kcs. (252 m.)

Call Letters	Band	Power	Frequency	Location	Eastern Standard Time	Pacific Standard Time
CMKX	z	75	.....	Santiago, Cuba		
KTKC	f	250	DM	Visalia, Calif.	10 am-L. S.	(7 am-L. S.)
VONF	a	500	1195	St. John's Nfld.		
WATR	a	100	DNZ-	Waterbury, Conn.		
WOAI	a	50000	N	San Antonio, Tex.	8:30 am-12:30 am.	(5:30 am-9:30 pm)
WSAZ	a	1000	L	Huntington, W. Va.	9 am-7 pm.	(6 am-4 pm)

1200 kcs. (249.9 m.)

Call Letters	Band	Power	Frequency	Location	Eastern Standard Time	Pacific Standard Time
CFGP	a	100	.....	Grande Prairie, Alta.	Noon-8:15 pm.	(9 am-5:15 pm)
CHAB	a	100	F(.25)	Moose Jaw, Sask.	10:15 am-1 am.	(7:17 am-10 pm)
CHBG	z	100	FP	St. Anne de Pocatiere, P.Q.		
CKNX	b	100	.....	Wingham, Ont.	10:30 am-1:30 pm; 7-7:30 pm.	(7:30-10:30 am; 4-5:30 pm)
CKTB	a	100	F	St. Catharines, Ont.	9:30 am-11:30 pm.	(6:30 am-8:30 pm)
CMCO	a	150	.....	Havana, Cuba		
KADA	a	100	M	Ada, Okla.		
KBTM	a	100	D	Jonesboro, Ark.	9 am-6:30 pm.	(6 am-5:30 pm)
KDNC	z	100	(.25)P	Lewistown, Mont.		
KELO	a	100	N	Sioux Falls, S. Dak.	1 pm-1 am.	(10 am-10 pm)
KFJB	a	100	(.25)	Marshalltown, Iowa	Noon-8 pm.	(9 am-5 pm)
KFXD	a	100	(.25)	Nampa, Idaho	11 am-11 pm.	(8 am-8 pm)
KFXJ	a	100	(.25)	Grand Junction, Colo.		
KGCI	z	100	DP	Coeur d'Alene, Idaho		
KGDE	c	100	(.25)	Fergus Falls, Minn.	8 am-10 pm.	(5 am-7 pm)
KGEK	f	100	L	Sterling, Colo.	1-2:15 pm.	(10-11:15 am)
KGFJ	a	100	.....	Los Angeles, Calif.		
KGHI	a	100	(.25)	Little Rock, Ark.	8:30 am-11 pm.	(5:30 am-8 pm)
KGVL	z	100	DP	Greenville, Tex.		
KMLB	a	100	(.25)	Monroe, La.		
KDOS	a	100	(.25)	Marshfield, Ore.	10 am-7:45 pm.	(7 am-4:45 pm)
KSUN	a	100	(.25)	Lowell, Ariz.	11 ⁴ am-midnight.	(8 am-9 pm)
KVCV	a	100	.....	Redding, Calif.		
KVEC	a	100	(.25)	San Luis Obispo, Calif.	11:30 am-3 am.	(8:30 am-midnight)
KVNU	z	100	P	Logan, Utah		
KVOS	b	100	M	Bellingham, Wash.		
KWG	a	100	N	Stockton, Calif.	10 am-3 am.	(7 am-midnight)
KWNO	a	250	D	Winona, Minn.		
WABI	a	100	(.25)	Bangor, Maine		
WAIM	a	100	C	Anderson, S. C.	6 am-10 pm.	(3 am-7 pm)
WAYX	a	100	(.25)	Waycross, Ga.	8 am-3 pm.	(5 am-noon)
WBBZ	a	100	M(.25)	Ponca City, Okla	8 am-10 pm.	(5 am-7 pm)
WBHP	a	100	.....	Huntsville, Alta.		
WCAT	a	100	D	Rapid City, S. Dak.	Silent.	(Silent)
WCAX	a	100	(.25)	Burlington, Vt.	Silent.	(Silent)
WCLO	a	100	(.25)	Janesville, Wis.	10 am-3 pm.	(7 am-Noon.)
WCPO	a	100	(.25)	Cincinnati, Ohio	8 am.-11 pm.	(5 am-8 pm)
WDSM	z	100	P	Superior, Wis.		
WENY	z	250	DP	Elmira, N. Y.		
WEST	a	100	3(.25)	Easton, Pa.	7:30 am-9 pm.	(4:30 am-6 pm)
WFAM	a	100	4	South Bend, Ind.		
WFIC	a	100	(.25)	Kinston, N. C.		
WHBC	a	100	(.25)	Canton, Ohio		
WHBY	a	100	(.25)	Green Bay, Wis.	10 am.-11 pm.	(7 am-8pm)
WIBX	a	100	C(.25)	Utica, N. Y.	5:30 am-1 am.	(2:30 am-10 pm)
WIL	a	100	(.25)	St. Louis, Mo.		
WIBC	a	100	5(.25)	Bloomington, Ill.	4-10:30 pm.	(1-7:30 pm)
WJBL	a	100	5	Decatur, Ill.	8-10 am; 1:30-4 pm;	(5-7 am; 10:30 am-1 pm)
WIBW	a	100	.....	New Orleans, La.	8:30 pm-1 am.	(5:30-10 pm)
WJHL	z	100	(.25)P	Johnson City, Tenn.		

SUNDAY TIME			Eastern Standard		(Pacific Standard)	
WJNO	a	100	C(.25)	W. Palm Beach, Fla.	2-11 am; 1-6 pm; 10 pm-1 am.	11 pm-8 am; 10 am-3 pm; 7-10 pm)
WJRD	a	250	D	Tuscaloosa, Ala.		
WKBO	a	100	3(.25)	Harrisburg, Pa.	8:30 am-midnight.	(5:30 am-9 pm)
WLVA	a	100	(.25)	Lynchburg, Va.	Noon-6 pm.	(9 am-3 pm)
WMFR	a	100	D	High Point, N. C.	7:45 am-7 pm.	(4:45 am-4 pm)
WMPG	a	100	(.25)	Lapeer, Mich.	7:45 am-7 pm.	(4:45 am-4 pm)
WOLS	a	100	D	Florence, S. C.	9 am-L. S.	8 am-11 pm.
WRBL	a	100	(.25)	Columbus, Ga.	10 am-7 pm.	(7 am-4 pm)
WSAL	z	250	D	Salisbury, Md.		
WTHT	a	100	M	Hartford, Conn.	7 am-4:15 pm.	(4 am-1:15 pm)
WTOL	a	100	D	Toledo, Ohio		
WWAE	a	100	4	Hammond, Ind.		

1210 kcs. (247.8 m.)

CHLT	z	100	....	Sherbrooke, P. Q.		
CJCS	a	50	....	Stratford, Ont.	8 am-9 pm.	(5 am-6 pm)
CJCU	z	50	....	Aklavik, N. W. T.		
CKBI	a	100	F	Prince Albert, Sask.	9:45 am-1 am.	(5 am-8 pm)
CKCH	a	100	F	Hull, P. Q.	8 am-11 pm.	(6:45 am-10 pm)
CKMC	a	50	....	Cobalt, Ont.		
CMHK	z	250	....	Cruces, Cuba	10 am-1 pm; 4-10 pm..	(7-10 am; 1-7 pm)
KALB	a	100	(.25)	Alexandria, La.		
KANS	a	100	N	Wichita, Kans.	7:30 am-midnight.	(4:30 am-9 pm)
KASA	c	100	....	Elk City, Okla.	8 am-7 pm.	(5 am-3 pm)
KDLR	a	100	(.25)	Devils Lake, N. Dak.	7:30 am-9:30 pm.	(4:30 am-6:30 pm)
KDON	a	100	M	Monterey, Calif.		
KFJI	a	100	....	Klamath Falls, Ore.		
KFOR	a	100	CM(.25)	Lincoln, Nebr.	8 am-11:15 pm.	(5 am-8:15 pm)
KFPW	a	100	....	Fort Smith, Ark.	10 am-3 pm; 6-9:35 pm.	(7 am-noon; 3-6:35 pm)
KFVS	a	100	5(.25)	Cape Girardeau, Mo.	10 am-3 pm; 6-9:35 pm.	(7 am-noon; 3-6:35 pm)
KFXM	a	100	2M	San Bernardino, Calif.	4-9:45 pm; midnight-3 am.	(1-6:45 pm; 9 pm-midnight)
KGLO	a	100	C(.25)	Mason City, Iowa	8 am-1 am.	(5 am-10 pm)
KGY	a	100	M	Olympia, Wash.	Silent.	(Silent)
KHBG	a	100	D	Oklmulgee, Okla.		
KIUL	a	100	....	Garden City, Kans.	Noon-8 pm.	(9 am-5 pm)
KLAH	a	100	(.25)	Carlsbad, N. Mex.	11 am-9 pm.	(8 am-6 pm)
KOCA	a	100	(.25)	Kilgore, Texas		
KPFA	a	100	N(.25)	Helena, Mont.	1 pm-midnight.	(10 am-9 pm)
KPPC	a	100	2	Pasadena, Calif.	10 am-12:30 am.	(7 am-9:30 pm)
KROY	a	100	CD	Sacramento, Calif.	11 am-8 pm.	(8 am-5 pm)
KVSO	a	100	M(.25)	Aidmore, Okla.		
KWJB	a	100	(.25)	Globe, Ariz.		
WALR	a	100	....	Zanesville, Ohio	8 am-midnight.	(5 am-9 pm)
WBAX	a	100	M	Wilkes-Barre, Pa.		
WBBL	a	100	S	Richmond, Va.	11 am-9:15 pm.	(8 am-6:15 pm)
WBLY	a	100	D	Lima, Ohio	6 am-5:15 pm.	(3 am-2:15 pm)
WBRB	a	100	3	Red Bank, N. J.	Silent.	(Silent)
WCOL	a	100	N	Columbus, Ohio	8 am-1 am	(5 am-10 pm)
WCOU	a	100	....	Lewiston, Maine	6 am-midnight.	(3 am-9 pm)
WCOV	z	100	DP	Montgomery, Ala.		
WCRW	a	100	4	Chicago, Ill.	Noon-3 pm; 6-8 pm.	(9 am-noon; 3-5 pm)
WEBQ	a	100	5(.25)	Harrisburg, Ill.	7-10 am; 5-10:30 pm.	(4-7 am; 2-7:30 pm)
WEDC	a	100	4	Chicago, Ill.	9:30-11 am; 4:30-6 pm; 8-9 pm; 11 pm-midnight.	(6:30-8 am; 1:30-3 pm; 5-6 pm; 8-9 pm)
WFAS	a	100	3	White Plains, N. Y.		
WFOY	a	100	(.25)	St. Augustine, Fla.	8 am-8:45 pm.	(5 am-5:45 pm)
WGBB	a	100	3	Freeport, N. Y.		
WGCM	a	100	(.25)	Gulfport, Miss.		
WGNV	a	100	3	Newburgh, N. Y.	7:30 am-midnight.	(4:30 am-9 pm)
WGRM	a	100	....	Grenada, Miss.	8 am-L. S.	(5 am-L. S.)
WHA1	a	250	D	Greenfield, Mass.	8 am-L.S.	8 am-L. S.

SUNDAY TIME			Eastern Standard		(Pacific Standard)
WHBF	a	100	(.25)	Rock Island, Ill.	7 am-1:05 am. (4 am-10:05 pm)
WHBU	a	100	(.25)	Anderson, Ind.	
WIBU	a	100	(.25)	Poynette, Wis.	
WJBY	a	100	(.25)	Gadsden, Ala.	7 am-11 pm. (4 am-8 pm)
WJEJ	a	100	....	Hagerstown, Md.	9 am-10 pm. (6 am-7 pm)
WJIM	z	100	B(.25)	Lansing, Mich.	
WJLS	z	100	(.25)P	Beckley, W. Va.	
WJMC	z	250	DP	Rice Lake, Wis.	
WJTN	a	100	B(.25)	Jamestown, N. Y.	8 am-midnight. (5 am-9 pm)
WJW	a	100	(.25)	Akron, Ohio	9 am-midnight. (6 am-9 pm)
WKOK	a	100	L	Sunbury, Pa.	6 am-1 pm. (3 am-10 am)
WMFG	a	100	(.25)	Hibbing, Minn.	
WOCB	z	100	(.25)P	Cape Cod, Mass.	
WOMT	a	100	....	Manitowoc, Wis.	
WPAX	a	100	(.25)	Thomasville, Ga.	9 am-3 pm. (6 am-noon)
WPIV	z	100	(.25)P	Petersburg, Va.	
WRAL	z	100	(.25)P	Raleigh, N. C.	
WSAY	z	100	(.25)	Rochester, N. Y.	7 am-4:30 pm. (4 am-1:30 pm)
WSBC	a	100	4(.25)	Chicago, Ill.	6 am-midnight. (3 am-9 pm)
WSIX	a	100	(.25)	Nashville, Tenn.	7 am-1 am. (4 am-10 pm)
WSNJ	a	100	D	Bridgeton, N. J.	9 am-LS. (6 am-LS)
WSOC	a	100	N(.25)	Charlotte, N. C.	9 am-midnight. (6 am-9 pm)
WTAX	a	100	....	Springfield, Ill.	
WTMA	z	100	(.25)P	Charleston, S. C.	
XEAT	a	250	....	Parral. Chih.	
XEE	a	50	....	Durango, Dgo.	
XEFV	a	50	....	Juarez, Chih.	
XETH	a	100	....	Puebla, Pue.	

1220 kcs. (245.8 m.)



KFKU	a	1000	a(5)	Lawrence, Kans.	
KTMS	z	500	B	Santa Barbara, Calif.	
KTW	a	1000	2S	Seattle, Wash.	
KWSC	a	1000	2(5)	Pullman, Wash.	Silent. (Silent)
WCAD	a	500	D	Canton, N. Y.	Silent. (Silent)
WCAE	a	1000	MR(5)	Pittsburgh, Pa.	8 am-1 am. (5 am-10 pm)
WDAE	a	1000	C(5)	Tampa, Fla.	8 am-midnight. (5 am-9 pm)
WREN	a	1000	Ba(5)	Lawrence, Kans.	8 am-7 pm. (5 am-4 pm)
XEBL	a	50	....	Mazatlan, Sin.	
XEDA	z	200	....	Gral. Anaya, D. F.	
XETF	a	12	....	Veracruz, Ver.	

1230 kcs. (243.8 m.)



CMCB	a	150	....	Havana, Cuba	8 am-11 pm. (5 am-8 pm)
KGBX	a	500	N	Springfield, Mo.	
KGGM	a	1000	....	Albuquerque, N. Mex.	10 am-1 am. (7 am-10 pm)
KYA	a	1000	(5)	San Francisco, Calif.	11 am-3 am. (8 am-midnight)
WFBM	a	1000	C(5)	Indianapolis, Ind.	7:30 am-1 am. (4:30 am-10 pm)
WNAC	a	1000	R(5)	Boston, Mass.	5 am-1 am. (2 am-10 pm)
WOL	a	1000	M	Washington, D.C.	7 am-2 am. (4 am-11 pm)
XECA	z	250	....	Tampico, Tamps	
XEG	z	250	....	Monterrey, N. L.	

1240 kcs. (241.8 m.)



CJCB	a	1000	F	Sydney, N. S.	10-11:30 am; 2:30-11 pm. (7-8:30 am; 11:30 am-8 pm)
CMAB	z	200	....	Pinar del Rio, Cuba	
CMHB	z	200	....	Sancti Spiritus, Cuba	
KGU	a	250	....	Mandan, N. Dak.	1-8 pm. (10 am-5 pm)
KTAT	a	1000	M	Fort Worth, Tex.	8 am-12:30 am. (5 am-9:30 pm)
KTFI	a	1000	N	Twin Falls, Idaho	9 am-1 am. (6 am-10 pm)
WKAQ	a	1000	....	San Juan, P. R.	
WXYZ	a	1000	B	Detroit, Mich.	
XEBU	z	50	....	Chihuahua, Chih.	
XEKL	z	500	....	Leon, Gto.	
XEMB	z	50	....	Merida, Yuc.	

SUNDAY TIME

Eastern Standard

(Pacific Standard)

1250 kcs. (239.9 m.)

CMKC	a	150	....	Santiago, Cuba		
HRN	c	50	....	Tegucigalpa, Hond.		
KFOX	a	1000	....	Long Beach, Calif.		
KIT	a	250	MX(.5)	Yakima, Wash.	11 am-3 am.	(8 am-midnight)
KXOK	z	1000	....	St. Louis, Mo.		
WAIR	a	250	D	Winston-Salem, N. C.	8 am-L. S.	(5 am-L.S.)
WDSU	a	1000	B	New Orleans, La.	7 am-midnight.	(4 am-9 pm)
WHBI	a	1000	(2.5)	Newark, N. J.		
WKST	z	250	D	New Castle, Pa.	9 am-LS.	(6 am-LS)
WMRO	z	250	DP	Aurora, Ill.		
WNEW	a	1000	(2.5)	New York, N. Y.		
WTCN	a	1000	B(.5)	Minneapolis, Minn.	9 am-1 am.	(6 am-10 pm)
XEAI	z	500	....	Mexico City, D. F.		

1260 kcs. (238 m.)

CMJO	a	200	....	Ciego de Avila, Cuba		
CMX	c	200	....	Havana, Cuba	8 am-1 am.	(5 am-10 pm)
KGVO	a	1000	C(.5)	Missoula, Mont.	11 am-1 am.	(8 am-10 pm)
KHSL	a	250	....	Chico, Calif.		
KOIL	a	1000	BM(.5)	Omaha, Nebr.		
KPAC	a	500	D	Port Arthur, Tex.	8 am-LS.	(5 am-LS)
KRGV	a	1000	MN	Weslaco, Texas	8 am-midnight.	(5 am-9 pm)
KUOA	a	5000	D	Siloam Springs, Ark.	7 am-L. S.	(3 am-L. S.)
KVOA	a	1000	....	Tucson, Ariz.	9 am-11:30 pm.	(6 am-8:30 pm)
WHIO	a	1000	C(.5)	Dayton, Ohio		
WNBX	a	500	CMJX(1)	Springfield, Vt.	9 am-midnight	(6 am-9 pm)
WTOC	a	1000	C	Savannah, Ga.	8 am-midnight.	(5 am-9 pm)

1270 kcs. (236.1 m.)

CMHD	b	250	....	Caibarien, Cuba		
KGCA	a	100	2D	Decorah, Iowa	8:45 am-3:30 pm.	(5:45 am-12:30 pm)
KOL	a	1000	M(.5)	Seattle, Wash.		
KVOR	a	1000	C	Colorado Springs, C.	10 am-1:45 am.	(7 am-10:45 pm)
KWLC	a	100	2D	Decorah, Iowa	Silent.	(Silent)
WASH	a	500	DNA	Grand Rapids, Mich.	7 am-midnight.	(4 am-9 pm)
WFBR	a	500	R(1)	Baltimore, Md.	9 am-midnight.	(6 am-9 pm)
WJDX	a	1000	R(.5)	Jackson, Miss.		
WOOD	a	500	Na	Grand Rapids, Mich.	7 am-midnight.	(4 am-9 pm)
XEXB	a	250	....	Jalapa, Ver.		
XEXE	z	17	....	Texcoco, Mex.		

1280 kcs. (234.2 m.)

CMKO	z	200	....	Holguin, Cuba		
KFBB	a	1000	C(.5)	Great Falls, Mont.	11 am-midnight.	(8 am- 9 pm)
KLS	a	250	....	Oakland, Calif.		
WCAM	a	500	1	Camden, N. J.	10:15 am-12:30 pm; 3-5 pm.	(7:15-9:30 am; noon -2 pm)
WCAP	a	500	1	Asbury Park, N. J.	6-10:15 am; 12:30-3 pm; 8 pm-midnight.	(3-7:15 am; 9:30 am -noon; 5-9 pm)
WDOD	c	1000	C(.5)	Chattanooga, Tenn.	7:30 am-1 am.	(4:30 am-10 pm)
WIBA	a	1000	N(.5)	Madison, Wis.	8 am-1 am.	(5 am-10 pm)
WORC	a	500	C	Worcester, Mass.	8:45 am-11:15 pm.	(5:45 am-8:15 pm)
WRR	a	500	M	Dallas, Texas	8 am-1 am.	(5 am-10 pm)
WTNJ	a	500	1	Trenton, N. J.		
XEMX	z	100	....	Mexico City, D. F.		

1290 kcs. (232.4 m.)

CMCG	a	150	....	Havana, Cuba		
CMJK	a	200	....	Camaguey, Cuba		
KDYL	a	1000	R(.5)	Salt Lake City, Utah	8 am-3 am.	(5 am-midnight)
KLCN	a	100	D	Blytheville, Ark.		

SUNDAY TIME

Eastern Standard

(Pacific Standard)

KTRH	a	1000	C(5)	Houston, Texas	9 am-1 am.	(6 am-10 pm)
WEBC	a	1000	N(5)	Duluth, Minn.	9 am-1 am.	(6 am-10 pm)
WJAS	a	1000	C(5)	Pittsburgh, Pa.		
WJHP	z	250	P	Jacksonville, Fla.		
WNBZ	a	100	D	Saranac Lake, N. Y.	9:30 am-2 pm.	(6:30-11 am)
WNEL	a	1000	(2.5)	San Juan, P. R.	7 am-10 pm.	(3 am-7 pm)
1300 kcs. (230.6 m.)						
KALE	a	1000	M	Portland, Ore.	11 am-3 am.	(8 am-midnight)
KFAC	a	1000		Los Angeles, Calif.		
KFH	a	1000	C(5)	Wichita, Kans.	9 am-1 am.	(6 am-10 pm)
WBBR	a	1000	1	Brooklyn, N. Y.	8-11 am; 3-8 pm.	(5-8 am; noon-5 pm)
WEVD	a	1000	1	New York, N. Y.		
WFAB	a	1000		New York, N. Y.		
WFBC	a	1000	N(5)	Greenville, S. C.	6:30 am-midnight.	(3:30 am-9 pm)
WHAZ	a	1000	1	Troy, N. Y.	6 pm-midnight.	(3 pm-9 pm)
WHBL	a	250		Sheboygan, Wis.	9 am-midnight.	(6 am-9 pm)
1310 kcs. 228.9 m.)						
CHCK	a	50		Charlottetown, P.E.I.		
CJKL	a	100	F	North Bay, Ont.		
CJLS	a	100	F	Yarmouth, N. S.		
KCKV	a	100	F	Quebec, P. Q.	11:15 am-11:30 pm.	(8:15 am-8:30 pm)
KAND	z	100	DM	Corsicana, Tex.		
KARM	a	100	C	Fresno, Calif.	11 am-3 am.	(8 am-midnight)
KBND	z	100	(.25)P	Bend, Ore.		
KCKN	a	100		Kansas City, Kans.	9:45 am-1 am.	(6:45 am-10 pm)
KGRJ	a	100	(.25)	Jerome, Ariz.		
KFPL	b	100	(.25)	Dublin, Texas	7 am-10:45 pm.	(4 am-7:45 pm)
KFYO	a	100	M(.25)	Lubbock, Texas	9 am-11 pm.	(6 am-8 pm)
KGEZ	a	100		Kalispell, Mont.	9 am-11 pm.	(6 am-8 pm)
KGFW	a	100	(.25)	Kearney, Nebs.	9 am-11:30 pm.	(6 am-8:30 pm)
KHUB	a	250	D	Watsonville, Calif.	10 am-LS.	(7 am-LS)
KOCY	a	100	(.25)	Oklahoma City, Okla.		
KOME	z	250	DP	Tulsa, Okla.		
KPDN	a	100	D	Pampa, Texas		
KRBA	a	100	D	Lufkin, Texas	9 am-6:15 pm.	(6 am-3:15 pm)
KRMD	a	100	(.25)	Shreveport, La.	10 am-10 pm.	(7 am-7 pm)
KROC	a	100	(.25)	Rochester, Minn.	9:45 am-1 am.	(6:45 am-10 pm)
KRQA	a	100		Santa Fe, N. Mex.	Noon-5 pm.	(9 am-2 pm)
KRRV	a	250	DM	Sherman, Texas		
KSRO	a	100	(.25)	Santa Rosa, Calif.	11 am-2 am.	(8 am-11 pm)
KSUB	a	100		Cedar City, Utah		
KTSM	a	100	N(.25)	El Paso, Texas	9-11:30 am; 2-9:30 pm; 11 pm-1 am.	(6-8:30 am; 11 am-6:30 pm; 8-10 pm)
KVOL	a	100	(.25)	Lafayette, La.	Noon-7 pm.	(9 am-4 pm)
KVOX	a	100	(.25)	Moorhead, Minn.	8 am-10 pm.	(5 am-7 pm)
KWOC	a	100	D	Poplar Bluff, Mo.	9 am-6 pm.	(6 am-3 pm)
KWOS	a	100	(.25)	Jefferson City, Mo.	9 am-9 pm.	(6 am 7 pm)
KXRO	a	100	M(.25)	Aberdeen, Wash.	10 am-2 am.	(7 am-11 pm)
TGI	d			Guatemala C., Guat.		
WAML	a	100	(.25)	Laurel, Miss.	8 am-8 pm.	(5 am-5 pm)
WBEO	a	100	DX	Marquette, Mich.		
WBOW	a	100	N(.25)	Terre Haute, Ind.	7 am-midnight.	(4 am-9 pm)
WBRE	a	100	N(.25)	Wilkes-Barre, Pa.		
WBRK	z	100	C(25)	Pittsfield, Mass.	7 am-1 am.	(4 am-10 pm)
WCLS	a	100	L	Joliet, Ill.	8 am-9:30 pm.	(5 am-6:30 pm)
WCMI	a	100	(.25)	Ashland, Ky.	6 am-11:30 pm.	(3 am-8:30 pm)
WDAH	a	100	S(.25)	El Paso, Tex.	11:30 am-10:30 pm.	(8:30 am-7:30 pm)
WEBR	a	100	B(.25)	Buffalo, N. Y.	8:30 am-midnight.	(5:30 am-9 pm)
WEMP	a	100		Milwaukee, Wis.	7:30 am-LS.	(4:30 am-LS)
WEXL	a	50		Royal Oak, Mich.	8 am-noon.	(5am-9 am)
WFBG	a	100	3	Altoona, Pa.		
WPDF	a	100	B	Flint, Mich.	8 am-midnight.	(5 am-9 pm)
WGAU	a	100	(.25)	Athens, Ga.	7am-midnight.	(4 am-9 pm)
WGH	a	100	(.25)	Newport News, Va.		
WGTM	a	100	D	Wilson, N. C.		
WHAT	a	100	4	Philadelphia, Pa.		
WJAC	a	100	3(.25)	Johnstown, Pa.	8:30-10:30 am; 4:30-6:30 pm.	(5:30-7:30 am; 1:30-3:30 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

WLAK	z	100	N	Lakeland, Fla.		
WLBC	a	100	(.25)	Mancie, Ind.	7:45-12:05 am.	(3:45 am-9:05 pm)
WLNH	a	100	M	Laconia, N. H.	8 am-midnight.	(5 am-9 pm)
WMBO	a	100	....	Auburn, N. Y.		
WMFF	a	100	B(.25)	Plattsburgh, N. Y.	9 am-9 pm.	(6 am-6 pm)
WNBH	a	100	M(.25)	New Bedford, Mass.	7:30 am-11:15 pm.	(4:30 am-8:15 pm)
WRAW	a	100	....	Reading, Pa.		
WROL	a	100	N(.25)	Knoxville, Tenn.		
WSAJ	a	100	....	Grove City, Pa.		
WSAV	z	100	P	Savannah, Ga.		
WSGN	a	100	B(.25)	Birmingham, Ala.	8 am-midnight.	(5 am-9 pm)
WSJS	a	100	C	Winston-Salem, N. C.	8 am-midnight.	(5 am-9 pm)
WTAL	a	100	(.25)	Tallahassee, Fla.	8 am-midnight.	(5 am-9 pm)
WTEL	a	100	4	Philadelphia, Pa.		
WTJS	a	100	(.25)	Jackson, Tenn.	8 am-midnight.	(5 am-9 pm)
WTRC	a	100	(.25)	Elkhart, Ind.	Noon-10 pm.	(9 am-7 pm)
XEAG	z	10	....	Cordoba, Ver.		
XEBQ	z	25	....	Irapuato, Gto.		
XEFW	a	300	....	Tampico, Tams		
XETB	a	500	....	Torreón, Coah.		
XEX	a	125	....	Monterrey, N. L.		

1320 kcs. (227.1 m.)

CMBQ	z	5000		Havana, Cuba		
KGHF	a	500	B	Pueblo, Colo.	11 am-1 am.	(8 am-10 pm)
KGMB	a	1000	CM	Honolulu, Hawaii		
KID	a	500	(1)	Idaho Falls, Idaho		
KRNT	a	1000	C(5)	Des Moines, Iowa	8:30 am-1 am.	(5:30 am-10 pm)
WADC	a	1000	C(5)	Akron, Ohio		
WORK	a	1000	N	York, Pa.	10 am-midnight.	(7 am-9 pm)
WSMB	a	1000	R(5)	New Orleans, La.		

1330 kcs. (225.4 m.)

KGB	a	1000	M	San Diego, Calif.		
KMO	a	1000	M	Tacoma, Wash.	11 am-2 am.	(8 am-11 pm)
KRIS	a	500	NM	Corpus Christi, Tex.	8:30 am-midnight.	(5:30 am-9 pm)
KSCJ	a	1000	C(5)	Sioux City, Iowa	9 am-1am.	(6 am-10 pm)
WDRC	g	1000	C(5)	Hartford, Conn.	9 am-1 am.	(6 am-10 pm)
WSAI	a	1000	MN(5)	Cincinnati, Ohio		
WTAQ	a	1000	C	Green Bay, Wis.	11 am-1 am.	(8 am-10 pm)

1340 kcs. (223.7 m.)

KDTH	z	500	ADP	Dubuque, Iowa		
KGIR	a	1000	N(5)	Butte, Mont.		
KGNO	c	250	....	Dodge City, Kans.	7:30 am-10 pm.	(4:30 am-7 pm)
WCOA	a	500	C(1)	Pensacola, Fla.		
WFEA	a	500	MN(1)	Manchester, N. H.		
WFNC	z	250	DP	Fayetteville, N. C.		
WSPD	a	1000	B(5)	Toledo, Ohio	8:30 am-1 am.	(5:30 am-10 pm)
XEAP	z	50	....	Oregon, Son.		
XEBS	z	200	....	Mexico City, D. F.		
XEDH	z	200	....	Villa Acuna, Coah.		
XEFC	a	100	....	Merida, Yuc.		

XEXD z 350 Jalapa, Ver.

1350 kcs. (222.1 m.)

CMCA	a	200	....	Havana, Cuba		
CMKW	z	....	....	Santiago, Cuba		
KIDO	a	1000	N(2.5)	Boise, Idaho	11 am-1 am.	(8 am-10 pm)
KWK	a	1000	XBM(5)	St. Louis, Mo.	6-9 am; 11 am-12:30 pm; 3-4:30 pm; 7-8:30 pm.	(3-6 am; 8-9:30 am; noon-1:30 pm; 4-5 pm)
WAWZ	a	500	1(1)	Zarephath, N. J.		
WBNX	a	1000	1	New York, N. Y.		
WMBG	a	500	R	Richmond, Va.	8 am-midnight.	(5 am-9 pm)

SUNDAY TIME

Eastern Standard

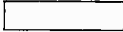
(Pacific Standard)

1360 kcs. (220.4 m.)



CMJH	b	200	....	Ciego de Avila, Cuba		
KCRC	a	250	M	Enid, Okla.		
KGER	a	1000	....	Long Beach, Calif.	10 am-2 pm.	(7 am-11 pm)
KLPM	a	500	(1)	Minot, N. Dak.		
WCSC	a	500	N(1)	Charleston, S. C.	8 am-midnight.	(5 am-9 pm)
WFBL	a	1000	C(5)	Syracuse, N. Y.		
WGES	a	500	1(1)	Chicago, Ill.	Midnight-2 am.	(9-11 pm)
WQBC	a	1000	D	Vicksburg, Miss.		
WSBT	a	500	1	South Bend, Ind.		

1370 kcs. (218.8 m.)



CFAR	a	100	....	Flin Flon, Man.	3-8 pm.	(noon-5 pm)
CFOS	z	100	....	Owen Sound, Ont.		
CKCW	a	100	F	Moncton, N. B.	3-8 pm.	(Noon-5 pm)
CMGE	a	200	....	Cardenas, Cuba		
KAST	a	100	DXZ	Astoria, Ore.	Silent.	(Silent)
KCMO	a	100	....	Kansas City, Mo.		
KEEN	a	100	3	Seattle, Wash.		
KELD	z	100	....	El Dorado, Ark.		
KERN	a	100	N	Bakersfield, Calif.	11 am-3 am.	(8 am-midnight)
KFGQ	a	100	D	Boone, Iowa	8:30-10 am;; 11:30 am-12:30 pm; 3:30- 5 pm.	(5:30-7 am; 8:30- 9:30 am; 12:30-2 pm)
KFJZ	a	100	M(.25)	Fort Worth, Texas	7:30 am-midnight.	
KFRO	a	250	DM	Longview, Texas		
KGAR	a	100	C(.25)	Tucson, Ariz.	11 am-1 am.	(8 am-10 pm)
KGFL	a	100	4	Roswell, N. Mex.		
KGKL	a	100	(.25)	San Angelo, Texas		
KICA	a	100	4	Clovis, N. Mex.		
KIUP	a	100	....	Durango, Colo.		
KLUF	a	100	M(.25)	Galveston, Tex.	9 am-11:30 pm.	(6 am-8:30 pm)
KMAC	a	100	5(.25)	San Antonio, Tex.		
KOHB	a	100	(.25)	Rapid City, S. Dak.		
KOKO	a	100	....	La Junta, Colo.	1-6 pm.	(10 am-3 pm)
KONO	a	100	5	San Antonio, Tex.	10 am-noon; 1:30-3 pm; 5-7 pm; 9-11 pm.	(7-9 am; 10:30 am- noon; 2-4 pm; 6-8 pm)
KRE	a	100	(.25)	Berkeley, Calif.		
KRKO	a	50	3	Everett, Wash.	Noon-7 pm.	(9 am-4 pm)
KRMC	a	100	(.25)	Jamestown, N. Dak.	10 am- 7 pm.	(7 am-4 pm)
KSLM	a	100	MXZ	Salem, Ore.	Noon-2 am.	(9 am-11 pm)
KTEM	a	250	DM	Temple, Texas		
KTOK	a	100	MN	Oklahoma City, Okla.	8 am-1 am.	(5 am-10 pm)
KUJ	a	100	....	Walla Walla, Wash.	1:45-11:15 pm.	(10:45 am-8:15 pm)
KVGB	z	100	....	Great Bend, Kans.		
KVRS	z	100	(.25)	Rock Springs, Wyo.		
KWYO	a	100	(.25)	Sheridan, Wyo.		
WABY	a	100	N(.25)	Albany, N. Y.	9 am-1 am.	(6 am-10 pm)
WAGF	a	250	D	Dothan, Ala.	9 am-L. S.	(6 am-L. S.)
WATL	a	100	(.25)	Atlanta, Ga.	1 am Sun. - 2 am Mon.	(10 pm Sat.-11 pm Sun.)
WBLK	a	100	....	Clarksburg, W. Va.	9 am-11 pm.	(6 am-8 pm)
WBNY	a	100	2(.25)	Buffalo, N. Y.	10 am-midnight.	(7 am-9 pm)
WBTM	a	100	(.25)	Danville, Va.		
WCBM	a	100	(.25)	Baltimore, Md.		
WCOS	z	100	P	Columbia, S. C.		
WDAS	a	100	(.25)	Philadelphia, Pa.	9 am-midnight.	(6 am-9 pm)
WDWS	a	100	(.25)	Champaign, Ill.	9 am-midnight.	(6 am-9 pm)
WEOA	a	100	C(.25)	Evansville, Ind.	9 am-1 am.	(6 am-10 pm)
WFOR	a	100	....	Hattiesburg, Miss.	1-8 pm.	(10 am-5 pm)
WGL	a	100	N(.25)	Fort Wayne, Ind.		
WGRC	a	250	D	New Albany, Ind.	9 am-L. S.	(6 am-L. S.)
WHBO	a	100	....	Memphis, Tenn.		
WHDf	a	100	(.25)	Calumet, Mich.		
WHLB	a	100	C(.25)	Virginia, Minn.		
WHLS	a	250	D	Port Huron, Mich.	8 am-7:30 pm.	(5 am-4:30 pm)
WIBM	a	100	(.25)B	Jackson, Mich.		

SUNDAY TIME

Eastern Standard

(Pacific Standard)

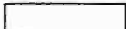
WLLH	a	100	Sy	Lawrence, Mass.	8 am-midnight.	(5 am-9 pm)
WLLH	a	100	MSy(.25)	Lowell, Mass.		
WMBR	a	100	C(.25)	Jacksonville, Fla.	8 am-midnight.	(5 am-9 pm)
WMFD	a	100	D	Wilmington, N. C.	10:30 am-6:15 pm.	(7:30 am-3:15 pm)
WMFO	a	100	D	Decatur, Ala.	10 am-L. S.	(7 am-L. S.)
WMIN	a	100	(.25)	St. Paul, Minn.	9 am-1 am.	(6 am-10 pm)
WOC	a	100	C(.25)	Davenport, Iowa		
WPAY	a	100	....	Portsmouth, Ohio	9:30 am.-8:30 pm.	(6:30 am-5:30 pm)
WPRA	a	100	(.25)	Mayaguez, P. R.		
WRAK	a	100	(.25)	Williamsport, Pa.	10 am-12:30 pm.; 5-7 pm.	(7-9:30 am; 2-4 pm)
WRDO	a	100	MN	Augusta, Maine	8:45 am-midnight.	(5:45 am-9 pm)
WRJN	a	*90	(.25)	Racine, Wis.		
WSAU	a	100	(.25)	Wausau, Wis.	8:30 am-11:15 pm.	(5:30 am-8:15 pm)
WSVS	a	50	2D	Buffalo, N. Y.	Silent.	(Silent)
XECZ	z	100	....	San Luis Potosi, S.L.P.		
XEI	a	125	....	Morelia, Mich.		
XELZ	z	100	....	Mexico City, D. F.		

1380 kcs. (217.3 m.)



CMCW	b	150	....	Havana, Cuba		
KOH	a	500	C	Reno, Nev.	9 am-midnight.	(6 am-9 pm)
KQV	c	1000	C	Pittsburgh, Pa.	9 am-midnight.	(6 am-9 pm)
WALA	a	500	C(1)	Mobile, Ala.	9 am-midnight.	(6 am-9 pm)
WKBH	a	1000	C	La Crosse, Wis.	10 am-midnight.	(7 am-9 pm)
WNBC	a	250	R(1)	New Britain, Conn.	8 am-midnight.	(5 am-9 pm)
WSMK	a	250	C(.5)	Dayton, Ohio	7 am-5:30 pm; 7:30 pm-1 am.	(4 am - 2:30 pm; 4:30-10 pm)

1390 kcs. (215.7 m.)



CJGX	a	100	F	Yorkton, Sask.	Noon-11:30 pm.	(9 am-8:30 pm)
CMJC	z	150	....	Camaguey, Cuba		
KABR	a	500	(1)	Aberdeen, S. Dak.	10 am-6:15 pm.	(7 am-3:15 pm)
KLRA	a	1000	C(5)	Little Rock, Ark.		
KOY	g	1000	C	Phoenix, Ariz.	10 am-2 am.	(7 am-11 pm)
KRLC	a	250	....	Lewiston, Idaho	3-10:30 pm.	(Noon-7:30 pm)
WHK	a	1000	BM(.25)	Cleveland, Ohio	8 am-1 am.	(5 am-10 pm)
WQDM	f	1000	D	St. Albans, Vt.	8:30 am-L. S.	(5:30 am-L. S.)

1400 kcs. (214.2 m.)



GMGC	a	150	....	Matanzas, Cuba		
CMKR	z	100	....	Santiago, Cuba		
KHBC	a	250	CM	Hilo, Hawaii		
KLO	a	500	BX	Ogden, Utah	11 am-1:30 am.	(8 am-10:30 pm)
KTUL	a	1000	C(5)	Tulsa, Okla.	8 am-1:15 am.	(5 am-10:15 pm)
TGX	d	....	....	Guatemala City, Guat.		
WARD	a	500	2	Brooklyn, N. Y.		
WBBC	a	500	2	Brooklyn, N. Y.	7-10:30 am; 3-4:30 pm; 9-10:30 pm.	(4-7:30 am; noon-1:30 pm)
W EGL	z	500	2(1)	Brooklyn, N. Y.		(6-7:30 pm)
WHDL	a	250	....	Olean, N. Y.		
WIRE	a	1000	MR(5)	Indianapolis, Ind.		
WLTH	a	500	2	New York, N. Y.	10:30 am-noon; 1:30-3 pm; 10:30 pm-midnight.	(7:30-9 am; 10:30 am-noon; 7:30-9 pm)
WVFW	a	500	2	Brooklyn, N. Y.	Noon-1:30 pm; 4:30-7 pm.	(9-10:30 am; 1:30-4 pm)

1410 kcs. (212.6 m.)



CKFC	a	50	5	Vancouver, B. C.		
CKMO	a	100	5	Vancouver, B. C.		
CMCQ	a	5000	....	Havana, Cuba		
KFJM	a	500	(1)	Grand Forks, N. Dak.	10 am-10 pm.	(7 am-7 pm)
KGNC	a	1000	MN(.25)	Amarillo, Texas		
KMED	c	250	N	Medford, Ore.		
WAAB	a	500	M(1)	Boston, Mass.		
WBCM	a	500	(1)	Bay City, Mich.		

SUNDAY TIME

Eastern Standard

(Pacific Standard)

WHIS	a	500	(1)	Bluefield, W. Va.	9 am-9 pm.	(6 am-6 pm)
WROK	a	500	(1)	Rockford, Ill.	9:30 am-11 pm.	(6:30 am-8 pm)
WSFA	a	500	C(1)	Montgomery, Ala.		

1420 kcs. (211.1 m.)



CHLN	z	100	....	Three Rivers, P. Q.		
CKCA	a	100	....	Kenora, Ont.		
CKGB	a	100	F	North Bay, Ont.		
CMJP	a	200	....	Moron, Cuba	11 am-midnight.	(8 am-9 pm)
KABC	a	100	M(.25)	San Antonio, Tex.	9 am-11:30 pm.	(6 am-8:30 pm)
KATE	a	250	D	Albert Lea, Minn.		
KBPS	a	100	4	Portland, Ore.	Silent.	(Silent)
KCMC	a	100	M(.25)	Texarkana, Tex.	8 am-midnight.	(5 am-9 pm)
KDNT	a	100	D	Denton, Texas	8:30 am-L. S.	(5:30 am-L. S.)
KFUB	a	100	....	Price, Utah	1:45-7 pm.	(10:45 am-4 pm)
KFAM	a	100	(.25)	St. Cloud, Minn.	10 am-7 pm.	(7 am-4 pm)
KPFI	a	100	....	Fond du Lac, Wis.		
KGFF	a	100	M(.25)	Shawnee, Okla.	10 am- 1 am.	(7 am-10 pm)
KGIW	a	100	1	Alamosa, Colo.	Noon-3 pm.	(9 am-noon)
KGLU	z	100	(.25)	Safford, Ariz.		
KIDW	a	100	1	Lamar, Colo.		
KIUN	a	100	....	Pecos, Texas	10 am-8 pm.	(7 am-5 pm)
KLBM	z	100	(.25)	La Grande, Ore.		
KNET	a	100	D	Palestine, Texas		
KORE	a	100	M	Eugene, Ore.		
KRBC	a	100	M(.25)	Abilene, Tex.		
KRBM	z	100	P(.25)	Bozeman, Mont.		
KRIC	z	100	M(.25)	Beaumont, Texas		
KRLH	a	100	D	Midland, Texas		
KSAN	a	100	....	San Francisco, Calif.		
KTRI	f	100	(.25)	Sioux City, Iowa	10 am-midnight.	(7 am-9 pm)
KUMA	a	100	D	Yuma, Ariz.		
KVAK	z	100	DP	Atchison, Kans.		
KWBG	a	100	....	Hutchinson, Kans.	9 am-10 pm.	(6 am-7 pm)
KXL	c	100	(.25)	Portland, Ore.	3 am-10 pm.	(midnight-10 pm)
WACO	c	100	CM(.25)	Waco, Texas	8 am-1 am.	
WAGM	a	100	....	Presque Isle, Me.		
WAPQ	a	100	(.25)N	Chattanooga, Tenn.	7:30 am-midnight.	(4:30 am-9 pm)
WAZL	a	100	2	Hazleton, Pa.		
WBNO	a	100	(.25)	New Orleans, La.		
WBBS	a	100	(.25)	Springfield, Ill.	7 am-1 am.	(4 am-10 pm)
WCHV	a	100	(.25)	Charlottesville, Va.	10 am-5 pm.	(7 am-2 pm)
WEED	a	100	(.25)	Rocky Mount, N. C.	8 am-8 pm.	(5 am-5 pm)
WELL	a	100	B	Battle Creek, Mich.	9 am-midnight.	(6 am-9 pm)
WFMJ	z	100	DP	Youngstown, Ohio		
WGNC	z	100	(.25)P	Gastonia, N. C.		
WGFC	a	100	....	Albany, Ga.		
WHFC	a	100	(.25)	Cicero, Ill.	8 am-2 am.	(5 am-11 pm)
WHMA	z	100	D	Anniston, Ala.		
WILM	a	100	2	Wilmington, Del.		
WJMS	a	100	....	Ironwood, Mich.	11 am-7 pm.	(8 am-4 pm)
WJAP	a	100	(.25)	Lexington, Ky.	9 am-11 pm.	(6 am-8 pm)
WLEU	a	100	B(.25)	Erie, Pa.		
WMAS	a	100	C(.25)	Springfield, Mass.		
WMBC	a	100	(.25)	Detroit, Mich.	8:45 am-midnight.	(5:45 am-9 pm)
WMBH	a	100	(.25)	Joplin, Mo.	9 am-midnight.	(6 am-9 pm)
WMBS	a	100	(.25)	Uniontown, Pa.	7 am-5 pm.	(4 am-2 pm)
WMPJ	a	100	....	Daytona Beach, Fla.	8 am-9 pm.	(5 am-6 pm)
WMSD	a	100	....	Muscle Shoals City, Ala.		
WPAD	a	100	(.25)	Paducah, Ky.		
WPAR	a	100	C	Parkersburg, W. Va.		
WPRP	z	100	(.25)	Ponce, P. R.		
WSLI	a	100	(.25)	Jackson, Miss.	9 am-10 pm.	(6 am-7 pm)

1430 kcs. (209.7 m.)



CMKZ	z	125	....	Palm Soriano, Cuba		
KECA	a	1000	B(5)	Los Angeles, Calif.	11 am-2 am.	(8 am-11 pm)
KGNF	a	1000	D	North Platte, Nebr.	Silent.	(Silent)
KINY	a	250	....	Juneau, Alaska		
KSO	a	500	BM(.25)	Des Moines, Iowa	8 am-2 am.	(5 am-11 pm)
WBNS	a	1000	C(5)	Columbus, Ohio		

SUNDAY TIME

Eastern Standard

(Pacific Standard)

WHEC	a	500	C(1)	Rochester, N. Y.		
WHP	a	500	C(1)	Harrisburg, Pa.	9 am-1 am.	(6 am-10 pm)
WMPS	a	500	B(1)	Memphis, Tenn.	10 am-10 pm.	(7 am-7 pm)
WOKO	a	500	C(1)	Albany, N. Y.	9 am-1 am.	

1440 kcs. (208.2 m.)



CMBY	z	200	.....	Havana, Cuba		
HPSO	z	.....	.....	Colon, Panama		
KDFN	a	500	.....	Casper, Wyo.		
KELA	a	500	M	Centralia, Wash.	11 am-3 am.	(8 am-midnight)
KXYZ	a	1000	BM	Houston, Texas		
WBIG	a	1000	C	Greensboro, N. C.	8 am-midnight.	(5 am-9 pm)
WCBA	a	500	a	Allentown, Pa.	9 am-1 am.	(6 am-10 pm)
WMBD	a	1000	C(5)	Peoria, Ill.		
WSAN	a	500	Na	Allentown, Pa.		
XEFI	a	250	.....	Chihuahua, Chih.		

1450 kcs. (206.8 m.)



CFCT	a	500	.....	Victoria, B. C.	2-4:30 pm; 8-11:45 pm.	(11 am-1:30 pm; 5-8:45 pm)
CHGS	f	50	F	Summerside, P. E. I.	10 am-noon; 2:30-7:30 pm.	(7-9 am; 11:30 am-4:30 pm)
CMHM	z	150	.....	Cienfuegos, Cuba		
KGCX	a	1000	.....	Wolf Point, Mont.		
KIEM	a	500	M(1)	Eureka, Calif.		
KTBS	a	1000	N	Shreveport, La.		
TGQ	d	200	.....	Quezaltenango, Guat.		
WAGA	a	500	B(1)	Atlanta, Ga.	9 am-2 am.	(6 am-11 pm)
WGAR	a	500	CX(1)	Cleveland, Ohio		
WHOM	a	250	.....	Jersey City, N. J.		
WSAR	f	1000	M	Fall River, Mass.	8 am-midnight.	(5 am-9 pm)
XEF	a	100	.....	Juarez, Chih.		

1460 kcs. (205.4 m.)



CMKF	z	250	.....	Holguin, Cuba		
KSTP	a	10000	R(25)	St. Paul, Minn.	8 am-2 am.	(5 am-11 pm)
WJSV	a	10000	C	Washington, D. C.	8 am-1 am.	(5 am-10 pm)

1470 kcs. (204 m.)



CMCX	z	150	.....	Havana, Cuba		
KGA	a	5000	BM	Spokane, Wash.		
WLAC	a	5000	C	Nashville, Tenn.		

1480 kcs. (202.6 m.)



CMHX	z	120	.....	Cienfuegos, Cuba		
KOMA	a	5000	C	Oklahoma City, Okla.	9 am-1 am.	(6 am-10 pm)
WHIP	z	5000	D	Hammond, Ind.	6 am-L. S.	(a am-L.S.)
WKBW	a	5000	C	Buffalo, N. Y.	7 am-1 am.	(4 am-10 pm)

1490 kcs. (201.2 m.)



CMKQ	z	200	.....	Santiago, Cuba		
KFBK	a	10000	N	Sacramento, Calif.	11 am-3 am.	(8 am-midnight)
WCKY	a	10000	N	Covington, Ky.	8 am-1 am.	(5 am-10 pm)
XEDR	z	100	.....	Guaymas, Son.		

1500 kcs. (199.9 m.)



CJIC	a	100	F	Sault Ste. Marie, Ont.	11 am-midnight.	(8 am-9 pm)
CMOX	a	200	.....	Havana, Cuba		
KAWM	a	100	.....	Gallup, N. Mex.	1:45-6 pm.	(10:45 am-3 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

KBIX	a	100	M	Muskogee, Okla.	10 am-1 am.	(7 am-10 pm)
KBKR	z	100	(.25)P	Baker, Ore.		
KBST	a	100	M	Big Spring, Tex.		
KDAL	a	100	C	Duluth, Minn.	10 am-midnight.	(7 am-9 pm)
KDB	a	100	M(.25)	Santa Barbara, Calif.	11 am-3 am.	(8 am-midnight)
KGFI	a	100	(.25)	Brownsville, Tex.	9 am-10:30 pm.	(6 am-7:30 pm)
KGKB	a	100	M(.25)	Tyler, Texas	8 am-1 am.	(5 am-10 pm)
KGKY	a	100	(.25)	Scottsbluff, Nebr.		
KNEL	a	250	D	Brady, Texas		
KNOW	a	100	CM	Austin, Texas		
KOTN	a	100	D	Pine Bluff, Ark.		
KOVC	a	100	(.25)	Valley City, N. Dak.		
KPAB	a	100	(.25)	Laredo, Tex.	10 am-10 pm.	(7 am-7 pm)
KPLC	a	100	(.25)	Lake Charles, La.		
KPLT	a	250	DM	Paris, Texas		
KPO	a	100	M(.25)	Wenatchee, Wash.		
KRNR	a	100	M(.25)	Roseburg, Ore.		
KROD	z	100	P	El Paso, Texas		
KSAL	a	100	(.25)	Salina, Kans.		
KSAM	z	100	DP	Huntsville, Texas		
KTOH	z	100	(.25)P	Lihue, Hawaii		
KUTA	a	100	N	Salt Lake City, Utah	11 am-2 am.	(8 am-11 pm)
KVNU	z	100	P	Logan, Utah		
KVOE	a	100	M	Santa Ana, Calif.	11 am-3 am.	(8 am-midnight)
KVWC	z	100	P	Vernon, Texas		
KWEW	z	100	D	Hobbs, N. Mex.		
KXO	a	100	....	El Centro, Calif.		
KYCA	z	100	A(.25)P	Prescott, Ariz.		
KYSM	z	100	(.25)	Manhato, Minn.		
WCNW	a	100	1(.25)	Brooklyn, N. Y.	9-11 am; 11 pm-midnight.	(6-8 am; 8-9 pm)
WDAN	a	250	D	Danville, Ill.	9 am-L. S.	(6 am-L. S.)
WDNC	a	100	C	Durham, N. C.	9 am-11 pm.	(6 am-8 pm)
WGAL	a	100	(.25)	Lancaster, Pa.		
WGIL	z	250	DP	Galesburg, Ill.		
WGKV	z	100	P	Charleston, W. Pa.		
WHBB	a	100	....	Selma, Ala.	10 am-10 pm.	(7 am-7 pm)
WJBK	a	100	(.25)	Detroit, Mich.		
WKAT	a	100	(.25)	Miami Beach, Fla.		
WKBB	a	100	YC(.25)	E. Dubuque, Ill.	9 am-1 am.	(6 am-10 pm)
WKBV	a	100	(.25)	Richmond, Ind.	Silent	(Silent)
WKFB	a	100	(.25)	Muskegon, Mich.	7 am-10 pm.	(4 am-7 pm)
WKEU	a	100	D	Griffin, Ga.		
WMEX	a	100	(.25)	Boston, Mass.		
WBNF	a	100	C(.25)	Binghamton, N. Y.		
WNLC	a	100	DM	New London, Conn.	8:30 am-L. S.	(5:30 am-L. S.)
WOMI	a	100	(.25)	Owensboro, Ky.	9 am-midnight.	(6 am-9 pm)
WOPI	a	100	....	Bristol, Tenn.	8 am-10 pm.	(5 am-7 pm)
WRDW	a	100	C(.25)	Augusta, Ga.		
WRGA	a	100	(.25)	Rome, Ga.	10 am-11 pm.	(7 am-8 pm)
WRTD	a	100	B	Richmond, Va.	8 am-midnight.	(5 am-9 pm)
WSTP	z	100	(.25)P	Salisbury, N. C.		
WSYB	a	100	....	Rutland, Vt.	Silent.	(Silent)
WSMV	a	100	(.25)	E. St. Louis, Ill.		
WWRL	a	100	1(.25)	Woodside, N. Y.		
WWSW	a	100	(.25)	Pittsburgh, Pa.		

1510 kcs. (198.6 m.)

CFRC	a	100	F	Kingston, Ont.	Noon-11:15 pm.	(9 am-8:15 pm)
CKCR	a	100	....	Waterloo, Ont.		

1520 kcs. (197.3 m.)

TGW	d	1000	Guatemala City, Guat.		
-----	---	------	------	-----------------------	--	--

1530 kcs. (196 m.)

CMC	z	150	....	Havana, Cuba		
KITE	a	1000	....	Kansas City, Mo.	9 am-1 am.	(6 am-10 pm)
WBRY	a	1000	M	Waterbury, Conn.	9 am-midnight.	(6 am-9 pm)

SUNDAY TIME

Eastern Standard

(Pacific Standard)

1550 kcs. (193.4 m.)

KPMC a 1000 M
WQXR a 1000

Bakersfield, Calif.
New York, N. Y.

11 am-3 am.
9 am-midnight.

(8 am-midnight)
(6 am-9 pm)

1560 kcs. (192.2 m.)

CMBF z 5000

Havana, Cuba

1580 kcs. (189.8 m.)

CM9RT z 200

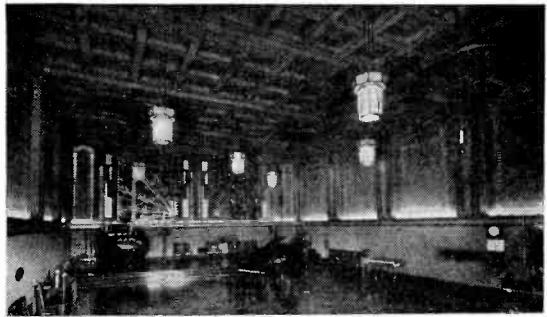
Guines, Cuba

1600 kcs. (187.4 m.)

CMBH z 5000

Havana, Cuba

**Across the
EDITOR'S Desk**



Studio "A" of The Nation's Station, WLW, in Cincinnati.

THE DX Correspondent, Lee Chadwick, of WTAR in Norfolk, Va. informs us that WTAR is always happy to receive reports of reception and that verifications are always issued when proper proof is received. Mr. Chadwick explains that "proper proof" means the compliance with their set policy which requires a listing of at least three programs, announcements or selections broadcast over WTAR at the identified times as shown by their station log, *two of which must be local presentations*. He explains further that this procedure has been adopted in order to protect the legitimate DXer from the "card collectors" who attempt to verify stations with poor reports.

WTAR refuses perhaps as many as thirty per cent. of verification requests, but by carefully scrutinizing every report they render the DXing hobby a service by

making certain that WTAR verifications *really verify reception*.

NO doubt our readers have seen the reports in the daily press of the FCC investigation into the "chain broadcasting monopoly." The purpose of this investigation is to provide the Commission and the public with information concerning thirteen different matters, including the extent of program duplication by stations serving the same area; program policies with respect to character of programs; the nature of service rendered by the networks, and the effect of chain broadcasting upon stations not affiliated with a network.

The National Broadcasting Company was the first to appear, and was followed by the CBS and the MBS. These three companies alone are expected to take six weeks to present their testimony. With

(Please turn to page 95)

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

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

ALABAMA		Little Rock		KJBS 1070 500		WDEL 1120 250 R	
Anniston		KARK 890 500 N		KFO 680 500000 R		WILM 1420 100	
WHMA 1420 100		KGGH 1200 100		KFSAN 1420 100		DISTRICT OF COLUMBIA	
Birmingham		KLRA 1390 1000 C		KSFO 560 1000 C		Washington	
WAPI 1140 5000 C		Pine Bluff		KYA 1230 1000		WJSV 1460 10000 C	
WBRC 930 1000 R		KOTN 1500 100		San Jose		WMAL 630 250 R	
WSGN 1310 100 B		Siloam Springs		KQW 1010 1000 M		WOL 1230 1000 M	
Decatur		KUOA 1260 5000		San Luis Obispo		WRC 950 1000 R	
WMFO 1370 100		CALIFORNIA		KVEC 1200 100		FLORIDA	
Dothan		Bakersfield		Santa Ana		Daytona Beach	
WAGF 1370 250		KERN 1370 100 N		KVOE 1500 100 M		WDFI 1420 100	
Gadsden		KPMK 1550 1000 M		Santa Barbara		Gainesville	
WBIV 1210 100		Berkeley		KDB 1500 100 M		WRUF 830 5000	
Huntsville		KRE 1370 100		KTMS 1220 500 B		Jacksonville	
WBHP 1200 100		Beverly Hills		Santa Rosa		WTAX 900 1000 N	
Mobile		KMPC 710 500		KSRO 1310 100		WIHP 1290 250	
WALA 1380 500 C		Chico		Stockton		WMBR 1370 100 C	
Montgomery		KHSL 1260 250		KGDG 1100 1000 M		Lakeland	
WCOV 1210 100		El Centro		KVG 1200 100 N		WLAK 1310 100 N	
WSFA 1410 500 C		KXO 1500 100		Visalia		Miami	
Selma		KXO 1500 100		KTKC 1190 250 M		WIOD 610 1000 N	
WHBB 1500 100		KIEM 1450 500 M		Watsonville		WMBF 610 1000	
Muscle Shoals City		Presno		KHUB 1310 250		WOAM 560 1000 C	
WMSD 1420 100		KARM 1310 100 C		COLORADO		Miami Beach	
Tuscaloosa		KMI 580 1000 N		Alamosa		WKAT 1500 100	
WJRD 1200 250		Glendale		KGIW 1420 100		Orlando	
ALASKA		KIEV 850 250		Colorado Springs		WDBO 580 1000 C	
Anchorage		Long Beach		KVOR 1270 1000 C		Pensacola	
KFQD 780 250		KFOV 1250 100		Denver		WCOA 1340 500 C	
Fairbanks		KGER 1360 1000		KFEL 920 500 M		St. Augustine	
KFAR 610 1000		Los Angeles		KLZ 560 1000 C		WFOY 1210 100	
Juneau		KECA 1430 1000 B		KOA 830 50000 R		St. Petersburg	
KINY 1430 250		KEHE 780 1000		KPOF 880 1000		WSUN 620 1000 N	
Ketchikan		KFAC 1300 1000		KVOD 920 500 R		Tallahassee	
KGBU 900 500		KFI 640 50000 R		Durango		WTAL 1310 100	
ARIZONA		KFSG 1120 500		KIUP 1370 100		Tampa	
Globe		KFVD 1000 1000		Grand Junction		WDAE 1220 1000 C	
KWIR 1210 100		KFWB 950 1000		KFXJ 1200 100		WFLA 620 1000 N	
Jerome		KGFI 1200 100		Greeley		West Palm Beach	
KCRJ 1310 100		KHJ 900 1000 M		KFKA 880 500 M		WJNO 1200 100 C	
Lowell		KMTR 570 1000		La Junta		GEORGIA	
KSUN 1200 100		KNX 1050 50000 C		KOKO 1370 100		Albany	
Phoenix		KRKD 1120 500		Lamar		WGFC 1420 100	
KOY 1390 1000 C		Merced		KIDW 1420 100		Athens	
KTAR 620 1000 N		KVOS 1040 250		Pueblo		WGAU 1310 100	
Prescott		Modesto		KGHF 1320 500 R		Atlanta	
KYCA 1500 100		KTRB 740 250		Sterling		WAGA 1450 500 B	
Safford		Monterey		KGEK 1200 100		WATL 1370 100	
KGLU 1420 100		KDON 1210 100 M		CONNECTICUT		WVGT 890 1000 C	
Tucson		Oakland		Bridgeport		WSB 740 50000 R	
KGAR 1370 100 C		KLS 1280 250		WICC 600 500 M		Augusta	
KVOA 1260 1000		KLX 880 1000		Hartford		WRDW 1500 100 C	
Yuma		KROW 930 1000		WDRG 1330 1000 C		Columbus	
KUMA 1420 100		Pasadena		WTIC 1040 50000 R		WRBL 1200 100	
ARKANSAS		KPPC 1210 100		WTHI 1200 100 M		Griffin	
Blytheville		Redding		New Britain		WKEU 1500 100	
KLCN 1290 100		KVCV 1200 100		WNBC 1380 250 R		Macon	
KELD 1370 100		Sacramento		New Haven		WMAZ 1180 1000 C	
Fort Smith		KFBK 1490 10000 N		WELI 900 500		Rome	
KFPW 1210 100		KROY 1210 100 C		New London		WRGA 1500 100	
Hot Springs		San Bernardino		WNI-C 1500 100 M		Savannah	
KTHS 1060 10000 N		KFXM 1210 100 M		Waterbury		WSAV 1310 100	
Jonesboro		San Diego		WATR 1190 100		WTOC 1260 1000 C	
KBTM 1200 100		KFSO 600 1000 B		WBRY 1530 1000 M			
		KGB 1330 1000 M		DELAWARE			
		San Francisco		Wilmington			
		KERC 610 1000 M					
		KGO 790 7500 B					

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Thomasville WPAX 1210 100 Waycross WAYX 1200 100	Peoria WMBD 1440 1000 C Quincy WTAD 900 1000 Rockford WROK 1410 500 Rock Island WHBF 1210 100 Springfield WCBS 1420 100 WTAX 1210 100 Tuscola WDZ 1020 250 Urbana WILL 580 1000	Marshalltown KFJB 1200 100 Mason City KGLO 1210 100 C Shenandoah KFNP 890 500 KMA 930 1000 B Sioux City KSCJ 1330 1000 C KTRT 1420 100	Monroe KMLB 1200 100 New Orleans WBNO 1420 100 WDSU 1250 1000 B WIBW 1200 100 WSMB 1320 1000 R WWL 850 10000 C Shreveport KRMD 1310 100 KTBS 1450 1000 N KWKH 1100 10000 C
HAWAII Hilo KHBC 1400 250 M Honolulu KGM B 1320 1000 C KGTI 750 2500 N Lihue WTOH 1500 100	INDIANA Anderson WHBU 1210 100 Elkhart WTRC 1310 100 Evansville WEOA 1370 100 C WGBF 630 500 N Fort Wayne WGL 1370 100 N WOWO 1160 10000 B Gary WIND 560 1000 Hammond WHIP 1480 5000 WWAE 1200 100 Indianapolis WFBM 1230 1000 C WIBC 1050 1000 WIRE 1400 1000 R Muncie WLBC 1310 100 New Albany WGR 1370 250 Richmond WKBV 1500 100 South Bend WEAM 1200 100 WSBT 1360 500 Terre Haute WBOW 1310 100 N West Lafayette WBAA 890 500	KANSAS Abilene KFBI 1050 5000 Atchison KVAK 1420 100 Coffeyville KGGF 1010 1000 M Dodge City KGN0 1340 250 Garden City KIUL 1210 100 Great Bend KVB 1370 100 Hutchinson KWRB 1420 100 Kansas City KCKN 1310 100 Lawrence KFKU 1220 1000 WREN 1220 1000 B Manhattan KSAC 580 500 Pittsburg KOAM 790 1000 N Salina KSAL 1500 100 Topeka WIBV 580 1000 C Wichita KANS 1210 100 B KFH 1300 1000 C	MAINE Augusta WRDO 1370 100 M Bangor WABI 1200 100 WLBZ 620 500 N Lewister WCOV 1210 100 Portland WCSH 940 1000 R WGAN 640 500 Presque Isle WAGM 1420 100
IDAHO Boise KIDO 1350 1000 N Coeur d'Alene KGC1 1200 100 Idaho Falls KID 1320 500 Lewiston KRLC 1390 250 Nampa KFXD 1200 100 Pocatello KSEI 900 250 N Twin Falls KTFT 1240 1000 N	ILLINOIS Aurora WMRO 1250 250 Bloomington WJBC 1200 100 Carthage WCAZ 1070 100 Champaign WDWS 1370 100 Chicago WAAF 920 1000 WBBM 770 50000 C WCB 1080 5000 WCFL 970 5000 N WCRW 1210 100 WEDC 1210 100 WENR 870 50000 B WGES 1360 500 WGN 720 50000 M WJJD 1130 20000 WLS 870 50000 B WMAQ 670 50000 R WMBI 1080 5000 WSBC 1210 100 Cicero WHFC 1420 100 Danville WDAN 1500 250 Decatur WJBL 1200 100 East Dubuque WKBB 1500 100 C East St. Louis WTMV 1500 100 Galesburg WGIL 1500 250 Harrisburg WEBQ 1210 100 Joliet WCLS 1310 100	KENTUCKY Ashland WCMI 1310 100 Covington WKY 1490 10000 N Lexington WLAP 1420 100 Louisville WAVE 940 1000 N WHAS 820 50000 C Owensboro WOMI 1500 100 Paducah WPAD 1420 100	MARYLAND Baltimore WBAL 760 2500 B WBAL 1060 10000 R WCAO 600 1000 C WCBM 1370 100 WFFR 1270 500 R College Park W3XJ 1060 100 Cumberland WTBO 800 250 Frederick WFMD 900 500 Hagerstown WJET 1210 100 Salisbury WSAL 1200 250
	IOWA Ames WOI 640 5000 Boone KFGQ 1370 100 Cedar Rapids WMT 600 1000 B Davenport WOC 1370 100 C Decoran KGCA 1270 100 KWLC 1270 100 Des Moines KRNT 1320 1000 C KSO 1430 500 B WHO 1000 50000 R Dubuque KDTH 1340 500 Iowa City WSUI 880 500	LOUISIANA Alexandria KALB 1210 100 Baton Rouge WBO 1120 500 B Lafayette KVOL 1310 100 Lake Charles KPLC 1500 100	MASSACHUSETTS Boston WAAB 1410 500 M WBZ 990 50000 B WCOP 1120 500 WEEI 590 1000 C WHDH 830 1000 WMEX 1500 100 WNAC 1230 1000 R WORL 920 500 Cape Cod WOCB 1210 100 Fall River WSAR 1450 1000 M Greenfield WHAI 1210 250 Lawrence WLAW 680 1000 WLLH 1370 100 M Lowell WLLH 1370 100 New Bedford WNLH 1310 100 M

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

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

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

WOV 1130 1000	Mandan	KTUL 1400 1000 C	WTEL 1310 100
WQXR 1550 1000	KGQU 1240 250	KVOO 1140 25000 N	Pittsburgh
Olean	Minot		KDKA 980 50000 B
WHDL 1400 250	KLPM 1360 500	OREGON	KQV 1380 1000 C
Plattsburg	Valley City	Astoria	WCAE 1220 1000 R
WMFF 1310 100 B	KOVC 1500 100	KAST 1370 100	WJAS 1290 1000 C
Rochester		Baker	WWSW 1500 100
WHAM 1150 50000 B	OHIO	KBKR 1500 100	Reading
WHEC 1430 500 C	Akron	Bend	WVEU 830 1000 R
WSAY 1210 100	WADC 1320 1000 C	KBND 1310 100	WRAW 1310 100
Saranac Lake	WJW 1210 100	Corvallis	Scranton
WNBZ 1290 100	Ashtabula	KOAC 550 1000	WGBI 880 500 C
Schenectady	WICA 940 250	Eugene	WQAN 880 500
WGY 790 50000 R	Canton	KORE 1420 100M	Sharon
Syracuse	WHBC 1200 100	Klamath Falls	WPIC 780 250
WFBL 1360 1000 C	Cincinnati	KFJI 1210 100	Sunbury
WSYR 570 1000 B	WCPO 1200 100	La Grande	WKOK 1210 100
WSYU 570 1000	WKRC 550 1000 C	KLBM 1420 100	Uniontown
Troy	WLVW 700 500000 N	Marshfield	WBMS 1420 100
WHAZ 1300 1000	WSAI 1330 1000 N	KOOS 1200 100	Wilkes-Barre
WTRY 950 1000	Cleveland	Medford	WBAX 1210 100M
Utica	WCLE 610 500M	KMED 1410 250 N	WBRE 1310 100 N
WIBX 1200 100 C	WGAR 1450 500 C	Portland	Williamsport
White Plains	WHK 1390 1000 B	KALE 1300 1000M	WRAC 1370 100
WFAS 1210 100	WTAM 1070 50000 R	KBPS 1420 100	York
Woodside	Columbus	KEV 1180 5000 B	WORK 1320 1000 N
WWRL 1500 100	WBNS 1430 1000 C	KGW 620 1000 R	
NORTH CAROLINA	WCOL 1210 100 N	KOIN 940 1000 C	PUERTO RICO
Asheville	WHKC 640 500M	KWJJ 1040 500	Mayaguez
WWNC 570 1000 N	WOSU 570 750	KXL 1420 100	WPA 1370 100
Charlotte	Dayton	Roseburg	Ponce
WBT 1080 50000 C	WHIO 1260 1000 C	KRNR 1500 100M	WPRP 1420 100
WSOC 1210 100 N	WSMK 1380 250 C	Salem	San Juan
Durham	Lima	KSLM 1370 100M	WKAQ 1240 1000
WDNC 1500 100 C	WBLY 1210 100		WNEL 1290 1000
Fayetteville	Portsmouth	PENNSYLVANIA	
WFNC 1340 250	WPAY 1370 100	Allentown	RHODE ISLAND
Gastonia	Toledo	WCBA 1440 500	Providence
WGNC 1420 100	WSPD 1340 1000 B	WSAN 1440 500 N	WEAN 780 1000M
Greensboro	WTOL 1200 100	Altoona	WJAR 890 1000 R
WBIG 1440 1000 C	Youngstown	WFBG 1310 100	WPRO 630 500 C
High Point	WFMJ 1420 100	Easton	
WMFR 1200 100	WKBN 570 500 C	WEST 1200 100	SOUTH CAROLINA
Kinston	Zanesville	Erie	Anderson
WFTC 1200 100	WALR 1210 100	WLEU 1420 100 B	WAIM 1200 100 C
Raleigh	OKLAHOMA	Glenside	Charleston
WPTF 680 5000 N	Ada	WIBG 970 100	WCSC 1360 500 N
WRAL 1210 100	KADA 1200 100M	Greensburg	WTMA 1210 100
Rocky Mount	Ardmore	WHJB 620 250 C	Columbia
WEED 1420 100	KVSO 1210 100M	Grove City	WCOS 1370 100
Salisbury	Elk City	WSAJ 1310 100	WIS 560 1000 N
WSTP 1500 100	KASA 1210 100	Harrisburg	Florence
Wilmington	Enid	WHP 1430 500 C	WOLS 1200 100
WMFD 1370 100	KCRC 1360 250M	WKBO 1200 100	Greenville
Wilson	Muskogee	Hazelton	WFBC 1300 1000 N
WGTM 1310 100	KBIZ 1500 100M	WAZL 1420 100	Spartanburg
Winston-Salem	Norman	Johnstown	WSPA 920 1000
WAIR 1250 250	WNAD 1010 1000	WJAC 1310 100	
WSJS 1310 100 C	Oklahoma City	Lancaster	SOUTH DAKOTA
NORTH DAKOTA	KOCY 1310 100	WGAL 1500 100 N	Aberdeen
Bismarck	KOMA 1480 5000 C	New Castle	KABR 1390 500
KFYR 550 1000 N	KTOK 1370 100M	Philadelphina	Brookings
Devils Lake	KWKY 900 1000 N	KYW 1020 10000 R	KFDY 780 1000
KDLR 1210 100	Okmulgee	WCAU 1179 50000 C	Pierre
Fargo	KHBG 1210 100	WDAS 1370 100	KGFX 630 200
WDAY 940 1000 N	Ponca City	WFIL 560 1000 B	Rapid City
Grand Forks	WBRZ 1200 100M	WHAT 1310 100	KOBH 1370 100
KFJM 1410 500	Shawnee	WTP 610 1000	WCAT 1200 100
Jamestown	KGFF 1420 100M	WPEN 920 1000	Sioux Falls
KRMC 1370 100	Tulsa	WRAX 920 1000	KELO 1200 100 N
	KOME 1310 250		KSOO 1110 5000 N

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Vermillion
KUSD 890 500
Yankton
WNAX 570 1000 C

TENNESSEE

Bristol
WOPI 1500 100
Chattanooga
WAPO 1420 100 N
WDOD 1280 1000 C
Jackson
WTJS 1310 100
Johnson City
WJHL 1200 100
Knoxville
WNOX 1010 1000 C
WROL 1310 100 N
Memphis
WHBO 1370 100
WMC 780 1000 R
WMPS 1430 500 B
WREC 600 1000 C
Nashville
WLAC 1470 5000 C
WSIX 1210 100
WSM 650 50000 N

TEXAS

Abilene
KRBC 1420 100M
Amarillo
KGNC 1410 1000 N
Austin
KNOW 1500 100 C
KTBC 1120 1000
Beaumont
KFDM 560 500 N
KRIC 1410 100M
Big Spring
KBST 1500 100M
Brady
KNEL 1500 250
Brownsville
KGFI 1500 100
College Station
WTAW 1120 500
Corpus Christi
KRIS 1330 500 N
Corsicana
KAND 1310 100M
Dallas
KRLD 1040 10000 C
WFAA 800 50000 N
WRR 1280 500M
Denton
KDNT 1420 100
Dublin
KFPL 1310 100
El Paso
KROD 1500 100
KTSM 1310 100 N
WDAH 1310 100
Fort Worth
KFIZ 1370 100M
KGKO 570 1000 B
KTAT 1240 1000M
WBAP 800 50000 N
Galveston
KLUF 1370 100M
Greenville
KGVV 1200 100
Houston

KPRC 920 1000 R
KTRH 1290 1000 C
KXYZ 1440 1000 B
Huntsville
KSAM 1500 100
Kilgore
KOCA 1210 100
Laredo
KPAB 1500 100
Longview
KFRO 1370 250M
Lubbock
KFYO 1310 100M
Lufkin
KRBA 1310 100
Midland
KRLH 1420 100
Palestine
KNET 1420 100
Pampa
KPDN 1310 100
Paris
KPLT 1500 250M
Pecos
KIUN 1420 100
Port Arthur
KPAC 1260 500
San Angelo
KGLK 1370 100

San Antonio
KABC 1420 100M
KMAC 1370 100
KONO 1370 100
KTSA 550 1000 C
WAOI 1190 50000 N
Sherman
KRRV 1310 250M
Temple
KTEM 1370 250M
Texarkana
KCMC 1420 100M
Tyler
KGBK 1500 100M
Vernon
KVVC 1500 100
Waco
WACO 1420 100 C
Weslaco
KRGV 1260 1000 N
Wichita Falls
KWFT 620 250

UTAH

Cedar City
KSUB 1310 100
Logan
KVNU 1200 100
Ogden
KLO 1400 500 B
Price
KEUB 1420 100
Salt Lake City
KDYL 1290 1000 R
KSL 1130 50000 C
KUTA 1500 100 N

VERMONT

Burlington
WCAX 1200 100
Rutland
WSYB 1500 100

St. Albans
WQDM 1390 1000
Springfield
WNBX 1260 500 C
Waterbury
WDEV 550 500

VIRGINIA

Charlottesville
WCHV 1420 100
Danville
WBTM 1370 100
Harrisonburg
WSVA 550 500
Lynchburg
WLVA 1200 100
Newport News
WGH 1310 100
Norfolk
WTAR 780 1000 N
Petersburg
WPIV 1210 100
Richmond
WRBL 1210 100
WMBG 1350 500 R
WRNL 880 500
WRTD 1500 100 B
WRVA 1110 5000 C
Roanoke
WDBJ 930 1000 C

WASHINGTON

Aberdeen
KXRO 1310 100M
Bellingham
KVOS 1200 100M
Centralia
KELA 1440 500M
Everett
KRKO 1370 50
Longview
KWLK 780 250
Olympia
KGY 1210 100M
Pullman
KWSC 1220 1000
Seattle
KEEN 1370 100
KIRO 710 1000 C
KJR 970 5000 B
KOL 1270 1000 M
KOMO 920 1000 R
KRSC 1120 250
KTW 1220 1000
KXA 760 250
Spokane
KFIO 1120 100
KFPY 890 1000 C
KGA 1470 5000 B
KHQ 590 1000 R
Tacoma
KMO 1330 1000M
KVI 570 1000 C
Walla Walla
KUI 1370 100
Wenatchee
KIT 1250 250M
Yakima
KPQ 1500 100
WEST VIRGINIA
Beckley
WJLS 1210 100

Bluefield
WHIS 1410 500
Charleston
WCHS 580 500 C
WGKV 1500 100
Clarksburg
WBLK 1370 100
Fairmont
WMMN 890 500 C
Huntington
WSAZ 1190 1000
Parkersburg
WPAR 1420 100 C
Wheeling
WWVA 1160 5000 C

WISCONSIN

Eau Claire
WEAU 1050 1000
Fond du Lac
KFIZ 1420 100
Green Bay
WHBY 1200 100
WTAQ 1330 1000 C
Janesville
WCLO 1200 100
LaCrosse
WKBH 1380 1000 C
Madison
WHA 940 5000
WIBA 1280 1000 N
Manitowoc
WOMT 1210 100
Milwaukee
WEMP 1310 100
WISN 1120 250 C
WTMJ 620 1000 N
Poynette
WIBU 1210 100
Racine
WRJN 1370 100
Rice Lake
WJMC 1210 250
Sheboygan
WHBL 1300 250
Stevens Point
WLBL 900 5000
Superior
WDSM 1200 100
Wausau
WSAU 1370 100

WYOMING

Casper
KDFN 1440 500
Rock Springs
KVR5 1370 100
Sheridan
KWYO 1370 100

BAHAMAS

Nassau
ZNS 540 400

**CANADA
ALBERTA**

Calgary
CFAC 930 1000 F
CFCN 1030 10000
CJCF 690 100 F
Edmonton
CFRN 960 100 F
CJCA 730 1000 F
CKUA 580 500

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Grande Prairie
 CPGP 1200 100
 Lethbridge
 CFJC 950 100 F

BRIT. COLUMBIA

Chilliwack
 CHWK 780 100 F
 Kamloops
 CFJC 880 1000 F
 Kelowna
 CKOV 630 100 F
 Prince Rupert
 CFFR 580 50
 Trail
 CJAT 910 1000 F
 Vancouver
 CBR 1100 5000 F
 CJOR 600 500
 CKCD 1010 100
 CKFC 1410 50
 CKMO 1410 100
 CKWX 1010 100
 Victoria
 CFCT 1450 500

MANITOBA

Brandon
 CKX 1120 1000 F
 Flin Flon
 CPAR 1370 100
 Winnipeg
 CJRC 630 1000 F
 CKY 910 15000 F

NEW BRUNSWICK

Fredericton
 CFNB 550 500 F
 Moncton
 CKCW 1370 100 F
 Sackville
 CBA 1050 50000
 St. John
 CHSJ 1120 100 F

N. W. TERRITORY

Aklavik
 CJCU 1210 50

NOVA SCOTIA

Glace Bay
 VAS 685 2000
 Halifax
 CHNS 930 1000 F
 Sydney
 CJCB 1240 1000 F
 Wolfville
 CKIC 1010 50
 Yarmouth
 CJLS 1310 100 F

ONTARIO

Brantford
 CKPC 930 100 F
 Chatham
 CFCO 630 100 F

Cobalt
 CKMC 1210 50
 Fort William
 CKPR 580 1000 F
 Hamilton
 CHML 1010 100 F
 CKOC 1120 500 F
 Kenora
 CKCA 1420 100
 Kingston
 CFRC 1510 100 F
 London
 CFPL 730 100 F
 North Bay
 CFCH 930 100 F
 CJKL 1310 100 F
 CKGB 1420 100 F
 Ottawa
 CBO 880 1000 F
 CKCO 1010 100 F
 Owen Sound
 CFOS 1370 100
 Prescott
 CFLC 930 100
 St. Catharines
 CKTB 1200 100 F
 Sault Ste. Marie
 CJIC 1509 100 F
 Stratford
 CJCS 1210 50
 Sudbury
 CKSO 780 1000 F

Toronto
 CBL 840 50000 F
 CFRB 690 10000 C
 CKCL 580 100 F
 CRCY 960 100 F
 Waterloo
 CKCR 1510 100
 Windsor
 CKLW 1030 5000 F
 Wingham
 CKNX 1200 100

PRINCE EDWARD ISLAND

Charlottetown
 CFCY 630 1000 F
 CHCK 1310 50
 Summerside
 CHGS 1450 50 F

QUEBEC

Chicoutimi
 CBJ 1120 100 F
 Hull
 CKCH 1210 100 F
 Montreal
 CBF 910 50000 N
 CBM 1050 5000 F
 CFCF 600 500 B
 CHLP 1120 100 F
 CKAC 730 5000 C
 New Carisle
 CHNC 610 1000 F
 Quebec
 CHRC 580 100
 CKCV 1310 100 F

CBV 950 1000 F
 Rimouski
 CJBR 1030 1000 F
 St. Anne de la
 Pocatiere
 CHGB 1200 100
 Sherbrooke
 CHLT 1210 100
 Three Rivers
 CHLN 1420 100

SASKATCHEWAN

Moose Jaw
 CHAB 1200 100 F
 Prince Albert
 CKBI 1210 100 F
 Regina
 CJRM 540 1000 F
 CKCK 1010 1000 F
 Saskatoon
 CBK 540 50000
 CFQC 840 1000 F
 Yorkton
 CJGX 1390 100 F

COSTA RICA

San Jose
 TTPG 625 2000
 TIX 650 1000

CUBA

Bayamo
 CMKL 950 200
 Caibarien
 CMHD 1270 250
 Camaguey
 CMJA 860 250
 CMJC 1390 200
 CMJE 1230 200
 CMJF 930 200
 CMJK 1290 200
 CMJW 1070 200
 CMJX 740 200

Cardenas
 CMGE 1370 200
 Ciego de Avila
 CMJH 1360 200
 CMJI 1130 200
 CMJO 1260 200
 Cienfuegos
 CMHJ 1160 100
 CMHM 1450 150
 CMHX 1480 120
 Cruces
 CMHK 1210 250
 Guantanamo
 CMKS 710 200
 Guines
 CM9RT 1580 200
 Havana

CMBC 1140 150
 CMBD 550 200
 CMBF 1560 5000
 CMBG 690 200
 CMBH 1600 5000
 CMBL 750 500
 CMBQ 1320 5000
 CMBT 1170 150
 CMBX 1080 150
 CMBY 1440 200
 CMBZ 940 200
 CMC 1530 150

CMCA 1350 200
 CMCB 1230 150
 CMCD 630 15000
 CMCF 810 5000
 CMCG 1290 150
 CMCI 1110 200
 CMCK 970 5000
 CMCL 730 10000
 CMCO 1200 150
 CMCP 1050 200
 CMCR 660 150
 CMCU 780 150
 CMCW 1380 150
 CMCX 1470 150
 CMCY 570 15000
 CMK 720 250
 CMOA 910 250
 CMOX 1500 200
 CMQ 1010 25000
 CMW 880 1400
 CMX 1260 200

Holguin
 CMKF 1460 250
 CMKO 1280 200
 Manzanillo
 CMKM 1080 100
 Matanzas
 CMGC 1400 200
 CMGF 1120 200
 CMGH 790 200
 Moron
 CMJP 1420 200
 Palma Soriano
 CMKZ 1430 125
 Pinar del Rio
 CMAB 1240 200
 Placetas
 CMHP 1100 200
 Sagua la Grande
 CMHA 1090 200
 Sancti Spiritus
 CMHB 1240 200
 Santa Clara
 CMHJ 1060 250
 CMHW 680 200
 Santiago
 CMKC 1250 150
 CMKD 910 1000
 CMKG 1150 100
 CMKQ 1490 200
 CMKR 1400 250
 CMKW 750 200
 CMKX 1190 75
 Trinidad
 CMHT 920 200

DOMINICAN REPUBLIC

Ciudad Trujillo
 HIN 1090 74C
 HIT 1050 50
 HIX 800 800

EL SALVADOR

San Salvador
 YSS 640 500

GUATEMALA

Guatemala City
 TGW 1520 1000

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

1'GX 1400
 1'GI 1310
 Quezaltenango
 1'GQ 1450 200

HONDURAS

Tegucigalpa
 1'HN 1250 50

MEXICO**AGUASCALIENTES**

Aguascalientes
 XEBI 1000 25

BAJACALIFORNIA

Mexicali
 XEAA 750 200
 NEAO 660 250
 NECL 960 1000

Tijuana

XEAC 980 1000
 XEBG 820 1000
 XEC 1150 100
 XELO 670 10000
 XEMO 860 5000

CHIHUAHUA

Chihuahua
 XEBU 1240 50
 XEFI 1440 250

Juarez

XEF 1450 100
 XEFV 1210 50
 XEJ 1020 1000
 XEP 1160 500

Parral

XEAT 1210 250

COAHUILA

Piedras Negras
 XEMU 580 250
 XEPN 730 100000

Sabinas

XEBX 640 250

Saltillo

XEAS 1160 100

Torreón

XETB 1310 500

Villa Acuna
 XEDH 1340 200
 XERA 840 250000

D. F.

Gral. Anaya
 XEDA 1220 200

Mexico City

XEA1 1250 500
 XEAL 660 1000
 XEB 1030 10000
 XEBS 1340 200
 XEBZ 810 100
 XEDP 1080 500
 XEFO 940 5000
 XEJP 1130 100
 XEK 990 100
 XEL 1150 250
 XELZ 1370 100
 XEN 780 1000
 XEQ 710 50000
 XERC 870 500
 XEW 890 100000
 XEXX 1170 1000

DURANGO

Durango
 XEBP 1150 250
 XEE 1210 50

GUANAJUATO

Irapuato
 XEBO 1310 25
 Leon
 XEKL 1240 500

JALISCO

Guadalajara
 XED 1160 2500
 Guzman
 XEBA 1080 20

MEXICO

Texcoco
 XEXE 1270 17

MICHOACAN

Morelia
 XEI 1370 125

NUEVO LEON

Monterrey
 XEFB 870 200
 XEG 1230 250
 XEH 720 250
 XET 690 5000
 XEX 1310 125

PUEBLA

Puebla
 XETH 1210 100

SAN LUIS POTOSI

San Luis Potosi
 XECZ 1370 100

SINALOA

Mazatlan
 XEBL 1220 50

SONORA

Cananea
 XEFQ 1010 50
 Guaymas
 XEDR 1490 100
 Hermosillo
 XERH 930 500
 Nogales
 XEAF 990 750
 Obregon
 XEAP 1340 50
 Guaymas
 XEDR 1490 100

TAMAULIPAS

Matamoros
 XEAM 750 25

Nuevo Laredo
 XEBK 1080 100
 XEDF 810 100
 XEFE 980 250
 XENT 910 150000

Reynosa
 XEAW 960 100000

Tampico
 XECA 1230 250
 XEFW 1310 300
 XES 990 250

VERACRUZ

Cordoba
 XEAG 1310 10
 Jalapa
 XEXB 1270 250
 XEND 1340 350
 Minatitlan
 XEDV 1150 20
 Veracruz
 XETF 1220 12
 XEU 1010 250

YUCATAN

Merida
 XEFC 1340 100
 XEME 1240 50
 XEZ 630 500

MIQUELON

St. Pierre
 FQN 609 250

NEWFOUNDLAND

St. John's
 VOAC 1065 40
 VOXM 1006 200
 VOGY 840 400
 VONF 1195 500
 VOWR 681 500

B. A. J., Wheelersburg, Ohio: I have a Zenith 1201A which does not separate stations very well. Would a wave trap help? The radio seems to spread out to take in several stations and none seem very clear.

Answer: Any high-fidelity set has broad tuning to permit the full range of audio vibrations to pass through. On crowded channels this means that two or more stations may be heard at the same time. However, your local-distance switch should take care of this by making the set more sen-

sitive when on "distance". If the broadness persists a good alignment job in the tuning circuit by your service man will help. Wave traps will cut out one interfering station, usually a local. They are valuable. Perhaps new i-f transformers, such as Meissner, can be installed by your serviceman, and they will help greatly toward making sharp tuning on the congested bands. But you have a good set, and a complete overhauling should be all that is necessary.

NORTH AMERICAN B. C. STATIONS BY CALLS

CBA 1050 50000	CHLT 1210 100	CKIC 1010 50
Sackville, N. B.	Sherbrooke, P. Q.	Wolfeville, N. S.
CBF 910 50000	CHML 1010 100	CKLW 1030 5000
Montreal, P. Q.	Hamilton, Ont.	Windsor, Ont.
CBJ 1120 100	CHNC 610 1000	CKMC 1210 50
Chicoutimi, P. Q.	New Carlisle, Que.	Cobalt, Ont.
CBK 540 50000	CHNS 930 1000	CMMO 1410 100
Saskatoon, Sask.	Halifax, N. S.	Vancouver, B. C.
CBL 840 50000	CHRC 580 100	CKNX 1200 100
Toronto, Ont.	Quebec, P. Q.	Wingham, Ont.
CBM 1050 5000	CHSJ 1120 100	CKOC 1120 500
Montreal, P. Q.	S. John, N. B.	Hamilton, Ont.
CBO 880 1000	CHWK 780 100	CKOV 630 100
Ottawa, Ont.	Chilliwack, B. C.	Kelowna, B. C.
CBR 1100 5000	CJAT 910 1000	CKPC 930 100
Vancouver, B. C.	Trail, B. C.	Brantford, Ont.
CBV 950 1000	CJBR 1030 1000	CKPR 580 1000
Quebec, P. Q.	Rimouski, P. Q.	Fort William, Ont.
CFAC 930 1000	CJCA 730 1000	CKSO 780 1000
Calgary, Alta.	Edmonton, Alta.	Sudbury, Ont.
CFAR 1370 100	CJCB 1240 1000	CKTB 1200 100
Flin Flon, Man.	Sydney, N. S.	St. Catharines, Ont.
CFCF 600 508	CJ CJ 690 100	CKUA 580 500
Montreal, Que.	Calgary, Alta.	Edmonton, Alta.
CFCH 930 100	CJCS 1210 50	CKWX 1010 100
North Bay, Ont.	Stratford, Ont.	Vancouver, B. C.
CFCN 1030 10000	CJCU 1210 50	CKX 1120 1000
Calgary, Alta.	Aklavik, N. W. T.	Brandon, Man.
CFCO 630 100	CJGX 1390 100	CKY 910 15000
Chatham, Ont.	Yorkton, Sask.	Winnipeg, Man.
CFCT 1450 500	CJIC 1500 100	CMAB 1240 200
Victoria, B. C.	S. Ste. Marie, Ont.	Pinar del Rio, Cuba
CFCY 630 1000	CJKL 1310 100	CMBC 1140 150
Charlottetown, P.E.I.	North Bay, Ont.	CMBD 550 500
CFGP 1200 100	CJLS 1310 100	Havana, Cuba
Grande Prairie, Alta.	Yarmouth, N. S.	Havana, Cuba
CFJC 880 1000	CJOC 950 100	CMBF 1560 5000
Kamloops, B. C.	Lethbridge, Alta.	Havana, Cuba
CFLC 930 100	CJOR 600 500	CMBG 690 200
Prescott, Ont.	Vancouver, B. C.	Havana, Cuba
CFNB 550 500	CJRC 630 1000	CMBH 1600 5000
Fredericton, N. B.	Winnipeg, Man.	Havana, Cuba
CFOS 1370 100	CJRM 540 1000	CMBL 750 500
Owen Sound, Ont.	Regina, Sask.	Havana, Cuba
CFPL 730 100	CKAC 730 5000	CMBQ 1320 5000
London, Ont.	Montreal, Que.	Havana, Cuba
CFPR 580 50	CKBI 1210 100	CMBS 1170 150
Prince Rupert, B. C.	Prince Albert, Sask.	Havana, Cuba
CFQC 840 1000	CKCA 1420 100	CMBX 1080 150
Saskatoon, Sask.	Kenora, Ont.	Havana, Cuba
CFRB 690 10000	CKCD 1010 100	CMBY 1440 200
Toronto, Ont.	Vancouver, B. C.	Havana, Cuba
CFRC 1510 100	CKCH 1210 100	CMBZ 940 200
Kingston, Ont.	Hull, Que.	Havana, Cuba
CFRN 960 100	CKCK 1010 1000	CMC 1530 150
Edmonton, Alta.	Regina, Sask.	Havana, Cuba
CHAB 1200 100	CKCL 580 100	CMCA 1350 200
Moose Jaw, Sask.	Toronto, Ont.	Havana, Cuba
CHCK 1310 50	CKCO 1010 100	CMCB 1230 150
Charlottetown, P.E.I.	Ottawa, Ont.	Havana, Cuba
CHGB 1200 100	CKCR 1510 100	CMCD 630 15000
St. Anne, P. Q.	Waterloo, Ont.	Havana, Cuba
CHGS 1450 50	CKCV 1310 100	CMCF 810 5000
Summerside, P.E.I.	Quebec, Que.	Havana, Cuba
CHLN 1420 100	CKCW 1370 100	CMCG 1290 150
Three Rivers, P. Q.	Moncton, N. B.	Havana, Cuba
CHLP 1120 100	CKFC 1410 50	CMCJ 1110 200
Montreal, Que.	Vancouver, B. C.	Havana, Cuba
	CKGB 1420 100	CMCK 970 5000
	North Bay, Ont.	Havana, Cuba

NORTH AMERICAN B. C. STATIONS BY CALLS

CMCL 730 10000	Havana, Cuba	CMJX 740 200	Camaguey, Cuba	KARK 890 500	Little Rock, Ark.
CMCM 850 250	Havana, Cuba	CMK 720 250	Havana, Cuba	KARM 1310 100	Fresno, Calif.
CMCO 1200 150	Havana, Cuba	CMKC 1250 150	Santiago, Cuba	KASA 1210 100	Elk City, Okla.
CMCP 1050 100	Havana, Cuba	CMKD 910 1000	Santiago, Cuba	KAST 1370 100	Astoria, Ore.
CMCQ 1410 5000	Havana, Cuba	CMKF 1460 250	Holguin, Cuba	KATE 1420 250	Albert Lea, Minn.
CMCR 660 150	Havana, Cuba	CMKG 1150 100	Santiago, Cuba	KAWM 1500 100	Muskogee, Okla.
CMCU 780 150	Havana, Cuba	CMKL 950 200	Bavama, Cuba	KBIX 1500 100	KBKR 1500 100
CMCW 1380 150	Havana, Cuba	CMKM 1080 100	Manzanillo, Cuba	Baker, Ore.	KBND 1310 100
CMCX 1470 150	Havana, Cuba	CMKO 1280 200	Holguin, Cuba	Bend, Ore.	KBPS 1420 100
CMCY 570 15000	Havana, Cuba	CMKQ 1490 200	Santiago, Cuba	Portland, Ore.	KBST 1500 100
CMGC 1400 200	Matanzas, Cuba	CMKR 1400 250	Santiago, Cuba	Big Spring, Texas	KBTM 1200 100
CMGE 1370 200	Cardenas, Cuba	CMKS 710 200	Guantanamo, Cuba	Jonesboro, Ark.	KCKN 1310 100
CMGF 1120 200	Matanzas, Cuba	CMKW 750 200	Santiago, Cuba	Kansas City, Kans.	KCMC 1420 100
CMGH 790 200	Matanzas, Cuba	CMKX 1190 75	Santiago, Cuba	Texarkana, Texas	KCMO 1370 100
CMHA 1090 200	Sagua la Grande, Cuba	CMKZ 1430 125	Palma Soriano, Cuba	Kansas City, Mo.	KCRC 1360 250
CMHB 1240 200	Sancti Spiritus, Cuba	CMOA 910 250	Havana, Cuba	Enid, Okla.	KCRJ 1310 100
CMHD 1270 250	Caibarien, Cuba	CMOX 1500 200	Havana, Cuba	Jerome, Ariz.	KDAL 1500 100
CMHI 1060 250	Santa Clara, Cuba	CMQ 1010 25000	Havana, Cuba	Duluth, Minn.	KDB 1500 100
CMHJ 1160 100	Cienfuegos, Cuba	CMW 880 1400	Havana, Cuba	Santa Barbara, Calif.	KDFN 1440 500
CMHK 1210 250	Cruces, Cuba	CMX 1260 200	Havana, Cuba	Casper, Wyo.	KDKA 980 50000
CMHM 1450 500	Cienfuegos, Cuba	CM9RT 1580 200	Guines, Cuba	Pittsburgh, Pa.	KDLR 1210 100
CMHP 1100 200	Placetos, Cuba	CRCY 960 100	Toronto, Ont.	Devils Lake, N. D.	KDNC 1200 100
CMHT 920 200	Trinidad, Cuba	FQN 609 250	St. Pierre, Miquelon	Lewistown, Mont.	KDNT 1420 100
CMHW 680 200	Santa Clara, Cuba	HIN 1090 740	Ciudad Trujillo, D. R.	Denton, Texas	KDON 1210 100
CMHX 1480 120	Cienfuegos, Cuba	HIT 1050 50	Ciudad Trujillo, D. R.	Monterey, Calif.	KDTH 1340 500
CMJA 860 250	Camaguey, Cuba	HIX 800 800	Ciudad Trujillo, D. R.	Dubuque, Iowa	KDYL 1290 1000
CMJC 1390 200	Camaguey, Cuba	HP50 1440	Panama City, Panama	Salt Lake City, Utah	KECA 1430 1000
CMJE 1230 200	Camaguey, Cuba	HRN 1250 50	Tegucigalpa, Hon.	Los Angeles, Calif.	KEEN 1370 100
CMJF 930 200	Camaguey, Cuba	KABC 1420 100	San Antonio, Texas	Seattle, Wash.	KEHE 780 1000
CMJH 1360 200	Ciego de Avila, Cuba	KABR 1390 500	Aberdeen, S. Dak.	Los Angeles, Calif.	KELA 1440 500
CMJI 1130 200	Ciego de Avila, Cuba	KADA 1200 100	Ada, Okla.	Centralia, Wash.	KELD 1370 100
CMJK 1290 200	Camaguey, Cuba	KALB 1210 100	Alexandria, La.	El Dorado, Ark.	KELO 1200 100
CMJO 1260 200	Ciego de Avila, Cuba	KALE 1300 1000	Portland, Ore.	Sioux Falls, S. Dak.	KERN 1370 100
CMJP 1420 200	Camaguey, Cuba	KAND 1310 100	Corsicana, Texas	Bakersfield, Calif.	KEUB 1420 100
CMJW 1070 200	Camaguey, Cuba	KANS 1210 100	Wichita, Kans	Price, Utah	

NORTH AMERICAN B. C. STATIONS BY CALLS

KEX 1180 5000	KFUO 550 500	KGIW 1420 100
Portland, Ore.	St. Louis, Mo.	Alamosa, Colo.
KFAB 770 10000	KFVD 1000 1000	KGKB 1500 100
Lincoln, Neb.	Los Angeles, Calif.	Tyler, Texas
KFAC 1300 1000	KFVS 1210 100	KGKL 1370 100
Los Angeles, Calif.	Cape Girardeau, Mo.	San Angelo, Texas
KFAM 1420 100	KFWB 950 1000	KGKO 570 1000
St. Cloud, Minn.	Los Angeles, Calif.	Fort Worth, Texas
KFAR 610 1000	KFXD 1200 100	KGKY 1500 100
Fairbanks, Alaska	Nampa, Idaho	Scottsbluff, Neb.
KFBB 1280 1000	KFXJ 1200 100	KGLO 1210 100
Great Falls, Mont.	Grand Junction, Colo.	Mason City, Iowa
KFBI 1050 5000	KFXM 1210 100	KGLU 1420 100
Abilene, Kans.	San Bernardino, Calif.	Safford, Ariz.
KFBK 1490 10000	KFYO 1310 100	KGMB 1320 1000
Sacramento, Calif.	Lubbock, Texas	Honolulu, T. H.
KFDM 560 500	KFYR 550 1000	KGNC 1410 1000
Beaumont, Texas	Bismarck, N. D.	Amarillo, Texas
KFDY 780 1000	KGA 1470 5000	KGNF 1430 1000
Brookings, S. D.	Spokane, Wash.	North Platte, Neb.
KFEL 920 500	KGAR 1370 100	KGNO 1340 250
Denver, Colo.	Tucson, Ariz.	Dodge City, Kans.
KFEQ 680 2500	KGB 1330 1000	KGO 790 7500
St. Joseph, Mo.	San Diego, Calif.	San Francisco, Calif.
KFGQ 1370 100	KGBU 900 500	KGU 750 2500
Boone, Iowa	Ketchikan, Alaska	Honolulu, T. H.
KFH 1300 1000	KGBX 1230 500	KGVL 1200 100
Wichita, Kans.	Springfield, Mo.	Greenville, Texas
KFI 640 50000	KGCA 1270 100	KGVO 1260 1000
Los Angeles, Calif.	Decorah, Iowa	Missoula, Mont.
KFIO 1120 100	KGCI 1200 100	KGW 620 1000
Spokane, Wash.	Coeur d'Alene, Idaho	Portland, Ore.
KFIZ 1420 100	KGCU 1240 250	KGY 1210 100
Pond du Lac, Wis.	Mandan, N. D.	Olympia, Wash.
KFJB 1200 100	KGCX 1450 1000	KHCB 1400 250
Marshalltown, Iowa	Wolf Point, Mont.	Hilo, T. H.
KFJI 1210 100	KGDE 1200 100	KHCB 1210 100
Klamath Falls, Ore.	Fergus Falls, Minn.	Okmulgee, Okla.
KFJM 1410 500	KGDM 1100 1000	KHJ 900 1000
Grand Forks, N. D.	Stockton, Calif.	Los Angeles, Calif.
KFJZ 1370 100	KGEK 1200 100	KHQ 590 1000
Fort Worth, Texas	Sterling, Colo.	Spokane, Wash.
KFKA 880 500	KGER 1360 1000	KHSL 1260 250
Greeley, Colo.	Long Beach, Calif.	Chico, Calif.
KFKU 1220 1000	KGEZ 1310 100	KHUB 1310 250
Lawrence, Kans.	Kalispell, Mont.	Watsonville, Calif.
KFNF 890 500	KGFF 1420 100	KICA 1370 100
Shenandoah, Iowa	Shawnee, Okla.	Clovis, N. M.
KFOR 1210 100	KGFI 1500 100	KID 1320 500
Lincoln, Neb.	Brownsville, Tex.	Idaho Falls, Idaho
KFOX 1250 1000	KGFI 1200 100	KIDO 1350 1000
Long Beach, Calif.	Los Angeles, Calif.	Boise, Idaho
KFPL 1310 100	KGFL 1370 100	KIDW 1420 100
Dublin, Texas	Roswell, N. Mex.	Lamar, Colo.
KFPW 1210 100	KGFW 1310 100	KIEM 1450 500
Fort Smith, Ark.	Kearney, Neb.	Eureka, Calif.
KFPY 890 1000	KGFX 630 200	KIEV 850 250
Spokane, Wash.	Pierre, S. D.	Glendale, Calif.
KFQD 780 250	KGGF 1010 1000	KINY 1430 250
Anchorage, Alaska	Coffeyville, Kans.	Juneau, Alaska
KFRC 610 1000	KGGM 1230 1000	KIRO 710 1000
San Francisco, Calif.	Albuquerque, N. M.	Seattle, Wash.
KFRO 1370 250	KGHP 1320 500	KIT 1250 250
Longview, Texas	Pueblo, Colo.	Yakima, Wash.
KFRU 630 500	KGHI 1200 100	KITE 1530 1000
Columbia, Mo.	Little Rock, Ark.	Kansas City, Mo.
KFSD 600 1000	KGHL 780 1000	KIUL 1210 100
San Diego, Calif.	Billings, Mont.	Garden City, Kans.
KFSG 1120 500	KGIR 1340 1000	KIUN 1420 100
Los Angeles, Calif.	Butte, Mont.	Pecos, Texas

NORTH AMERICAN B. C. STATIONS BY CALLS

KIUP 1370 100	KOH 1380 500	KRKD 1120 500
Durango, Colo.	Reno, Nev.	Los Angeles, Calif.
KJBS 1070 500	KOIL 1260 1000	KRKO 1370 50
San Francisco, Calif.	Omaha, Neb.	Everett, Wash.
KJR 970 5000	KOIN 940 1000	KRLC 1390 250
Seattle, Wash.	Portland, Ore.	Lewiston, Idaho
KLAH 1210 100	KOKO 1370 100	KRLD 1040 10000
Calsbad, N. Mex.	La Junta, Colo.	Dallas, Texas
KLBM 1420 100	KOL 1270 1000	KRLH 1420 100
La Grande, Ore.	Seattle, Wash.	Midland, Texas
KLCN 1290 100	KOMA 1480 5000	KRMC 1370 100
Blytheville, Ark.	Oklahoma City, Okla.	Jamestown, N. Dak.
KLO 1400 500	KOME 1310 250	KRMD 1310 100
Ogden, Utah	Tulsa, Okla.	Shreveport, La.
KLPM 1360 500	KOMO 920 1000	KRNR 1500 100
Minot, N. D.	Seattle, Wash.	Roseburg, Ore.
KLRA 1390 1000	KONO 1370 100	KRNT 1320 1000
Little Rock, Ark.	San Antonio, Texas	Des Moines, Iowa
KLS 1280 250	KOOS 1200 100	KROC 1310 100
Oakland, Calif.	Marshfield, Ore.	Rochester, Minn.
KLUF 1370 100	KORE 1420 100	KROD 1500 100
Galveston, Texas	Eugene, Ore.	El Paso, Texas
KLX 880 1000	KOTN 1500 100	KROW 930 1000
Oakland, Calif.	Pine Bluff, Ark.	Oakland, Calif.
KLZ 560 1000	KOVC 1500 100	KROY 1210 100
Denver, Colo.	Valley City, N. Dak.	Sacramento, Calif.
KMA 930 1000	KOY 1390 1000	KRQA 1310 100
Shenandoah, Iowa	Phoenix, Ariz.	Santa Fe, N. Mex.
KMAC 1370 100	KPAB 1500 100	KRRV 1310 250
San Antonio, Texas	Laredo, Texas	Sherman, Texas
KMBC 950 1000	KPAC 1260 500	KRSC 1120 250
Kansas City, Mo.	Port Arthur, Texas	Seattle, Wash.
KMED 1410 250	KPDN 1310 100	KSAC 580 500
Medford, Ore.	Pampa, Texas	Manhattan, Kans.
KMJ 580 1000	KPFA 1210 100	KSAL 1500 100
Fresno, Calif.	Helena, Mont.	Salina, Kans.
KMLB 1200 100	KPLC 1500 100	KSAM 1500 100
Monroe, La.	Lake Charles, La.	Huntsville, Texas
KMMJ 740 1000	KPLT 1500 250	KSAN 1420 100
Clay Center, Neb.	Paris, Texas	San Francisco, Calif.
KMO 1330 1000	KPMC 1550 1000	KSCJ 1330 1000
Tacoma, Wash.	Bakersfield, Calif.	Sioux City, Iowa
KMOX 1090 50000	KPO 680 50000	KSD 550 1000
St. Louis, Mo.	San Francisco, Calif.	St. Louis, Mo.
KMPC 710 500	KPOF 880 1000	KSET 900 250
Beverly Hills, Calif.	Denver, Colo.	Pocatello, Idaho
KMTR 570 1000	KPPC 1210 100	KSFO 560 1000
Los Angeles, Calif.	Pasadena, Calif.	San Francisco, Calif.
KNEL 1500 250	KPQ 1500 100	KSL 1130 50000
Brady, Texas	Wenatchee, Wash.	Salt Lake City, Utah
KNET 1420 100	KPRC 920 1000	KSLM 1370 100
Palestine, Texas	Houston, Texas	Salem, Ore.
KNOW 1500 100	KQV 1380 1000	KSO 1430 500
Austin, Texas	Pittsburgh, Pa.	Des Moines, Iowa
KNX 1050 50000	KQW 1010 1000	KSOO 1110 5000
Los Angeles, Calif.	San Jose, Calif.	Sioux Falls, S. Dak.
KOA 830 50000	KRBA 1310 100	KSRO 1310 100
Denver, Colo.	Lufkin, Texas	Santa Rosa, Calif.
KOAC 550 1000	KRBC 1420 100	KSTP 1460 10000
Corvallis, Ore.	Abitene, Texas	St. Paul, Minn.
KOAM 790 1000	KRBM 1420 100	KSUB 1310 100
Pittsburg, Kans.	Bozeman, Mont.	Cedar City, Utah
KOB 1180 10000	KRE 1370 100	KSUN 1200 100
Albuquerque, N. M.	Berkeley, Calif.	Lowell, Ariz.
KOBH 1370 100	KRGV 1260 1000	KTAR 620 1000
Rapid City, S. Dak.	Weslaco, Texas	Phoenix, Ariz.
KOCA 1210 100	KRIC 1420 100	KTAT 1240 1000
Kilgore, Texas	Beaumont, Texas	Fort Worth, Texas
KOCY 1310 100	KRIS 1330 500	KTBC 1120 1000
Oklahoma City, Okla.	Corpus Christi, Tex.	Austin, Texas

NORTH AMERICAN B. C. STATIONS BY CALLS

KTBS 1450 1000	KVSO 1210 100	VOAC 1065 40
Shreveport, La.	Ardmore, Okla.	St. John's Nfld.
KTEM 1370 250	KVWC 1500 100	VOCM 1006 200
Temple, Texas	Vernon, Texas	St. John's Nfld.
KTFI 1240 1000	KWBG 1420 100	VOGY 840 400
Twin Falls, Idaho	Hutchinson, Kans.	St. John's Nfld.
KTHS 1060 10000	KWEW 1500 100	VONF 1195 500
Hot Springs, Ark.	Hobbs, N. Mex.	St. John's Nfld.
KTKC 1190 250	KWFT 620 250	VOWR 681 500
Visalia, Calif.	Wichita Falls, Texas	St. John's Nfld.
KTMS 1220 500	KWG 1200 100	WAAB 1410 500
Santa Barbara, Calif.	Stockton, Calif.	Boston, Mass.
KTOH 1500 100	KWJB 1210 100	WAAF 920 1000
Lihue, Hawaii	Globe, Ariz.	Chicago, Ill.
KTOK 1370 100	KWJJ 1040 500	WAAT 940 500
Oklahoma City, Okla.	Portland, Ore.	Jersey City, N. J.
KTRB 740 250	KWK 1350 1000	WAAW 660 500
Modesto, Calif.	St. Louis, Mo.	Omaha, Neb.
KTRH 1290 1000	KWKH 1100 10000	WABC 860 50000
Houston, Texas	Shreveport, La.	New York, N. Y.
KTRI 1420 100	KWLK 1270 100	WABI 1200 100
Sioux City, Iowa	Decorah, Iowa	Bangor, Maine
KTSA 550 1000	KWLK 780 250	WABY 1370 100
San Antonio, Texas	Longview, Wash.	Albany, N. Y.
KTSM 1310 100	KWNO 1200 250	WACO 1420 100
El Paso, Texas	Winona, Minn.	Waco, Texas
KTUL 1400 1000	KWOC 1310 100	WADC 1320 1000
Tulsa, Okla.	Poplar Bluff, Mo.	Akron, Ohio
KTW 1220 1000	KWOS 1310 100	WAGA 1450 500
Seattle, Wash.	Jefferson City, Mo.	Atlanta, Ga.
KUJ 1370 100	KWSC 1220 1000	WAGF 1370 250
Walla Walla, Wash.	Pullman, Wash.	Dothan, Ala.
KUMA 1420 100	KWTO 560 5000	WAGM 1420 100
Yuma, Ariz.	Springfield, Mo.	Presque Isle, Me.
KUOA 1260 5000	KWYO 1370 100	WAIM 1200 100
Siloam Springs, Ark.	Sheridan, Wyo.	Anderson, S. C.
KUSD 890 500	KXA 760 250	WAIR 1250 250
Vermillion, S. Dak.	Seattle, Wash.	Winston-Salem, N. C.
KUTA 1500 100	KXL 1420 100	WALA 1380 500
Salt Lake City, Utah	Portland, Ore.	Mobile, Ala.
KVAK 1420 100	KXO 1500 100	WALR 1210 100
Atchison, Kans.	El Centro, Calif.	Zanesville, Ohio
KVCV 1200 100	KXOK 1250 1000	WAML 1310 100
Reeding, Calif.	St. Louis, Mo.	Laurel, Miss.
KVEC 1200 100	KXRO 1310 100	WAPI 1140 5000
San Luis Obispo, Cal.	Aberdeen, Wash.	Birmingham, Ala.
KVGB 1370 100	KXYZ 1440 1000	WAPO 1420 100
Great Bend, Kans.	Houston, Texas	Chattanooga, Tenn.
KVI 570 1000	KYA 1230 1000	WARD 1400 500
Tacoma, Wash.	San Francisco, Calif.	Brooklyn, N. Y.
KVNU 1200 100	KYCA 1500 100	WASH 1270 500
Logan, Utah	Prescott, Ariz.	Grand Rapids, Mich.
KVOA 1260 1000	KYOS 1040 250	WATL 1370 100
Tucson, Ariz.	Merced, Calif.	Atlanta, Ga.
KVOD 920 500	KYSM 1500 100	WATR 1190 100
Denver, Colo.	Mankato, Minn.	Waterbury, Conn.
KVOE 1500 100	KYW 1020 10000	WAVE 940 1000
Santa Ana, Calif.	Philadelphia, Pa.	Louisville, Ky.
KVOL 1310 100	TGQ 1450 200	WAWZ 1350 500
Lafayette, La.	Quezaltenango, Guat.	Zarephath, N. J.
KVOO 1140 25000	TGW 1520 1000	WAYX 1200 100
Tulsa, Okla.	Guatemala City, Guat.	Waycross, Ga.
KVOR 1270 1000	TGX 1400	WAZL 1420 100
Colo. Springs, Colo.	Guatemala City, Guat.	Hazleton, Pa.
KVOS 1200 100	TG1 1310	WBAA 890 500
Bellingham, Wash.	Guatemala City, Guat.	West Lafayette, Ind.
KVOX 1310 100	TIX 650 1000	WBAL 760 2500
Moorhead, Minn.	San Jose, Costa Rica	Baltimore, Md.
KVRS 1370 100	VAS 685 2000	WBAL 1060 10000
Rock Springs, Wyo.	Glace Bay, N.S.	Baltimore, Md.

NORTH AMERICAN B. C. STATIONS BY CALLS

WBAP 800	50000	WCAP 1280	500	WDAY 940	1000
Fort Worth, Texas		Asbury Park, N. J.		Fargo, N. Dak.	
WBAX 1210	100	WCAT 1200	100	WDBJ 930	1000
Wilkes-Barre, Pa.		Rapid City, S. Dak.		Roanoke, Va.	
WBBC 1400	500	WCAU 1170	50000	WDBO 580	1000
Brooklyn, N. Y.		Philadelphia, Pa.		Orlando, Fla.	
WBBL 1213	100	WCAX 1200	100	WDEL 1120	250
Richmond, Va.		Burlington, Vt.		Wilmington, Del.	
WBBM 770	50000	WCAZ 1070	100	WDEV 550	500
Chicago, Ill.		Carthage, Ill.		Waterbury, Vt.	
WBBR 1300	1000	WCBA 1440	500	WDGY 1180	1000
Brooklyn, N. Y.		Allentown, Pa.		Minneapolis, Minn.	
WBBZ 1200	100	WCBD 1080	5000	WDNC 1500	100
Ponca City, Okla.		Chicago, Ill.		Durham, N. C.	
WBCM 1410	500	WCBM 1370	100	WDOD 1280	1000
Day City, Mich.		Baltimore, Md.		Chattanooga, Tenn.	
WBEN 900	1000	WCBS 1420	100	WDRC 1330	1000
Buffalo, N. Y.		Springfield, Ill.		Hartford, Conn.	
WBEO 1310	100	WCCO 810	50000	WDSM 1200	100
Marquette, Mich.		Minneapolis, Minn.		Superior, Wis.	
WBHP 1200	100	WCFL 970	5000	WDSU 1250	1000
Montsville, Ala.		Chicago, Ill.		New Orleans, La.	
WBIG 1440	1000	WCHS 580	500	WDWS 1370	100
Greensboro, N. C.		Charleston, W. Va.		Champaign, Ill.	
WBIL 1100	5000	WCHV 1420	100	WDZ 1020	250
New York, N. Y.		Charlottesville, Va.		Tuscola, Ill.	
WBLK 1370	100	WCKY 1490	10000	WEAF 660	50000
Clarksburg, W. Va.		Covington, Ky.		New York, N. Y.	
WBLY 1210	100	WCLE 610	500	WEAN 780	1000
Lima, Ohio		Cleveland, Ohio		Providence, R. I.	
WBNO 1420	100	WCLO 1200	100	WEAU 1050	1000
New Orleans, La.		Janesville, Wis.		Eau Claire, Wis.	
WBNS 1430	1000	WCLS 1310	100	WEBC 1290	1000
Columbus, Ohio		Joliet, Ill.		Duluth, Minn.	
WBNX 1350	1000	WCMJ 1310	100	WEBQ 1210	100
New York, N. Y.		Ashland, Ky.		Harrisburg, Ill.	
WBNY 1370	100	WCNW 1500	100	WEBR 1310	100
Buffalo, N. Y.		Brooklyn, N. Y.		Buffalo, N. Y.	
WBOQ 860	50000	WCOA 1340	500	WEDC 1210	100
New York, N. Y.		Pensacola, Fla.		Chicago, Ill.	
WBOW 1310	100	WCOC 880	1000	WEED 1420	100
Terre Haute, Ind.		Meriden, Miss.		Rocky Mount, N. C.	
WBRB 1210	100	WCOL 1210	100	WEEL 590	1000
Red Bank, N. J.		Columbus, Ohio		Boston, Mass.	
WBRC 930	1000	WCOP 1120	500	WEEU 830	1000
Birmingham, Ala.		Boston, Mass.		Reading, Pa.	
WBRE 1310	100	WCOS 1370	100	WELI 900	500
Wilkes-Barre, Pa.		Columbia, S. C.		New Haven, Conn.	
WBK 1310	100	WCOU 1210	100	WELL 1420	100
Pittsfield, Mass.		Lewiston, Maine		Battle Creek, Mich.	
WBRY 1530	1000	WCOV 1210	100	WEMP 1310	100
Waterbury, Conn.		Montgomery, Ala.		Milwaukee, Wis.	
WBT 1080	50000	WCPO 1200	100	WENR 870	50000
Charlotte, N. C.		Cincinnati, Ohio		Chicago, Ill.	
WBTM 1370	100	WCRW 1210	100	WENY 1200	250
Danville, Va.		Chicago, Ill.		Elmira, N. Y.	
WBZ 990	50000	WCSC 1360	500	WEOA 1370	100
Boston, Mass.		Charleston, S. C.		Evansville, Ind.	
WBZA 990	1000	WCSH 940	1000	WESG 850	1000
Springfield, Mass.		Portland, Me.		Elmira, N. Y.	
WCAD 1220	500	WDAE 1220	1000	WEST 1200	100
Canton, N. Y.		Tampa, Fla.		Easton, Pa.	
WCAE 1220	1000	WDAF 610	1000	WEVD 1300	1000
Pittsburgh, Pa.		Kansas City, Mo.		New York, N. Y.	
WCAL 760	1000	WDAH 1310	100	WEW 760	1000
Northfield, Minn.		El Paso, Texas		St. Louis, Mo.	
WCAM 1280	500	WDAN 1500	250	WEXL 1310	50
Camden, N. J.		Danville, Ill.		Royal Oak, Mich.	
WCAO 600	1000	WDAS 1370	100	WFAA 800	50000
Baltimore, Md.		Philadelphia, Pa.		Dallas, Texas	

NORTH AMERICAN B. C. STATIONS BY CALLS

WFAB 1300	1000	WGR 550	1000	WHLS 1370	250
New York, N. Y.		Buffalo, N. Y.		Port Huron, Mich.	
WFAM 1200	100	WGRC 1370	250	WHMA 1420	100
South Bend, Ind.		New Albany, Ind.		Anniston, Ala.	
WFAS 1210	100	WGRM 1210	100	WHN 1010	1000
White Plains, N. Y.		Grenada, Miss.		New York, N. Y.	
WFBC 1300	1000	WGST 890	1000	WHO 1000	50000
Greenville, S. C.		Atlanta, Ga.		Des Moines, Iowa	
WFBG 1310	100	WGTM 1310	100	WHOM 1450	250
Altoona, Pa.		Wilson, N. C.		Jersey City, N. J.	
WFBL 1360	1000	WGY 790	50000	WHP 1430	500
Syracuse, N. Y.		Schenectady, N. Y.		Harrisburg, Pa.	
WFEM 1230	1000	WHA 940	5000	WIBA 1280	1000
Indianapolis, Ind.		Madison, Wis.		Madison, Wis.	
WFER 1270	500	WHAI 1210	250	WIBC 1050	1000
Baltimore, Md.		Greenfield, Mass.		Indianapolis, Ind.	
WFDF 1310	100	WHAL 950	500	WIBG 970	100
Flint, Mich.		Saginaw, Mich.		Glenside, Pa.	
WFEA 1340	500	WHAM 1150	50000	WIBM 1370	100
Manchester, N. H.		Rochester, N. Y.		Jackson, Mich.	
WFIL 560	1000	WHAS 820	50000	WIBU 1210	100
Philadelphia, Pa.		Louisville, Ky.		Poyette, Wis.	
WFLA 620	1000	WHAT 1310	100	WIBW 580	1000
Tampa, Fla.		Philadelphia, Pa.		Topeka, Kans.	
WFMD 900	500	WHAZ 1300	1000	WIBX 1200	100
Frederick, Md.		Troy, N. Y.		Utica, N. Y.	
WFMJ 1420	100	WHB 860	1000	WICA 940	250
Youngstown, Ohio		Kansas City, Mo.		Ashtabula, Ohio	
WFNC 1340	250	WHBB 1500	100	WICC 600	500
Fayetteville, N. C.		Selma, Ala.		Bridgeport, Conn.	
WFOR 1370	100	WHBC 1200	100	WIL 1200	100
Hattiesburg, Miss.		Canton, Ohio		St. Louis, Mo.	
WFOY 1210	100	WHBF 1210	100	WILL 580	1000
St. Augustine, Fla.		Rock Island, Ill.		Urbana, Ill.	
WFTC 1200	100	WHBI 1250	1000	WILM 1420	100
Kinston, N. C.		Newark, N. J.		Wilmington, Del.	
WGAL 1500	100	WHBL 1300	250	WIND 560	1000
Lancaster, Pa.		Sheboygan, Wis.		Gary, Ind.	
WGAN 640	500	WHBQ 1370	100	WINS 1180	1000
Portland, Me.		Memphis, Tenn.		New York, N. Y.	
WGAR 1450	500	WHBU 1210	100	WIOD 610	1000
Cleveland, Ohio		Anderson, Ind.		Miami, Fla.	
WGAU 1310	100	WHBY 1200	100	WIP 610	1000
Athens, Ga.		Green Bay, Wis.		Philadelphia, Pa.	
WGBB 1210	100	WHDF 1370	100	WIRE 1400	1000
Freeport, N. Y.		Calumet, Mich.		Indianapolis, Ind.	
WGBF 630	500	WHDH 830	1000	WIS 560	1000
Evansville, Ind.		Boston, Mass.		Columbia, S. C.	
WGBI 880	500	WHDL 1400	250	WISN 1120	250
Scranton, Pa.		Olean, N. Y.		Milwaukee, Wis.	
WGCM 1210	100	WHEB 740	250	WJAC 1310	100
Gulfport, Miss.		Portsmouth, N. H.		Johnstown, Pa.	
WGES 1360	500	WHEC 1430	500	WJAG 1060	1000
Chicago, Ill.		Rochester, N. Y.		Norfolk, Neb.	
WGH 1310	100	WHFC 1420	100	WJAR 890	1000
Newport News, Va.		Cicero, Ill.		Providence, R. I.	
WGIL 1500	250	WHIO 1260	1000	WJAS 1290	1000
Galesburg, Ill.		Dayton, Ohio		Pittsburgh, Pa.	
WGL 1370	100	WHIP 1480	5000	WJAX 900	1000
Fort Wayne, Ind.		Hammond, Ind.		Jacksonville, Fla.	
WGKV 1500	100	WHIS 1410	500	WJBC 1200	100
Charleston, W. Va.		Bluefield, W. Va.		Bloomington, Ill.	
WGN 720	50000	WHJB 620	250	WJBK 1500	100
Chicago, Ill.		Greensburg, Pa.		Detroit, Mich.	
WGNC 1420	100	WHK 1390	1000	WJBL 1200	100
Castonia, N. C.		Cleveland, Ohio		Decatur, Ill.	
WGNV 1210	100	WHKC 640	500	WJBO 1120	500
Newburgh, N. Y.		Columbus, Ohio		Baton Rouge, La.	
WGPC 1420	100	WHLB 1370	100	WJBW 1200	100
Albany, Ga.		Virginia, Minn.		New Orleans, La.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WJBY 1210 100	WJBY 1210 100	WJBY 1210 100
Gadsden, Ala.	Lexington, Ky.	High Point, N. C.
WJDX 1270 1000	WLAW 680 1000	WMIN 1370 100
Jackson, Miss.	Lawrence, Mass.	St. Paul, Minn.
WJEJ 1210 100	WLB 760 1000	WMMN 890 500
Hagerstown, Md.	Minneapolis, Minn.	Fairmont, W. Va.
WJHL 1200 100	WLBC 1310 100	WMPCT 1200 100
Jacksonville, Fla.	Muncie, Ind.	Lapeer, Mich.
WJHP 1290 250	WLBL 900 5000	WMP5 1430 500
Johnson City, Tenn.	Stevens Point, Wis.	Memphis, Tenn.
WJIM 1210 100	WLBZ 620 500	WMRO 1250 250
Lansing, Mich.	Rangor, Me.	Aurora, Ill.
WJJD 1130 20000	WLEU 1420 100	WMSD 1420 100
Chicago, Ill.	Erie, Pa.	Muscle Shoals C., Ala.
WJLS 1210 100	WLLH 1370 100	WMT 600 1000
Beckley, W. Va.	Lawrence, Mass.	Cedar Rapids, Iowa
WJMC 1210 250	WLLH 1370 100	WNAC 1230 1000
Rice Lake, Wis.	Lowell, Mass.	WNBK 1310 100
WJMS 1420 100	WLNH 1310 100	WNAD 1010 1000
Ironwood, Mich.	Laconia, N. H.	Norman, Okla.
WJNO 1200 100	WLS 870 50000	WNAX 570 1000
W. Palm Beach, Fla.	Chicago, Ill.	Yaakton, S. D.
WJR 750 50000	WLTH 1400 500	WNBC 1380 250
Detroit, Mich.	New York, N. Y.	New Britain, Conn.
WJRD 1200 250	WLVA 1200 100	WNBK 1500 100
Tuscaloosa, Ala.	Lynchburg, Va.	Binghamton, N. Y.
WJSV 1460 10000	WLW 700 500000	WNBH 1310 100
Washington, D. C.	Cincinnati, Ohio	New Bedford, Mass.
WJTN 1210 100	WMAL 630 250	WNBX 1260 500
Jamestown, N. Y.	Washington, D. C.	Springfield, Vt.
WJW 1210 100	WMAQ 670 50000	WNBZ 1290 100
Akron, Ohio	Chicago, Ill.	Saranac Lake, N. Y.
WJZ 760 50000	WMAS 1420 100	WNEL 1290 1000
New York, N. Y.	Springfield, Mass.	San Juan, P. R.
WKAQ 1240 1000	WMAZ 1180 1000	WNEW 1250 1000
San Juan, P. R.	Macon, Ga.	New York, N. Y.
WKAR 850 1000	WMBC 1420 100	WNLC 1500 100
East Lansing, Mich.	Detroit, Mich.	New London, Conn.
WKAT 1500 100	WMBD 1440 1000	WNOX 1010 1000
Miami Beach, Fla.	Peoria, Ill.	Knoxville, Tenn.
WKBB 1500 100	WMBF 610 1000	WNYS 810 1000
East Dubuque, Ill.	Miami, Fla.	New York, N. Y.
WKBH 1380 1000	WMBG 1350 500	WOAI 1190 50000
LaCrosse, Wis.	Richmond, Va.	San Antonio, Texas
WKBN 570 500	WMBH 1420 100	WOC 1370 100
Youngstown, Ohio	Joplin, Mo.	Davenport, Iowa
WKBO 1200 100	WMBI 1080 5000	WOCB 1210 100
Harrisburg, Pa.	Chicago, Ill.	Cape Cod, Mass.
WKBV 1500 100	WMBO 1310 100	WOI 640 5000
Richmond, Ind.	Auburn, N. Y.	Ames, Iowa
WKBW 1480 5000	WMBR 1370 100	WOKO 1430 500
Buffalo, N. Y.	Jacksonville, Fla.	Albany, N. Y.
WKBZ 1500 100	WMBS 1420 100	WOL 1230 1000
Muskegon, Mich.	Uniontown, Pa.	Washington, D. C.
WKEU 1500 100	WMC 780 1000	WOLS 1200 100
Griffin, Ga.	Memphis, Tenn.	Florence, S. C.
WKOK 1210 100	WMCA 570 1000	WOMI 1500 100
Sunbury, Pa.	New York, N. Y.	Owensboro, Ky.
WKRC 550 1000	WMEX 1500 100	WOMT 1210 100
Cincinnati, Ohio	Boston, Mass.	Manitowoc, Wis.
WKST 1250 250	WMFD 1370 100	WOOD 1270 500
New Castle, Pa.	Wilmington, N. C.	Grand Rapids, Mich.
WKY 900 1000	WMFF 1310 100	WOPI 1500 100
Oklahoma City, Okla.	Plattsburg, N. Y.	Bristol, Tenn.
WKZO 590 1000	WMFG 1210 100	WOR 710 50000
Kalamazoo, Mich.	Hibbing, Minn.	Newark, N. J.
WLAC 1470 5000	WMFJ 1420 100	WORC 1280 500
Nashville, Tenn.	Dayton Beach, Fla.	Worcester, Mass.
WLAK 1310 100	WMFO 1370 100	WORK 1320 1000
Lakeland, Fla.	Decatur, Ala.	York, Pa.

NORTH AMERICAN B. C. STATIONS BY CALLS

WORL 920	500	WROL 1410	500	WSVS 1370	50
Boston, Mass.		Rockford, Ill.		Buffalo, N. Y.	
WOSU 570	750	WROL 1310	100	WSYB 1500	100
Columbus, Ohio		Knoxville, Tenn.		Rutland, Vt.	
WOV 1130	1000	WRR 1280	500	WSYR 570	1000
New York, N. Y.		Dallas, Texas		Syracuse, N. Y.	
WOW 590	1000	WRTD 1500	100	WSYU 570	1000
Omaha, Neb.		Richmond, Va.		Syracuse, N. Y.	
WOWO 1160	10000	WRUF 830	5000	WTAD 900	1000
Fort Wayne, Ind.		Gainesville, Fla.		Quincy, Ill.	
WPAD 1420	100	WRVA 1110	5000	WTAG 580	1000
Paducah, Ky.		Richmond, Va.		Worcester, Mass.	
WPAR 1420	100	WSAI 1330	1000	WTAL 1310	100
Parkersburg, W. Va.		Cincinnati, Ohio		Tallahassee, Fla.	
WPAX 1210	100	WSAJ 1310	100	WTAM 1070	50000
Thomasville, Ga.		Grove City, Pa.		Cleveland, Ohio	
WPAY 1370	100	WSAL 1200	250	WTAQ 1330	1000
Portsmouth, Ohio		Salisbury, Md.		Green Bay, Wis.	
WPEN 920	1000	WSAN 1440	500	WTAR 780	1000
Philadelphia, Pa.		Allentown, Pa.		Norfolk, Va.	
WPG 1100	5000	WSAR 1450	1000	WTAW 1120	500
Atlantic City, N. J.		Fall River, Mass.		College Station, Tex.	
WPIC 780	250	WSAU 1370	100	WTAX 1210	100
Sharon, Pa.		Wausau, Wis.		Springfield, Ill.	
WPIV 1210	100	WSAV 1310	100	WTBO 800	250
Petersburg, Va.		Savanah, Ga.		Cumberland, Md.	
WPRA 1370	100	WSAY 1210	100	WTCN 1250	1000
Mayaguez, P. R.		Rochester, N. Y.		Minneapolis, Minn.	
WPRO 630	500	WSAZ 1190	1000	WTEL 1310	100
Providence, R. I.		Huntington, W. Va.		Philadelphia, Pa.	
WPRP 1420	100	WSB 740	50000	WHTT 1200	100
Ponce, P. R.		Atlanta, Ga.		Hartford, Conn.	
WPTF 680	5000	WSBC 1210	100	WTC 1040	50000
Raleigh, N. C.		Chicago, Ill.		Hartford, Conn.	
WQAM 560	1000	WSBT 1360	500	WTJS 1310	100
Miami, Fla.		South Bend, Ind.		Jackson, Tenn.	
WQAN 880	500	WSFA 1410	500	WTMA 1210	100
Scranton, Pa.		Montgomery, Ala.		Charleston, S. C.	
WQBC 1360	1000	WSGN 1310	100	WTMJ 620	1000
Vicksburg, Miss.		Birmingham, Ala.		Milwaukee, Wis.	
WQDM 1390	1000	WSIX 1210	100	WTMV 1500	100
St. Albans, Vt.		Nashville, Tenn.		East St. Louis, Ill.	
WQXR 1550	1000	WSJS 1310	100	WTNJ 1280	500
New York, N. Y.		Winston-Salem, N. C.		Frenton, N. J.	
WRAK 1370	100	WSLI 1420	100	WTOC 1260	1000
Williamsport, Pa.		Jackson, Miss.		Savannah, Ga.	
WRAL 1210	100	WSM 650	50000	WTOL 1200	100
Raleigh, N. C.		Nashville, Tenn.		Toledo, Ohio	
WRAW 1310	100	WSMB 1320	1000	WTRC 1310	100
Reading, Pa.		New Orleans, La.		Elkhart, Ind.	
WRAX 920	1000	WSMK 1380	250	WTRY 950	1000
Philadelphia, Pa.		Dayton, Ohio		Troy, N. Y.	
WRBL 1200	100	WSNJ 1210	100	WVFW 1400	500
Columbus, Ga.		Bridgeton, N. J.		Brooklyn, N. Y.	
WRC 950	1000	WSOC 1210	100	WWAE 1200	100
Washington, D. C.		Charlotte, N. C.		W Hammond, Ind.	
WRDO 1370	100	WSPA 920	1000	WWJ 920	5000
Augusta, Me.		Spartanburg, S. C.		Detroit, Mich.	
WRDW 1500	100	WSPD 1340	1000	WWL 850	10000
Augusta, Ga.		Toledo, Ohio		New Orleans, La.	
WREC 600	1000	WSPR 1140	500	WWNC 570	1000
Memphis, Tenn.		Springfield, Mass.		Asheville, N. C.	
WREN 1220	1000	WSTP 1500	100	WWRL 1500	100
Lawrence, Kans.		Salisbury, N. C.		Woodside, N. Y.	
WRGA 1500	100	WSUI 880	500	WWSW 1500	100
Rome, Ga.		Iowa City, Iowa		Pittsburgh, Pa.	
WRJN 1370	100	WSUN 620	1000	WWVA 1160	5000
Racine, Wis.		St. Petersburg, Fla.		Wheeling, W. Va.	
WRNL 880	500	WSVA 550	500	WXYZ 1240	1000
Richmond, Va.		Harrisonburg, Va.		Detroit, Mich.	

NORTH AMERICAN B. C. STATIONS BY CALLS

W3XDD ...	50000	XECA 1230	250	XELO 670	100000
Whippany, N. J.		Tampico, Tam.		Tijuana, B. Cfa.	
W3XJ 1060	100	XECL 960	1000	XELZ 1370	100
College Park, Md.		Mexicali, B. Cfa.		Mexico City, D. F.	
XEAA 750	200	XECZ 1370	100	XEME 1240	50
Mexicali, B. C.		San Luis Potosi, S.L.P.		Merida, Yuc.	
XEAC 980	1000	XED 1160	2500	XEMO 860	5000
Tijuana, L. C.		Guadalajara, Jal.		Tijuana, L. C.	
XEAF 990	750	XEDA 1220	200	XEMU 580	250
Nogales, Son.		Gral. Anaya, D. F.		Piedras Negras, Coah.	
XEAG 1310	10	XEDF 810	100	XEMX 1280	100
Cordoba, Ver.		Nuevo Laredo, Tams.		Mexico City, D. F.	
XEAI 1250	500	XEDH 1340	200	XEN 780	1000
Mexico City, D. F.		Villa Acuna, Coah.		Mexico City, D. F.	
XEAL 660	1000	XEDP 1080	500	XENT 910	150000
Mexico City, D. F.		Mexico City, D. F.		Nuevo Laredo, Tams.	
XEAM 750	25	XEDR 1490	100	XEP 1160	500
Matamoros, Tams.		Guaymas, Son		Juarez, Chih.	
XEAO 660	250	XEDW 1150	20	XEPN 730	100000
Mexicali, B. C.		Minatitlan, Ver.		Piedras Negras, Coah.	
XEAP 1340	50	XEE 1210	50	XEQ 710	50000
Obregon, Son.		Durango, Dgo.		Mexico City, D. F.	
XEAS 1160	100	XEF 1450	100	XERA 840	250000
Saltillo, Coah.		Juarez, Chih.		Villa Acuna, Coah.	
XEAT 1210	250	XEFB 870	200	XERB 730	100000
Parral, Chih.		Monterrey, N. L.		Rosario Reach, B.Cfa.	
XEAW 960	100000	XEFC 1340	100	XERC 870	500
Reynosa, Tams.		Merida, Yuc.		Mexico City, D. F.	
XEB 1030	10000	XEFE 980	250	XES 990	250
Mexico City, D. F.		Nuevo Laredo, Tams.		Tampico, Tams.	
XEBA 1080	20	XEFI 1440	250	XET 690	5000
Guzman, Jal.		Chihuahua, Chih.		Monterrey, N. L.	
XEBG 820	1000	XEFO 940	5000	XETB 1310	500
Tijuana, B. Cfa.		Mexico City, D. F.		Torreón, Coah.	
XEBH 930	500	XEFQ 1010	50	XETH 1210	100
Hermosillo, Sonora		Pananea, Son.		Puebla, Pue.	
XEBI 1000	25	XEFV 1210	50	XEU 1010	250
Aguascalientes, Ags.		Juarez, Chih.		Veracruz, Ver.	
XEBK 1080	100	XEFW 1310	300	XEW 890	100000
Neuvo Laredo, Tams.		Tampico, Tams.		Mexico City, D. F.	
XEBL 1220	50	XEG 1230	250	XEX 1310	125
Mazatlan, Sin.		Monterrey, N. L.		Monterrey, N. L.	
XEBO 1310	25	XEH 720	250	XEXB 1270	250
Irapuato, Guan.		Monterrey, N. L.		Jalapa, Ver.	
XEBP 1150	250	XEI 1370	125	XEXD 1340	350
Durango, Dgo.		Morelia, Mich.		Jalapa, Ver.	
XEBS 1340	200	XEJ 1020	1000	XEXE 1270	17
Mexico City, D. F.		Juarez, Chih.		Texcoco, Mex.	
XEBU 1240	50	XEJP 1130	100	XEXX 1170	1000
Chihuahua, Chih.		Mexico City, D. F.		Mexico City, D. F.	
XEBX 640	250	XEK 990	100	XEZ 630	500
Sabinas, Coah.		Mexico City, D. F.		Merida, Yuc.	
XEBZ 810	100	XEKL 1240	500	YSS 640	500
Mexico City, D. F.		Leon, Guan.		San Salvador, E. S.	
XEC 1150	100	XEL 1150	250	ZNS 540	400
Tijuana, L. C.		Mexico City, D. F.		Nassau, Bahamas	

TIME CONVERTER

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

25c

You Can't Get Along Without It.

The Radex Publishing Co., 362 Cedar Lane, Teaneck, N. J.

BROADCASTING STATIONS OF NORTH AMERICA

Compiled from RADEX records, with the assistance of Ed M. Vickers.

This supplementary call letter index began in the September, 1938 issue of RADEX, and will appear on these pages every month until completed.

The abbreviations used throughout this list are familiar to all our readers, except perhaps "CP" for Construction Permit, "LS" for Local Sunset, and "ss" for sunset.

- KOAC, Corvallis, Ore., 550 kcs., 1000 w. unlt'd. Non-commercial station. *Aerial*: 2 towers, 120 ft. *Manager*: Luke L. Roberts. *Licensee*: State Agricultural College.
- KOAM, Pittsburg, Kans., 790 kcs., 100 w. days. *Network*: NBC. *Aerial*: vertical, 275 ft. *Manager*: Ed Cunniff. *Licensee*: Pittsburg Broadcasting Co., Inc., 404 Commerce Bldg.
- KOB, Albuquerque, N. Mex., 1180 kcs., 10,000 watts; shares time at night with KEX. Has special authorization to work unlt'd. hours, with directional aerial at night. *Network*: NBC. *Manager*: T. M. Pepperday. *Licensee*: Albuquerque Broadcasting Co., 424 W. Gold Ave.
- KOBH, Rapid City, S. Dak., 1370 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 168 ft. *Manager*: Robert J. Dean. *Licensee*: Black Hills Broadcast Co., Alex Johnson Hotel.
- KOCA, Kilgore, Texas, 1210 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 186 feet. *Manager*: H. A. Degner. *Licensee*: Oil Capital Broadcasting Ass'n., Kilgore Hotel.
- KOCY, Oklahoma City, Okla., 1310 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Licensee*: Plaza Court Broadcasting Co.
- KOH, Reno, Nevada, 1380kcs., 500 w. unlt'd. *Network*: CBS. *Aerial*: 2 towers, 125 ft. *Managers*: Wallie D. Warren. *Licensee*: The Bee, Inc., 440 N. Virginia St.
- KOIL, Omaha, Nebr., 1260 kcs., 1000 w. nights, 5 kw to LS, unlt'd. *Networks*: NBC Blue and MBS. *Transmitter*: near Council Bluffs, Iowa. *Aerial*: vertical, 310 ft. *Manager*: Don Searle, *Licensee*: Central States Broadcasting Co., Omaha National Bank Bldg.
- KOIN, Portland, Ore., 940 kcs., 1000 w. nights, 5 kw. to LS, unlt'd. *Network*: CBS. *Transmitter*: Sylvan. *Aerial*: vertical, 340 ft. *Manager*: C. Roy Hunt. *Licensee*: KOIN, Inc., New Heathman Hotel.
- KOKO, La Junta, Colo., 1370 kcs., 100 w. unlt'd. *Aerial*: vertical, 203 ft. *Owner*: Leonard E. Wilson. *Licensee*: Southwest Broadcasting Co.
- KOL, Seattle, Wash., 1270 kcs., 1000 w. nights, 5 kw. to LS, unlt'd. *Network*: MBS. *Trans*: 1110 W. Florida St. *Aerial*: vertical, 370 ft. *Time*: PST. *Verifies*: for postage. *Manager*: Elmer D. Pederson. *Licensee*: Seattle Broadcasting Co., Inc., Northern Life Tower.
- KOMA, Oklahoma City, Okla., 1480 kcs., 5000 w. unlt'd. *Network*: CBS. *Trans*: Postal Route 66. *Aerial*: vertical, 196 ft. *Time*: CST. *Verifies*: for postage. *Manager*: Neal Barrett. *Licensee*: Hearst Radio, Inc., Biltmore Hotel.
- KOME, Tulsa, Okla, 1310 kcs., 250 w. days. (UNDER CONSTRUCTION). *Licensee*: Harry Schwartz.
- KOMO, Seattle, Wash., 920 kcs., 1000 w. nights, 5 kw. to LS, unlt'd. *Networks*: NBC Red and North West Triangle. *Trans*: 2600 - 26th Ave., S. W. *Aerial*: vertical, 570 ft. *Time*: PST. *Verifies*: for postage. *Manager*: Birt F. Fisher. *Licensee*: Fishers Blend Station, Inc., Skinner Bldg.
- KONO, San Antonio, Texas, 1370 kcs., 100 w., shared time with KMAC. *Trans*: 317 Arden Grove. *Aerial*: vertical, 154 ft. *Permits*: CP for 250 w. to LS. *Time*: CST. *Veries*: for postage. *Manager*: Eugene J. Roth. *Licensee*: Mission Broadcasting Co., Milam Bldg.
- KOOS, Marshfield, Ore., 1209 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: Vertical, 160 ft. *Time*: PST. *Verier*: for postage. *Manager*: Walter L. Reed. *Licensee*: KOOS, Inc., Hall Bldg.
- KORE, Eugene, Ore., 1420 kcs., 100 w. unlt'd. *Network*: MBS. *Trans*: Route 3. *Aerial*: vertical, 179 ft. *Time*: PST. *Veries*: for postage. *Manager*: Glenn McCormick. *Licensee*: Eugene Broadcasting Station, 733 Willamette St.
- KOTN, Pine Bluff, Ark., 1500 kcs., 100 w. days. *Time*: CST. *Veries*: for postage. *Manager*: B. J. Parrish. *Licensee*: Universal Broadcasting Corp., Hotel Pines.
- KOVC, Valley City, N. Dak., 1500 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 164 ft. *Time*: CST. *Veries*: for postage. *Manager*: Mark C. Crandall. *Licensee*: KOVC, Inc.
- KOY, Phoenix, Ariz., 1390 kcs., 1000 w. unlt'd. *Networks*: CBS and Arizona. *Trans*: 12th St. and Camelback Road. *Aerial*: vertical, 285 ft. *Application*: FCC Examiner has recommended grant of appl. for mod. of lic. to change freq. to 550. *Time*: MST. *Veries*: no charge for veries except when Ekko stamps are requested; 10c for stamps. *Manager*: Fred A. Palmer. *Licensee*: Salt River Valley Broadcasting Co.
- KPAB, Laredo, Texas. 1500 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Time*: CST. *Veries*: for postage. *Owner*: Mervel M. Valentine, Hamilton Hotel.
- KPAC, Port Arthur, Texas. 1260 kcs., 500 w. days. *Aerial*: 2 towers, 118 and 149 ft. *Time*: CST. *Veries*: for postage. *Licensee*: Port Arthur College, 1500 Proctor St.
- KPDN, Pampa, Texas. 1310 kcs., 100 w. days. *Aerial*, vertical, 180 ft. *Time*: CST. *Veries*: for postage. *Manager*: S. L. Patterson. *Licensee*: R. C. Hoiles, 212 N. Ballard St.
- KPFA, Helena, Mont., 1210kcs., 100 w. nights, 250 w. to LS, unlt'd. *Networks*: Z-Bar and Pacific North West. *Aerial*: vertical, 164 ft. *Time*: MST. *Veries*: for postage. *Manager*: E. B. Craney. *Licensee*: Peoples Forum of the Air.
- KPLC, Lake Charles, La., 1500 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Trans*: La Grange St. *Aerial*: vertical, 164 ft. *Veries*: for postage. *Manager*: C. R. Porter. *Licensee*: Calcasieu Broadcasting Co., Majestic Hotel.
- KPLT, Paris, Texas, 1500 kcs., 250 w. days. *Network*: MBS. *Aerial*: vertical, 169 ft. *Time*: CST. *Veries*: for postage. *Manager*: J. Bert Mitchell, Jr. *Licensee*: North Texas Broadcasting Co., Gibraltar Hotel.

(To be continued next month)

(Continued from page 40)

100 to 150 miles: WMAL, WTBO, WGBI, WRC and WJSV.

150 to 200 miles: WESG, WELI, WTIC, WATR, WDRC, WNBC and WBRY.

200 to 250 miles: WSVA, WTAG, WHJB, WTAR, WGY, WJAR, KDKA, WRVA, WSPR, WCAE, WCAE, WJAS and WFBL.

250 to 300 miles: WEEI, WBZ, WHAM, WWVA, WNAC, WAAB and WFEA.

300 to 350 miles: WPTF, CFRB, CBL, CBF, WDBJ, WTAM and WHK.

400 to 450 miles: CHNC, CBM, WBT, CKAC, WJR and CKLW.

450 to 500 miles: WLW, WCKY and WHIO.

550 to 600 miles: WHAS.

650 to 700 miles: WSM, WMAQ, WGN, WSB, WBBM and WENR.

800 to 850 miles: KMOX.

950 to 1000 miles: WHO.

Each of these stations showed the dominant signal on its particular frequency. On some channels, "second-best" signals could be heard in the background, but no attention was paid to them. Checking through the index by frequencies, it was found that 13 additional broadcasters shared time with eight of the stations listed, so it might be possible to hear a total of 107 stations from this location.

When comparing daytime records, it should be necessary to consider the location of the listener. Obviously, if he is located in some metropolitan area, he is going to start out with at least 30 local and semi-local stations, while the listener in the country must

immediately jump into the semi-distant group of stations.

For any comparison, however, it is necessary that approximately the same time of day be taken for the dialing. Before nine o'clock in the morning, stations to the West of the listener still show to advantage because of dawn at the transmitter site. After four in the afternoon, dusk is fast approaching and stations to the East of the DXer show better strength than at mid-day. Consequently, perhaps it would be well to restrict reports of daytime DXing to stations which are heard between 10 a. m. and 3 p. m. local time, during which hours reception appears to be fairly constant.

Question Department

"Perhaps you can help me identify a station which I have been hearing on the broadcast band, but which is not listed in the November RADEX," asks James Kauffman, Philadelphia, Pa. "For the last three nights, between 7 and 9:23 p.m., EST, I have been hearing this station on 782 to 785 kcys. The announcer has a British accent and broadcasts London news, British markets reports, as well as approximately thirty minutes of jazz and classical music. Tonight (November 14th) they announced La Boheme would be played in three parts—one tonight, one part tomorrow, and the third part the next day. At the conclusion of their musical program on November 12th, they announced 'We will now return you to Daventry.' The difficulty is that they announce the time in Eastern Standard. They have been signing off anywhere between 9:10 and 9:25 p.m., EST. Can you or any of your readers help me with this?"

Recent reports indicate that ZNS, Nassau, has switched frequency from 540 to 784 kcys, and it is likely that this may be the station in question. Many stations in the British Dominions re-broadcast programs from the Daventry short wave stations, which would account for the reference to Daventry in their announcement.

"For the questions and answers department," indicates George B. Holland, Jr., 1059 Parkwood Blvd., Schenectady, N.Y., "what station is on 1150 kcys most all night, every night, with lots of static. Also, who is on 670 after WMAQ signs off?"

Earlier in this section, the 1150 mystery was mentioned, so it may be XEC, XEL or XECL. The unknown on 670 is referred to the Radexers.

"This morning, November 10th, from about 6:05 to 6:15 a.m., EST, I listened to a French-speaking station on 1210 kcys," relates Capt. E. N. Massey, c-o T.M.I., Sweetwater, Tenn. "Every announcement was in French. They faded completely out at intervals, but I heard the 'National Emblem March' twice as well as 'Alexander's Ragtime Band.' I notice that you have Lille PTT listed on 1213 kcys, but I can't believe that I picked up a European on the broadcast band—especially with the musical selections mentioned."

It is not likely that this station was Lille PTT, since trans-Atlantic stations fade out completely shortly after 3 a.m., EST. It is our guess that the unknown station was a French Canadian in the Province of Quebec, possibly CKCH at Hull. Most announcements from Quebec stations are in French, at least alternated with English.

(Continued from Page 75)

the regional networks, and many transcription companies, the entire hearings will take nearly three months.

ONE of our faithful reporters, C. J. Fern, Jr., of Lihue, Hawaii, now presents us with official information concerning a new station. His father is Managing Editor of the Garden Island Publishing Company, licensee of the new KTOH in that city. Mr. Fern says his father wanted the call letters KOWY, "which is the only way we could squeeze KAUAI into four letters". Kauai is the name of the island on which Lihue is situated.

If plans do not go awry, we can expect to hear a three hour DX Jamboree from this station, probably once a month, when it goes on the air, which is expected to be sometime in April or May. Reports will be verified for a self-addressed stamped envelope. The transmitter site has not yet been chosen.

WITH the virtual completion of the reallocation of Cuban stations, comes news that the Mexican Senate has refused to ratify the Havana Agreement. This treaty had already been ratified by the United States and Cuba, and needs only the approval of Canada and Mexico. Mexico's refusal to sign comes as a surprise, and is definitely a set-back since it will doubtless affect the reallocation plans of this country.

Mexico feels that she would derive no benefit from the treaty. RADEX feels that Dr. Brinkley and Norman Baker, both former operators of stations in the United States, and now owners of high powered Mexican border stations, opposed the ratification strongly, since it would mean deletion or a reduction in power of their stations.

WE are sketching herewith a few of the recent developments in the television field.

The RCA is now offering a 1000 watt television transmitter for sale, and one of the first purchasers of this new equipment was the Columbia Broadcasting System. This station is now being installed in the Chrysler Building in New York City.

The DuMont Laboratories of Passaic, N. J. announce a new 21-tube television and sound receiver, using a 14-inch cathode, available in either table model or console. There are only six operating controls and its operation is said to be as easy as tuning an ordinary radio.

The Paramount Pictures, of Hollywood,

have announced their plan to broadcast television programs on a large scale.

A British television company, Scophony, Ltd., may enter the American field. The Scophony home type receiver produces a picture 20 by 24 inches in size, much larger than any of the American receivers.

The NBC television studios in the RCA Building, as well as their transmitter, are undergoing alterations, and a new aerial is being erected on the Empire State Building. Broadcasts will not be resumed until next April or later.

QUICK INDEX TO STATION DATA

North American Broadcast

Foreign Broadcast

By FrequenciesJan. '39, p. 55
 By LocationJan. '39, p. 76
 By CallsJan. '39, p. 83
 Frequency ChecksDec. '38, p. 29
 Names of OwnersNov. '38, p. 56
 Owners' AddressesOct. '38, p. 56
 Time On The AirJan. '39, p. 55

By FrequenciesNov. '38, p. 51
 By LocationsDec. '36, p. 52
 By CallsDec. '36, p. 57
 AsiaFeb. '38, p. 46
 South AmericaOct. '38, p. 52
 EuropeJune '37, p. 49

INSURE YOUR RADIO ENJOYMENT

SEND THIS BLANK TODAY

The Radex Publishing Co.,
 362 Cedar Lane,
 Teaneck, N. J.

Enclosed find \$..... for which send me postpaid my choice of your offers as checked below:

- One Radio World Map and Time Converter 25c
- One copy of the next RADEX 25c
- One year's subscription to RADEX, 10 issues..... \$1.75
- Two years..... \$3.25 Three years..... \$4.75

(ADD 50c PER YEAR FOR FOREIGN SUBSCRIPTIONS, EXCEPT CANADA)

Print Name Plainly

Street and Number

City and State

THE DX CALENDAR

Time Is Eastern Standard

- Jan. 1, 12:01-1 am, XET, 690, Monterey, N. L. (IDA)
- Jan. 7, 2-3 am, CKBI, 1210, Prince Albert, Sask. (NRC)
- Jan. 7, 3-4 am, CFJC, 880, Kamloops, B. C. (NRC)
- Pan. 8, 1-2 am, "Radio Strasbourg," 859, Strasbourg, France (IDA)
- Jan. 8, 1-1:30 am, or later, WTAM, 1070, Cleveland, Ohio (IDA)
- Jan. 8, 3-4 am, CFJC, 880, Kamloops, B. C. (NRC)
- Jan. 10, 3-4 am, XEFV, 1210, Juarez, Chih. (NNRC)
- Jan. 10, 3-4 am, XEBO, 1310, Irapuato, Gto. (NNRC)
- Jan. 10, 3-4 am, XEAP, 1340, Obregon, Son. (NNRC)
- Jan. 11, 3:45-4:15 am, CHWK, 780, Chilliwack, B. C. (NRC)
- Jan. 12, 2-4 am, CKCV, 1310, Quebec, P. Q. (NRC)
- Jan. 13, 1:30-2 am, WJAG, 1060, Norfolk, Nebr.
- Jan. 13, 3-4 am, CHAB, 1200, Moose Jaw, Sask. (NRC)
- Jan. 14, 3-4 am, CHLT, 1210, Sherbrooke, P. Q. (NRC)
- Jan. 15, 2-3 am, CHRC, 580, Quebec, P. Q. (NRC—5c for veri)
- Jan. 15, 2:30-3:30 am, XETB, 1310, Torreón, Coah. (NNRC)
- Jan. 15, 4-5 am, CFAC, 930, Calgary, Alta. (IDA)
- Jan. 15, 9-10 pm, OAX4I, 1100, Lima, Peru. (IDA)
- Jan. 15, 9-10 pm, OAX4J, 9330, Lima, Peru. (IDA)
- Jan. 22, 2-6 am, CMHJ, 1160, Cienfuegos, Cuba (E. Hidalgo—10c for veri)
- Jan. 22, 2-3 am, PRF3, 960, Sao Paulo, Brazil (NRC-NNRC)
- Jan. 22, 3-4 am, TG1, 1310, Guatemala City, Guat. (All clubs)
- Jan. 22, 3-4 am, TG2, 6190, Guatemala City, Guat. (All clubs)
- Jan. 28, 2-5 am, CMHM, 1450, Cienfuegos, Cuba (E. Hidalgo—10c for veri)
- Jan. 29, 1-2 am, WGAR, 1450, Cleveland, Ohio (IDA)
- Feb. 8, 4-5 am, XEFV, 1210, Juarez, Chih. (NNRC)

GET MORE

DX

WITH HEADPHONES



WE recommend the famous Trimm line of headphones for DX success. They are precision-built, and combine ultra-sensitivity with rugged construction.

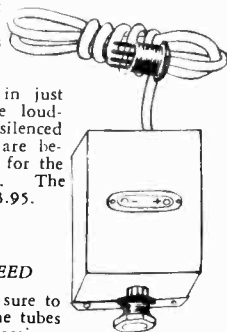
The Trimm "Featherweights" weigh but 4¼ ounces complete. 24,000 ohms. **\$8.50**

Trimm "Professional." 4000 ohms. **4.00**

Trimm "Dependable." 2000 ohms. **3.25**

THE PERFECT PHONE ADAPTER

MAKES it easy to attach headphones to any radio set. Easily installed, without tools, in just a minute. The loud-speaker can be silenced while phones are being used. Ideal for the hard-of-hearing. The price is only \$3.95.



FULLY GUARANTEED

In ordering, be sure to give a list of the tubes used in the receiver.

THE RADEX PUBLISHING CO.

362 Cedar Lane
TEANECK, N. J.



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

I WILL TRAIN YOU TO START A SPARE TIME OR FULL TIME RADIO SERVICE BUSINESS WITHOUT CAPITAL

*Here's
Proof*

Picked up
\$1800 while
Learning



"I picked up \$1800 while studying and I call that easy money—the time I gave my Radio work did not interfere with my other business." OTIS DENTON, 14105 Lorain Ave., Cleveland, Ohio

Own Business
Pays \$300 a
Month



"I now have my own Radio business which shows three hundred dollars a month profit — thanks again to National Radio."—FRANK T. REESE, 39 N. Felton St., Philadelphia, Penna.



Get My LESSON in Radio
Servicing TIPS FREE

I want to prove my Training is just what you need to master Radio. My sample lesson text, "Radio Receiver Troubles—Their Cause and Remedy" covers a long list of Radio receiver troubles in A.C., D.C. battery, universal, auto, T.R.F., super-heterodyne, all-wave, and other types of sets, cross-indexed for quick reference. Special section on receiver checkup, alignment, balancing, neutralizing, testing. Get this lesson Free. Mail the Coupon.

The world-wide use of Radio has made many opportunities for you to have a spare time or full time Radio service business of your own. Four out of every five homes in the United States have Radio sets which regularly need repairs, new tubes, etc. Servicemen can earn good commissions selling new sets to owners of old models. Even if you have no knowledge of Radio or electricity, I will train you at home in your spare time to sell, install, fix, all types of Radio sets to start your own Radio business and build it up on money you make in your spare time while learning. Mail coupon for my 64-page book. It's Free—it shows what I have done for others—what I am ready to do for you.

Many Make \$5, \$10, \$15 a Week Extra
in Spare Time While Learning

The day you enroll I start sending Extra Money Job Sheets; show you how to do Radio repair jobs. Throughout your training I send plans and directions that made good spare time money—\$200 to \$500—for hundreds, while learning. I send you special Radio equipment to conduct experiments and build circuits. This 50-50 method of training makes learning at home interesting, fascinating, practical. I ALSO GIVE YOU A MODERN PROFESSIONAL, ALL-WAVE, ALL-PURPOSE RADIO SET SERVICING INSTRUMENT to help you make good money fixing Radios while learning and equip you for full time jobs after graduation.

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

Radio broadcasting stations employ engineers, operators, station managers and

pay up to \$5,000 a year. Fixing Radio sets in spare time pays many \$200 to \$500 a year—full time jobs with Radio jobbers, manufacturers and dealers as much as \$30, \$50, \$75 a week. Many Radio Experts open full or part time Radio sales and repair businesses. Radio manufacturers and jobbers employ testers, inspectors, foremen, engineers, servicemen, and pay up to \$5,000 a year. Automobile, police, aviation, commercial Radio, loud speaker systems are newer fields offering good opportunities now and for the future. Television promises to open many good jobs soon. Men I trained have good jobs in these branches of Radio. Read how they got their jobs. Mail Coupon.

Find Out What Radio Offers You

Act Today. Mail the coupon now for Sample Lesson and 64 page book. They're free to any fellow over 16 years old. They point out Radio's spare time and full time opportunities and those coming in Television; tell about my training in Radio and Television; show you letters from men I trained, telling what they are doing and earning. Find out what Radio offers YOU! MAIL COUPON in an envelope, or paste on a postcard—NOW!

J. E. SMITH,
President
Dept. 9A0
National Radio
Institute,
Washington,
D.C.



**GOOD FOR BOTH 64 PAGE BOOK
SAMPLE LESSON FREE**

J. E. SMITH, President, Dept. 9A0
National Radio Institute, Washington, D. C.

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

Name..... Age.....

Address

City..... State.....